## FISHWAY STATUS REPORT

**Date:** 12/7/2013

**Inspection Period:** 12/01 thru 12/07/13

## US Army Corps of Engineers Portland District

## JOHN DAY DAM

JD/WC Project-Fisheries P.O. Box 823

Rufus, Oregon 97050 Phone: 541-506-7860

All JD Fishways are inspected once per day, December- February; frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

John Day Dam	Inspections	Criteria	Total Number of Inspections: 7 Temperature: 46.4 F
	Out of Criteria	Limit	Secchi: 5.4 Ft.
NORTH FISHWAY			OOS for winter maintenance since 11/29 night; upper successfully dewatered on 12/5
Exit differential	N/A	≤ 0.5′	
Exit Control weirs	N/A	High setting	High setting is normal for JDN
Count station differential	N/A	≤ 0.3′	
Weir crest depth	N/A	1.0' ± 0.1'	· ·
Entrance differential	N/A	1.0' - 2.0'	AVG 0.0
SOUTH FISHWAY			In regular service with all three AWS turbines working properly
Exit differential	0	≤ 0.5′	
Exit Control weirs	0		MID is normal for JDS
Count station differential	0	≤ 0.3'	
Weir crest depth	0	1.0' ± 0.1'	
South entrance differential	0	1.0' - 2.0'	AVG 1.4
Entrance weir SE1	0	depth (≥ 8')	AVG 8.7
Collection channel velocity	0	1.5 - 4 fps	AVG 3.21
Bay 1 differential	0	1.0' - 2.0'	AVG 1.8
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.2
Entrance weir NE1	0	depth (≥ 8')	AVG 8.8
Entrance weir NE2	0	depth (≥ 8')	AVG 8.8
JUVENILE PASSAGE			SMF sampling season ended on 9/15, full flow PIT tags detections through 30 November
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6
Submersible traveling screens	0	visual inspect	
Turbine trashrack drawdown	0	<1.5', wkly	
Vert barrier screen drawdown	0	<1.5', wkly	
Spill volume	0		Spill for fish passage ended on 9/1, TSWs removed for contract mods
Spill pattern	0		Bay 2 at 1.5 K for additional attraction to JD North entrance, during daylight hours
Turbine Unit Priority	0	per FPP	MU priority without TSWs requires only units 1-4 in service
Turbine 1% Efficiency	0	per FPP	

#### SMOLT MONITORING FACILITY

Operation: Sampling season ended on 9/15; SMF continues in bypass for the full flow PIT tags detections until 30 November.

JD Mechanics fixed the Crest Gate by 12/10. The end of season SMF dewatering is scheduled for 12/17 AM.

**Debris:** Very light

Maintenance:

SMF building / wet lab OOS and winterized by JD Fisheries.

JD Fisheries Team continues preparing for the end of season dewatering of entire SMF on 12/16.

SMF CCTV replacement is in planning stage; on hold due to lack of funding. Likely implementation in FY 2014:)

Research: None. No fish collections in 2013

Fallbacks: AVG: 0 MAX: 0 MIN: 0

#### OTHER ISSUES:

#### JOHN DAY

Birds: See Avian tabs.

122 avian lines are properly installed. Four lines are currently missing; spillway/TSW line broke on 4/12/13. JD Management preparing a plan for the missing lines' replacement before 2014 passage season.

#### Operations:

JD North Fishway OOS for winter maintenance since 11/29 night. Upper fishway was successfully dewatered on 12/5. "Flushing" method resulted in almost no fish requiring salvage; only two small adult sturgeon and two steelhead smolts were bagged and released into tailrace in great condition. Planned return to service is 12/19.

JD South Fishway in service, meeting the optimal FPP criteria with all three AWS turbines.

JBS continues in regular service with all 48 STS installed for kelts fallback protection through 12/15 as required by FPP. JD Structural crew will pull all STSs during the week of 12/16.

#### Maintenance:

Monthly (November) STS inspection by JD Structural crew completed on 11/21; only one screen had mesh issues and was replaced with working spare. Gatewell draw down: Measurements made on 11/24. All units were within established limits, with less than 1.0' differential

Date: 10-Dec-13

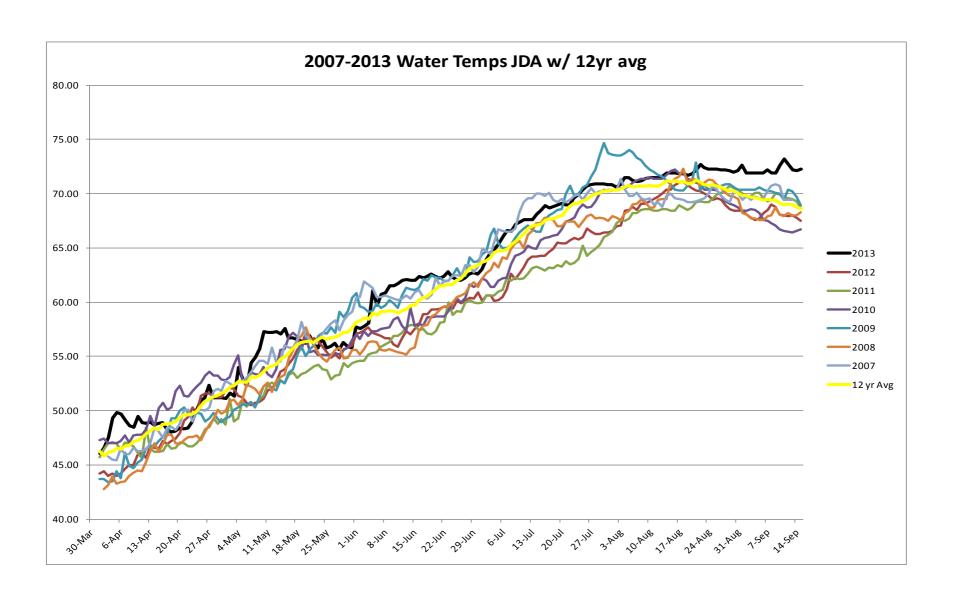
Calibration: 11/30/2013 All JD Fishways' PLCs/ water level sensors were within 0.3' margin of error.

#### Research:

Fish counting at both JD Fishways ended 10/31. Video counting began 11/1 and will continue through the winter.

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 adult salmonids, which were first tagged at Bonneville Dam.

Glen A. Smith PE OPM John Day/Willow Creek Project



# JDA COLLECTION CHANNEL VELOCITY

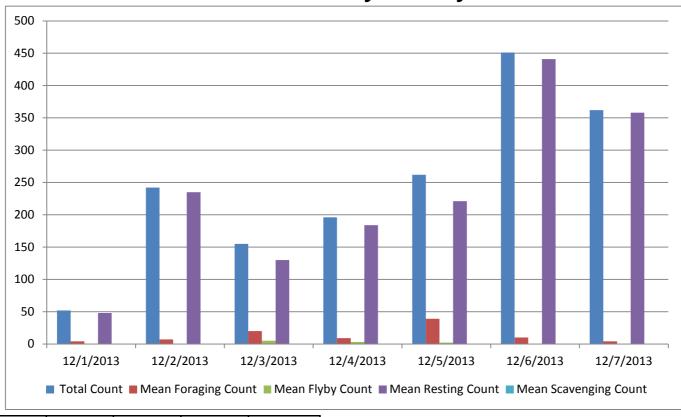
Date dec. 10

By: pkr,dek

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	0:01:33	93	1.94
2 - 4	0:02:24	144	3.53
4 - 6	0:03:23	203	3.05
6 - 8	0:04:16	256	3.40
8 - 10	0:05:11	311	3.27
10 - 12	0:06:07	367	3.21
12 - 14	0:07:11	431	2.81
14 - 16	0:08:07	487	3.21
16 - 18	0:08:47	527	4.50

3.21

## **Bird Count by Activity**



		Mean		Mean	Mean
	Total	Foraging	Mean Flyby	Resting	Scavenging
Date	Count	Count	Count	Count	Count
12/1/2013	52	4		48	
12/2/2013	242	7		235	
12/3/2013	155	20	5	130	
12/4/2013	196	9	3	184	
12/5/2013	262	39	2	221	
12/6/2013	451	10	0	441	
12/7/2013	362	4	0	358	

Seasonal High numbers of GULLS in the Forebay and on the WING WALL.



### John Day:

	Temp:		Secchi:		Fallbacks
Sun	47		5.0		
Mon	47		5.5		
Tues	47		5.5		
Wed	46		5.5		
Thur	46		5.5		
Fri	46		5.5		
Sat	46		5.5		
AVG:	46.4	AVG:	5.4	AVG	
				MAX	
				MIN	

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

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay1	Bay19
	8.0	8.0	1.5	8.1	008	4.7	2.0	1.5
	8.5	8.5	1.5	8.7	oos	4.6	1.9	1.2
	9.1	9.1	1.4	9.3	008	4.4	1.8	1.2
	9.1	9.0	1.5	9.1	oos	4.6	1.8	1.5
	8.5	8.5	1.5	8.2	oos	4.6	1.8	1.1
	8.8	8.8	1.5	8.3	008	4.6	1.9	1.2
	9.4	9.4	1.1	9.2	oos	4.6	1.5	1.0
ĺ	8.8	8.8	1.4	8.7		4.6	1.8	1.2