FISHWAY STATUS REPORT

Date: 7/16/2016
Inspection Period: 7/10/2016 thru 7/16/2016

JOHN DAY DAM

US Army Corps of Engineers
Portland District

JD/WC Project-Fisheries
P.O. Box 823
Rufus, Oregon 97050
Phone: 541-506-7860

All JD Fishways are inspected twice per day during fish season, Mar. 1 - Nov. 30.
Frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

John Day Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 14	Temperature: 68 F
				Secchi: 6.0 Ft.
NORTH FISHWAY			In service; all 6 AWS pumps available; # 2 has a minor greaser issue at this time	
Exit differential	0	≤ 0.5'		
Exit Control weirs	0	High setting	Mid setting since 6/15 necessary to reduce sockeye fall back through CS	
Count station differential	0	≤ 0.3'		
Weir crest depth (DS gauge)	0	1.3' ± 0.1'	Changed to SHAD passage criterion of 1.3' on 6/01 PM	
Entrance differential	0	1.0' - 2.0'	AVG 1.5	
SOUTH FISHWAY			In service with two AWS turbines; FOGs # 18 & 19 continue closed	
Exit differential	0	≤ 0.5'		
Exit Control weirs	0	Mid setting	Mid setting is normal for JDS	
Count station differential	0	≤ 0.3'		
Weir crest depth (US gauge)	0	1.3' ± 0.1'	Changed to SHAD passage criterion of 1.3' on 6/01 AM	
South entrance differential	0	1.0' - 2.0'	AVG 1.3	
Entrance weir SE1	0	depth (≥ 8')	AVG 8.7	
Collection channel velocity	0	1.5 - 4 fps	AVG 3.33	
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.3	
Entrance weir NE1	0	depth (≥ 8')	AVG 8.1	
Entrance weir NE2	0	depth (≥ 8')	AVG 8.1	
JUVENILE PASSAGE			In service with STSs installed since 4/1	
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	0	visual inspect	July's STSs camera inspections scheduled for the week of 7/18.	
Turbine trashrack drawdown	0	<1.5', wkly	Monthly raking per FPP requirements during the week of 6/23, light debris loads	
Vert barrier screen drawdown	0	<1.5', wkly		
Spill volume	0	N/A	2016 Spill season started on 4/10/16 at 0001; TSWs in bays 18 & 19 in service	
Spill pattern	0	per FPP		
Turbine Unit Priority	0	per FPP		
Turbine 1% Efficiency	0	per FPP		

SMOLT MONITORING FACILITY

Operation:

In service since 1 April. Every other day sampling by PSMFC biologists in 2016; JD Fisheries crew moves the Switch Gate between sample-bypass modes daily AM.

Maintenance:

No maintenance issues to report. PDS screen cleaners have been working well.

SMF SCADA's investigation by JD Electrical underway. There is a current UFR of $ 150 K, for the SCADA update's P&S.

Research:

None

Fallbacks: AVG: 64 MAX: 84 MIN: 51

Birds :

see the Avian Numbers tab. Until this year, our internal focus had been on gulls in the tailrace BRZ, but the white pelicans are catching up quickly.

Up to 80 white pelicans per inspection observed deep inside of the tailrace BRZ floating/feeding on the south edge of TWS flow. USDA has no permission to haze them. They appeared in the tailrace BRZ much earlier and in higher abundance this year and it seems their local population has been expanding rapidly in the last few years. FPOM needs to determine if they are a serious concern for the juvenile salmonids in June and July (?)

A white pelican moratlity was found on 7/17; the bird's wing was entangled in a cross-river avian line in mid-river, with its body touching the water surface.

12 Navlock, 3 Spillway, 3 Tower-to-Tower (# 12 broke on 6/15/16) lines are missing out of 125 grid's total.

No increase in gull predation due to the missing lines/large gaps in the tailrace Avian Array up to date.

New in April 2016, the JD Avian Lines Improvements' PDT will assess their reliability and design a better/ cheaper methods for their maintenance.

USDA boat avian hazing downstream of JD Tailrace BRZ continues since 4/29/16.

Operations:

JBS and SMF in regular operation since 1 April as required by FPP.

JD North fishway has been meeting all FPP criteria since 1/5/16.

JD South Fishway in service with two out of three AWS turbines; FOGs 18 & 19 continue closed due to insufficient AWS.

MU Gatewell Drawdowns: Twice a week or more frequently as necessary.

Maintenance:

JD South Fishway AWS turbine 1 OOS long term due to failed pump's lower bearing. Received $100K UFR for AWS pumps' repair on 5/18.

Calibration: All gauges/ sensors are within the criteria of 0.3' .

Research:

Washington F&W dam angling crew's NPM (pikeminnow) removal from JD PH tailrace continues since 5/10/16. 1,829 fish removed by 7/03/16.

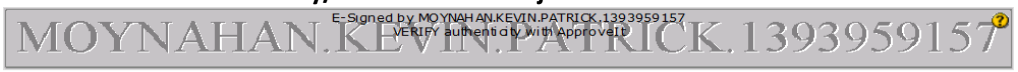
JD Fisheries coordinating with NW Tribes for adult lamprey trapping and other lamprey research.

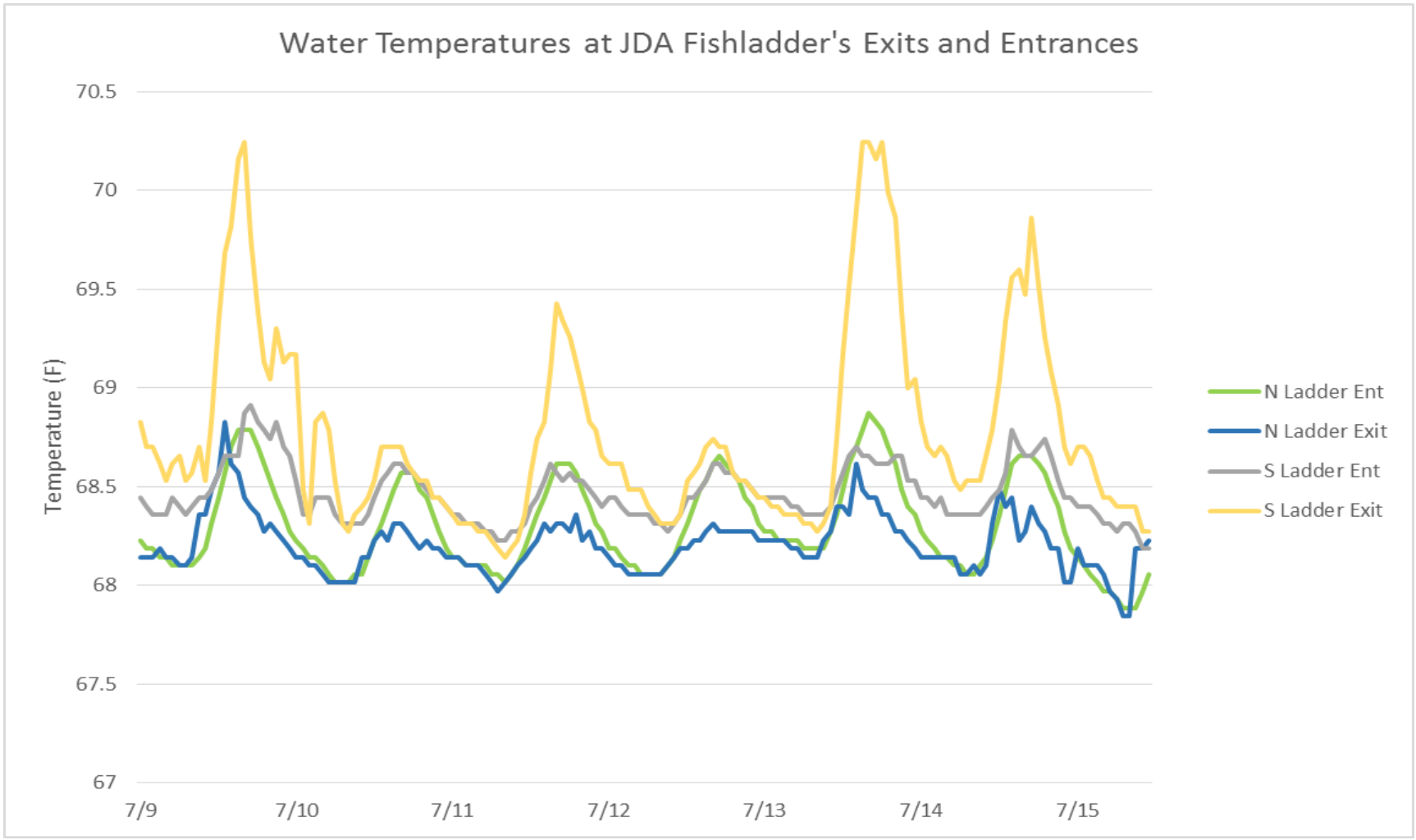
Adult Fish Counting by Normandeau Associates continues since 1 April 2016.

Adult PIT antennas PDT continues developing designs for the next winter outage's installation at both JD Fishways.

Kevin Moynahan

OPM John Day/Willow Creek Project




Water Temperatures at JDA Fishladder's Exits and Entrances
70.5
70
69.5
69
68.5
68
67.5
67
Temperature (F)
7/9
7/10
7/11
7/12
7/13
7/14
7/15
N Ladder Ent
N Ladder Exit
S Ladder Ent
S Ladder Exit

JDA Collection Channel Velocity

Date	*15-Jul-16*
By:	*MDL*

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	1:11	71	2.54
2 - 4	2:03	123	3.46
4 - 6	2:57	177	3.33
6 - 8	3:50	230	3.40
8 - 10	4:41	281	3.53
10 - 12	5:34	334	3.40
12 - 14	6:30	390	3.21
14 - 16	7:22	442	3.46
16 - 18	8:12	492	3.60
			3.33

TW	**160.3**
#1 RPM	**59**
#2 RPM	**59**

JDA Bird Counts: 7/10/16 to 7/16/16

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

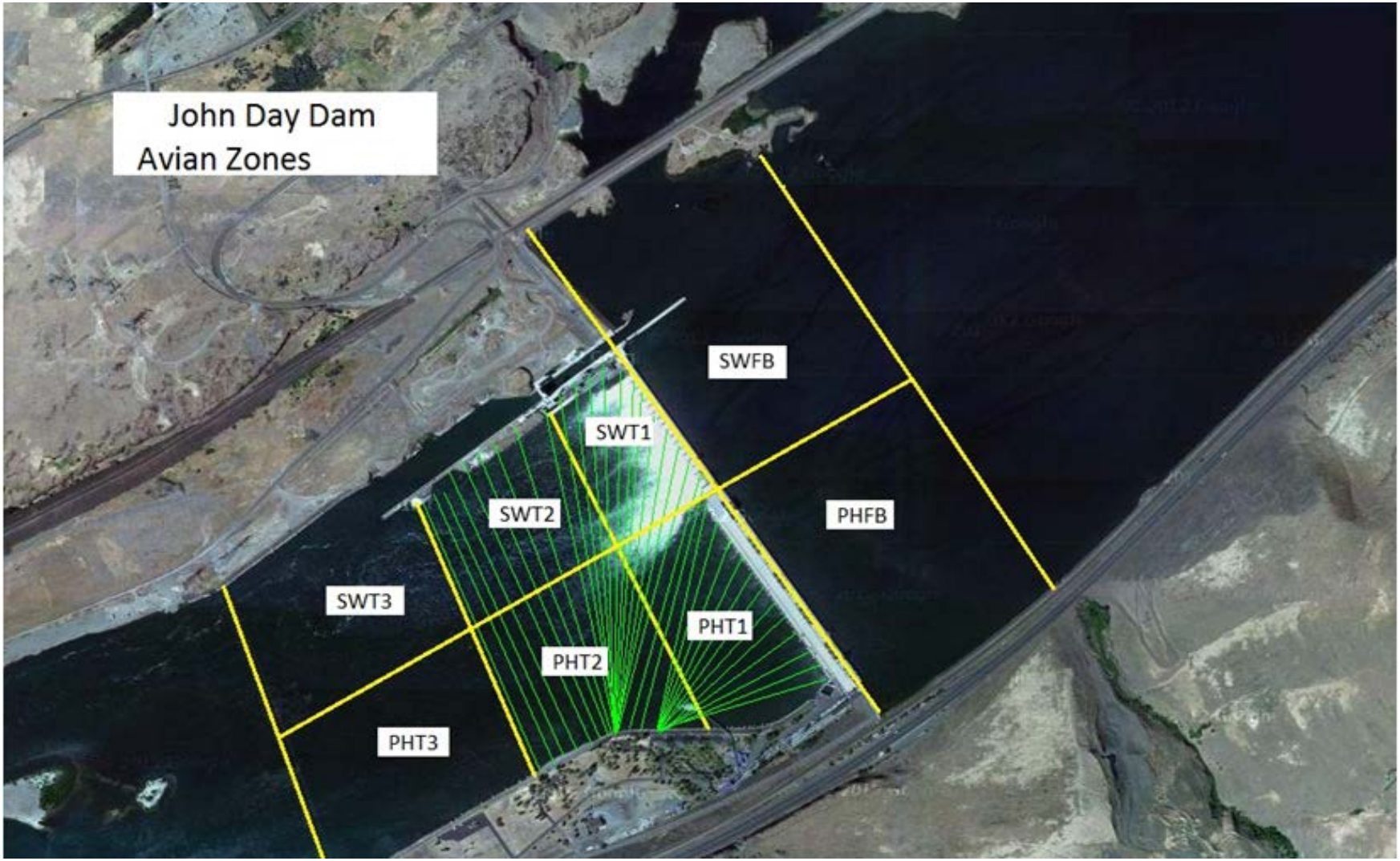
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
10-Jul	PHFB	0	0	3	5	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	6	24
10-Jul	SWFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10-Jul	PH1	11	13	0	0	0	0	0	0	0	0	0	0	15	0	0	1	0	0	0	0	40
10-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	25	0	12	3	0	0	0	0	40
10-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	5	0	33	0	0	0	0	0	38
10-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10-Jul	SW2	0	0	0	2	0	0	0	0	0	0	0	0	33	0	5	9	0	0	0	0	49
10-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9	4	0	0	0	0	22
Avg/Survey		12		6		0		0		0		0		44		40		0		6		215
11-Jul	PHFB	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	17
11-Jul	SWFB	0	0	6	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
11-Jul	PH1	12	2	0	0	0	0	0	0	0	0	0	0	11	7	0	2	0	0	0	0	34
11-Jul	PH2	5	0	0	0	0	0	0	0	0	0	0	0	19	8	0	5	0	0	0	0	37
11-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	15	13	6	0	0	0	0	0	34
11-Jul	SW1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	7	5	0	0	0	0	0	0	12
11-Jul	SW3	6	0	0	0	0	0	0	0	0	0	0	0	40	17	0	0	0	0	0	0	63
Avg/Survey		14		10		0		0		0		0		71		7		0		6		215
12-Jul	PHFB	0	0	51	52	0	0	0	0	0	0	0	0	0	0	3	1	0	0	2	5	114
12-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jul	PH1	7	6	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	25
12-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	26	0	4	8	0	0	0	0	38
12-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	19	0	23	1	0	0	0	0	43
12-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
12-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10
12-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	0	0	0	18
Avg/Survey		7		52		0		0		0		0		43		20		0		4		249
13-Jul	PHFB	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	1	10
13-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jul	PH1	6	0	0	0	0	0	0	0	0	0	0	0	23	3	0	0	0	0	0	0	32
13-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	31	8	0	0	0	0	0	0	39
13-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	41	7	24	0	0	0	0	0	72
13-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0	32
13-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	48	3	15	0	0	0	0	0	66
Avg/Survey		3		2		0		0		0		0		98		23		0		1		251

JDA Bird Counts: 7/10/16 to 7/16/16

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				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)	
14-Jul	PHFB	0	0	32	2	0	0	0	0	0	0	0	0	0	0	1	9	0	0	2	2	48
14-Jul	SWFB	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
14-Jul	PH1	0	3	0	0	0	0	0	0	0	0	0	0	37	4	0	3	0	0	0	0	47
14-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	73	5	0	0	0	0	0	0	78
14-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	19	16	32	0	0	0	0	0	67
14-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
14-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	79	7	21	0	0	0	0	0	107
14-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	14	13	0	0	0	0	0	27
Avg/Survey		2		19		0		0		0		0		132		40		0		2		387
15-Jul	PHFB	0	0	2	1	0	0	0	0	0	0	0	0	0	0	4	4	0	0	2	2	15
15-Jul	SWFB	0	0	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
15-Jul	PH1	5	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	0	0	0	33
15-Jul	PH2	0	1	0	0	0	0	0	0	0	0	0	0	23	3	0	0	0	0	0	0	27
15-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	15	0	4	0	0	0	0	0	19
15-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	13
15-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	61	0	0	0	0	0	0	0	61
Avg/Survey		3		32		0		0		0		0		72		6		0		2		229
16-Jul	PHFB	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	5
16-Jul	SWFB	0	0	54	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
16-Jul	PH1	4	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0	0	0	0	19
16-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	31	7	0	0	0	0	0	0	38
16-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	19	15	15	0	0	0	0	0	49
16-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	15	13	0	0	0	0	0	0	28
Avg/Survey		2		32		0		0		0		0		58		10		0		0		202

Totals	Gulls		Cormorant		Caspian tern		White Pelican		Grebe		Total
	F	NF	F	NF	F	NF	F	NF	F	NF	
Weekly Total	84	303	0	0	0	0	1033	288	0	40	1748
Avg/Survey	6	22	0	0	0	0	74	21	0	3	125


John Day Dam
Avian Zones
SWFB
SWT1
SWT2
PHFB
SWT3
PHT1
PHT2
PHT3

John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	68	6.0	
Mon	68	6.0	56
Tue	68	6.0	
Wed	68	6.0	84
Thur	68	6.0	
Fri	68	6.0	51
Sat	68	6.0	
AVG:	68	AVG: 6.0	AVG 64
			MAX 84
			MIN 51

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.0	8.0	1.3	8.8	1.6	4.5	1.1
Sun	8.2	8.0	1.5	8.4	1.6	4.6	1.3
Mon	8.0	8.2	1.1	8.9	1.5	4.6	1.3
Mon	8.2	8.1	1.1	9.4	1.9	4.6	1.3
Tues	8.1	8.0	1.2	9.0	1.5	4.7	1.3
Tues	8.0	8.0	1.3	8.4	1.5	5.0	1.6
Wed	8.0	8.1	1.4	8.3	1.4	4.6	1.1
Wed	8.2	8.2	1.3	8.4	1.7	4.6	1.2
Thur	8.0	8.2	1.5	8.0	1.5	4.6	1.2
Thur	8.0	8.2	1.2	8.5	1.5	4.5	1.1
Fri	8.1	8.0	1.2	8.5	1.6	4.6	1.3
Fri	8.0	8.2	1.3	8.8	1.3	4.6	1.1
Sat	8.0	8.1	1.3	8.9	1.6	4.5	1.2
Sat	8.0	8.1	1.1	8.8	1.5	4.6	1.5
AVG:	8.1	8.1	1.3	8.7	1.6	4.6	1.3