

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 5/1/2021

Inspection Period: 4/25/2021 thru 5/1/2021



**US Army Corps  
of Engineers**  
Portland District

JD/WC Project-Fisheries  
P.O. Box 823  
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Phone: 541-506-7860

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:	52.9 F
						Secchi:	5.2 Ft.
<b>NORTH FISHWAY</b>							
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			
<b>SOUTH FISHWAY</b>							
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.)	1.2			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	9.6			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.73			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.5			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.9			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	10.1			
<b>JUVENILE PASSAGE</b>							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6			
Submersible traveling screens	0	visual inspect	Next Visual Inspection 5/24-5/27				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.5', wkly					
Spill volume	0	per FPP	AVG (kcfs)	96.7	Avg %	54.1	
Spill pattern	0	per FPP					
Turbine Unit Priority	0	per FPP					
Turbine 1% Efficiency	0	per FPP					

## Fisheries Related Operations

### **Smolt Monitoring Operations:**

Smolt Monitoring Facility concluded is currently conducting condition sampling every-other-day

### **Adult Ladder Operations:**

South and north fish ladders are operating within criteria

### **Project Operations:**

Current outages: MU5-8 (Line 2 BPA MOD work), MU7, MU8, MU12, MU16. Spring spill started on April 10 with TSW's installed.

Tailwater Average Weekly TDG: 117.1. Spillbay 10 was OOS from 4/22 to 4/26. Spill was distributed to adjacent bays to meet total spill discharge. The problem has been fixed and SB#10 will be operated manually until further notice.

### **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.

### **Bird Data:**

Decrease in presence of cormorants-mainly seen resting on towers in PHFB. Gull numbers increasing. Pelican numbers are starting to increase on Preacher's Island. Significant increase in Grebes in PHFB. (see 'Bird Graph' tab for details). USDA Hazing started

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

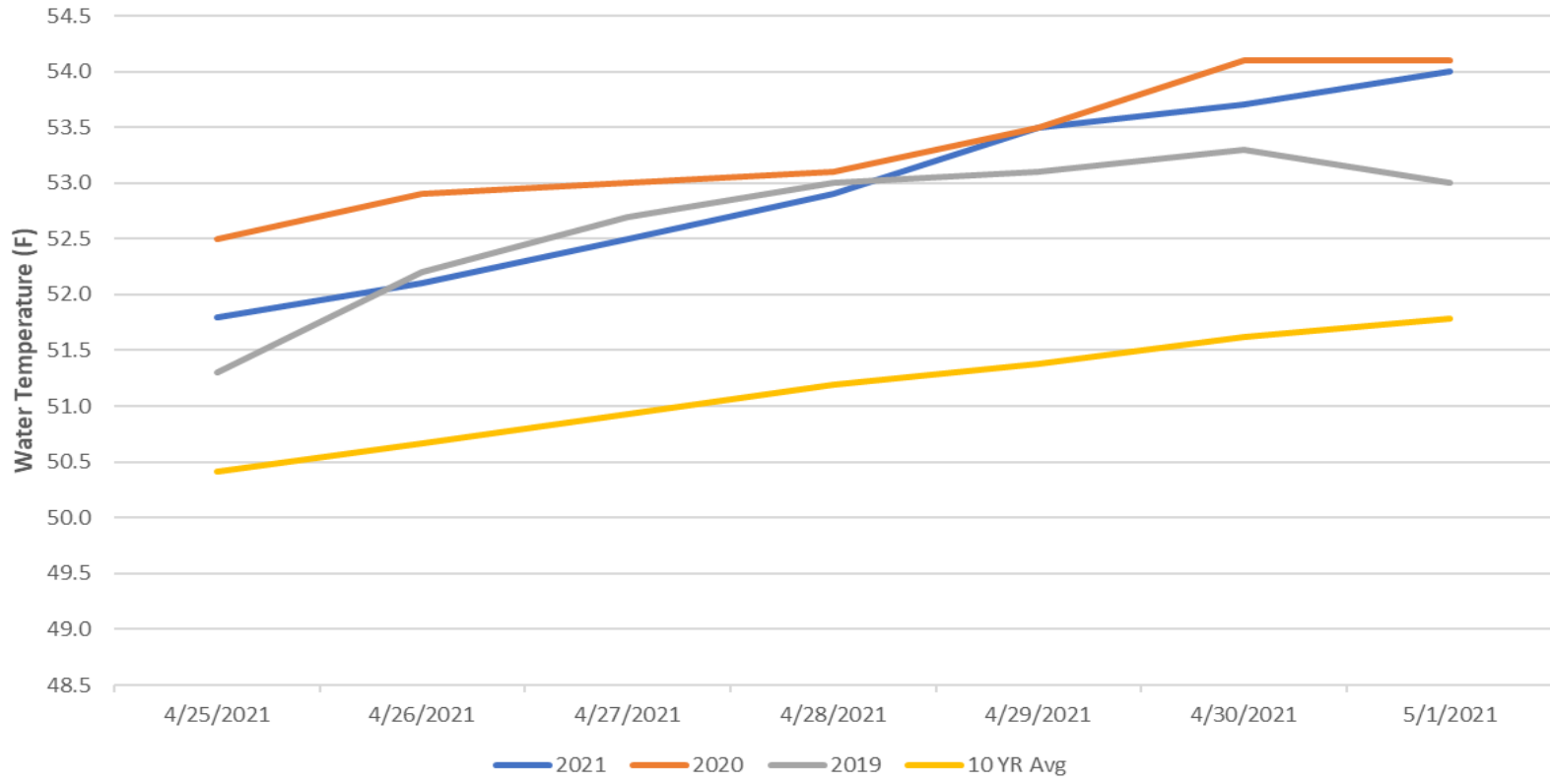
Pelicans on Preacher's Island: averaged 8 per day

### **Research:**

PSMFC Juvenile lamprey genetic work continues

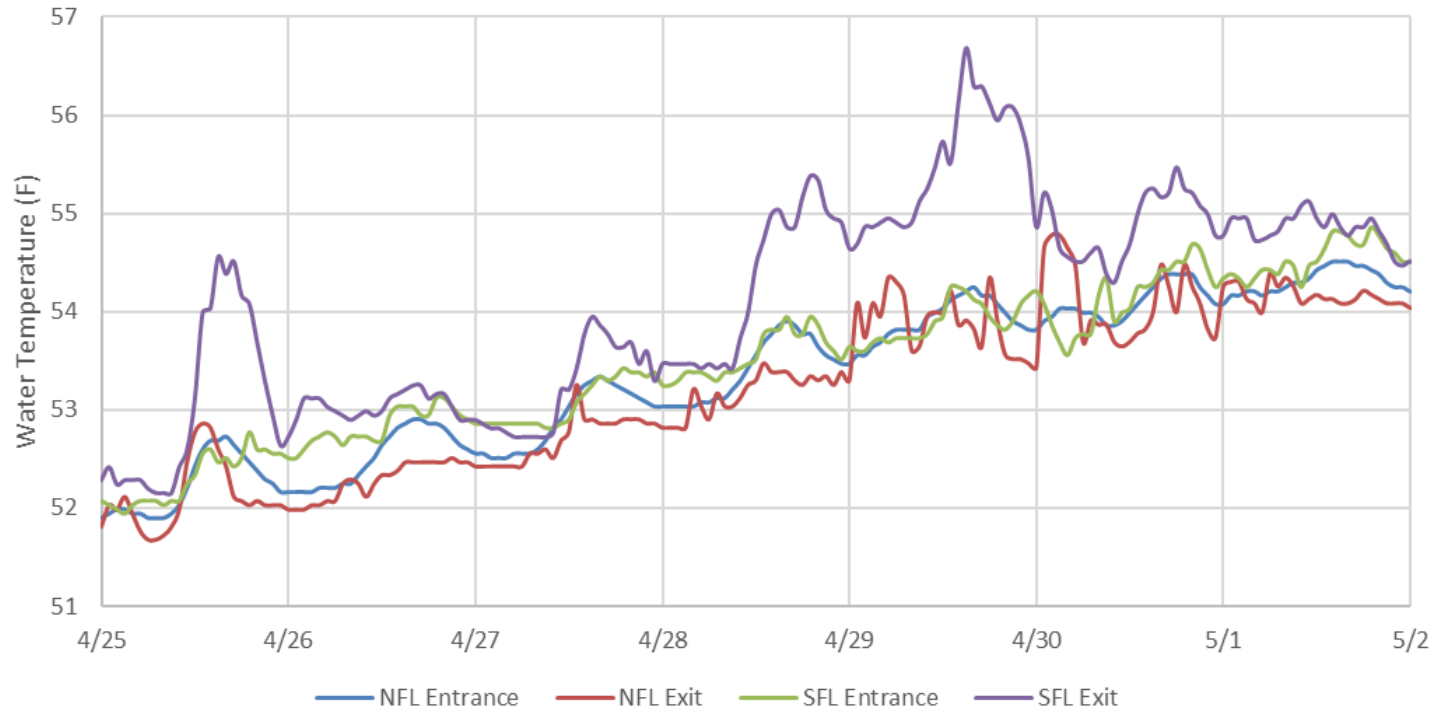
Approved by: Brett Call, OPM

### John Day Dam Water Temperatures (F)



Next Visual Inspection 5/24-5/27

Water Temperatures of JDA Fish Ladders (4/25 - 5/1)



Next Visual Inspection 5/24-5/27

# 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)
4/25/2021	Unit 4	2.63	0,68,68	161.1
4/25/2021	Unit 12	2.69	0,68,68	161.1
4/28/2021	Unit 4	2.68	0,68,68	161.3
4/28/2021	Unit 12	2.82	0,68,68	161.3
5/1/2021	Unit 4	2.83	0,68,68	161.0
5/1/2021	Unit 12	2.73	0,68,68	161.0

Average Weekly Velocity (ft/sec)	2.73
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Next Visual Inspection 5/24-5/27

## 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	10.4	10.6	1.1	10.8	1.6	4.6	1.4	56.1	32.0	18
Sunday	9.8	10.0	1.1	10.3	1.4	4.6	1.5	124.1	70.8	18
Monday	10.3	10.5	1.2	10.7	1.5	4.6	1.6	124.0	70.4	18
Monday	9.6	9.8	1.3	10.0	1.3	4.6	1.6	124.0	69.2	19
Tuesday	9.8	10.0	1.3	10.2	1.4	4.6	1.4	127.0	71.0	19
Tuesday	9.4	9.6	1.2	9.8	1.6	4.6	1.8	127.8	71.2	19
Wednesday	10.6	10.8	1.3	8.9	1.4	4.5	1.5	56.1	31.9	19
Wednesday	9.8	10.0	1.4	8.1	1.4	4.6	1.4	117.7	69.1	19
Thursday	9.5	9.7	1.5	8.7	1.5	4.2	1.7	50.9	31.8	18
Thursday	9.7	9.9	1.3	8.8	1.4	4.6	1.5	51.2	31.6	18
Friday	9.3	9.5	1.3	9.5	1.4	4.7	1.2	57.8	31.9	19
Friday	9.5	9.7	1.2	8.8	1.5	4.5	1.6	139.7	72.9	19
Saturday	10.3	10.5	1.1	9.5	1.5	4.6	1.4	57.1	31.5	19
Saturday	10.4	10.6	1.1	9.6	1.5	4.4	1.3	140.0	71.6	19
<b>AVG:</b>	<b>9.9</b>	<b>10.1</b>	<b>1.2</b>	<b>9.6</b>	<b>1.5</b>	<b>4.6</b>	<b>1.5</b>	<b>96.7</b>	<b>54.1</b>	<b>18.6</b>

	Temp (F)	Secchi (Ft)	Fallbacks	Pelicans on Island
Sunday	51.8	5.5	0	3
Monday	52.1	4.0	N/A	12
Tuesday	52.5	4.5	0	15
Wednesday	52.9	5.5	N/A	
Thursday	53.5	5.5	0	
Friday	53.7	al Inspection	N/A	7
Saturday	54.0	6.0	0	5
<b>AVG</b>	<b>52.9</b>	<b>5.2</b>	<b>0</b>	<b>8</b>

John Day Dam  
Avian Zones



**JDA Bird Counts: 4/25/21 to 5/1/21**

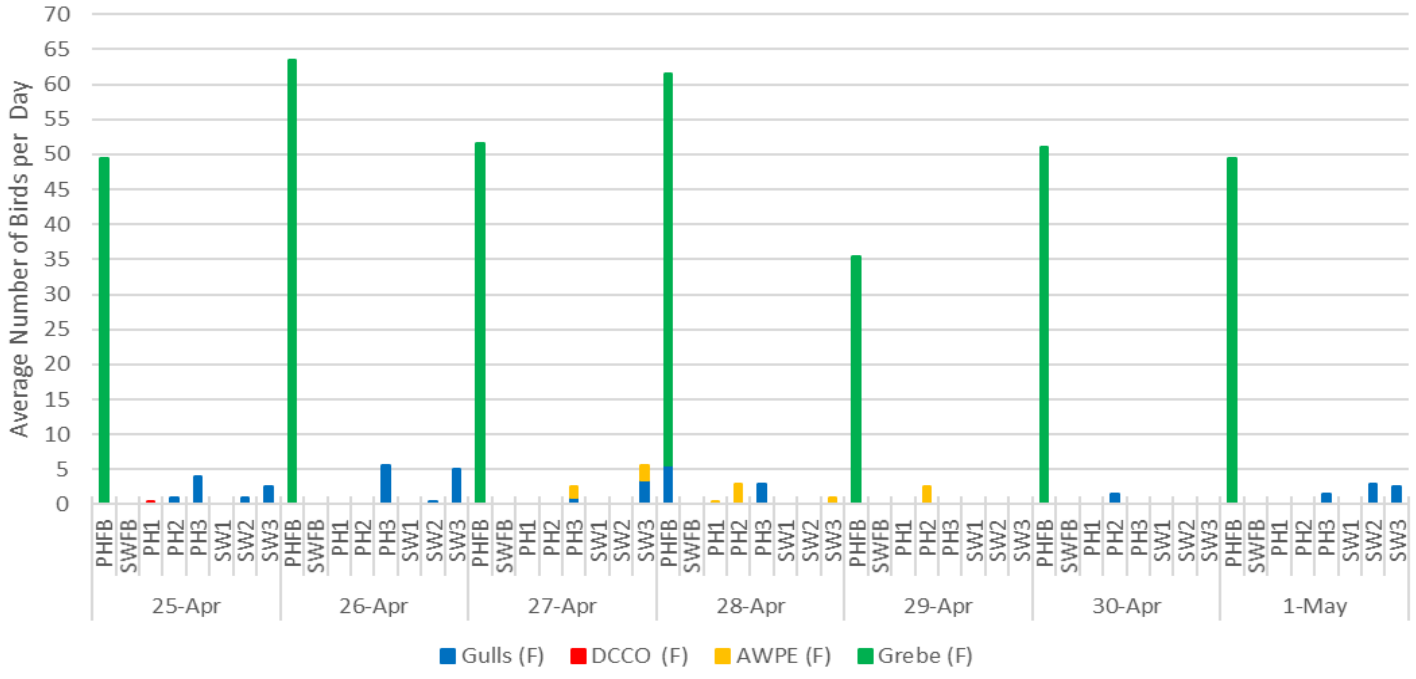
F(1): Forage AM survey F(2): Forage PM Survey NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Bald Eagle				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
25-Apr	PHFB	0	0	0	5	0	0	20	11	0	0	0	0	0	0	0	0	57	42	0	0	0	0	0	0	135
25-Apr	SWFB	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
25-Apr	PH1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
25-Apr	PH2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
25-Apr	PH3	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
25-Apr	SW1	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
25-Apr	SW2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
25-Apr	SW3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
<b>Avg/Survey</b>		<b>9</b>		<b>3</b>		<b>1</b>		<b>16</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>50</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>77</b>
26-Apr	PHFB	0	0	0	0	0	0	14	11	0	0	0	0	0	0	0	0	66	61	0	0	0	0	0	0	152
26-Apr	SWFB	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
26-Apr	PH1	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
26-Apr	PH2	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
26-Apr	PH3	6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
26-Apr	SW1	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
26-Apr	SW2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
26-Apr	SW3	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
<b>Avg/Survey</b>		<b>11</b>		<b>0</b>		<b>0</b>		<b>13</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>64</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>87</b>
27-Apr	PHFB	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	55	48	0	0	0	0	0	0	111
27-Apr	SWFB	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
27-Apr	PH1	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
27-Apr	PH2	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
27-Apr	PH3	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
27-Apr	SW1	0	0	0	specti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Apr	SW2	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
27-Apr	SW3	3	4	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	11
<b>Avg/Survey</b>		<b>5</b>		<b>0</b>		<b>0</b>		<b>4</b>		<b>0</b>		<b>0</b>		<b>4</b>		<b>0</b>		<b>52</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>64</b>
28-Apr	PHFB	11	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	57	55	0	0	0	0	0	0	127
28-Apr	SWFB	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
28-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
28-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	6
28-Apr	PH3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
28-Apr	SW1	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
28-Apr	SW2	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
28-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
<b>Avg/Survey</b>		<b>9</b>		<b>0</b>		<b>0</b>		<b>2</b>		<b>0</b>		<b>0</b>		<b>5</b>		<b>0</b>		<b>56</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>71</b>

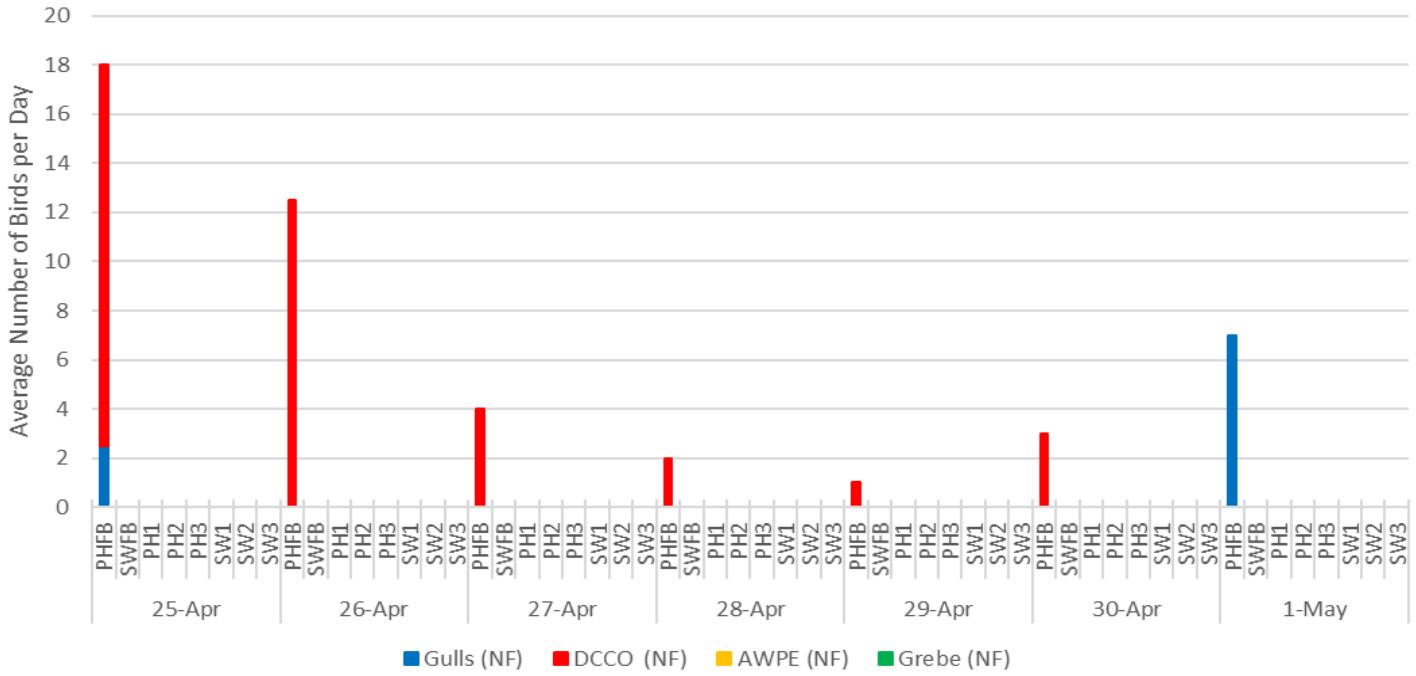




### Foraging Avian Observations



### Non-Foraging Avian Observations





Good flow downstream for most of the spill. SB#19 TSW is recirculating to the south.



Tailrace conditions at John Day on May 3rd @ 2:20 pm. The spill percentage @ 2:00 pm was 75.5% and egress conditions from the powerhouse and outfall were less than favorable. The south TSW jet is moving slightly downstream and then recirculating back to the north end of the powerhouse.