

August 19, 2015

VIA ELECTRONIC FILING

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

**Re: Jackson Hydroelectric Project, FERC No. 2157
Operation Compliance Monitoring Plan Annual Report
License Article 407**

Dear Secretary Bose:

Enclosed is Public Utility District No. 1 of Snohomish County's Operation Compliance Monitoring Plan Annual Report for the Water Year July 2014 – June 2015 pursuant to License Article 407 for the Jackson Hydroelectric Project.

If you have any questions on the report, please contact Dawn Presler, Sr. Environmental Coordinator, at (425) 783-1709 or DJPresler@snopud.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Craig W. Collar", is positioned below the "Sincerely," text.

Craig W. Collar, P.E.
Assistant General Manager of Generation
CWCollar@snopud.com
(425) 783-1825

Enclosed: OCMF Annual Report

Henry M. Jackson Hydroelectric Project
(FERC No. 2157)

Operation Compliance Monitoring Plan
(License Article 407)

**Annual Report for Water Year
July 2014 – June 2015**



Prepared By:



Everett, WA

August 2015

Final – This document has been prepared for the District. It has been peer-reviewed by the District for accuracy and formatting based on information known at the time of its preparation and with that understanding is considered complete by the District. The document may be cited as:

Public Utility District No. 1 of Snohomish County (District). 2015. License Article 407: Operation Compliance Monitoring Plan Annual Report for Water Year July 2014 through June 2015, for the Henry M. Jackson Hydroelectric Project, FERC No. 2157. August 2015.

This document should not be cited or distributed without this disclaimer.

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Acronyms and Abbreviations

A-LA	Aquatic License Article
ARC	Aquatic Resource Committee
cfs	cubic feet per second
District	Public Utility District No. 1 of Snohomish County
FERC	Federal Energy Regulatory Commission
MW	megawatt
OCMP	Operation Compliance Monitoring Plan
PF Plan	Process Flow Plan
Project	Henry M. Jackson Hydroelectric Project, FERC No. 2157
SCADA	Supervisory Control and Data Acquisition
USGS	United States Geological Survey
WY	Water year

1. INTRODUCTION

Public Utility District No. 1 of Snohomish County (the District) received from the Federal Energy Regulatory Commission (FERC) a new license for the existing 111.8-megawatt (MW) Henry M. Jackson Hydroelectric Project (FERC No. 2157) (Project) on September 2, 2011. The District filed with the FERC the Operation Compliance Monitoring Plan (OCMP) in response to License Article 407. The FERC approved the OCMP on April 10, 2012. Per Section 9 of the OCMP, the District is to file an Annual Report by November 1 of each year, which documents the following for the previous water year (July through June):

- (a) the dates, duration, and quantities of the process flow released in accordance with the Process Flow Plan (PF Plan) required by Article 416;
- (b) Spada Lake Reservoir daily water surface elevations; and
- (c) if deviations from the targeted State 3 water surface elevations occurred, the reasons for the deviations and any proposals for corrective actions to avoid future occurrences, as appropriate.

This OCMP Annual Report covers activities for water year (WY) July 2014 – June 2015.

A copy of the draft report was provided to National Marine Fisheries Service, U.S. Forest Service, U.S. Fish and Wildlife Service, Washington Department of Fish and Wildlife, Washington Department of Ecology, Tulalip Tribes, Snohomish County, City of Everett, City of Sultan, and American Whitewater (collectively known as the Aquatic Resource Committee or ARC) for a review and comment period.

Spada Lake Reservoir data in tabular format are included in Appendix 1. Consultation with the ARC is included in Appendix 2; responses to comments received are included in Appendix 3.

2. PROCESS FLOWS

The District provided process flow events pursuant to the PF Plan on four occasions during the July 2014 – June 2015 timeframe to serve multiple habitat benefits. These included, in chronological order: 1) a scheduled fall 2014 event for flushing surficial fine sediment from the streambed and to stimulate the upstream migration of spawning adults, 2) a channel maintenance event during November 2014, and 3) two scheduled events during spring 2015 to aid in flushing of fine sediment to assist the outmigration of juvenile fish. Reaches are identified in Figure 1. The process flow events for the Sultan River are summarized, by reach, in Table 1. The District followed each process flow event with License-required downramping; downramping is evident on the descending limb of the hydrograph associated with each process flow event as shown in Figures 2 through 10.

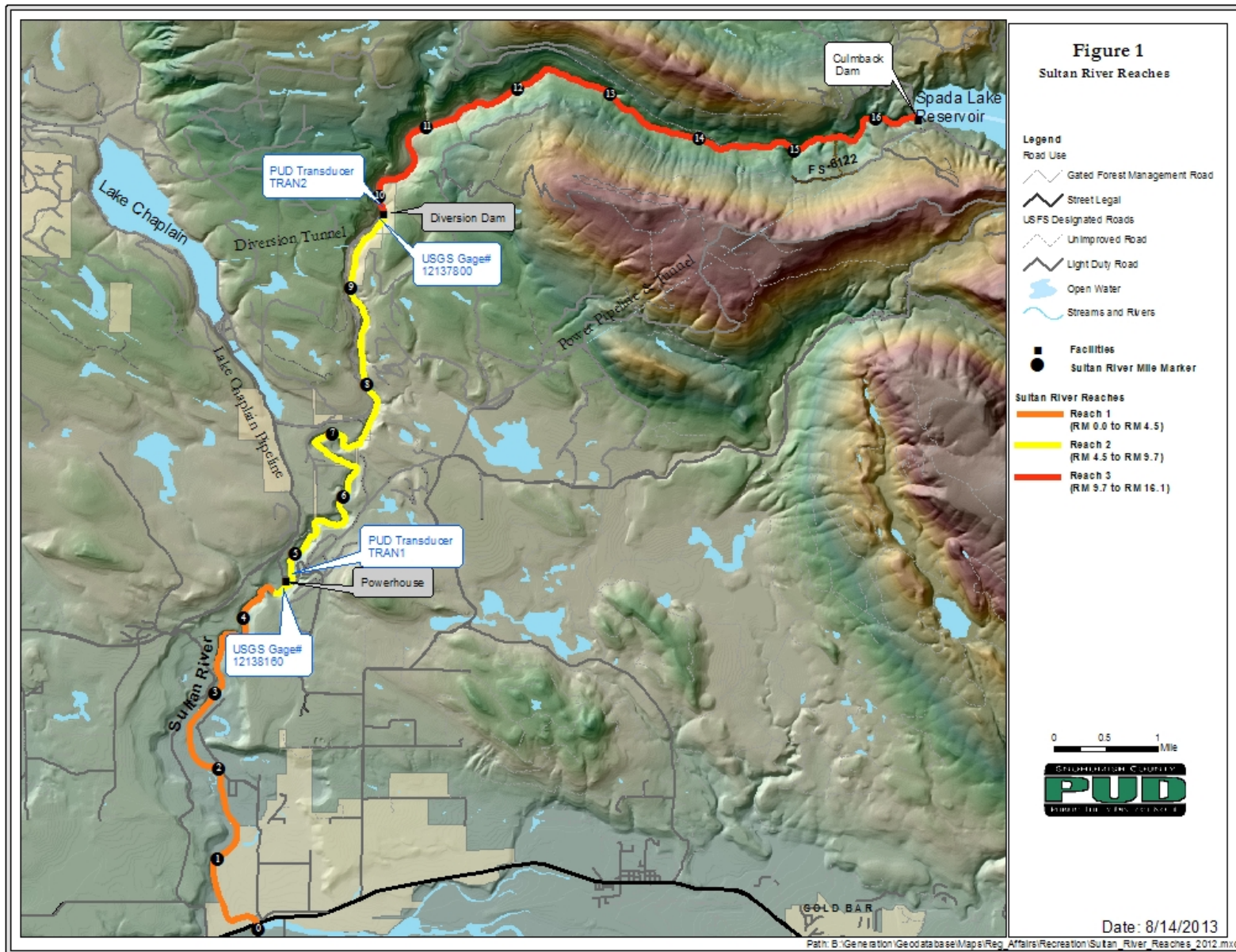


Figure 1. Sultan River reaches.

Table 1. Process Flow Log, July 2014 – June 2015.

Date ¹	Time ²	Magnitude ³ (cfs)	Duration ⁴ (hours)	Accretion ⁵ (cfs)	Notes ⁶	Counts as PF Type ⁷
9/12/14	06:45 to 14:00	R1 – 1,606 (average), range: 1,500 to 1,760 cfs	7.25 hours		Reference Figure 2	FL, U
9/12/14	04:30 to 10:30	R2 – 523 (average), range: 469 to 536 cfs	6 hours		Reference Figure 3 – note that figure does not include estimated accretion in Reach 2 of 32 cfs at time of release	FL, U
9/12/14	02:00 to 08:00	R3 – 509 (average), range: 455 to 522 cfs	6 hours		Reference Figure 3 – note that accretion in Reach 3 at time of release was estimated at 14 cfs	FL, U
11/4/14 to 11/5/14	19:00 to 19:00	R1 – 4,088 (average), range: 3,810 to 4,540 cfs	24 hours	R1- cumulative accretion measured at Powerhouse: 800 to 1,400 cfs	Reference Figure 4 -	CM
4/25/15	14:45 to 0:00 (4/26/15)	R1 – 1,126 (average), range: 808 to 1,450 cfs	9.5 hours		Reference Figure 5	O
4/25/15	14:45 to 21:00	R2 – 805 (average), range: 501 to 1,013 cfs	6.25 hours @ greater than 500 cfs		Reference Figure 6	FL, O
4/25/15	13:15 to 17:00	R3 – 786 (average), range: 631 to 830 cfs	3.75 hours @ greater than 600 cfs		Reference Figure 7	FL
5/11/15	04:45 to 12:30	R1 – 1,863 (average),	7.75 hours greater		Reference Figure 8	FL, O

¹ Start Date of Event (MM/DD/YYYY)² Start Time to End Time³ Magnitude of the Event for Each Compliance Location (R1-Reach 1, R2-Reach 2, R3-Reach 3)⁴ Duration of Event⁵ Portion of Event Attributed to Accretion Flows⁶ Notes of Day's Event, Sequencing with Other Flow Events/Maintenance⁷ Channel Forming (CF), Channel Maintenance (CM), Flushing (FL), Outmigration (O), Upmigration (U) as defined in the PF Plan

		range: 1,520 to 2,150 cfs	than 1,500 cfs			
5/11/15	05:45 to 13:15	R2 – 664 (average), range: 408 to 756 cfs	7.5 hours greater than 400 cfs		Reference Figure 9	0

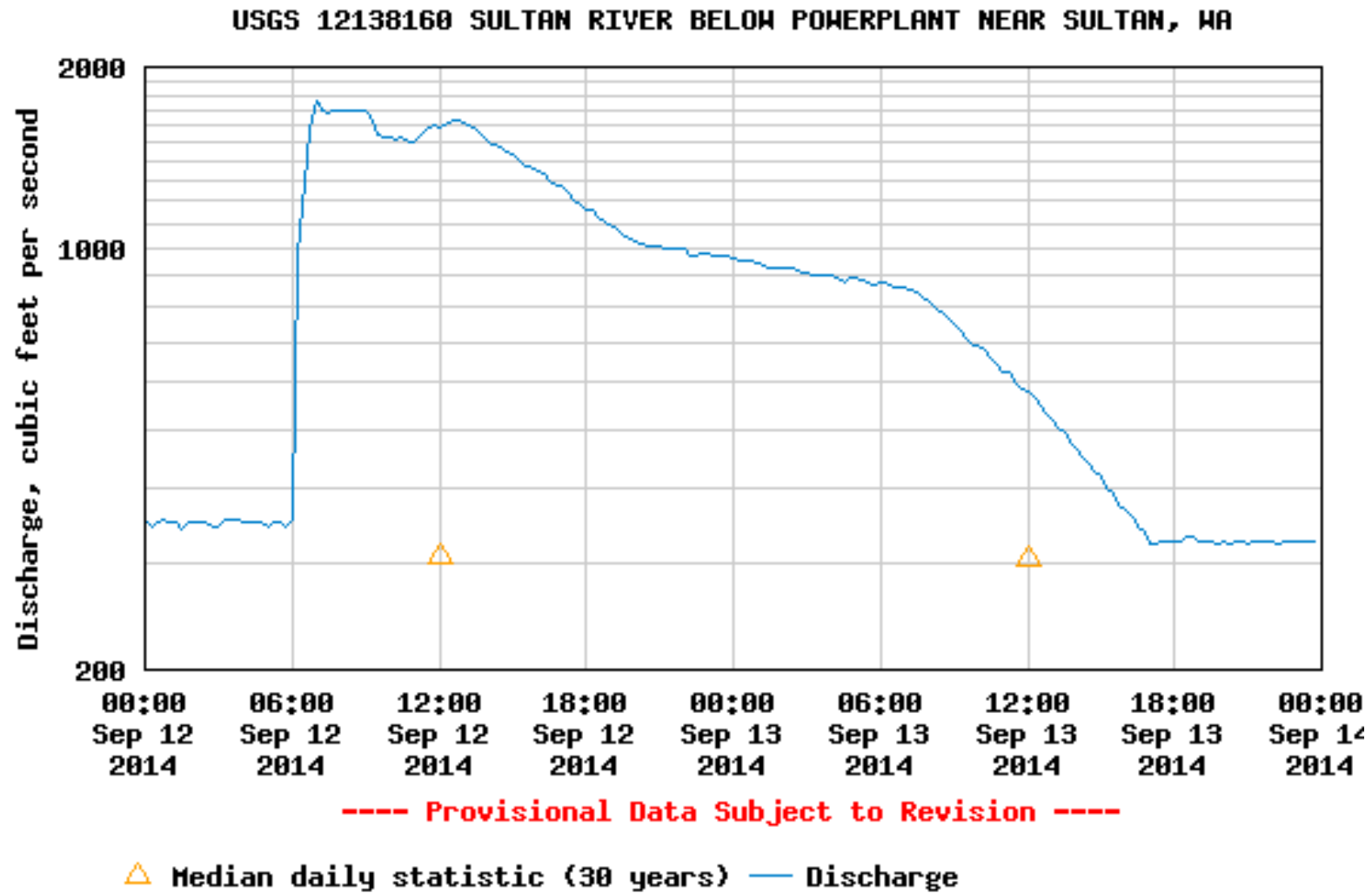


Figure 2. Sultan River below Powerplant (upper Reach 1) hydrograph – 9/12/2014 to 9/13/2014.

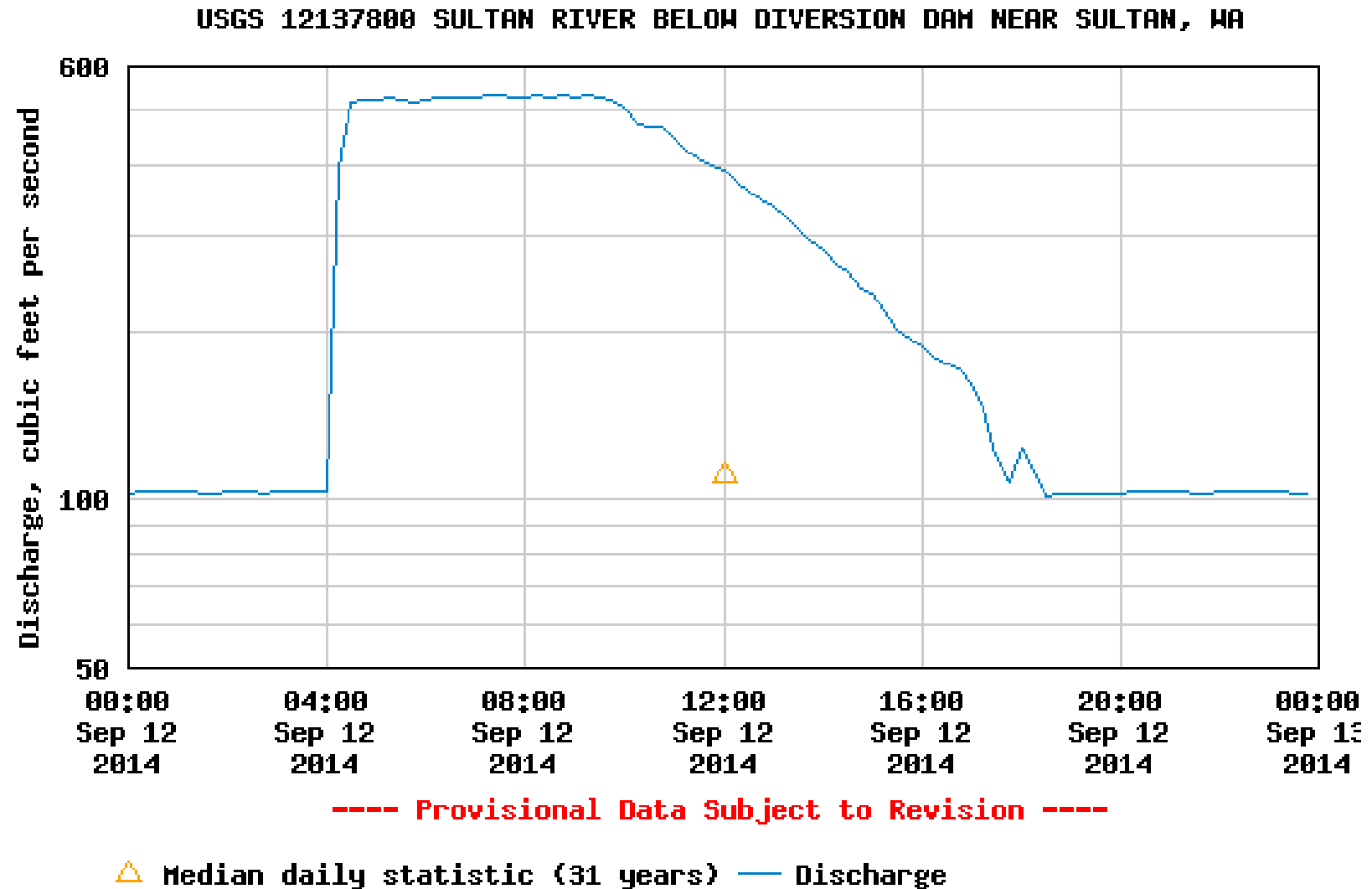


Figure 3. Sultan River below Diversion Dam (upper Reach 2, lower Reach 3) hydrograph – 9/12/2014.

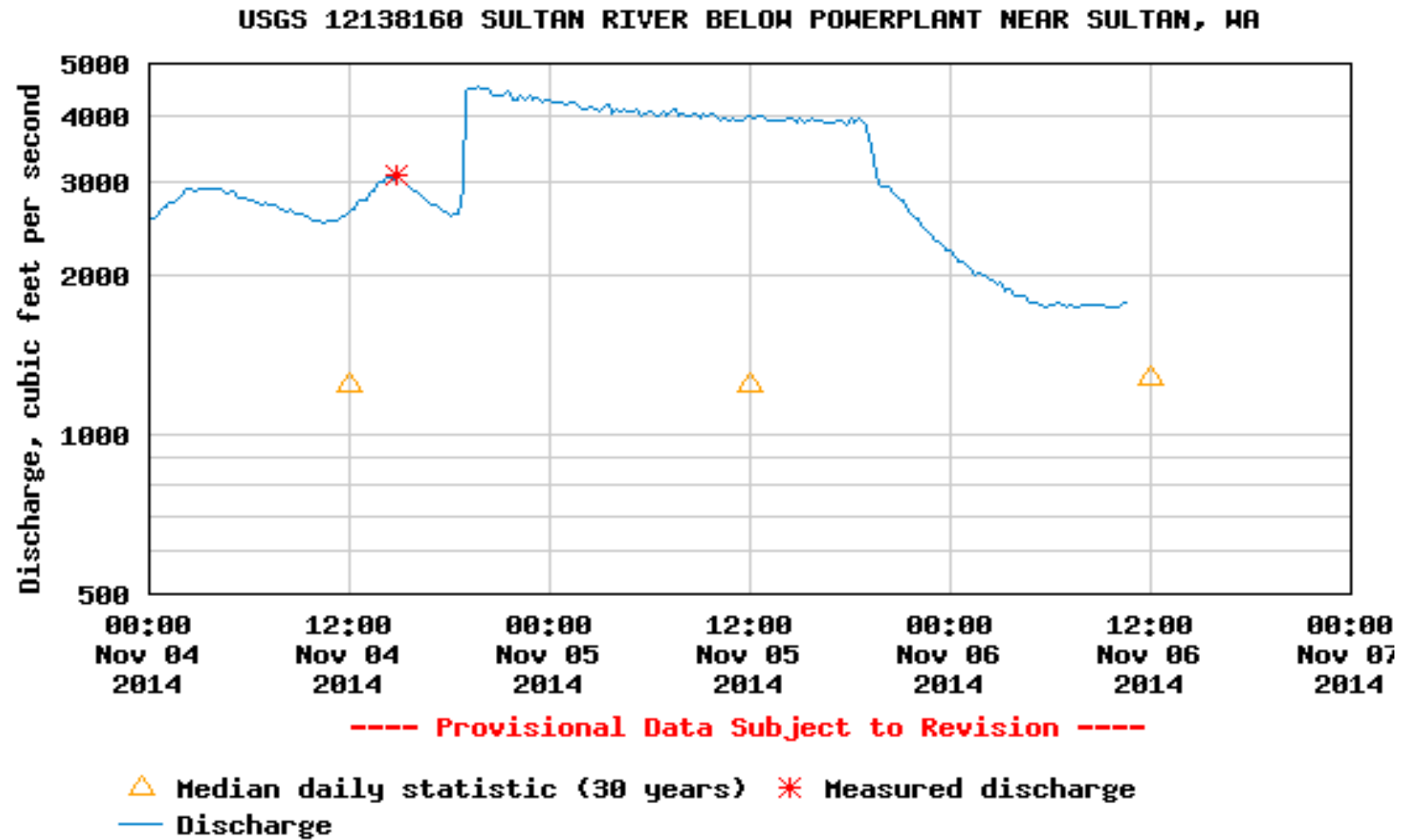


Figure 4. Sultan River below Powerplant (upper Reach 1) hydrograph – 11/04/2014 to 11/05/2014.

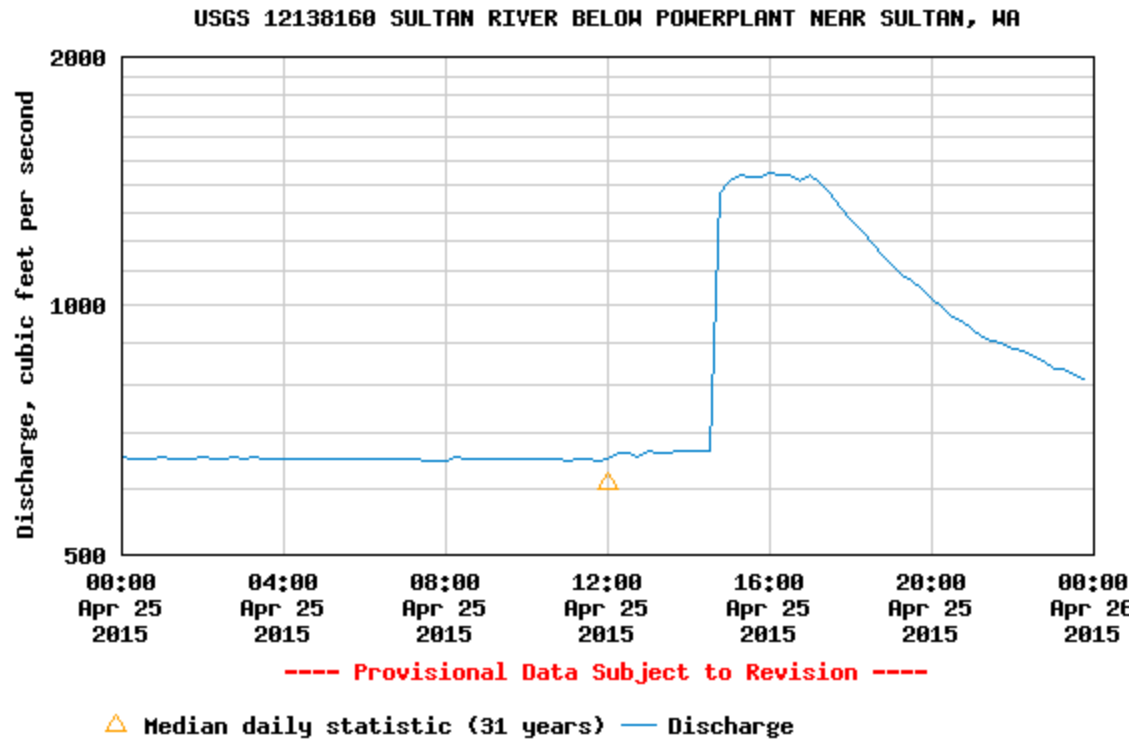


Figure 5. Sultan River below Powerplant (upper Reach 1) hydrograph – 04/25/2015.

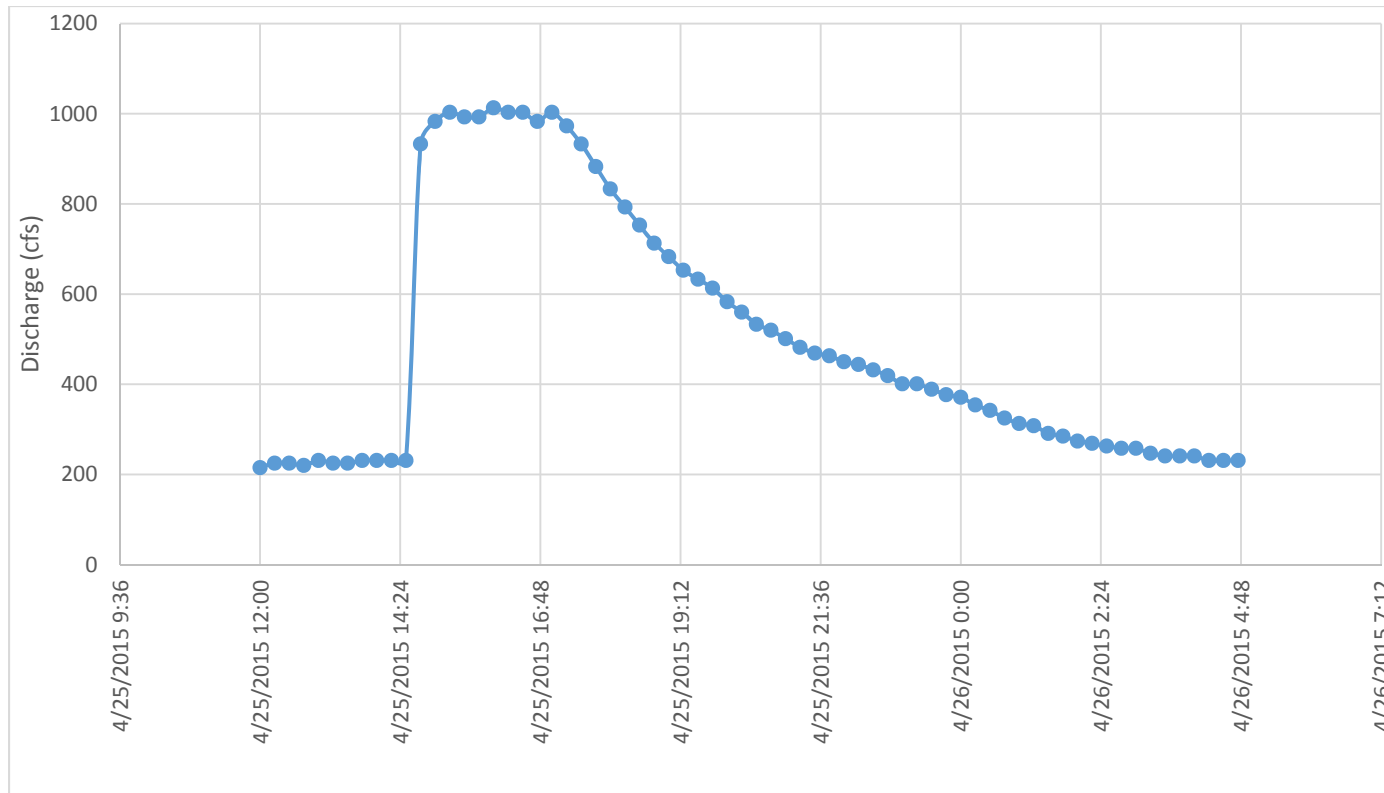


Figure 6. Sultan River immediately upstream of Powerhouse at RM 4.7 (lower Reach 2) – 04/25/2015.

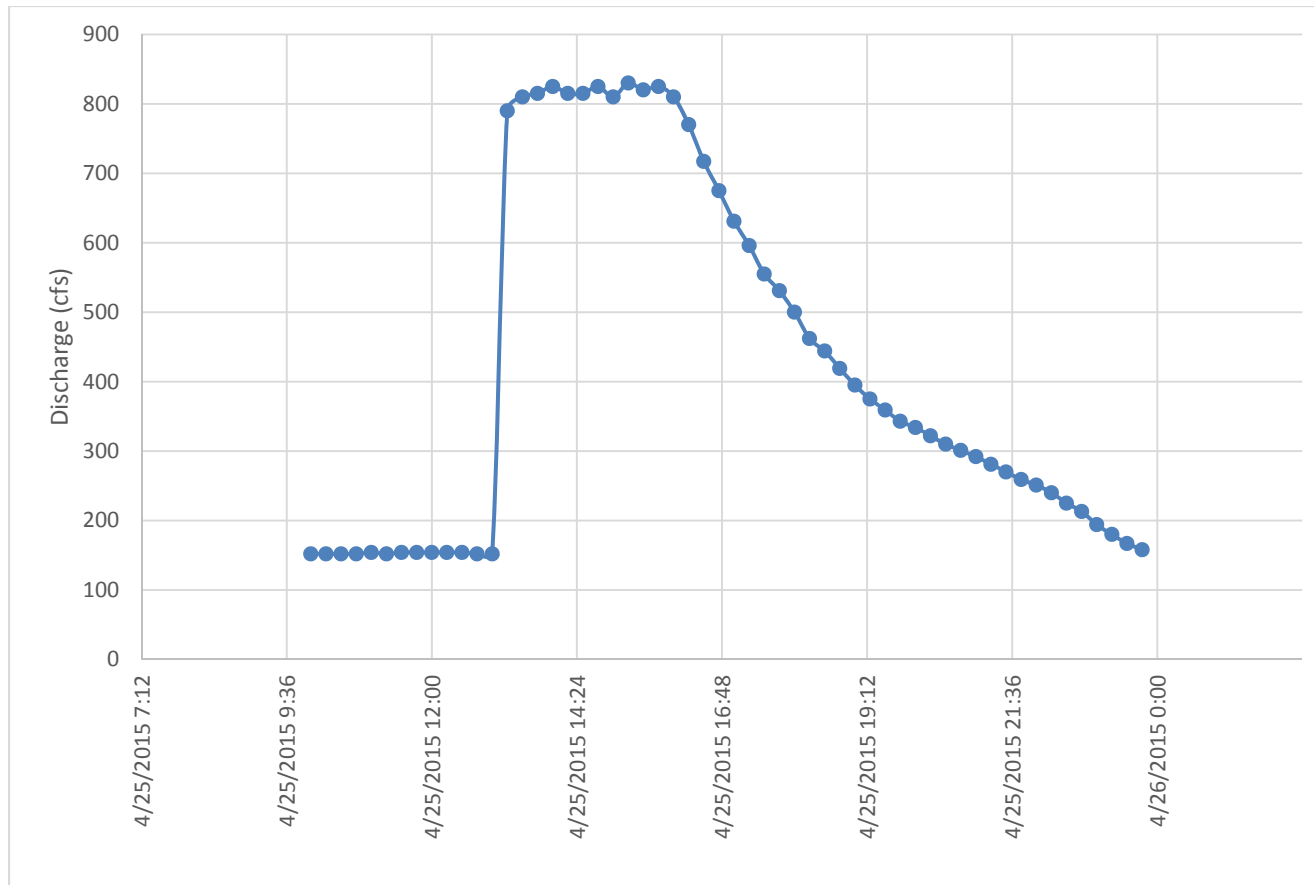


Figure 7. Sultan River immediately upstream of Diversion Dam (lower Reach 3) hydrograph – 04/25/2015.

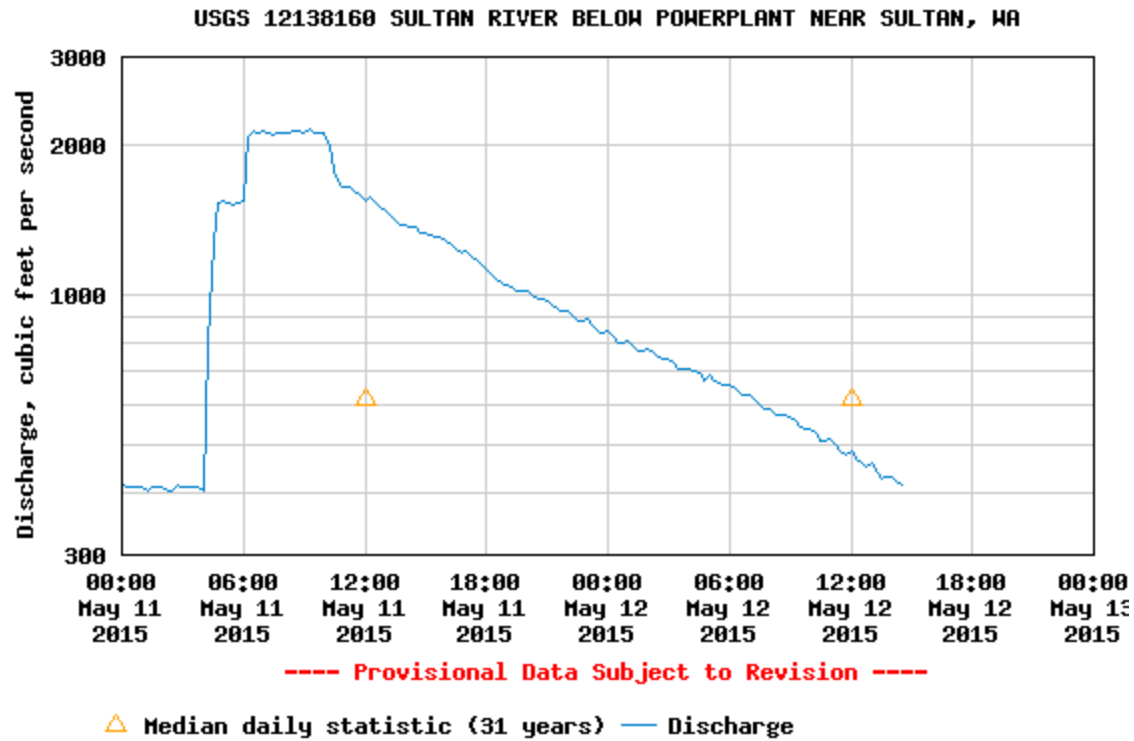


Figure 8. Sultan River below Powerplant (upper Reach 1) – 05/11/2015.

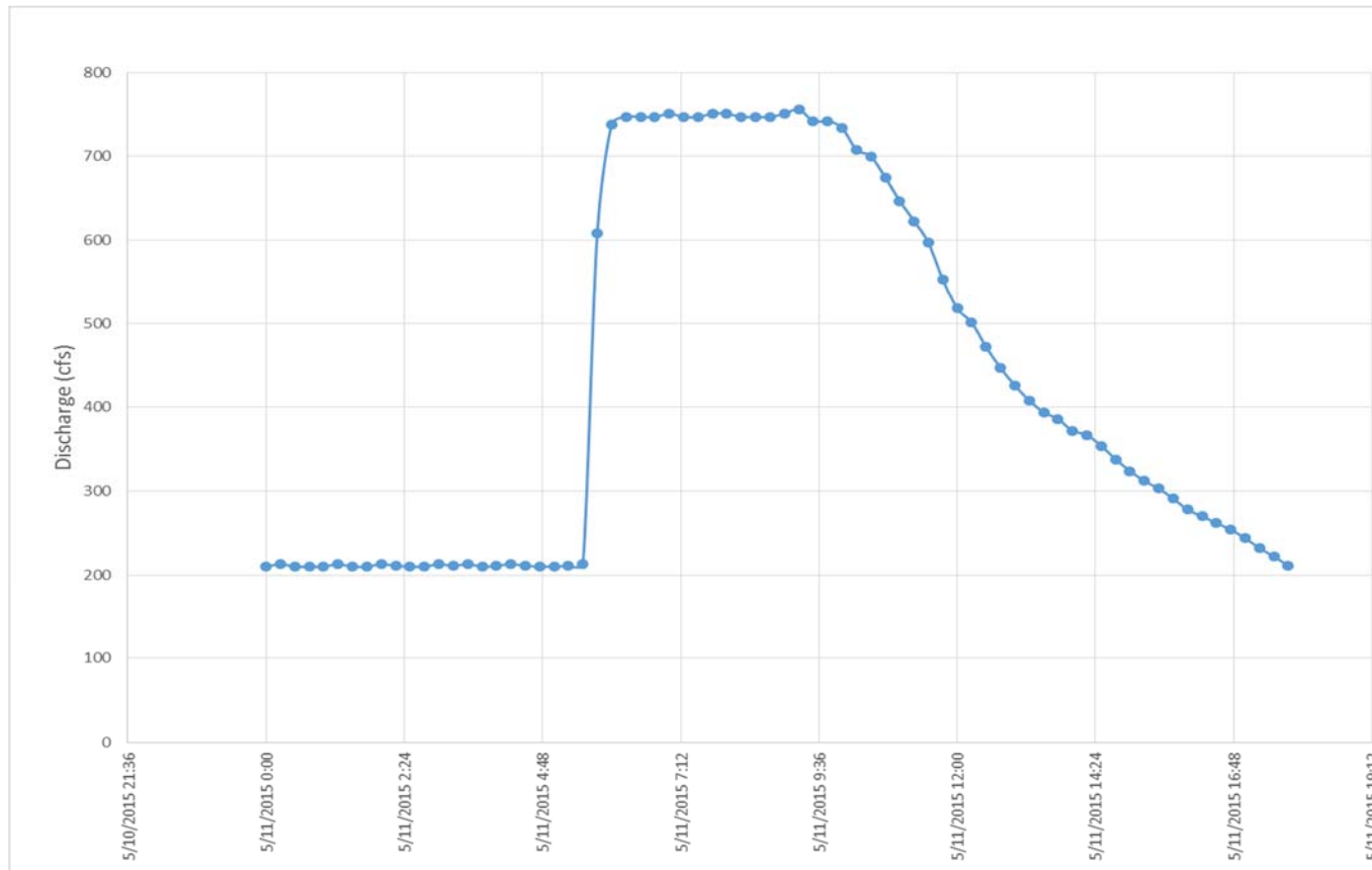


Figure 9. Sultan River immediately upstream of Powerhouse at RM 4.7 (lower Reach 2) – 05/11/2015.

3. SPADA LAKE RESERVOIR WATER SURFACE ELEVATIONS

During this reporting period, Spada Lake Reservoir mean daily water surface elevations ranged between 1,413.9 and 1,449.5 feet msl, with the low on October 11, 2014 and the high on November 29, 2014. Figure 10 displays the mean daily water surface elevations of Spada Lake Reservoir, and Appendix 1 contains the data in tabular format.

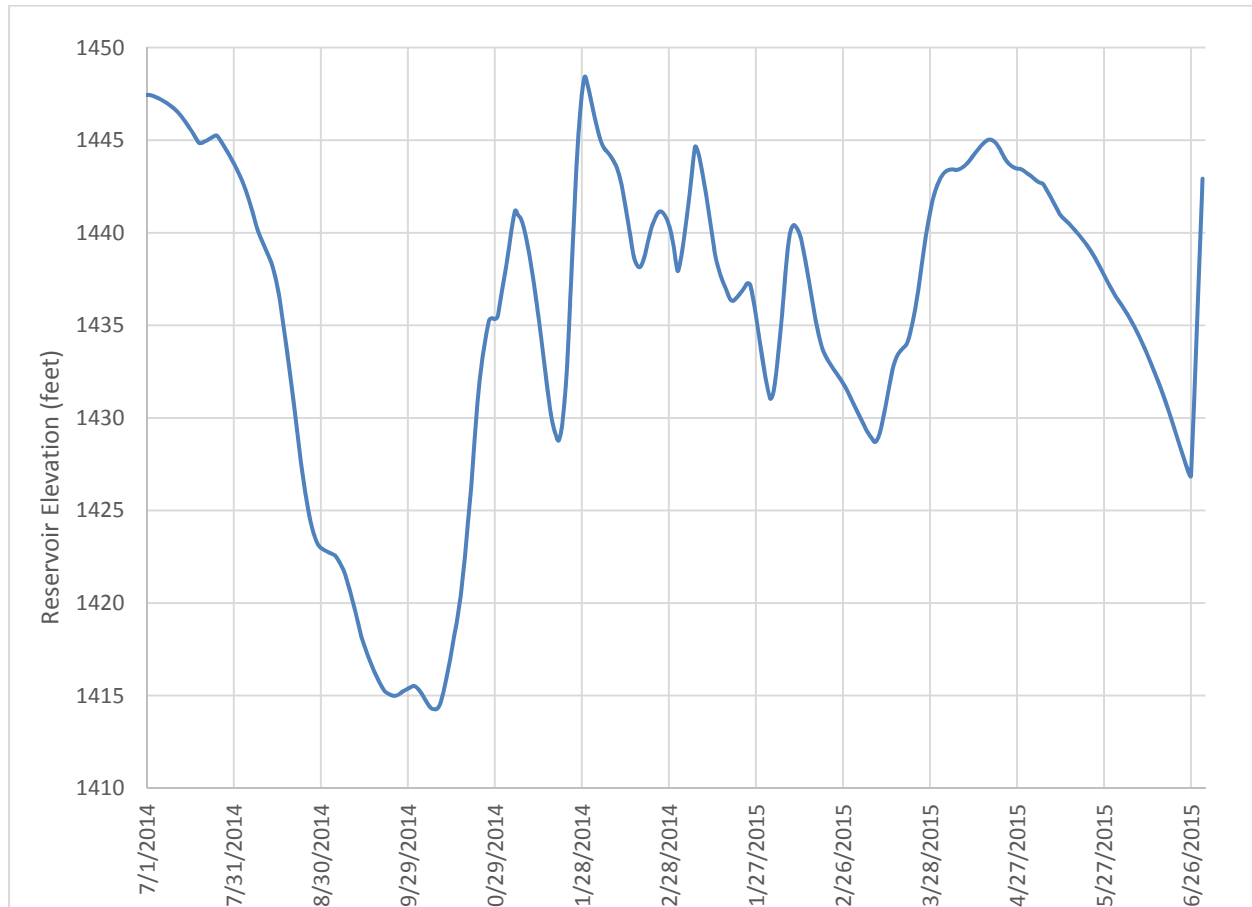


Figure 10. Mean daily water surface elevation, Spada Lake Reservoir, July 1, 2014 – June 30, 2015.

4. DEVIATIONS FROM STATE 3

License Article 406 requires:

When Spada Lake is in State 3, subject to meeting the (1) City of Everett's water supply requirements and other conditions of this license, the licensee shall maintain a minimum impoundment water surface elevation in Spada Lake above 1,430 feet mean sea level (msl), as measured at U.S. Geological Survey gage no. 12137300, Spada Lake near Startup, Washington, between July 1 and August 15. Until the temperature conditioning structure required by Appendix A, condition 5.2 (A-LA 3), and Appendix B, condition 2 (A-LA 3) is installed and operational (from license issuance until the earlier of (a) two

years after the date the District completes the Sultan River diversion dam's volitional fish passage modifications, described in A-LA 13 or (b) January 1, 2020), the licensee shall maintain a minimum impoundment water surface elevation in Spada Lake Reservoir at or above 1,420 feet msl from August 16 through September 15.⁸

No deviations to the FERC-prescribed target elevations occurred when the Spada Lake Reservoir was in State 3.

⁸ *Public Utility District No. 1 Of Snohomish County*, 137 FERC ¶ 61,221 (2011), Order Denying Rehearing And Granting Clarification, issued December 15, 2011.

Appendix 1

Spada Lake Reservoir Mean Daily Elevations Tabular Format

Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)
7/1	1447.4		8/1	1443.5		9/1	1422.8
7/2	1447.4		8/2	1443.1		9/2	1422.7
7/3	1447.4		8/3	1442.8		9/3	1422.6
7/4	1447.3		8/4	1442.3		9/4	1422.6
7/5	1447.3		8/5	1441.9		9/5	1422.3
7/6	1447.2		8/6	1441.4		9/6	1422.0
7/7	1447.1		8/7	1440.8		9/7	1421.7
7/8	1447.0		8/8	1440.3		9/8	1421.2
7/9	1446.9		8/9	1439.8		9/9	1420.7
7/10	1446.8		8/10	1439.5		9/10	1420.1
7/11	1446.6		8/11	1439.1		9/11	1419.5
7/12	1446.5		8/12	1438.7		9/12	1418.8
7/13	1446.3		8/13	1438.4		9/13	1418.2
7/14	1446.1		8/14	1437.9		9/14	1417.7
7/15	1445.8		8/15	1437.1		9/15	1417.3
7/16	1445.6		8/16	1436.2		9/16	1416.9
7/17	1445.4		8/17	1435.2		9/17	1416.5
7/18	1445.1		8/18	1434.1		9/18	1416.1
7/19	1444.9		8/19	1432.8		9/19	1415.8
7/20	1444.9		8/20	1431.6		9/20	1415.5
7/21	1444.9		8/21	1430.4		9/21	1415.2
7/22	1445.0		8/22	1429.1		9/22	1415.1
7/23	1445.1		8/23	1427.8		9/23	1415.0
7/24	1445.2		8/24	1426.6		9/24	1415.0
7/25	1445.3		8/25	1425.6		9/25	1415.0
7/26	1445.1		8/26	1424.8		9/26	1415.1
7/27	1444.8		8/27	1424.1		9/27	1415.2
7/28	1444.6		8/28	1423.5		9/28	1415.3
7/29	1444.3		8/29	1423.2		9/29	1415.4
7/30	1444.0		8/30	1423.0		9/30	1415.5
7/31	1443.8		8/31	1422.9			

Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)
10/1	1415.5		11/1	1437.3		12/1	1447.3
10/2	1415.5		11/2	1438.3		12/2	1446.5
10/3	1415.3		11/3	1439.3		12/3	1445.9
10/4	1415.1		11/4	1440.4		12/4	1445.2
10/5	1414.8		11/5	1441.2		12/5	1444.8
10/6	1414.5		11/6	1441.0		12/6	1444.5
10/7	1414.3		11/7	1440.8		12/7	1444.3
10/8	1414.3		11/8	1440.3		12/8	1444.1
10/9	1414.3		11/9	1439.6		12/9	1443.9
10/10	1414.5		11/10	1438.7		12/10	1443.5
10/11	1415.0		11/11	1437.8		12/11	1443.1
10/12	1415.7		11/12	1436.7		12/12	1442.3
10/13	1416.5		11/13	1435.5		12/13	1441.5
10/14	1417.3		11/14	1434.3		12/14	1440.5
10/15	1418.2		11/15	1433.0		12/15	1439.5
10/16	1419.1		11/16	1431.7		12/16	1438.7
10/17	1420.1		11/17	1430.5		12/17	1438.3
10/18	1421.4		11/18	1429.7		12/18	1438.1
10/19	1423.1		11/19	1429.1		12/19	1438.4
10/20	1424.8		11/20	1428.8		12/20	1439.0
10/21	1426.5		11/21	1429.4		12/21	1439.6
10/22	1428.8		11/22	1430.8		12/22	1440.3
10/23	1430.8		11/23	1433.0		12/23	1440.7
10/24	1432.4		11/24	1436.4		12/24	1441.0
10/25	1433.5		11/25	1439.8		12/25	1441.2
10/26	1434.4		11/26	1443.1		12/26	1441.1
10/27	1435.3		11/27	1445.7		12/27	1440.8
10/28	1435.4		11/28	1447.5		12/28	1440.4
10/29	1435.3		11/29	1448.4		12/29	1439.8
10/30	1435.5		11/30	1448.0		12/30	1438.9
10/31	1436.5					12/31	1437.9

Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)
1/1	1438.5		2/1	1431.0		3/1	1431.0
1/2	1439.5		2/2	1431.4		3/2	1430.7
1/3	1440.6		2/3	1432.4		3/3	1430.3
1/4	1441.9		2/4	1433.9		3/4	1430.0
1/5	1443.3		2/5	1435.5		3/5	1429.7
1/6	1444.6		2/6	1437.4		3/6	1429.4
1/7	1444.4		2/7	1439.2		3/7	1429.1
1/8	1443.7		2/8	1440.1		3/8	1428.9
1/9	1442.9		2/9	1440.4		3/9	1428.7
1/10	1441.9		2/10	1440.3		3/10	1428.9
1/11	1440.9		2/11	1440.0		3/11	1429.3
1/12	1439.8		2/12	1439.4		3/12	1430.1
1/13	1438.8		2/13	1438.6		3/13	1430.9
1/14	1438.1		2/14	1437.6		3/14	1431.7
1/15	1437.6		2/15	1436.7		3/15	1432.5
1/16	1437.2		2/16	1435.8		3/16	1433.1
1/17	1436.8		2/17	1435.0		3/17	1433.4
1/18	1436.4		2/18	1434.2		3/18	1433.6
1/19	1436.3		2/19	1433.7		3/19	1433.8
1/20	1436.4		2/20	1433.3		3/20	1434.0
1/21	1436.6		2/21	1433.1		3/21	1434.5
1/22	1436.8		2/22	1432.8		3/22	1435.2
1/23	1437.0		2/23	1432.6		3/23	1435.9
1/24	1437.3		2/24	1432.4		3/24	1436.9
1/25	1437.2		2/25	1432.1		3/25	1438.0
1/26	1436.5		2/26	1431.9		3/26	1439.2
1/27	1435.5		2/27	1431.6		3/27	1440.2
1/28	1434.5		2/28	1431.3		3/28	1441.0
1/29	1433.5					3/29	1441.8
1/30	1432.5					3/30	1442.3
1/31	1431.6					3/31	1442.7

Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)
4/1	1443.1		5/1	1443.2		6/1	1436.3
4/2	1443.2		5/2	1443.0		6/2	1436.1
4/3	1443.4		5/3	1442.9		6/3	1435.9
4/4	1443.4		5/4	1442.8		6/4	1435.6
4/5	1443.4		5/5	1442.7		6/5	1435.3
4/6	1443.4		5/6	1442.6		6/6	1435.1
4/7	1443.4		5/7	1442.4		6/7	1434.8
4/8	1443.5		5/8	1442.1		6/8	1434.5
4/9	1443.6		5/9	1441.8		6/9	1434.1
4/10	1443.8		5/10	1441.5		6/10	1433.8
4/11	1444.0		5/11	1441.2		6/11	1433.4
4/12	1444.2		5/12	1440.9		6/12	1433.0
4/13	1444.4		5/13	1440.8		6/13	1432.6
4/14	1444.6		5/14	1440.6		6/14	1432.2
4/15	1444.8		5/15	1440.5		6/15	1431.8
4/16	1444.9		5/16	1440.3		6/16	1431.4
4/17	1445.0		5/17	1440.1		6/17	1431.0
4/18	1445.0		5/18	1439.9		6/18	1430.5
4/19	1444.9		5/19	1439.8		6/19	1430.0
4/20	1444.8		5/20	1439.6		6/20	1429.6
4/21	1444.5		5/21	1439.4		6/21	1429.1
4/22	1444.3		5/22	1439.1		6/22	1428.6
4/23	1444.0		5/23	1438.9		6/23	1428.1
4/24	1443.8		5/24	1438.6		6/24	1427.6
4/25	1443.6		5/25	1438.3		6/25	1427.1
4/26	1443.5		5/26	1438.0		6/26	1426.9
4/27	1443.5		5/27	1437.7		6/27	1430.8
4/28	1443.5		5/28	1437.4		6/28	1434.7
4/29	1443.4		5/29	1437.1		6/29	1438.8
4/30	1443.3		5/30	1436.8		6/30	1442.9
			5/31	1436.6			

Appendix 2

Consultation Documentation Regarding Draft Report

Presler, Dawn

From: Presler, Dawn
Sent: Thursday, July 09, 2015 8:03 AM
To: 'Steven Fransen' (steven.m.fransen@noaa.gov); 'Tim_Romanski@fws.gov' (Tim_Romanski@fws.gov); 'Loren Everest - USFS' (leverest@fs.fed.us); Anne Savery; 'James (ECY) Pacheco' (JPAC461@ECY.WA.GOV); 'brock.applegate@dfw.wa.gov' (brock.applegate@dfw.wa.gov); 'Mike.Rustay@co.snohomish.wa.us'; Mick Matheson; 'Jim Miller' (JMiller@ci.everett.wa.us); Tom O'Keefe
Cc: Binkley, Keith
Subject: JHP (FERC No. 2157) - draft OCMP Annual Rpt for your 30-day review and comment period
Attachments: OCMP DRAFT Annual Report 2015.pdf

Dear ARC Members,
Attached is the draft Operation Compliance Monitoring Report for your review over the next 30 days. Please email me (with cc: to Keith) your comments, if any, by August 8, 2015. An email stating you have no comments on the plan is also appreciated. Thanks.

Dawn Presler
Sr. Environmental Coordinator
Generation Resources
(425) 783-1709

Public Utility District No. 1 of Snohomish County
PO Box 1107
Everett, WA 98206-1107

Presler, Dawn

From: Anne Savery <asavery@tulaliptribes-nsn.gov>
Sent: Friday, July 17, 2015 10:00 AM
To: Presler, Dawn; 'Steven Fransen' (steven.m.fransen@noaa.gov); 'Tim_Romanski@fws.gov' (Tim_Romanski@fws.gov); 'Loren Everest - USFS' (leverest@fs.fed.us); 'James (ECY) Pacheco' (JPAC461@ECY.WA.GOV); 'brock.applegate@dfw.wa.gov' (brock.applegate@dfw.wa.gov); 'Mike.Rustay@co.snohomish.wa.us'; Mick Matheson; 'Jim Miller' (JMiller@ci.everett.wa.us); Tom O'Keefe
Cc: Binkley, Keith
Subject: RE: JHP (FERC No. 2157) - draft OCMP Annual Rpt for your 30-day review and comment period
Attachments: OCMP DRAFT Annual Report 2015_TTT comments.pdf

Follow Up Flag: Follow up
Due By: Friday, August 14, 2015 9:30 AM
Flag Status: Flagged

Dawn
Here are the Tribes comments.
Thanks
Anne

Anne Savery
Hydrologist
503-984-0667

From: Presler, Dawn [DJPresler@SNOPUD.com]
Sent: Thursday, July 09, 2015 8:02 AM
To: 'Steven Fransen' (steven.m.fransen@noaa.gov); 'Tim_Romanski@fws.gov' (Tim_Romanski@fws.gov); 'Loren Everest - USFS' (leverest@fs.fed.us); Anne Savery; 'James (ECY) Pacheco' (JPAC461@ECY.WA.GOV); 'brock.applegate@dfw.wa.gov' (brock.applegate@dfw.wa.gov); 'Mike.Rustay@co.snohomish.wa.us'; Mick Matheson; 'Jim Miller' (JMiller@ci.everett.wa.us); Tom O'Keefe
Cc: Binkley, Keith
Subject: JHP (FERC No. 2157) - draft OCMP Annual Rpt for your 30-day review and comment period

Dear ARC Members,
Attached is the draft Operation Compliance Monitoring Report for your review over the next 30 days. Please email me (with cc: to Keith) your comments, if any, by August 8, 2015. An email stating you have no comments on the plan is also appreciated. Thanks.

Dawn Presler
Sr. Environmental Coordinator
Generation Resources
(425) 783-1709

Public Utility District No. 1 of Snohomish County PO Box 1107 Everett, WA 98206-1107


Table 1. Process Flow Log, July 2014 – June 2015.

Date ¹	Time ²	Magnitude ³ (cfs)	Duration ⁴ (hours)	Accretion ⁵ (cfs)	Notes ⁶	Counts as PF Type ⁷
9/12/14	06:45 to 14:00	R1 – 1,606 (average), range: 1,500 to 1,760 cfs	7.25 hours		Reference Figure 2	FL, U
9/12/14	04:30 to 10:30	R2 – 523 (average), range: 469 to 536 cfs	6 hours		Reference Figure 3 – note that figure does not include estimated accretion in Reach 2 of 32 cfs at time of release	FL, U
9/12/14	02:00 to 08:00	R3 – 509 (average), range: 455 to 522 cfs	6 hours		Reference Figure 3 – note that accretion in Reach 3 at time of release was estimated at 14 cfs	FL, U
11/4/14 to 11/5/14	19:00 to 19:00	R1 – 4,088 (average), range: 3,810 to 4,540 cfs	24 hours	R1- cumulative accretion measured at Powerhouse: 800 to 1,400 cfs	Reference Figure 4 -	CM
4/25/15	14:45 to 0:00 (4/26/15)	R1 – 1,126 (average), range: 808 to 1,450 cfs	9.5 hours		Reference Figure 5	O
4/25/15	14:45 to 21:00	R2 – 805 (average), range: 501 to 1,013 cfs	6.25 hours @ greater than 500 cfs		Reference Figure 6	FL, O
4/25/15	13:15 to 17:00	R3 – 786 (average), range: 631 to 830 cfs	3.75 hours @ greater than 600 cfs		Reference Figure 7	FL
5/11/15	04:45 to 12:30	R1 – 1,863 (average),	7.75 hours greater		Reference Figure 8	FL, O

¹ Start Date of Event (MM/DD/YYYY)² Start Time to End Time³ Magnitude of the Event for Each Compliance Location (R1-Reach 1, R2-Reach 2, R3-Reach 3)⁴ Duration of Event⁵ Portion of Event Attributed to Accretion Flows⁶ Notes of Day's Event, Sequencing with Other Flow Events/Maintenance⁷ Channel Forming (CF), Channel Maintenance (CM), Flushing (FL), Outmigration (O), Upmigration (U) as defined in the PF Plan

Summary of Comments on Microsoft Word - OCMP Annual Report 2015

Page: 1

 Number: 1 Author: Owner Subject: Sticky Note Date: 7/17/2015 9:54:54 AM

If possible, should start these flows later for higher percentage of night time outmigration opportunity. In this instance in Reach 1, the peak flow is reached at 3 and ends at 6 and the night time outmigration opportunity is on the descending limb of the hydrograph. Preferably the peak would occur after dark on one of the outmigration flows per year.

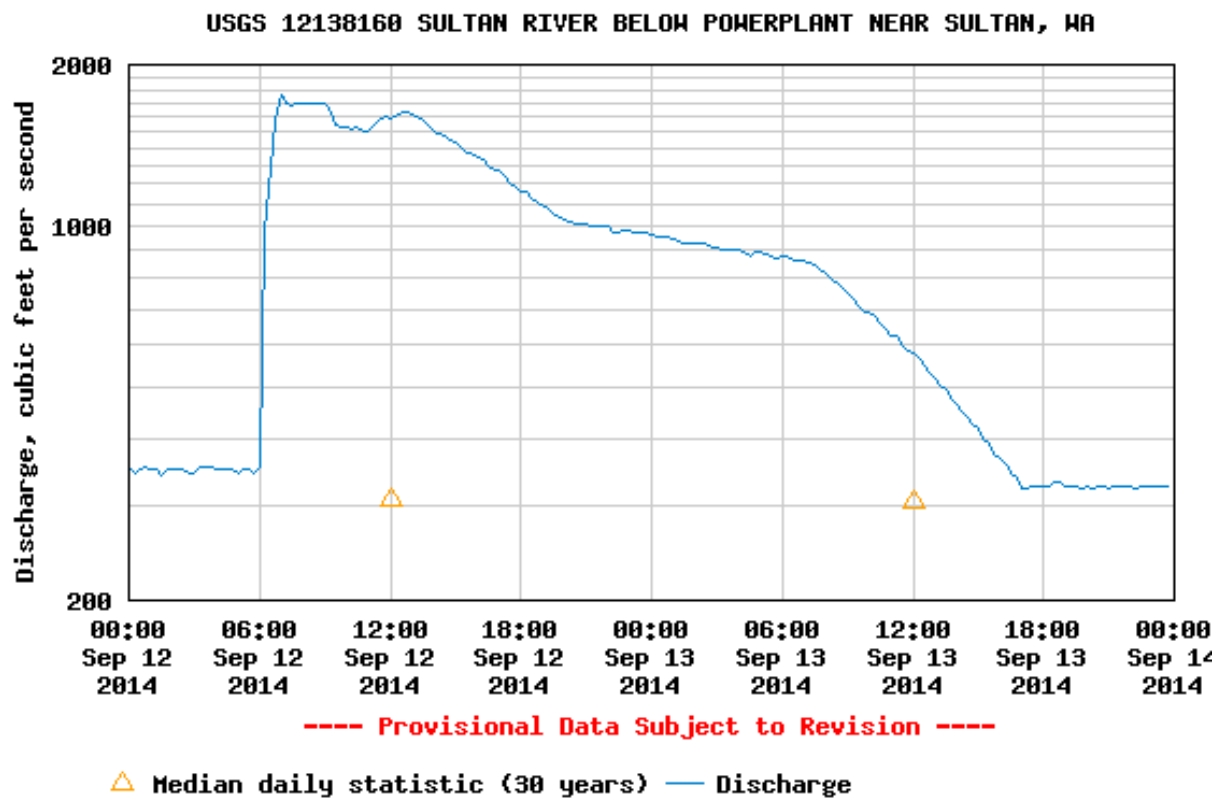



Figure 2. Sultan River below Powerplant hydrograph – 9/12/2014 to 9/13/2014.

 Number: 1 Author: Owner Subject: Sticky Note Date: 7/17/2015 9:51:19 AM

It would be helpful to label with the Reach number and the type of process flow applicable to allow reader to review without referring back to Table 1.

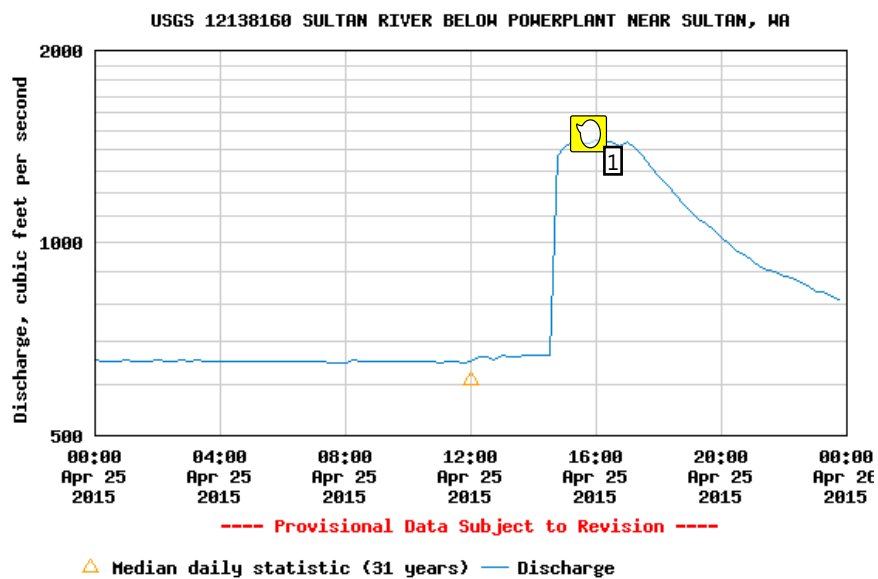



Figure 5. Sultan River below Powerplant hydrograph – 04/25/2015.

 Number: 1 Author: Owner Subject: Sticky Note Date: 7/17/2015 9:56:15 AM
Peak outmigration flow from 3-6, would be preferable to see this peak at night (darkness) for one of the outmigration flow.

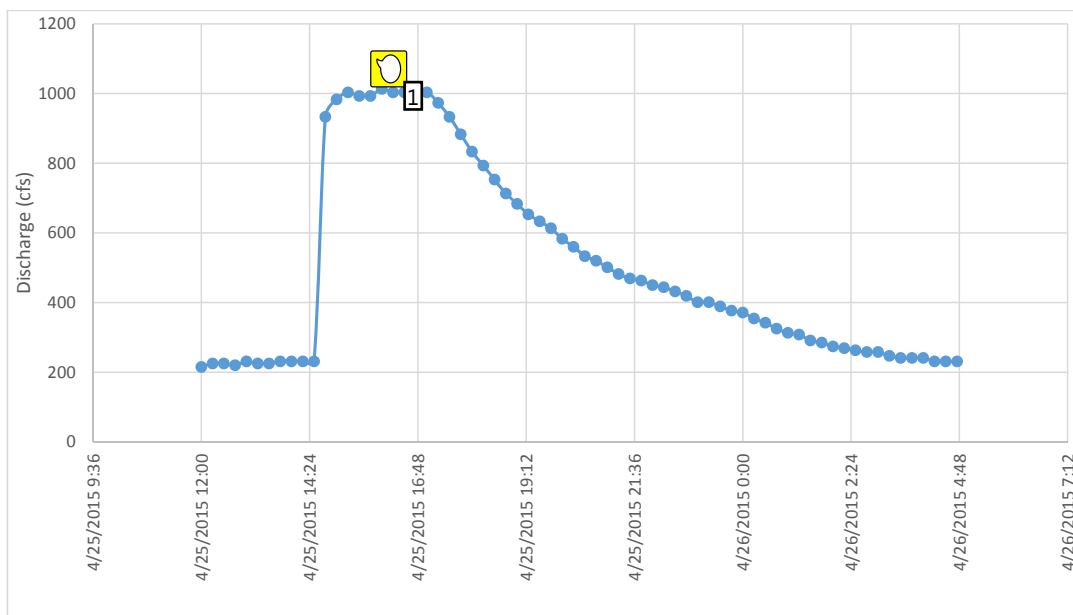


Figure 6. Sultan River immediately upstream of Powerhouse at RM 4.7 – 04/25/2015.



Number: 1 Author: Owner Subject: Sticky Note Date: 7/17/2015 9:56:52 AM

Same comment as above.

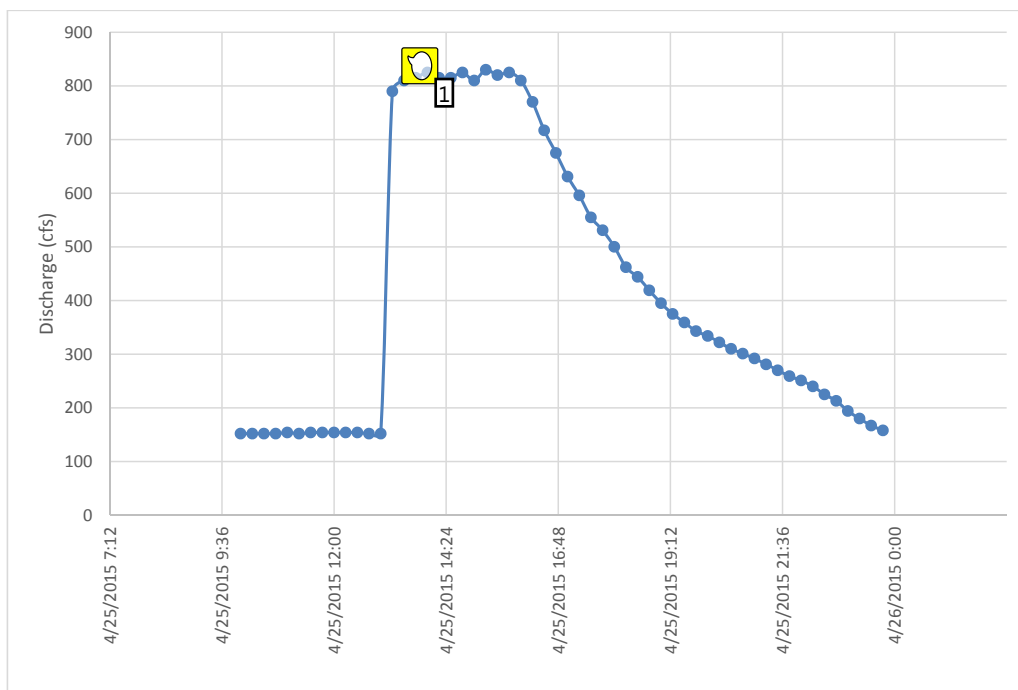


Figure 7. Sultan River immediately upstream of Diversion Dam hydrograph – 04/25/2015.



Number: 1

Author: Owner

Subject: Sticky Note

Date: 7/17/2015 9:57:25 AM

Same comment as above, different reach.

Appendix 3

Responses to Comments Regarding Draft Report

No.	ARC Comment	District Response
Tulalip Tribes, via email dated July 17, 2015		
1	Table 1. 4/25/15 14:45 to 0:00 If possible, should start these flows later for higher percentage of night time outmigration opportunity. In this instance in Reach 1, the peak flow is reached at 3 and ends at 6 and the night time outmigration opportunity is on the descending limb of the hydrograph. Preferably the peak would occur after dark on one of the outmigration flows per year.	Existing data indicate that outmigration flows are generally more effective when they occur at night. The District agrees that peak of the outmigration flow should occur after dark for one of the outmigration flows per year.
2	Figure 2. It would be helpful to label with the Reach number and the type of process flow applicable to allow reader to review without referring back to Table 1.	Figure titles have been revised in the final report.
3	Figure 5. Peak outmigration flow from 3-6, would be preferable to see this peak at night (darkness) for one of the outmigration flow.	See District's response to Comment No. 1.
4	Figure 6. Same comment as above.	See District's response to Comment No. 1.
5	Figure 7. Same comment as above, different reach.	See District's response to Comment No. 1.