

Your Northwest renewables utility

November 19, 2014

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 - Updated

License Article 407

Dear Secretary Bose:

Enclosed in Public Utility District No. 1 of Snohomish County's Operation Compliance Monitoring Plan Annual Report for the Water Year July 2013 – June 2014 pursuant to License Article 407 for the Jackson Hydroelectric Project. This report has been updated from the version filed with the Commission on October 31, 2014, to fix formatting errors during the Adobe PDF conversion and add an additional consultation comment from the Tulalip Tribes, along with the District's response to that comment.

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

Sincerely,

Craig W. Collar, P.E.

Assistant General Manager of Generation

CWCollar@snopud.com

(425) 783-1825

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 2013 – June 2014





Everett, WA

October 2014

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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 2013 – June 2014.

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

2. PROCESS FLOWS

The District provided process flow events pursuant to the PF Plan on four occasions during the July 2013 – June 2014 timeframe to serve multiple habitat benefits. These included, in chronological order, a scheduled fall event for flushing surficial fine sediment from the streambed and to stimulate the upstream migration of spawning adults, a channel maintenance event during March 2014, and two scheduled events during spring to aid in flushing of fine sediment to assist 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 10.

Table 1. Process Flow Log, July 2013 - June 2014.

| Date ¹ | Time ² | Magnitude ³ (cfs) | Duration ⁴ (hours) | Accretion ⁵ (cfs) | Notes ⁶ | Counts as PF Type ⁷ |
|-------------------|---------------------------|-------------------------------|----------------------------------|--|---|--------------------------------------|
| 9/16/2013 | 1215 to 0230 (9/17) | R1 – 1,350 (average) | 14.5 | | | F, U |
| 9/24/2013 | 2245 to 1000 (9/25) | R2 – 543 (average) | 11.25 | | | F, U |
| 9/24/2013 | 2100 to 1030 (9/25) | R3 – 514 (average) | 13.75 | | | F |
| 3/16/2014 | 1215 to 1500 (3/17) | R1 – 4,508 (average) | 26.75 | R1- cumulative accretion (including spill), measured at Powerhouse: 1,100 to 2,000 cfs | Full operational release sequenced with reservoir spill, 5.7" of rainfall in 24 hour period between 3/15/14 (2200 HR) and 3/16/14 (2100 HR) | FO |
| 4/1/2014 | 0000 to 2245 (4/4) | R1 – 1,722 (average) | 94.75 | | | FL, O |
| 4/17/2014 | 0400 to 0630 (4/18) | R3 & R2 – 486 (average) | 26.5 | | | FL, O |
| 4/17/2014 | 0615 to 1500 | R1 – 1,649 | 8.75 | | | 0 |
| 5/21/2014 | 0615 to 1300 | R2- 690 | 6.75 | | | 0 |
| 5/21/2014 | 0630 to 1315 | R1 – 2,000 | 6.75 | | | 0 |

¹ Start Date of Event (MM/DD/YYYY)

² Start Time to End Time

³ Magnitude of the Event for Each Compliance Location (R1-Reach 1, R2-Reach 2, R3-Reach 3)

⁴ Duration of Event

⁵ Portion of Event Attributed to Accretion Flows

⁶ Notes of Day's Event, Sequencing with Other Flow Events/Maintenance

⁷ Channel Forming (CF), Channel Maintenance (CM), Flushing (F), Outmigration (O), Upmigration (U) as defined in the PF Plan

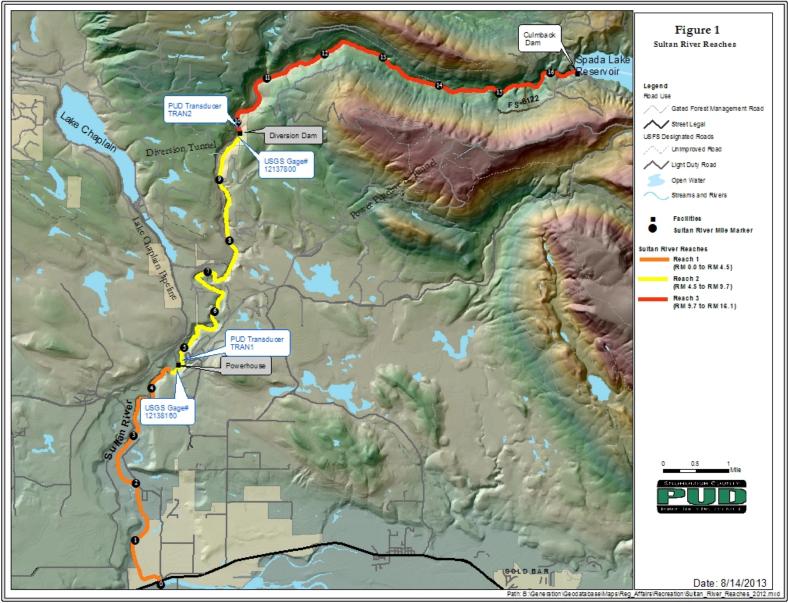


Figure 1. Sultan River reaches.

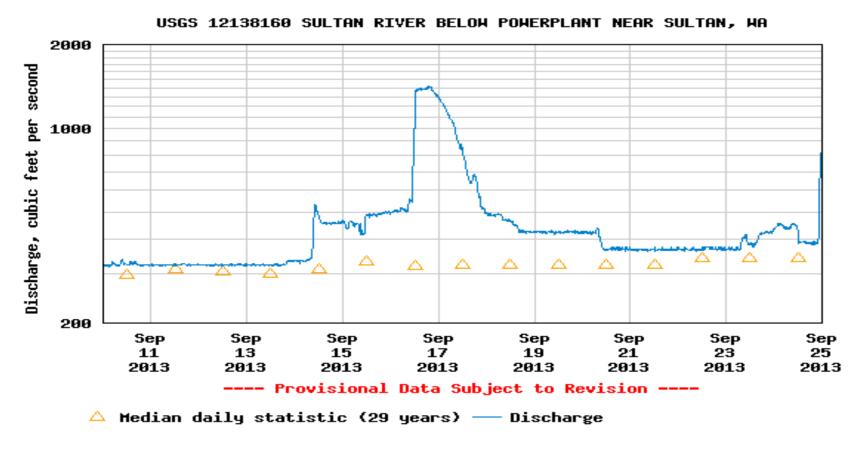


Figure 2. Sultan River below Powerplant hydrograph – 9/10/2013 to 9/24/2013

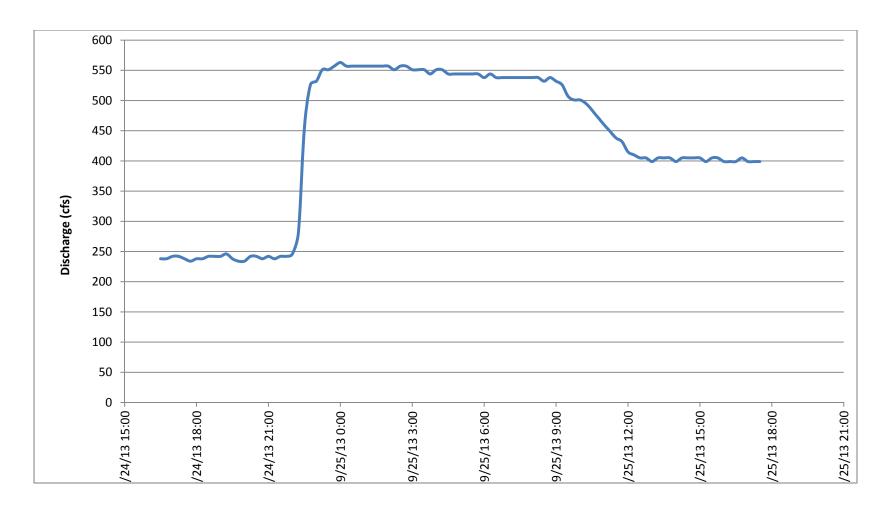


Figure 3. Sultan River immediately upstream of Powerhouse at RM 4.7 hydrograph – 9/24/2013 to 9/25/2013

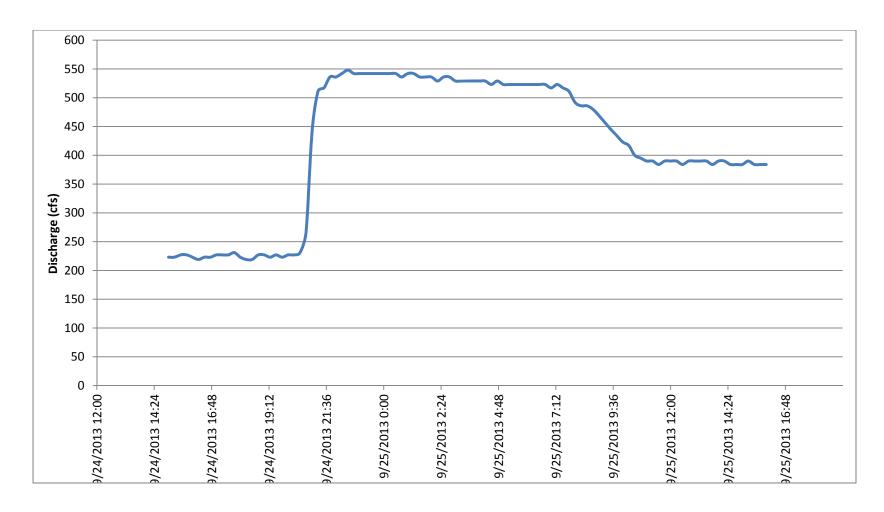


Figure 4. Sultan River, immediately upstream of Diversion Dam at RM 9.8 hydrograph, - 9/24/2013 to 9/25/2013

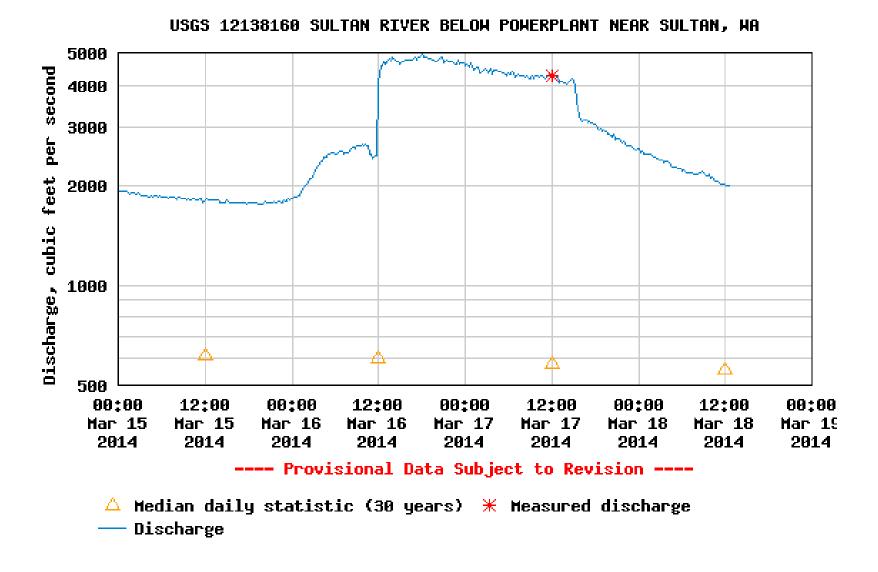


Figure 5. Sultan River below Powerplant hydrograph - 3/16/2014 to 3/17/2014

USGS 12138160 SULTAN RIVER BELOW POWERPLANT NEAR SULTAN, WA 2000 second cubic feet per 1000 Discharge, 400 00:00 00:00 12:00 00:00 12:00 00:00 12:00 00:00 12:00 Apr 03 Apr 04 Apr 01 Apr 01 Apr 02 Apr 02 Apr 03 Apr 04 Apr 05 2014 2014 2014 2014 2014 2014 2014 2014 2014 ---- Provisional Data Subject to Revision ----△ Median daily statistic (30 years) — Discharge

Figure 6. Sultan River below Powerplant hydrograph – 4/01/2014 to 4/04/2014

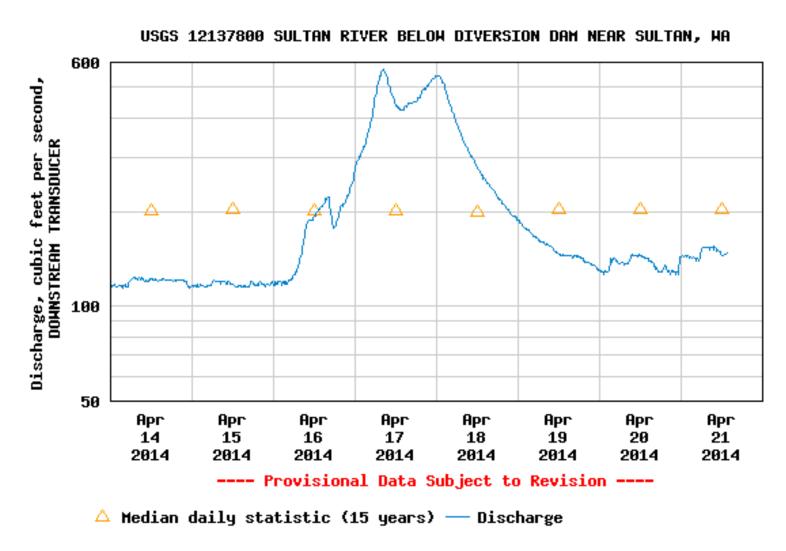


Figure 7. Sultan River below Diversion Dam hydrograph - 4/14/2014 to 4/21/2014

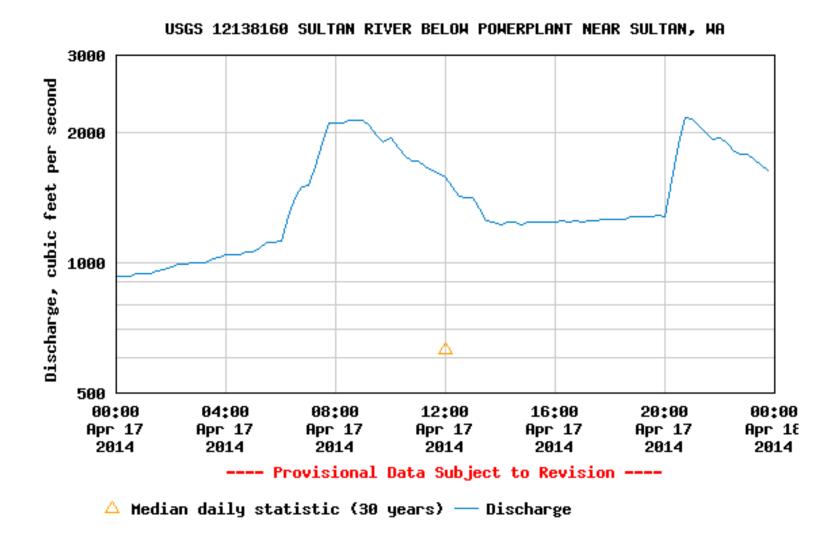


Figure 8. Sultan River below Powerplant hydrograph – 4/17/2014

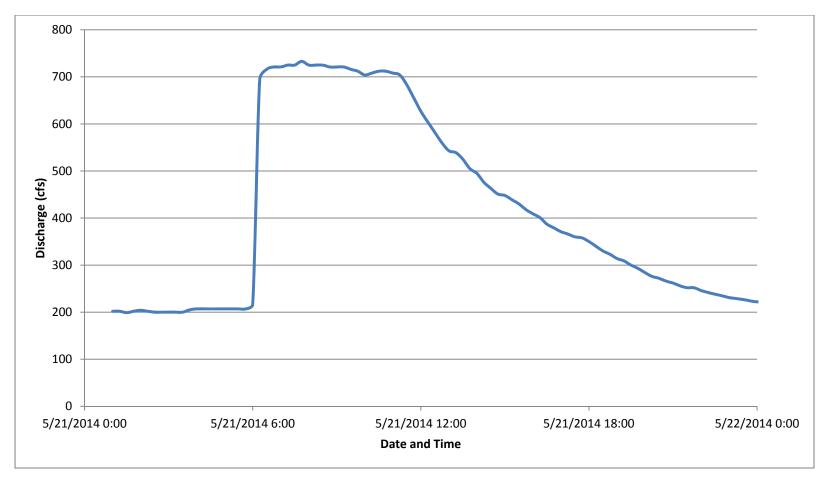


Figure 9. Sultan River immediately upstream of Powerhouse at RM 4.7 – 5/21/2014

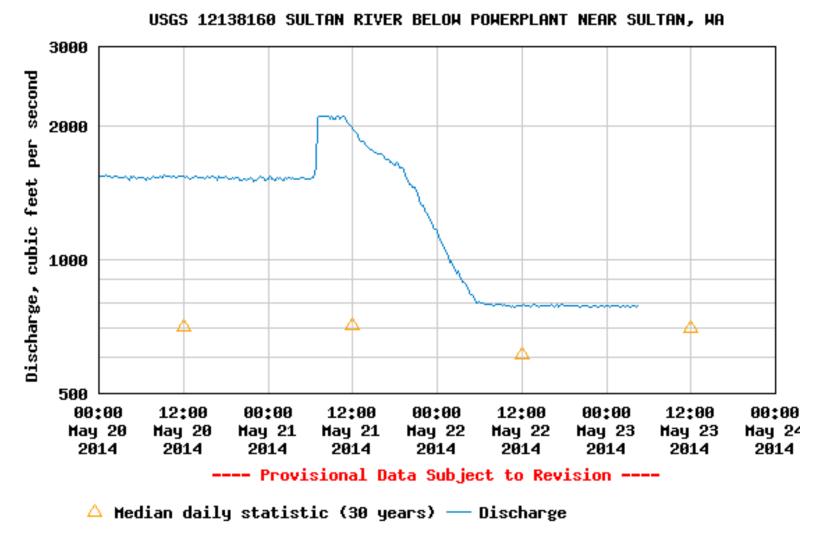


Figure 10. Sultan River below Powerplant hydrograph – 5/21/2014

3. SPADA LAKE RESERVOIR WATER SURFACE ELEVATIONS

During this reporting period, Spada Lake Reservoir mean daily water surface elevations ranged between 1,416.1 and 1,450.2 feet msl, with the low occurring on September 22 and the high March 16. Figure 11 displays the mean daily water surface elevations of Spada Lake Reservoir, and Appendix 1 contains the data in tabular format.

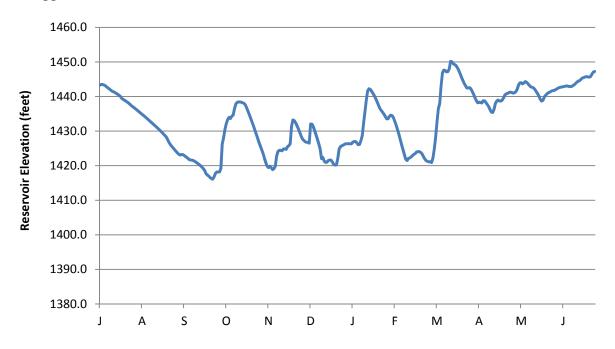


Figure 11. Mean daily water surface elevation, Spada Reservoir, July 1, 2013 - June 30, 2014.

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

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

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

Appendix 1

Spada Lake Reservoir Mean Daily Elevations Tabular Format

| Date | Reservoir Elevation (feet) | Date | Reservoir Elevation (feet) | Date | Reservoir Elevation (feet) |
|------|-------------------------------|------|-------------------------------|------|-------------------------------|
| 7/1 | 1443.3 | 8/1 | 1434.9 | 9/1 | 1422.9 |
| 7/2 | 1443.5 | 8/2 | 1434.5 | 9/2 | 1422.7 |
| 7/3 | 1443.5 | 8/3 | 1434.2 | 9/3 | 1422.4 |
| 7/4 | 1443.3 | 8/4 | 1433.9 | 9/4 | 1422.0 |
| 7/5 | 1443.1 | 8/5 | 1433.5 | 9/5 | 1421.7 |
| 7/6 | 1442.8 | 8/6 | 1433.2 | 9/6 | 1421.6 |
| 7/7 | 1442.5 | 8/7 | 1432.8 | 9/7 | 1421.6 |
| 7/8 | 1442.2 | 8/8 | 1432.4 | 9/8 | 1421.4 |
| 7/9 | 1441.8 | 8/9 | 1432.1 | 9/9 | 1421.2 |
| 7/10 | 1441.5 | 8/10 | 1431.7 | 9/10 | 1420.9 |
| 7/11 | 1441.4 | 8/11 | 1431.4 | 9/11 | 1420.6 |
| 7/12 | 1441.2 | 8/12 | 1431.0 | 9/12 | 1420.3 |
| 7/13 | 1440.9 | 8/13 | 1430.7 | 9/13 | 1420.0 |
| 7/14 | 1440.7 | 8/14 | 1430.3 | 9/14 | 1419.6 |
| 7/15 | 1440.4 | 8/15 | 1429.9 | 9/15 | 1419.1 |
| 7/16 | 1440.1 | 8/16 | 1429.5 | 9/16 | 1418.6 |
| 7/17 | 1439.5 | 8/17 | 1429.0 | 9/17 | 1417.7 |
| 7/18 | 1439.2 | 8/18 | 1428.6 | 9/18 | 1417.3 |
| 7/19 | 1438.9 | 8/19 | 1428.1 | 9/19 | 1417.0 |
| 7/20 | 1438.7 | 8/20 | 1427.3 | 9/20 | 1416.6 |
| 7/21 | 1438.4 | 8/21 | 1426.6 | 9/21 | 1416.3 |
| 7/22 | 1438.1 | 8/22 | 1426.0 | 9/22 | 1416.1 |
| 7/23 | 1437.8 | 8/23 | 1425.5 | 9/23 | 1416.8 |
| 7/24 | 1437.4 | 8/24 | 1425.0 | 9/24 | 1417.8 |
| 7/25 | 1437.1 | 8/25 | 1424.6 | 9/25 | 1418.2 |
| 7/26 | 1436.8 | 8/26 | 1424.1 | 9/26 | 1418.2 |
| 7/27 | 1436.5 | 8/27 | 1423.7 | 9/27 | 1418.2 |
| 7/28 | 1436.2 | 8/28 | 1423.3 | 9/28 | 1419.2 |
| 7/29 | 1435.8 | 8/29 | 1423.1 | 9/29 | 1426.3 |
| 7/30 | 1435.5 | 8/30 | 1423.3 | 9/30 | 1428.2 |
| 7/31 | 1435.2 | 8/31 | 1423.2 | | |

| Date | Reservoir Elevation (feet) | Date | Reservoir Elevation (feet) | Date | Reservoir Elevation (feet) |
|-------|-------------------------------|-------|-------------------------------|-------|-------------------------------|
| 10/1 | 1430.6 | 11/1 | 1419.8 | 12/1 | 1426.5 |
| 10/2 | 1432.2 | 11/2 | 1419.4 | 12/2 | 1432.0 |
| 10/3 | 1433.4 | 11/3 | 1419.8 | 12/3 | 1432.0 |
| 10/4 | 1434.0 | 11/4 | 1419.5 | 12/4 | 1431.3 |
| 10/5 | 1433.6 | 11/5 | 1418.9 | 12/5 | 1430.1 |
| 10/6 | 1434.3 | 11/6 | 1419.1 | 12/6 | 1428.9 |
| 10/7 | 1434.6 | 11/7 | 1419.9 | 12/7 | 1427.7 |
| 10/8 | 1436.5 | 11/8 | 1422.7 | 12/8 | 1426.3 |
| 10/9 | 1437.9 | 11/9 | 1424.1 | 12/9 | 1424.9 |
| 10/10 | 1438.3 | 11/10 | 1424.4 | 12/10 | 1422.1 |
| 10/11 | 1438.4 | 11/11 | 1424.4 | 12/11 | 1422.4 |
| 10/12 | 1438.4 | 11/12 | 1424.3 | 12/12 | 1421.3 |
| 10/13 | 1438.3 | 11/13 | 1424.8 | 12/13 | 1420.9 |
| 10/14 | 1438.2 | 11/14 | 1424.9 | 12/14 | 1421.0 |
| 10/15 | 1438.0 | 11/15 | 1424.7 | 12/15 | 1421.5 |
| 10/16 | 1437.6 | 11/16 | 1425.5 | 12/16 | 1421.6 |
| 10/17 | 1436.7 | 11/17 | 1425.8 | 12/17 | 1421.6 |
| 10/18 | 1435.7 | 11/18 | 1426.4 | 12/18 | 1421.1 |
| 10/19 | 1434.6 | 11/19 | 1431.4 | 12/19 | 1420.3 |
| 10/20 | 1433.6 | 11/20 | 1433.2 | 12/20 | 1420.2 |
| 10/21 | 1432.5 | 11/21 | 1433.0 | 12/21 | 1420.2 |
| 10/22 | 1431.4 | 11/22 | 1432.4 | 12/22 | 1422.1 |
| 10/23 | 1430.3 | 11/23 | 1431.6 | 12/23 | 1424.8 |
| 10/24 | 1429.1 | 11/24 | 1430.7 | 12/24 | 1425.5 |
| 10/25 | 1428.0 | 11/25 | 1429.7 | 12/25 | 1425.8 |
| 10/26 | 1426.8 | 11/26 | 1428.6 | 12/26 | 1425.9 |
| 10/27 | 1425.6 | 11/27 | 1427.7 | 12/27 | 1426.2 |
| 10/28 | 1424.6 | 11/28 | 1427.3 | 12/28 | 1426.3 |
| 10/29 | 1423.5 | 11/29 | 1426.9 | 12/29 | 1426.4 |
| 10/30 | 1422.1 | 11/30 | 1426.8 | 12/30 | 1426.4 |
| 10/31 | 1420.9 | | 1426.7 | 12/31 | 1426.3 |

| Date | Reservoir Elevation (feet) | Date | Reservoir Elevation (feet) | Date | Reservoir Elevation (feet) |
|------|-------------------------------|------|-------------------------------|------|-------------------------------|
| 1/1 | 1426.3 | 2/1 | 1433.8 | 3/1 | 1420.9 |
| 1/2 | 1426.8 | 2/2 | 1432.8 | 3/2 | 1422.2 |
| 1/3 | 1427.0 | 2/3 | 1431.7 | 3/3 | 1424.8 |
| 1/4 | 1427.0 | 2/4 | 1430.4 | 3/4 | 1428.2 |
| 1/5 | 1426.6 | 2/5 | 1429.0 | 3/5 | 1432.6 |
| 1/6 | 1426.1 | 2/6 | 1427.5 | 3/6 | 1436.5 |
| 1/7 | 1426.1 | 2/7 | 1426.1 | 3/7 | 1437.9 |
| 1/8 | 1427.3 | 2/8 | 1424.6 | 3/8 | 1443.1 |
| 1/9 | 1428.7 | 2/9 | 1423.2 | 3/9 | 1445.0 |
| 1/10 | 1432.4 | 2/10 | 1421.9 | 3/10 | 1446.8 |
| 1/11 | 1435.7 | 2/11 | 1421.5 | 3/11 | 1447.6 |
| 1/12 | 1439.1 | 2/12 | 1422.1 | 3/12 | 1447.5 |
| 1/13 | 1441.6 | 2/13 | 1422.3 | 3/13 | 1447.1 |
| 1/14 | 1442.2 | 2/14 | 1422.5 | 3/14 | 1447.2 |
| 1/15 | 1442.0 | 2/15 | 1422.9 | 3/15 | 1448.0 |
| 1/16 | 1441.5 | 2/16 | 1423.3 | 3/16 | 1450.2 |
| 1/17 | 1440.9 | 2/17 | 1423.5 | 3/17 | 1450.1 |
| 1/18 | 1440.2 | 2/18 | 1424.0 | 3/18 | 1449.5 |
| 1/19 | 1439.4 | 2/19 | 1424.1 | 3/19 | 1449.2 |
| 1/20 | 1438.4 | 2/20 | 1424.1 | 3/20 | 1449.0 |
| 1/21 | 1437.5 | 2/21 | 1423.8 | 3/21 | 1448.4 |
| 1/22 | 1436.6 | 2/22 | 1423.4 | 3/22 | 1447.6 |
| 1/23 | 1436.0 | 2/23 | 1422.6 | 3/23 | 1446.6 |
| 1/24 | 1435.4 | 2/24 | 1422.0 | 3/24 | 1445.6 |
| 1/25 | 1434.9 | 2/25 | 1421.5 | 3/25 | 1444.7 |
| 1/26 | 1434.2 | 2/26 | 1421.3 | 3/26 | 1443.9 |
| 1/27 | 1433.6 | 2/27 | 1421.1 | 3/27 | 1443.1 |
| 1/28 | 1433.5 | 2/28 | 1421.1 | 3/28 | 1442.5 |
| 1/29 | 1434.3 | | | 3/29 | 1442.5 |
| 1/30 | 1434.6 | | | 3/30 | 1442.6 |
| 1/31 | 1434.5 | | | 3/31 | 1442.2 |

| Date | Reservoir Elevation (feet) | Date | Reservoir Elevation (feet) | Date | Reservoir Elevation (feet) |
|------|-------------------------------|------|-------------------------------|------|-------------------------------|
| 4/1 | 1441.5 | 5/1 | 1441.0 | 6/1 | 1441.9 |
| 4/2 | 1440.6 | 5/2 | 1441.1 | 6/2 | 1442.1 |
| 4/3 | 1439.7 | 5/3 | 1441.4 | 6/3 | 1442.4 |
| 4/4 | 1438.8 | 5/4 | 1442.1 | 6/4 | 1442.6 |
| 4/5 | 1438.2 | 5/5 | 1443.3 | 6/5 | 1442.7 |
| 4/6 | 1438.4 | 5/6 | 1443.9 | 6/6 | 1442.8 |
| 4/7 | 1438.3 | 5/7 | 1444.0 | 6/7 | 1442.9 |
| 4/8 | 1438.1 | 5/8 | 1443.7 | 6/8 | 1442.9 |
| 4/9 | 1438.8 | 5/9 | 1443.9 | 6/9 | 1443.0 |
| 4/10 | 1438.8 | 5/10 | 1444.3 | 6/10 | 1443.0 |
| 4/11 | 1438.3 | 5/11 | 1444.1 | 6/11 | 1442.9 |
| 4/12 | 1437.7 | 5/12 | 1443.7 | 6/12 | 1442.8 |
| 4/13 | 1437.1 | 5/13 | 1443.2 | 6/13 | 1442.9 |
| 4/14 | 1436.3 | 5/14 | 1442.8 | 6/14 | 1443.2 |
| 4/15 | 1435.5 | 5/15 | 1442.7 | 6/15 | 1443.4 |
| 4/16 | 1435.4 | 5/16 | 1442.5 | 6/16 | 1443.8 |
| 4/17 | 1436.3 | 5/17 | 1442.1 | 6/17 | 1444.2 |
| 4/18 | 1438.0 | 5/18 | 1441.5 | 6/18 | 1444.5 |
| 4/19 | 1438.7 | 5/19 | 1440.8 | 6/19 | 1444.6 |
| 4/20 | 1439.0 | 5/20 | 1440.1 | 6/20 | 1445.0 |
| 4/21 | 1438.7 | 5/21 | 1439.2 | 6/21 | 1445.3 |
| 4/22 | 1438.7 | 5/22 | 1438.7 | 6/22 | 1445.5 |
| 4/23 | 1439.0 | 5/23 | 1438.9 | 6/23 | 1445.6 |
| 4/24 | 1439.6 | 5/24 | 1439.9 | 6/24 | 1445.8 |
| 4/25 | 1440.5 | 5/25 | 1440.4 | 6/25 | 1445.7 |
| 4/26 | 1440.8 | 5/26 | 1440.8 | 6/26 | 1445.6 |
| 4/27 | 1440.9 | 5/27 | 1441.1 | 6/27 | 1445.7 |
| 4/28 | 1441.1 | 5/28 | 1441.3 | 6/28 | 1446.5 |
| 4/29 | 1441.3 | 5/29 | 1441.5 | 6/29 | 1447.0 |
| 4/30 | 1441.2 | 5/30 | 1441.7 | 6/30 | 1447.2 |
| | | 5/31 | 1441.7 | | |

Appendix 2

Consultation Documentation

From: Presler, Dawn

Sent: Tuesday, October 07, 2014 3:45 PM

To: 'Tim_Romanski@fws.gov' (Tim_Romanski@fws.gov); 'Steven Fransen'

(steven.m.fransen@noaa.gov); 'Loren Everest - USFS' (leverest@fs.fed.us); Anne Savery;

'Maynard, Chris (ECY)' (cmay461@ecy.wa.gov); 'brock.applegate@dfw.wa.gov' (brock.applegate@dfw.wa.gov); 'Leonetti, Frank' (frank.leonetti@snoco.org); Mick

Matheson; 'Jim Miller' (JMiller@ci.everett.wa.us); Tom O'Keefe

Subject: JHP (FERC No. 2157) - OCMP for your review by Oct 30

Attachments: OCMP Annual Report 2014.docx

Dear ARC,

Attached is the draft Operations Compliance Monitoring Plan for 2013-2014 for the Jackson Project. It's pretty short so we're hoping to get your input back <u>by October 30</u> to meet the November 1 deadline to FERC. Please let me know if you do need the full 30 days for review. If you have no comments on the draft, an email stating so would be appreciated.

Thanks for your review.

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

From: Presler, Dawn

Sent: Monday, October 27, 2014 4:24 PM

To: 'Applegate, Brock A (DFW)'

Subject: RE: Jackson Hydroproject-- Comments for Operation Compliance Monitoring Report

for your review by Oct 30

Thanks for the reply! Have a great week.

Dawn

From: Applegate, Brock A (DFW) [mailto:Brock.Applegate@dfw.wa.gov]

Sent: Monday, October 27, 2014 3:42 PM

To: Presler, Dawn; 'Tim Romanski@fws.gov' (Tim Romanski@fws.gov); 'Steven Fransen' (steven.m.fransen@noaa.gov);

'Loren Everest - USFS' (leverest@fs.fed.us); Anne Savery; Maynard, Chris (ECY); 'Leonetti, Frank' (frank.leonetti@snoco.org); Mick Matheson; 'Jim Miller' (JMiller@ci.everett.wa.us); Tom O'Keefe Cc: Whitney, Jennifer L (DFW); Bails, Jamie L (DFW); Allegro, Justin K (DFW); Beecher, Hal (DFW)

Subject: Jackson Hydroproject-- Comments for Operation Compliance Monitoring Report for your review by Oct 30

Hi Dawn, WDFW have reviewed the Annual Report and we have no comments.

Sincerely, Brock

Brock Applegate

Renewable Energy/Major Projects Mitigation Biologist Washington Department of Fish and Wildlife P.O. Box 1100 111 Sherman St. (physical address)

La Conner, WA 98257-9612

(360) 466-4345 x244 (office)

(360) 789-0578 (cell)

(360) 466-0515 (fax)

From: Presler, Dawn [mailto:DJPresler@SNOPUD.com]

Sent: Tuesday, October 07, 2014 3:45 PM

To: 'Tim Romanski@fws.gov' (Tim Romanski@fws.gov); 'Steven Fransen' (steven.m.fransen@noaa.gov); 'Loren Everest - USFS' (leverest@fs.fed.us); Anne Savery; Maynard, Chris (ECY); Applegate, Brock A (DFW); 'Leonetti, Frank'

(frank.leonetti@snoco.org); Mick Matheson; 'Jim Miller' (JMiller@ci.everett.wa.us); Tom O'Keefe

Subject: JHP (FERC No. 2157) - OCMP for your review by Oct 30

Dear ARC,

Attached is the draft Operations Compliance Monitoring Plan for 2013-2014 for the Jackson Project. It's pretty short so we're hoping to get your input back by October 30 to meet the November 1 deadline to FERC. Please let me know if you do need the full 30 days for review. If you have no comments on the draft, an email stating so would be appreciated.

Thanks for your review.

Dawn Presler

Sr. Environmental Coordinator

From: Presler, Dawn

Sent: Wednesday, October 15, 2014 2:33 PM

To: 'Maynard, Chris (ECY)'

Subject: RE: JHP (FERC No. 2157) - OCMP for your review by Oct 30

Thanks for the email!

Dawn

From: Maynard, Chris (ECY) [mailto:cmay461@ecy.wa.gov]

Sent: Wednesday, October 15, 2014 2:02 PM

To: Presler, Dawn

Subject: RE: JHP (FERC No. 2157) - OCMP for your review by Oct 30

I have no comments on the draft

From: Presler, Dawn [mailto:DJPresler@SNOPUD.com]

Sent: Tuesday, October 07, 2014 3:45 PM

To: 'Tim_Romanski@fws.gov' (Tim_Romanski@fws.gov); 'Steven Fransen' (steven.m.fransen@noaa.gov); 'Loren Everest

- USFS' (leverest@fs.fed.us); Anne Savery; Maynard, Chris (ECY); Applegate, Brock A (DFW); 'Leonetti, Frank'

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Thanks for your review.

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

From: Anne Savery <asavery@tulaliptribes-nsn.gov>

Sent: Thursday, October 09, 2014 10:54 AM

To: Binkley, Keith; Presler, Dawn

Subject: RE: JHP (FERC No. 2157) - OCMP for your review by Oct 30

Right, I understand about preserving options. I just want to be able to go on record with the Tribes' perspective about CM versus CF flows and I was expecting you to call this a CF flow at this point. I'll just make my comments and hopefully they will turn into an anachronism this year.

Thanks for the clarification.

Anne

From: Binkley, Keith [KMBinkley@SNOPUD.com] Sent: Wednesday, October 08, 2014 3:01 PM

To: Anne Savery; Presler, Dawn

Subject: RE: JHP (FERC No. 2157) - OCMP for your review by Oct 30

Hi Anne - I'll chime in here. We are preserving our options as to how to label that event. By doing the resurvey etc., it gaves us the option to call it either maintenance or forming. It will all play out this year since we are in the 4th year of the accounting cycle. If we get a forming event this year, last year's event will be referred to permanently as a maintenance event. If we get a maintenance event this year, last year's event will be permanently referred to as a process flow. If we get neither, it will be permanently referred to as maintenance. It all boils down to the requirement that we have 4 maintenance events in the 10 year accounting cycle with no more than 4 years between any two.

Hope that helps.

Keith

----Original Message-----

From: Anne Savery [mailto:asavery@tulaliptribes-nsn.gov]

Sent: Wednesday, October 08, 2014 2:42 PM

To: Presler, Dawn Cc: Binkley, Keith

Subject: RE: JHP (FERC No. 2157) - OCMP for your review by Oct 30

Dawn

Table 1 describes the 3/16/2014 as a CM - channel maintenance flow. It is my understanding that PUD wanted to label it as a CF - channel formation flow. Since PUD is doing the channel resurvey etc, I want to make sure this label is correct.

Please clarify and I'll work on my comments etc.

Thanks Anne

From: Presler, Dawn [DJPresler@SNOPUD.com] Sent: Tuesday, October 07, 2014 3:45 PM

 $To: 'Tim_Romanski@fws.gov' \ (Tim_Romanski@fws.gov); 'Steven Fransen' \ (steven.m.fransen@noaa.gov); 'Loren Everest Fransen' \ (steven.m.fransen); 'Loren Everest Fransen Fransen Fransen Fransen Fransen Fransen Fransen Fransen$

- USFS' (leverest@fs.fed.us); Anne Savery; 'Maynard, Chris (ECY)' (cmay461@ecy.wa.gov);

'brock.applegate@dfw.wa.gov' (brock.applegate@dfw.wa.gov); 'Leonetti, Frank' (frank.leonetti@snoco.org); Mick Matheson; 'Jim Miller' (JMiller@ci.everett.wa.us); Tom O'Keefe Subject: JHP (FERC No. 2157) - OCMP for your review by Oct 30

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Thanks for your review.

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

From: Anne Savery <asavery@tulaliptribes-nsn.gov>
Sent: Wednesday, November 05, 2014 2:15 PM

To: Presler, Dawn Cc: Binkley, Keith

Subject: RE: Jackson Hydroproject-- Comments for Operation Compliance Monitoring Report

for your review by Oct 30

Dawn

Ok great, thanks for the response.

Anne

From: Presler, Dawn [DJPresler@SNOPUD.com] Sent: Tuesday, November 04, 2014 2:15 PM

To: Anne Savery Cc: Binkley, Keith

Subject: RE: Jackson Hydroproject-- Comments for Operation Compliance Monitoring Report for your review by Oct 30

Hi Anne,

That's my bad. I skimmed your comment and thought it was the same one that you previously sent to Keith which did get included in the consultation document. I will refile with the 10/29 comment and our response (hopefully by Friday depending on Keith's field schedule). Commenting in the Word document is fine.

Dawn

----Original Message----

From: Anne Savery [mailto:asavery@tulaliptribes-nsn.gov]

Sent: Tuesday, November 04, 2014 1:25 PM

To: Presler, Dawn

Subject: FW: Jackson Hydroproject -- Comments for Operation Compliance Monitoring Report for your review by Oct 30

Hi Dawn

I reviewed the final OCMP and found that my comment on Page 2 of the attached document was not included in the consultation documents. I'm going to survive its exclusion, however I'd like to know how best to submit comments in the future. Is it acceptable to add comments in the Word document? Or do you need them in a separate email or Word document with references to the page number?

Thanks Anne

From: Anne Savery

Sent: Wednesday, October 29, 2014 1:47 PM

To: Applegate, Brock A (DFW); Presler, Dawn; 'Tim_Romanski@fws.gov' (Tim_Romanski@fws.gov); 'Steven Fransen' (steven.m.fransen@noaa.gov); 'Loren Everest - USFS' (leverest@fs.fed.us); Maynard, Chris (ECY); 'Leonetti, Frank' (frank.leonetti@snoco.org); Mick Matheson; 'Jim Miller' (JMiller@ci.everett.wa.us); Tom O'Keefe

Subject: RE: Jackson Hydroproject-- Comments for Operation Compliance Monitoring Report for your review by Oct 30

Here are the Tribe's comments on the OCMP.

Thanks

Anne

From: Applegate, Brock A (DFW) [Brock.Applegate@dfw.wa.gov]

Sent: Monday, October 27, 2014 3:42 PM

To: Presler, Dawn; 'Tim Romanski@fws.gov' (Tim Romanski@fws.gov); 'Steven Fransen' (steven.m.fransen@noaa.gov);

'Loren Everest - USFS' (leverest@fs.fed.us); Anne Savery; Maynard, Chris (ECY); 'Leonetti, Frank' (frank.leonetti@snoco.org); Mick Matheson; 'Jim Miller' (JMiller@ci.everett.wa.us); Tom O'Keefe

Cc: Whitney, Jennifer L (DFW); Bails, Jamie L (DFW); Allegro, Justin K (DFW); Beecher, Hal (DFW)

Subject: Jackson Hydroproject-- Comments for Operation Compliance Monitoring Report for your review by Oct 30

Hi Dawn, WDFW have reviewed the Annual Report and we have no comments.

Sincerely, Brock

Brock Applegate

Renewable Energy/Major Projects Mitigation Biologist Washington Department of Fish and Wildlife P.O. Box 1100 111 Sherman St. (physical address)

La Conner, WA 98257-9612

(360) 466-4345 x244 (office)

(360) 789-0578 (cell)

(360) 466-0515 (fax)

From: Presler, Dawn [mailto:DJPresler@SNOPUD.com]

Sent: Tuesday, October 07, 2014 3:45 PM

To: 'Tim_Romanski@fws.gov' (Tim_Romanski@fws.gov); 'Steven Fransen' (steven.m.fransen@noaa.gov); 'Loren Everest - USFS' (leverest@fs.fed.us); Anne Savery; Maynard, Chris (ECY); Applegate, Brock A (DFW); 'Leonetti, Frank'

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(Transition California California

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Thanks for your review.

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 2013 - June 2014.

| Table 1. | Pro | cess Flow L | og, July 20 | 13 - June 2014. | | |
|-------------------|---------------------------|---------------------------------|----------------------------------|--|---|--------------------------------------|
| Date ¹ | Time ² | Magnitude ³ (cfs) | Duration ⁴ (hours) | Accretion ⁵ (cfs) | Notes ⁶ | Counts as PF Type ⁷ |
| 9/16/2013 | 1215 to 0230 (9/17) | R1 – 1,350 (average) | 14.5 | | | F, U |
| 9/24/2013 | 2245 to 1000 (9/25) | R2 – 543 (average) | 11.25 | | | F, U |
| 9/24/2013 | 2100 to 1030 (9/25) | R3 – 514 (average) | 13.75 | | | F |
| 3/16/2014 | 1215 to 1500 (3/17) | R1 – 4,508 (average) | 26.75 | R1- cumulative accretion (including spill), measured at Powerhouse: 1,100 to 2,000 cfs | Full operational release sequenced with reservoir spill, 5.7" of rainfall in 24 hour period between 3/15/14 (2200 HR) and 3/16/14 (2100 HR) | [CM |
| 4/1/2014 | 0000 to 2245 (4/4) | R1 – 1,722 (average) | 94.75 | | | FL, O |
| 4/17/2014 | 0400 to 0630 (4/18) | R3 & R2 – 486 (average) | 26.5 | | | FL, O |
| 4/17/2014 | 0615 to 1500 | R1 – 1,649 | 8.75 | | | 0 |
| 5/21/2014 | 0615 to 1300 | R2- 690 | 6.75 | | | 0 |
| 5/21/2014 | 0630 to 1315 | R1 – 2,000 | 6.75 | | | 0 |

Commented [O1]: The Tulalip Tribes agree this should be considered a CM flow, rather than CF. We appreciate that PUD is preserving the option to get a CF flow in this 10 year period. If not, we'll need to look at the reservoir rule curves to manage the system toward spill.

¹ Start Date of Event (MM/DD/YYYY)

² Start Time to End Time

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

ARC Comment

District Response

Tulalip Tribes, email 10/09/2014

Table 1 describes the 3/16/2014 as a CM - channel maintenance flow. It is my understanding that PUD wanted to label it as a CF - channel formation flow. Since PUD is doing the channel resurvey etc, I want to make sure this label is correct.

The District is preserving its options as to how to label that event. By doing the resurvey etc., it gives us the option to call it either maintenance or forming. It will all play out this year since we are in the 4th year of the accounting cycle. If we get a forming event this year, last year's event will be referred to permanently as a maintenance event. If we get a maintenance event this year, last year's event will be permanently referred to as a process flow. If we get neither, it will be permanently referred to as maintenance. It all boils down to the requirement that we have 4 maintenance events in the 10 year accounting cycle with no more than 4 years between any two.

Tulalip Tribes, emailed MSWord comments 10/29/2014

Table 1 for 3/16/2014:

The Tulalip Tribes agree this should be considered a CM flow, rather than CF. We appreciate that PUD is preserving the option to get a CF flow in this 10 year period. If not, we'll need to look at the reservoir rule curves to manage the system toward spill.

On 11/4/2014, the District successfully conducted a Channel Maintenance Flow. This is the first of four Channel Maintenance events that will be conducted within the current 10 year accounting cycle. With this event, we are compliant with the license requirement that these events occur not less than every four years within the accounting cycle. As such, and as previously discussed with the ARC, the 3/16/2014 event, will now officially be considered as a Channel Forming Event. The District is compliant with all License requirements articulated under the Process Flow Plan. The District will continue to operate the reservoir responsibly as identified in the reservoir rule curves required by License Article 406 and Aquatic License Article 14.