## FISHWAY STATUS REPORT

**Date:** 4/6/2014

**Inspection Period:** 3/30 thru 4/5/2014



# JOHN DAY DAM

JD/WC Project-Fisheries P.O. Box 823 Rufus, Oregon 97050

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All JD Fishways are inspected twice per day during fish season, March. 1 - Nov. 31 Frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

John Day Dam	Inspections	Criteria	Total Number of Inspections: 14 Temperature: 43.9 F
	Out of Criteria	Limit	Secchi: 3.3 Ft.
NORTH FISHWAY			In regular service and meeting the optimal FPP criteria
Exit differential	0	≤ 0.5′	
Exit Control weirs	0	High setting	High setting is normal for JDN
Count station differential	0	≤ 0.3′	
Weir crest depth (DS gauge)	0	1.0' ± 0.1'	`
Entrance differential	0	1.0' - 2.0'	AVG 1.5
SOUTH FISHWAY			In regular service with two AWS turbines since 3/1/14, with all three since 3/11/14.
Exit differential	0	≤ 0.5′	
Exit Control weirs	0	MID setting	MID is normal for JDS
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 1.3
Entrance weir SE1	0	depth (≥ 8')	AVG 8.9
Collection channel velocity	0	1.5 - 4 fps	AVG 3.1
Bay 1 differential	0	1.0' - 2.0'	AVG 1.7
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.6
Entrance weir NE1	0	depth (≥ 8')	AVG 10.2
Entrance weir NE2	0	depth (≥ 8')	AVG 10.1
JUVENILE PASSAGE			OOS for winter maintenance since 12/20. RTS is 25 March 2014.
Forebay/bypass conduit differential	N/A	4.0' - 5.0'	AVG 4.6
Submersible traveling screens	N/A	visual inspect	Underwater camera inspections occur the third week of each month.
Turbine trashrack drawdown	N/A	<1.5', wkly	JD Structural raking of MU trashracks occurs the last week of each month.
Vert barrier screen drawdown	N/A	<1.5', wkly	JD Fisheries crew performs frequent gate wells' drawdowns depending on river debris.
Spill volume	N/A	n/a	
Spill pattern	N/A	n/a	
Turbine Unit Priority	N/A	per FPP	
Turbine 1% Efficiency	N/A	per FPP	

#### SMOLT MONITORING FACILITY

Operation: SMF was watered up on 3/25 and then switched to sampling mode on 3/31 AM. First sample was processed by PSMFC on 4/1.

JD Fisheries crew started regular 24/7 swing shift schedule as required by FPP; it will continue this until the end of sampling season on 9/15.

**Debris:** Very heavy to heavy tumbleweed

#### Maintenance:

SMF fully winterized, annual maintenance underway. Leaking gasket in the Switch Gate area was replaced by JD Mechanical crew on 2/27.

SMF SCADA PLC is undergoing the necessary maintenance/improvements. ETR is late March.

SMF CCTV replacement has been completed by JD electricians. The picture quality is significantly better with the new cameras, consoles, monitors.

#### Research:

Battelle setting up for collections, tagging and holding of juvenile salmonids at JD SMF. The first collection/tagging is expected in late April.

Fallbacks: AVG: 35 MAX: 51 MIN: 0

### **OTHER ISSUES:**

#### JOHN DAY

Birds: See Avian tabs.

124 out of 125 primary avian lines are properly installed as of 4/5. Contractor continues with tensioning of more lines. Kudos to JD Engineering for great re-install contract executed on time! One missing line, crossing the river shore to shore downstream of Navlock was too difficult to repair this year.

#### Operations:

JD North Fishway is in regular service and meeting the optimal FPP criteria.

JD South Fishway in regular service since 3/14; all four floating orifices deployed since 3/24.

All required STSs were installed in working MUs before the 1 April deadline.

#### Maintenance:

JD Structural raked all the MU intake trashracks before 1 April as required by FPP. Debris abundance was very high and they continued raking all week.

I heard of a few smolt morts detected by JD Maintenance during raking, but no specimen or reliable estimates were possible. There were 2 smolt morts on 4/1, 4/3, and 4/4 in the PSMFC samples, which represents total of 10 real morts per one of those days; normal under heavy debris conditions. Disclaimer: some morts in the PSMFC samples could be a result of factors upstream from the dam.

JD North AWS pumps - four out of total six are available and in service. AWS pumps # 2 and 4 continue in OOS status due to RTDs and lower bearing issues. JD Engineering working with the pumps' contractor on bringing those pumps to service soon.

MU 10 was dewatered 3/30 (scroll case) - 4/2 (draft tube.) One juvenile chinook mort was found in scroll case along with one live cat in each chamber.

Calibration: 3/7/2014 NE1, NE2 were off by more than 0.3 '; a trouble report was written. All other water sensors were within the criteria of 0.3'.

#### Research:

JD Fisheries coordinating with research groups for the upcoming 2014 studies:

PSMFC/WDFW dam angling for the pikeminnow will occur from the JD tailrace deck same as in the last few years.

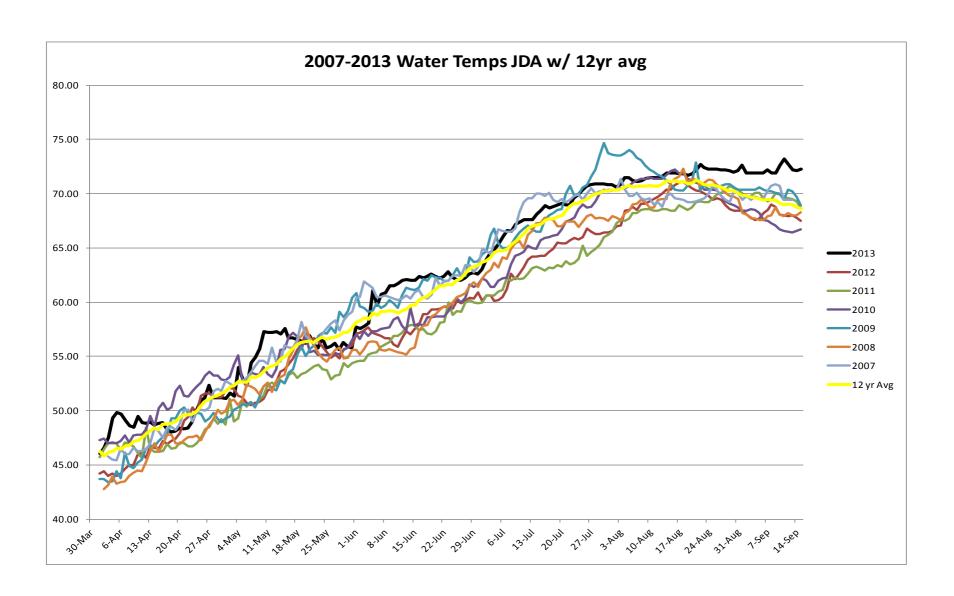
Oregon DFW pikeminnow crew will survey JD Forebay BRZ (Oregon side) with electroshocking boat in May. BRZ entry permit is pending.

U of I Testing of JD North LPS (Lamprey Passage System) preparing for their passage season's work starting in June 2014.

Battelle's Monitoring of Juvenile Salmonids with Hydroacoustic Tags completed installation of all JD Powerhouse and Spillway hydrophones in February. 2014 Adult Salmonids counting started at both JD Fishways by the Normandeau crew on 1 April as required by FPP.

Adult Salmonids Radio telemetry evaluations are ongoing at both JD adult fishway. University of Idaho crew is in charge of detecting of all adult adult salmonids, which were tagged and released at Bonneville Dam.

Glen A. Smith PE Date:\_\_\_ 9-Apr-14



# JDA COLLECTION CHANNEL VELOCITY

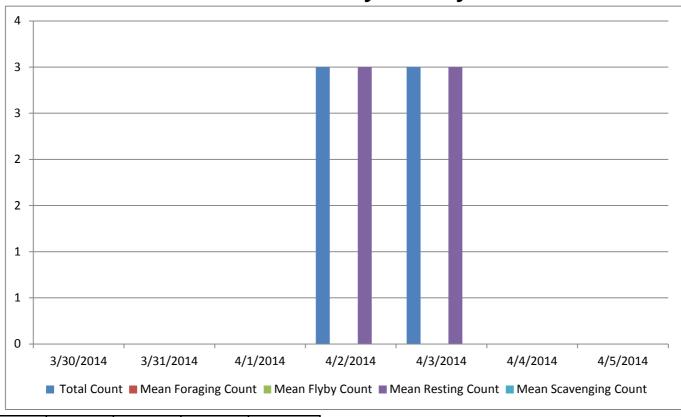
 Date
 29-Mar-14

 By:
 pkr

			T
Bay(s)	Time	Sec.	Velocity (f/s)
0-2	0:01:14	74	2.17
2 - 4	0:02:02	122	3.16
4 - 6	0:02:53	173	3.21
6 - 8	0:03:50	230	3.10
8 - 10	0:04:43	283	3.21
10 - 12	0:05:34	334	3.00
12 - 14	0:06:31	391	2.69
14 - 16	0:07:29	449	3.21
16 - 18	0:08:08	488	4.29

3.12

# **Bird Count by Activity**



		Mean		Mean	Mean
	Total	Foraging	Mean Flyby	Resting	Scavenging
Date	Count	Count	Count	Count	Count
3/30/2014	0	0		0	
3/31/2014	0	0			
4/1/2014	0	0	0		
4/2/2014	3		0	3	
4/3/2014	3	0	0	3	
4/4/2014	0	0	0	0	
4/5/2014	0	0		0	



### John Day:

	Temp:		Secchi:		Fallbacks
Sun	43		3.0		0
Mon	43		3.0		51
Tues	43		3.0		38
Wed	44		3.5		34
Thur	44		3.5		29
Fri	45		3.5		51
Sat	45		3.5		42
AVG:	44	AVG:	3.3	AVG	35
				MAX	51
				MIN	0

Sun Sun Mon Tues Tues Wed Wed Thur Thur Fri Fri Sat Sat AVG:

NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay1	Bay19
11.6	11.4	1.2	9.5	1.5	4.5	1.6	1.6
11.7	11.5	1.3	9.3	1.4	4.6	1.7	1.5
9.7	9.6	1.2	8.5	1.5	4.6	1.6	1.8
8.9	8.9	1.3	8.9	1.5	4.5	1.6	1.9
9.6	9.3	1.4	8.1	1.6	4.6	1.5	1.3
10.1	9.9	1.3	8.8	1.5	4.6	1.8	1.7
9.5	9.5	1.5	8.2	1.6	4.5	1.9	1.7
10.4	10.1	1.1	9.1	1.6	4.9	1.6	1.7
10.3	10.3	1.4	9.0	1.4	4.8	1.8	1.4
9.9	9.8	1.5	8.3	1.6	4.6	1.8	1.4
9.3	9.3	1.3	8.4	1.5	4.5	1.8	1.8
9.4	9.3	1.5	8.3	1.5	4.6	1.9	1.9
10.8	10.7	1.3	10.3	1.5	4.6	1.5	1.6
11.5	11.7	1.3	9.7	1.6	4.6	1.6	1.2
10.2	10.1	1.3	8.9	1.5	4.6	1.7	1.6