



Your Northwest renewables utility

September 12, 2013

VIA ELECTRONIC FILING

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

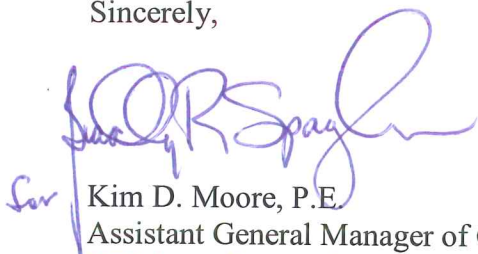
**Re: Jackson Hydroelectric Project, FERC No. 2157
Operation Compliance Monitoring Plan Annual Report
License Article 407**

Dear Secretary Bose:

Enclosed is Public Utility District No. 1 of Snohomish County's Operation Compliance Monitoring Plan Annual Report pursuant to License Article 407 for the Jackson Hydroelectric Project. The draft report was provided to the Aquatic Resource Committee prior to this filing; no comments were received. Documentation of consultation is included in the report's Appendix 2.

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

Sincerely,



Kim D. Moore, P.E.
Assistant General Manager of Generation, Water, and Corporate Services
KDMoore@snopud.com
(425) 783-8606

Enclosed: OCMP Annual Report

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

Operation Compliance Monitoring Plan
(License Article 407)

**Annual Report for Water Year
July 2012 – June 2013**



Prepared By:



Everett, WA

September 2013

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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 2012 – June 2013.

A copy of the draft report was provided to National Marine Fisheries Service, the 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 30-day review and comment period; no comments were received.

Spada Lake Reservoir data in tabular format are included in Appendix 1. Consultation with the ARC is included in Appendix 2

2. PROCESS FLOWS

The District provided process flow events pursuant to the PF Plan on three occasions during the July 2012 – June 2013 timeframe to serve multiple habitat benefits. These included an event during the fall for flushing of surficial fine sediment from the streambed and stimulation of the upstream migration of spawning adults, an event during the spring to aid in flushing of fine sediment, and a second event in the spring to assist in the outmigration of juvenile fish. The process flow events for the Sultan River are summarized below in Table 1 for each reach; reaches are identified in Figure 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 9.

Table 1. Process Flow Log, July 2012 - June 2013.

Date ¹	Time ²	Magnitude ³ (cfs)	Duration ⁴ (hours)	Accretion ⁵ (cfs)	Notes ⁶	Counts as PF Type ⁷
9/14/2012	4:45- 11:00	R1 – 1,323 (average), range: 1,200 to 1,430	6.25 hours		Reservoir at 1,421 feet msl. In consultation with ARC, implemented 1,200 cfs release due to current and forecasted dry conditions. Reference Figure 2	F, U
9/14/2012	04:30- 11:15	R2 – 681 (average), range: 544 to 763	6.75 hours		Reference Figure 3	F, U
9/14/2012	2:30- 8:45	R3 – 627 (average), range: 505 to 698	6.25 hours		Reference Figure 4	F
4/9/2013	Multiple Days	R1 – 1,679 (average), range: 1,530 and 2,060	>240 hours (10 days)	R1 – variable over period, estimated between 100 and 400 cfs cumulative	Reference Figure 5	F, O
4/9/2013	11:45 to 18:00	R2 – 663 (average), range: 626 to 696	6.25 hours	R2 – variable during release, estimated between 175 and 200 cfs	Reference Figure 6	F, O
4/9/2013	10:15 to 16:15	R3 – 523 (average), range: 505 to 553	6 hours	R3 – variable during release, estimated between 110 and 150 cfs within reach	Reference Figure 7	F
5/6/2013 to 5/7/2013	23:30 to 05:30	R2 – 612 (average), range: 493 to 628	6 hours		Reference Figure 8	O
5/1/2013 to 5/8/2013	Multiple Days	R1 – 891 (average), range: 838 to 1,310	>176 hours (7.33 days)		Reference Figure 9	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 (F), Outmigration (O), Upmigration (U) as defined in the PF Plan

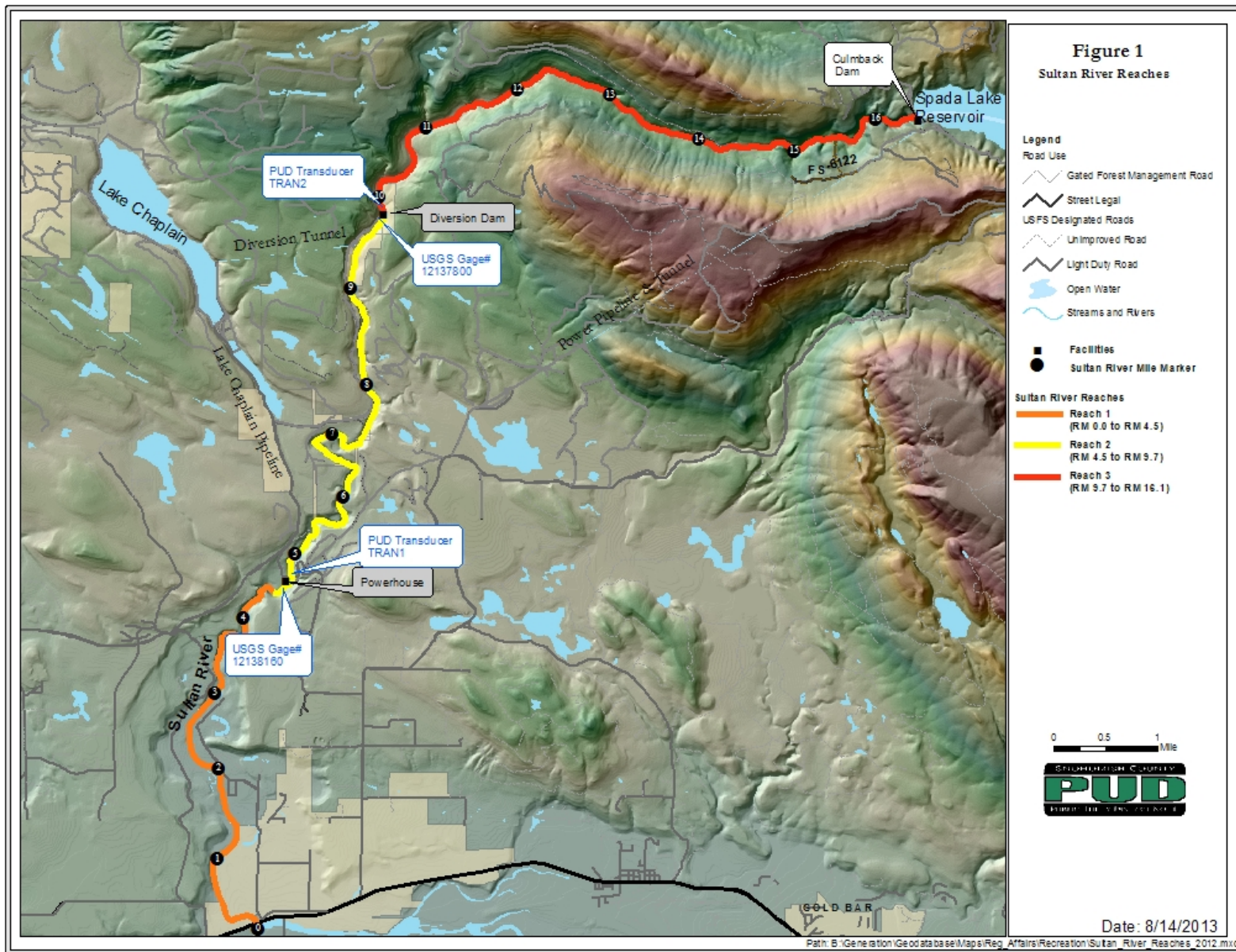


Figure 1. Sultan River reaches.

Hydrograph for September 14, 2012, Reach 1 of Sultan River

USGS 12138160 SULTAN RIVER BELOW POWERPLANT NEAR SULTAN, WA

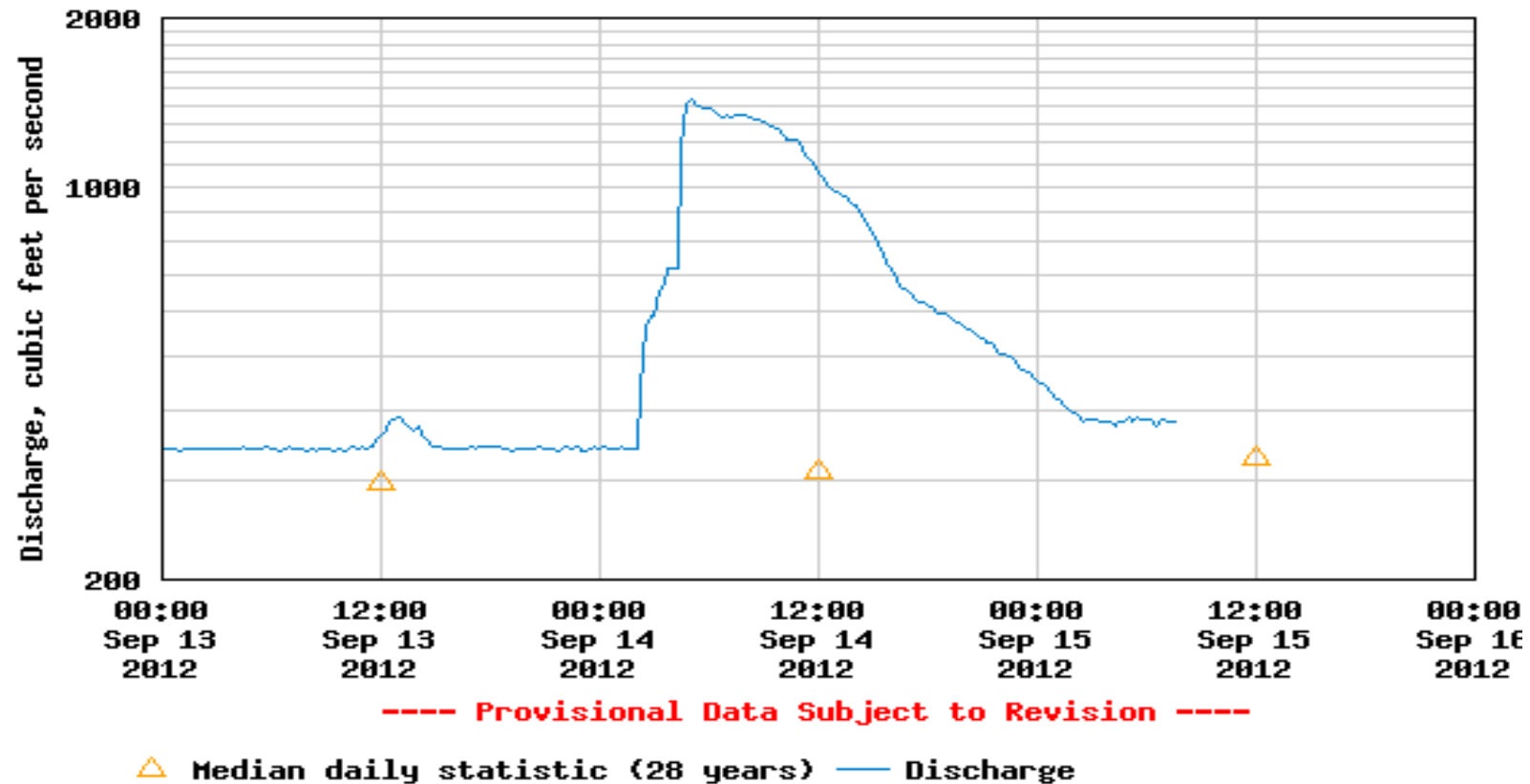


Figure 2. Sultan River below Powerhouse hydrograph, 9/13/2012 to 9/15/2012.

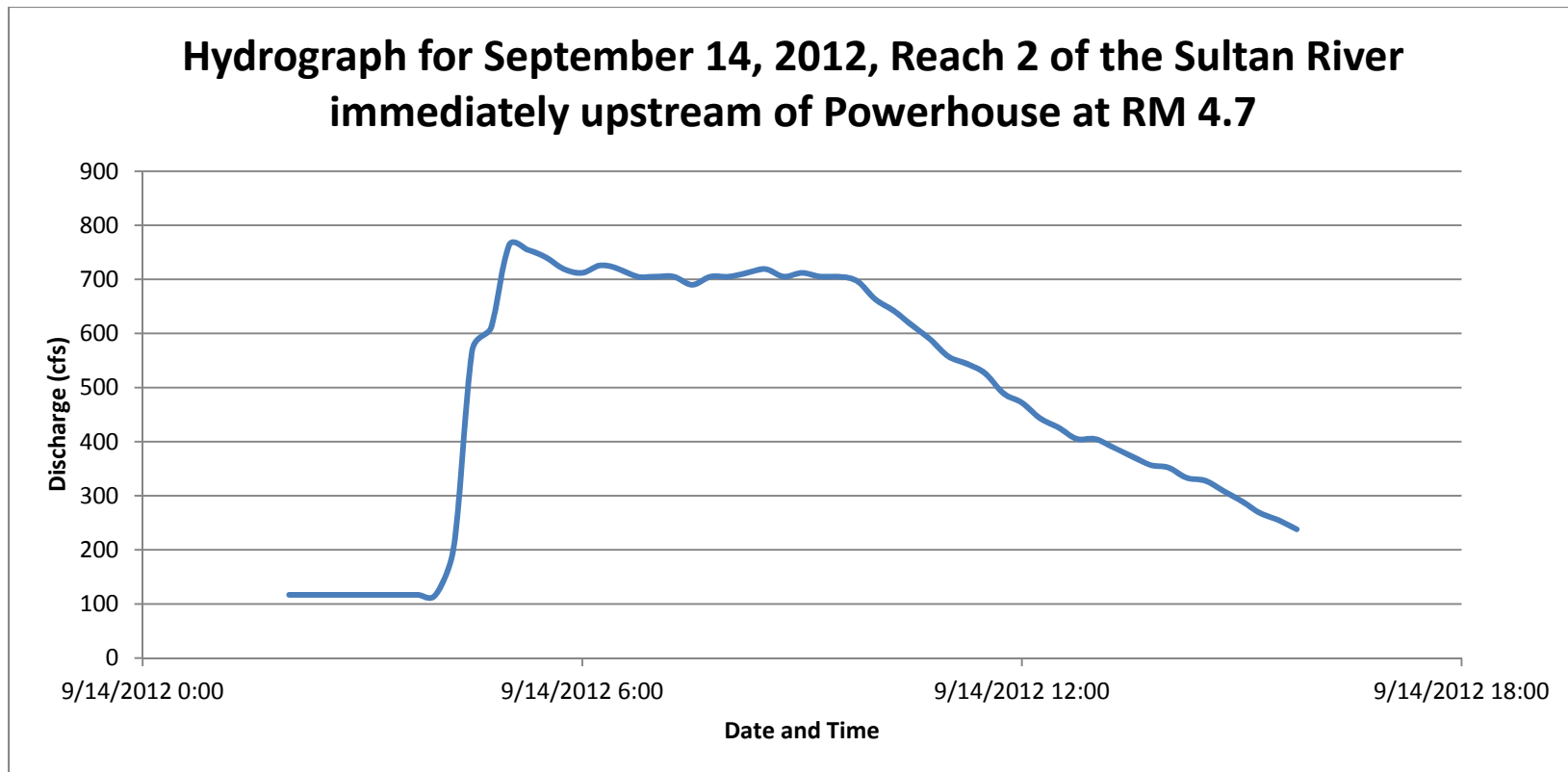


Figure 3. Sultan River, immediately upstream of the Powerhouse at RM 4.7 hydrograph, 9/14/12.

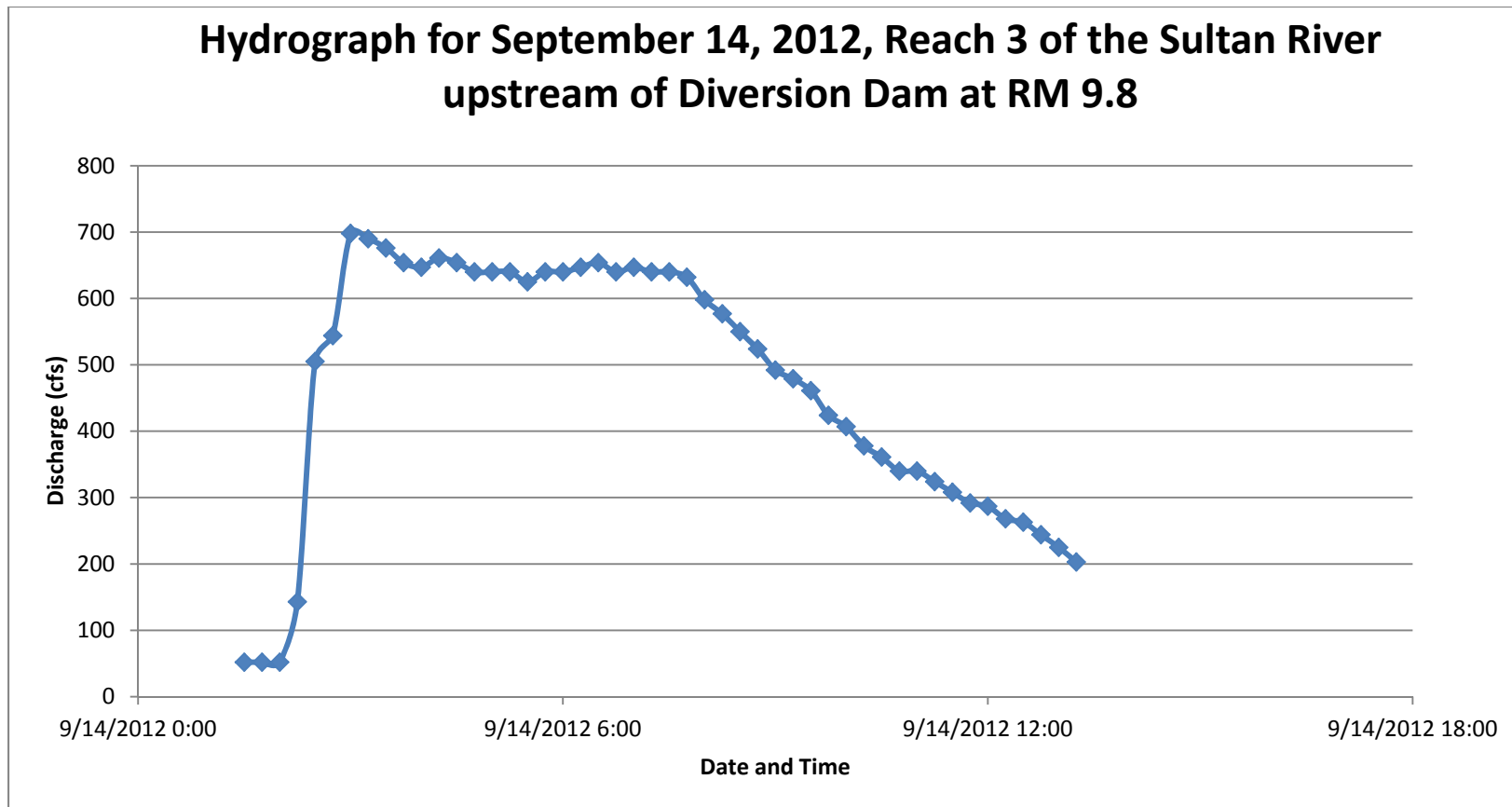


Figure 4. Sultan River, immediately upstream of the City's Diversion Dam at RM 9.8, hydrograph – 9/14/12.

Hydrograph for April 9, 2013, Reach 1 of Sultan River

USGS 12138160 SULTAN RIVER BELOW POWERPLANT NEAR SULTAN, WA

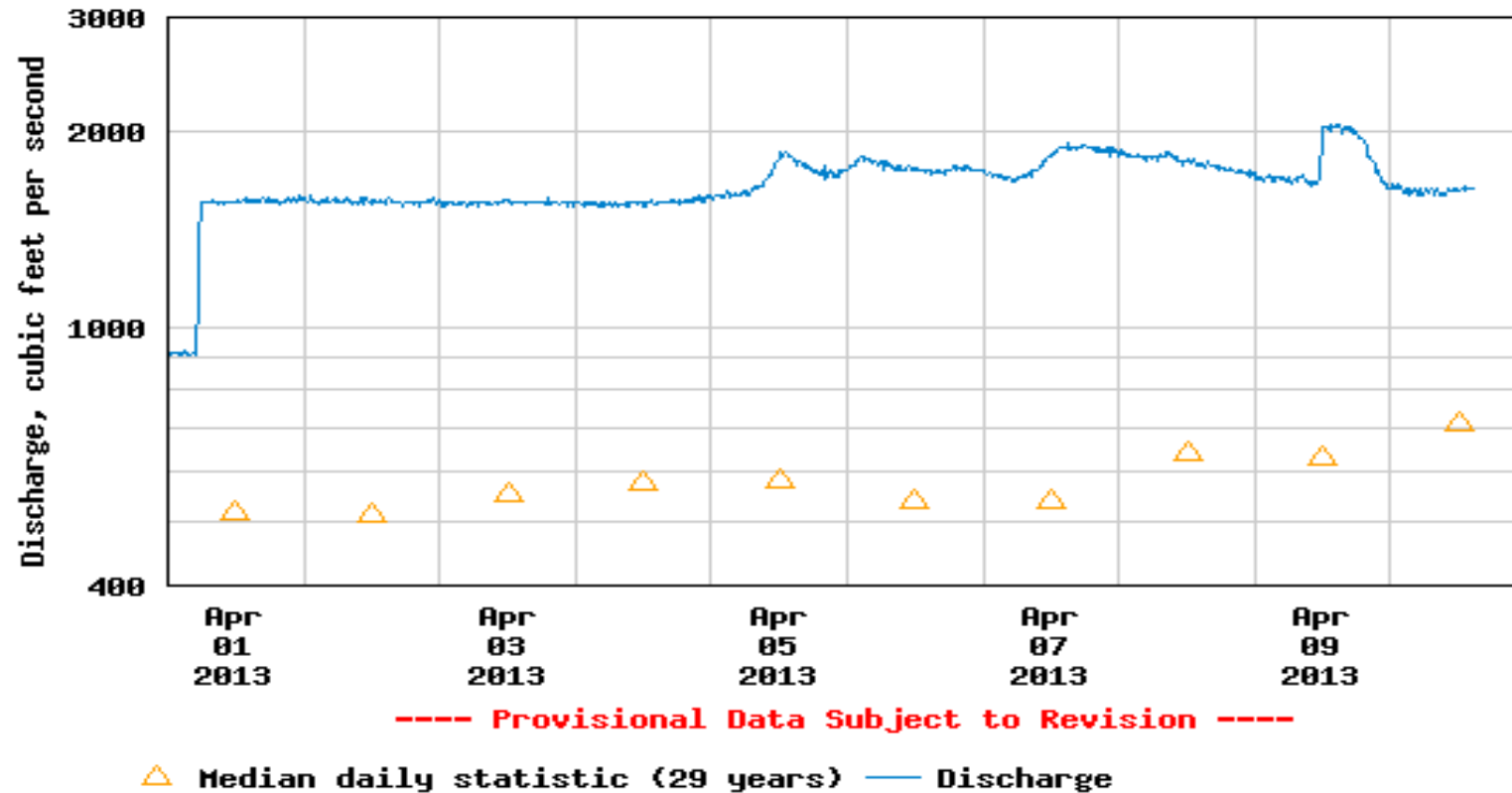


Figure 5. Sultan River below Powerhouse hydrograph – 4/1/2013 to 4/10/2013.

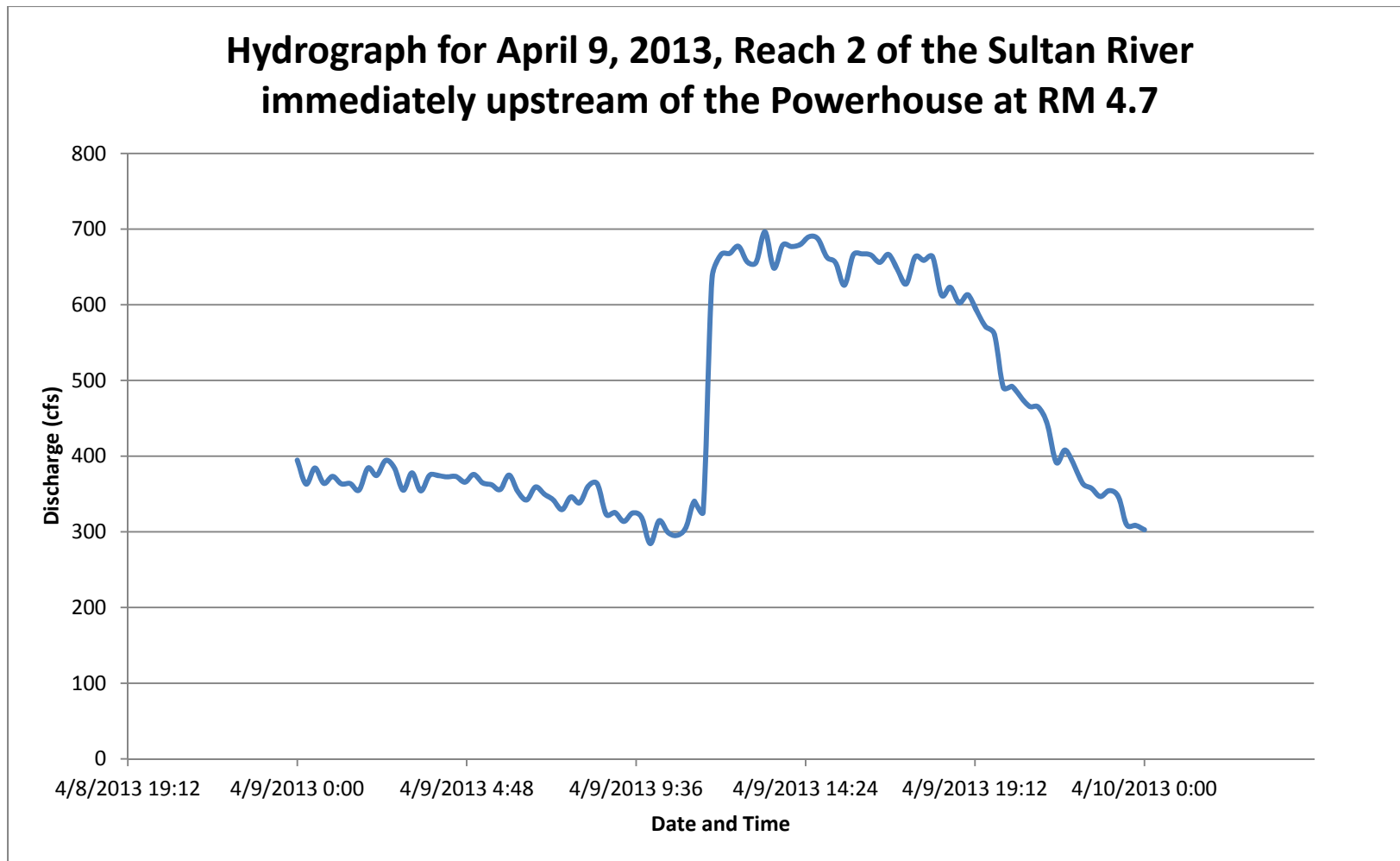


Figure 6. Sultan River, immediately upstream of Powerhouse, at RM 4.7 hydrograph – 4/9/2013.

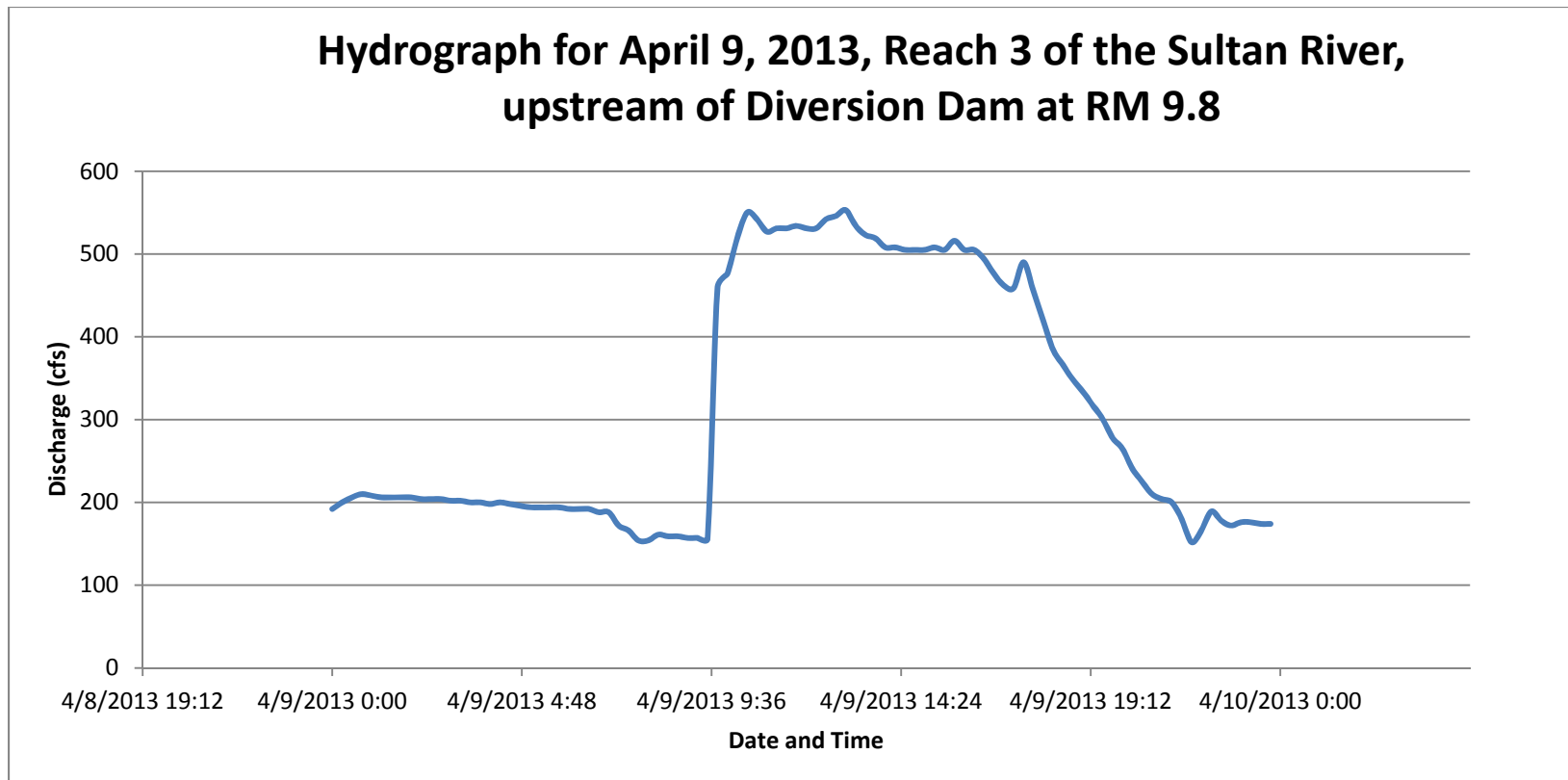


Figure 7. Sultan River, immediately upstream of the City's Diversion Dam at RM 9.8 – 4/9/2013.

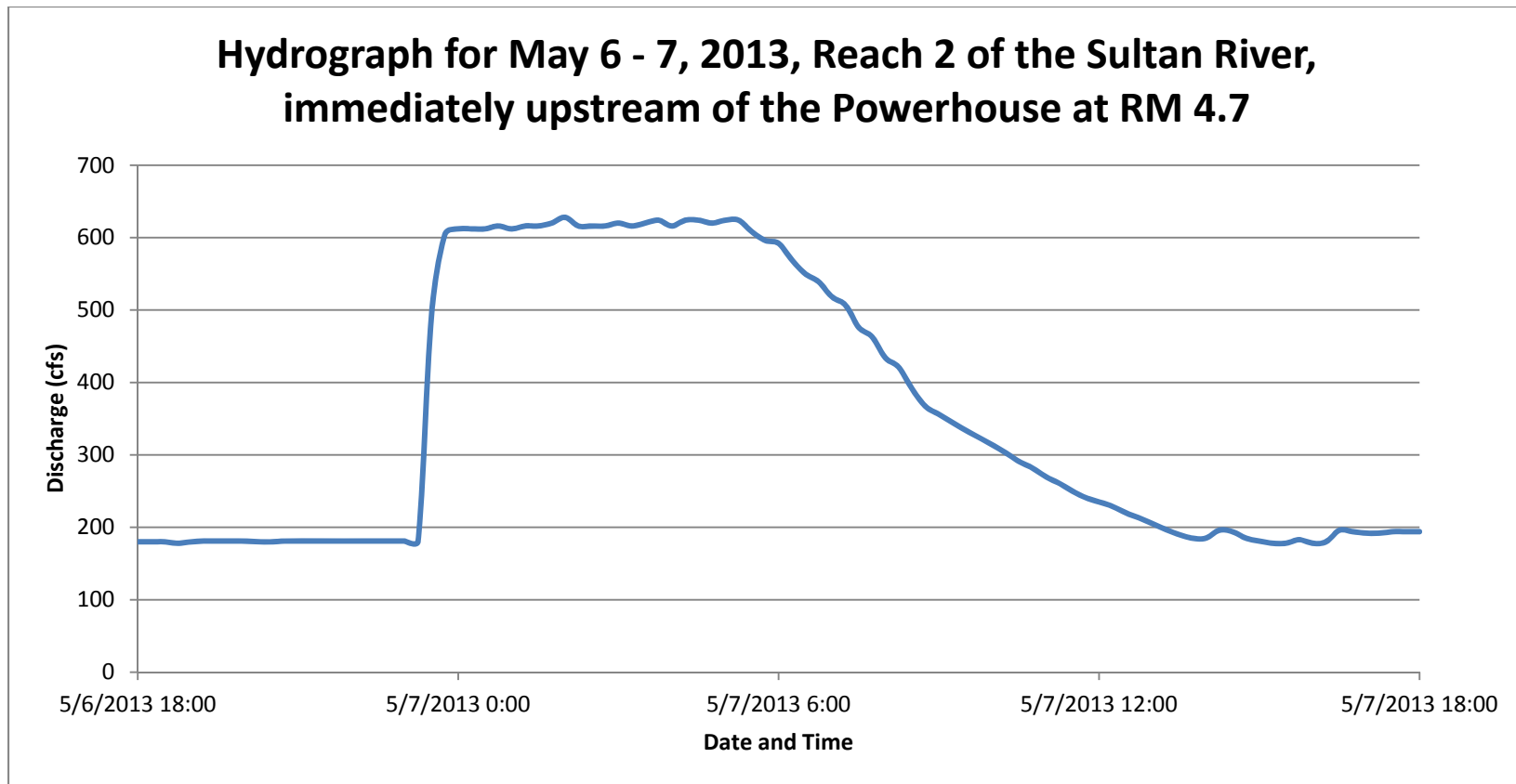


Figure 8. Sultan River immediately upstream of Powerhouse, at RM 4.7 hydrograph – 5/6/2013 to 5/7/2013.

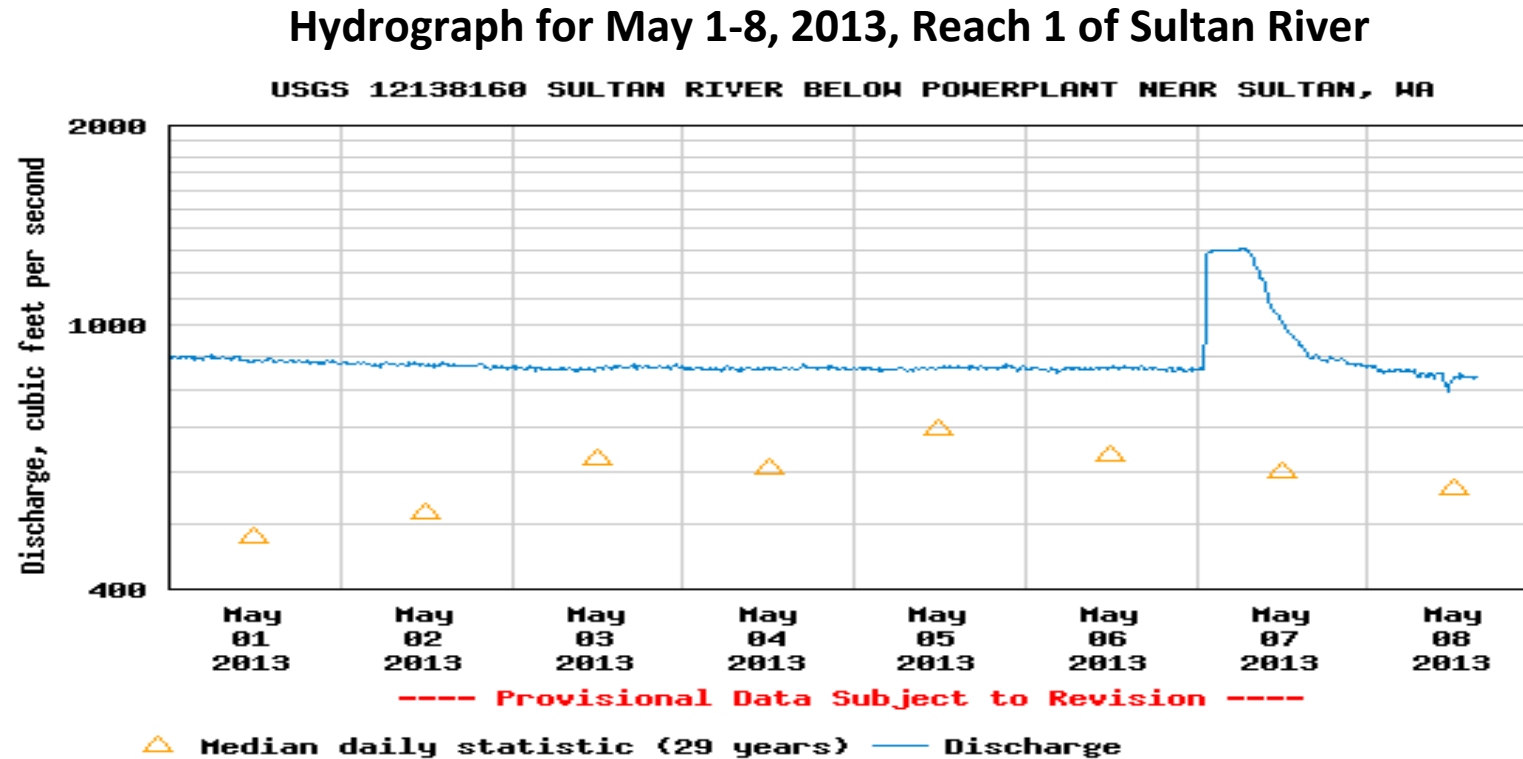


Figure 9. Sultan River below Powerhouse hydrograph, 5/1/2013 to 5/8/2013.

3. SPADA LAKE RESERVOIR WATER SURFACE ELEVATIONS

During this reporting period, Spada Lake Reservoir mean daily water surface elevations ranged between 1,407.0 and 1,446.5 feet msl, with the high occurring on July 11 and the low on October 13. Figure 10 displays the mean daily water surface elevations of Spada Lake Reservoir, and Appendix 1 contains the data in tabular format.

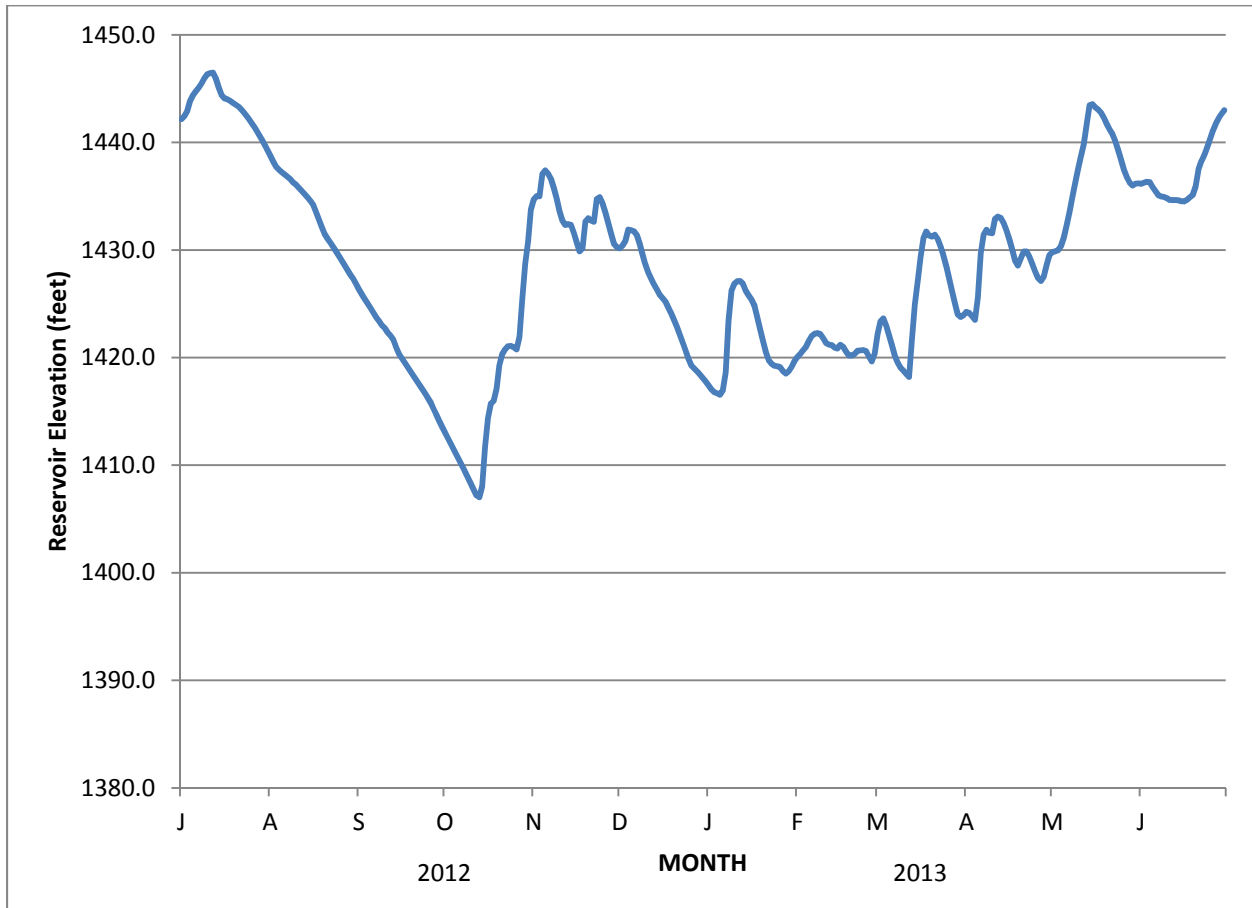


Figure 10. Mean daily water surface elevation, Spada Reservoir, July 1, 2012 - June 30, 2013.

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	1442.2		8/1	1438.8		9/1	1426.3
7/2	1442.4		8/2	1438.2		9/2	1425.9
7/3	1442.9		8/3	1437.8		9/3	1425.4
7/4	1443.8		8/4	1437.5		9/4	1425.0
7/5	1444.4		8/5	1437.2		9/5	1424.6
7/6	1444.7		8/6	1437.0		9/6	1424.2
7/7	1445.1		8/7	1436.8		9/7	1423.7
7/8	1445.5		8/8	1436.6		9/8	1423.4
7/9	1446.0		8/9	1436.3		9/9	1423.0
7/10	1446.3		8/10	1436.1		9/10	1422.7
7/11	1446.5		8/11	1435.8		9/11	1422.3
7/12	1446.5		8/12	1435.5		9/12	1422.0
7/13	1446.0		8/13	1435.2		9/13	1421.6
7/14	1445.1		8/14	1434.9		9/14	1420.9
7/15	1444.4		8/15	1434.6		9/15	1420.3
7/16	1444.1		8/16	1434.2		9/16	1419.9
7/17	1444.0		8/17	1433.6		9/17	1419.5
7/18	1443.9		8/18	1432.9		9/18	1419.1
7/19	1443.7		8/19	1432.1		9/19	1418.7
7/20	1443.5		8/20	1431.5		9/20	1418.3
7/21	1443.3		8/21	1431.1		9/21	1417.9
7/22	1443.0		8/22	1430.7		9/22	1417.5
7/23	1442.8		8/23	1430.3		9/23	1417.1
7/24	1442.4		8/24	1429.9		9/24	1416.7
7/25	1442.0		8/25	1429.4		9/25	1416.3
7/26	1441.6		8/26	1429.0		9/26	1415.8
7/27	1441.2		8/27	1428.6		9/27	1415.2
7/28	1440.8		8/28	1428.1		9/28	1414.7
7/29	1440.3		8/29	1427.7		9/29	1414.1
7/30	1439.8		8/30	1427.3		9/30	1413.6
7/31	1439.3		8/31	1426.8			

Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)
10/1	1413.0		11/1	1434.7		12/1	1430.2
10/2	1412.5		11/2	1435.0		12/2	1430.4
10/3	1412.0		11/3	1435.0		12/3	1430.9
10/4	1411.5		11/4	1437.1		12/4	1431.9
10/5	1411.0		11/5	1437.4		12/5	1431.8
10/6	1410.5		11/6	1437.1		12/6	1431.7
10/7	1409.9		11/7	1436.6		12/7	1431.4
10/8	1409.4		11/8	1435.8		12/8	1430.5
10/9	1408.8		11/9	1434.7		12/9	1429.6
10/10	1408.3		11/10	1433.6		12/10	1428.6
10/11	1407.8		11/11	1432.8		12/11	1427.8
10/12	1407.2		11/12	1432.3		12/12	1427.3
10/13	1407.0		11/13	1432.4		12/13	1426.8
10/14	1408.0		11/14	1432.3		12/14	1426.3
10/15	1411.7		11/15	1431.6		12/15	1425.8
10/16	1414.4		11/16	1430.7		12/16	1425.5
10/17	1415.7		11/17	1429.9		12/17	1425.2
10/18	1416.0		11/18	1430.2		12/18	1424.6
10/19	1417.1		11/19	1432.6		12/19	1424.1
10/20	1419.3		11/20	1433.0		12/20	1423.5
10/21	1420.3		11/21	1432.7		12/21	1422.8
10/22	1420.8		11/22	1432.6		12/22	1422.1
10/23	1421.1		11/23	1434.7		12/23	1421.4
10/24	1421.1		11/24	1434.9		12/24	1420.7
10/25	1421.0		11/25	1434.3		12/25	1419.9
10/26	1420.8		11/26	1433.5		12/26	1419.3
10/27	1421.9		11/27	1432.5		12/27	1419.0
10/28	1425.5		11/28	1431.5		12/28	1418.7
10/29	1428.7		11/29	1430.6		12/29	1418.4
10/30	1430.8		11/30	1430.3		12/30	1418.1
10/31	1433.7					12/31	1417.8

Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)
1/1	1417.4		2/1	1420.1		3/1	1422.2
1/2	1417.0		2/2	1420.3		3/2	1423.4
1/3	1416.8		2/3	1420.7		3/3	1423.6
1/4	1416.7		2/4	1421.0		3/4	1423.0
1/5	1416.5		2/5	1421.5		3/5	1422.1
1/6	1417.0		2/6	1422.0		3/6	1421.1
1/7	1418.6		2/7	1422.2		3/7	1420.2
1/8	1423.4		2/8	1422.3		3/8	1419.6
1/9	1426.2		2/9	1422.2		3/9	1419.1
1/10	1426.9		2/10	1421.8		3/10	1418.8
1/11	1427.1		2/11	1421.3		3/11	1418.5
1/12	1427.1		2/12	1421.2		3/12	1418.2
1/13	1426.9		2/13	1421.2		3/13	1421.7
1/14	1426.2		2/14	1420.9		3/14	1424.9
1/15	1425.8		2/15	1420.9		3/15	1427.1
1/16	1425.4		2/16	1421.2		3/16	1429.4
1/17	1424.9		2/17	1421.0		3/17	1431.1
1/18	1423.8		2/18	1420.6		3/18	1431.7
1/19	1422.6		2/19	1420.2		3/19	1431.4
1/20	1421.5		2/20	1420.2		3/20	1431.2
1/21	1420.5		2/21	1420.3		3/21	1431.4
1/22	1419.7		2/22	1420.6		3/22	1431.0
1/23	1419.4		2/23	1420.7		3/23	1430.3
1/24	1419.2		2/24	1420.7		3/24	1429.5
1/25	1419.2		2/25	1420.6		3/25	1428.5
1/26	1419.1		2/26	1420.1		3/26	1427.3
1/27	1418.7		2/27	1419.6		3/27	1426.2
1/28	1418.5		2/28	1420.4		3/28	1425.0
1/29	1418.7					3/29	1424.0
1/30	1419.1					3/30	1423.8
1/31	1419.7					3/31	1423.9

Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)		Date	Reservoir Elevation (feet)
4/1	1424.3		5/1	1429.8		6/1	1436.1
4/2	1424.1		5/2	1429.9		6/2	1436.3
4/3	1423.9		5/3	1430.0		6/3	1436.4
4/4	1423.5		5/4	1430.4		6/4	1436.3
4/5	1425.6		5/5	1431.1		6/5	1435.9
4/6	1429.7		5/6	1432.3		6/6	1435.5
4/7	1431.4		5/7	1433.6		6/7	1435.1
4/8	1431.9		5/8	1435.0		6/8	1435.0
4/9	1431.6		5/9	1436.3		6/9	1434.9
4/10	1431.6		5/10	1437.6		6/10	1434.8
4/11	1432.9		5/11	1438.7		6/11	1434.6
4/12	1433.1		5/12	1439.8		6/12	1434.6
4/13	1433.0		5/13	1441.7		6/13	1434.6
4/14	1432.5		5/14	1443.4		6/14	1434.6
4/15	1431.8		5/15	1443.6		6/15	1434.5
4/16	1431.0		5/16	1443.3		6/16	1434.5
4/17	1430.0		5/17	1443.0		6/17	1434.7
4/18	1429.0		5/18	1442.8		6/18	1434.9
4/19	1428.6		5/19	1442.3		6/19	1435.1
4/20	1429.2		5/20	1441.7		6/20	1435.9
4/21	1429.9		5/21	1441.2		6/21	1437.5
4/22	1429.9		5/22	1440.8		6/22	1438.2
4/23	1429.4		5/23	1440.1		6/23	1438.8
4/24	1428.7		5/24	1439.3		6/24	1439.5
4/25	1428.0		5/25	1438.4		6/25	1440.3
4/26	1427.4		5/26	1437.5		6/26	1441.0
4/27	1427.1		5/27	1436.8		6/27	1441.7
4/28	1427.5		5/28	1436.3		6/28	1442.2
4/29	1428.6		5/29	1436.0		6/29	1442.6
4/30	1429.5		5/30	1436.2		6/30	1443.0
			5/31	1436.2			

Appendix 2

Consultation Documentation

Presler, Dawn

From: Presler, Dawn
Sent: Friday, August 02, 2013 7:04 AM
To: Anne Savery; 'Brock Applegate - WDFW'; 'Chris Maynard - DOE'; 'Frank Leonetti - SnoCo'; 'Jim Miller - Everett'; 'Loren Everest - USFS'; Mick Matheson; 'Steve Fransen - NMFS'; 'Tim Romanski - USFWS'; Tom O'Keefe
Cc: Binkley, Keith; Moore, Kim
Subject: JHP - draft OCMP Annual Report for your review
Attachments: DRAFT_OCMP Annual Report 2013.pdf

Dear ARC members:

Attached is the Jackson Project's DRAFT OCMP Annual Report for WY2012-2013; it follow the annual report template from last year. Please take the next 30 days to review and provide comments back to me/cc: Keith by September 1. If you have no comments on the draft report, an email indicating so would be appreciated. If you have any questions, please call Keith at 425-783-1769. Thanks!

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

PUD No. 1 of Snohomish County
PO Box 1107
Everett, WA 98206-1107