

Energizing Life in Our Communities

September 26, 2019

VIA ELECTRONIC FILING

Kimberly D. Bose, Secretary Nathaniel J. Davis, Sr., Deputy 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 2018 – June 2019 pursuant to License Article 407 for the Jackson Hydroelectric Project.

If you have any questions on the report, please contact Keith Binkley, Natural Resources Manager, at (425) 783-1769 or <u>KMBinkley@snopud.com</u>.

Sincerely,

/s/ Tom DeBoer

Tom DeBoer Assistant General Manager of Generation, Power, Rates and Transmission Management <u>TADeBoer@snopud.com</u> (425) 783-1825

Enclosed: OCMP Annual Report

cc: ARC Keith Binkley, District Henry M. Jackson Hydroelectric Project (FERC No. 2157)

Operation Compliance Monitoring Plan (License Article 407)

Annual Report for Water Year July 2018 – June 2019





September 2019

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). 2019. License Article 407: Operation Compliance Monitoring Plan Annual Report for Water Year July 2018 through June 2019, for the Henry M. Jackson Hydroelectric Project, FERC No. 2157. September 2019.

Table of Contents

1.	INTRODUCTION	1
2.	PROCESS FLOWS	1
3.	SPADA LAKE RESERVOIR WATER SURFACE ELEVATIONS	. 13
4.	DEVIATIONS FROM STATE 3	. 13

Appendices

Appendix 1	Spada Lake Reservoir Mean Daily Elevations Tabular Format
A	Lettern Description Description Description

- Appendix 2 Letters Regarding Reservoir Elevation Deviation
- Appendix 3 Consultation Documentation Regarding Draft Report

List of Figures

Figure 1.	Sultan River reaches.	. 2
Figure 2.	Sultan River immediately upstream of Diversion Dam – 09/08/2018	. 4
Figure 3.	Sultan River immediately upstream of Powerhouse – 09/08/2018	. 5
Figure 4.	Sultan River immediately downstream of Powerhouse - 09/08/2018	. 6
Figure 5.	Sultan River immediately upstream of Diversion Dam $- 04/10/2019$ to $04/11/2019$.	. 7
Figure 6.	Sultan River immediately upstream of Powerhouse - 04/10/2019 to 04/11/2019	. 8
Figure 7.	Sultan River immediately downstream of Powerhouse $-04/19/2019$ to $04/20/2019$.	. 9
Figure 8.	Sultan River immediately upstream of Diversion Dam – 05/25/2019 1	10
Figure 9.	Sultan River immediately upstream of Powerhouse – 05/25/2019 1	11
Figure 10.	Sultan River immediately downstream of Powerhouse - 05/25/2019 1	12
Figure 11.	Mean daily water surface elevation, Spada Lake Reservoir, July 1, 2018 – June 30,	
	20191	13

List of Tables

Table 1.	Process Flow Log, July 2018 – June 2019.	. 3
----------	--	-----

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
RM	River Mile
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 2018 – June 2019.

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 30-day review and comment period; no comments requesting changes were received.

Spada Lake Reservoir data in tabular format are included in Appendix 1. Letters regarding the reservoir elevation deviation are included as Appendix 2. Consultation documentation with the ARC regarding the draft report is included in Appendix 3.

2. PROCESS FLOWS

The District provided process flow events pursuant to the Process Flow Plan (PF Plan) on three occasions during the July 2018 – June 2019 timeframe to serve multiple habitat benefits. These included, in chronological order: 1) a flushing of surficial fine sediment from the streambed and an upmigration flow for spawning salmonids in September 2018, 2) a nighttime juvenile outmigration event in April 2019, and 3) a daytime juvenile outmigration and flushing event in May 2019. The three reaches of the Sultan River are depicted in Figure 1. The process flow events for the July 2018 – June 2019 timeframe are summarized, by these reaches, 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. The full Process Flow Log (dating back to license issuance in September 2011) is posted to the web at:

http://www.snopud.com/PowerSupply/hydro/jhp/jhplicense/fishery.ashx?p=2069.

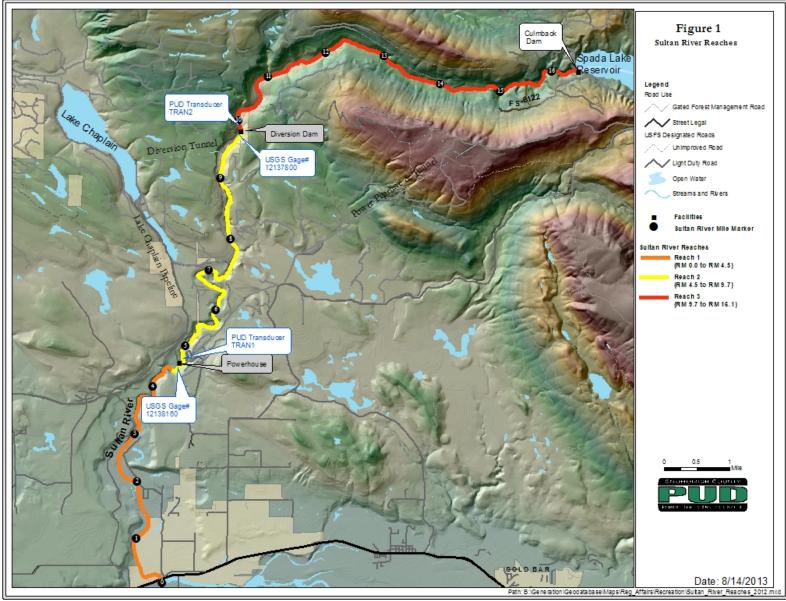


Figure 1. Sultan River reaches.

Date ¹	Time ²	Magnitude ³ (cfs)	Duration ⁴ (hours)	Accretion ⁵ (cfs)	Notes ⁶	Counts as PF Type ⁷
9/8/2018	10:45 to 17:30	R3 – 691 (average), range 314 to 912	3 hours greater than 600 cfs, 6 hours greater than 300 cfs	Estimated at 10 cfs	Reference Figure 2	FL, U
9/8/2018	12:30 to 16:30	R2 – 754 (average), range 412 to 976	3 hours greater than 700 cfs, 6 hours greater than 400 cfs	Estimated at 15 cfs	Reference Figure 3	FL, U
9/8/2018 to 9/9/2018	12:30 to 08:15	R1 – 1,150 (average), range 805 to 1,440	6 hours greater than 1,200 cfs, 6 hours greater than 800 cfs	Estimated at 15 cfs	Reference Figure 4	FL, U
4/10/2019 to 4/11/2019	21:30 to 05:00	R3 – 435 (average), range 346 to 480	6 hours greater than 200 cfs	Estimated at 250 cfs	Reference Figure 5	Ο
4/10/2019 to 4/11/2019	21:30 to 05:00	R2 – 526 (average), range 418 to 577	6 hours greater than 400 cfs	Estimated at 250 cfs	Reference Figure 6	0
4/19/2019 to 4/20/2019	21:30 to 05:00	R1 – 947 (average), range 828 to 989	6 hours greater than 800 cfs	Estimated at 140 cfs	Reference Figure 7	0
5/25/2019	8:45 to 16:00	R3 – 788 (average), range 440 to 945	6 hours greater than 400 cfs	Estimated at 20 cfs	Reference Figure 8	FL, O
5/25/2019	10:15 to 17:30	R2 – 922 (average), range 527 to 1,120	6 hours greater than 500 cfs	Estimated at 20 cfs	Reference Figure 9	FL, O
5/25/2019	11:15 to 19:15	R1 – 1,824 (average), range 1,530 to 2,000	6 hours greater than 1,500 cfs	Estimated at 20 cfs	Reference Figure 10	FL, O

Table 1.Process Flow Log, July 2018 – June 2019.

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 (FL), Outmigration (O), Upmigration (U) as defined in the PF Plan

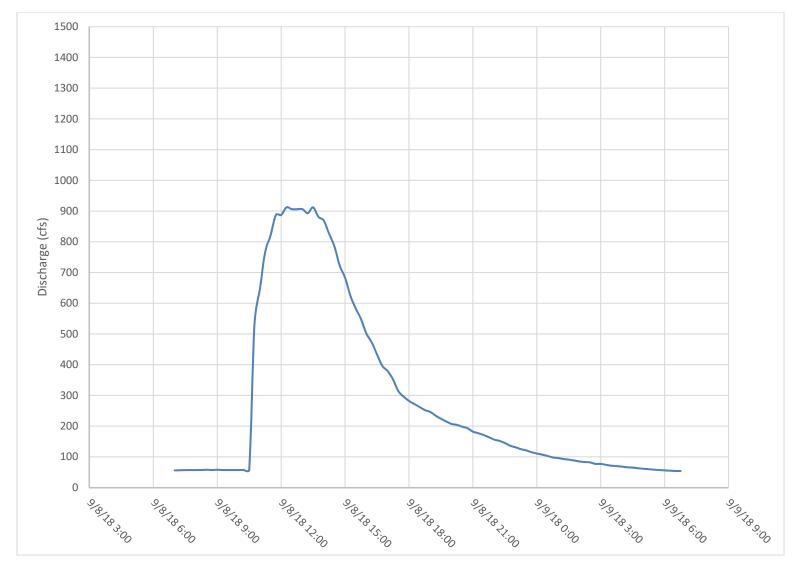
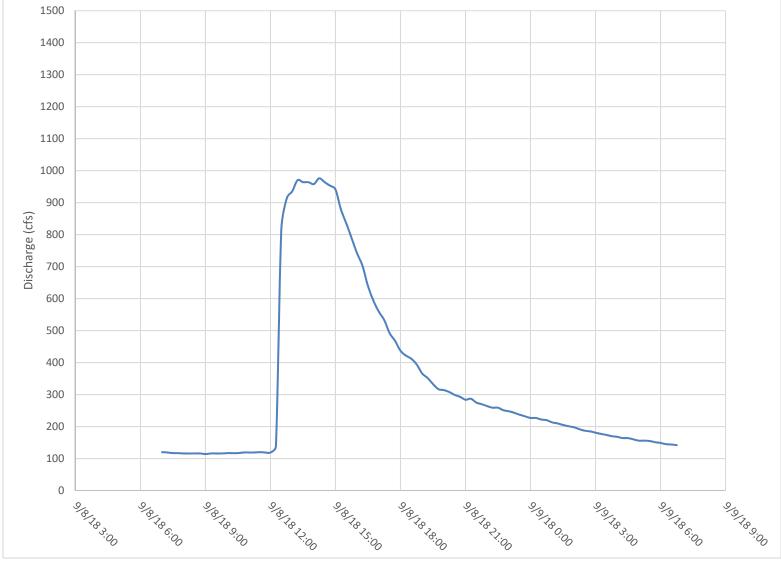
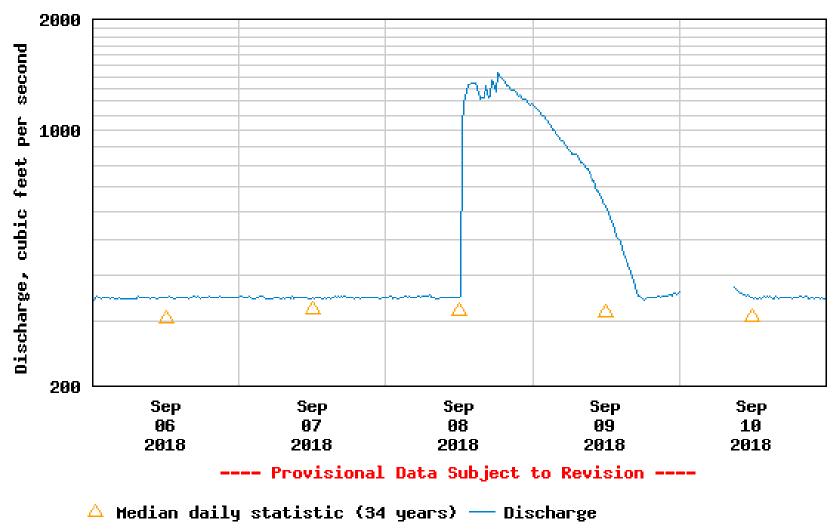


Figure 2. Sultan River immediately upstream of Diversion Dam – 09/08/2018.



Jackson Hydroelectric Project, FERC No. 2157

Figure 3. Sultan River immediately upstream of Powerhouse – 09/08/2018.



USGS 12138160 SULTAN RIVER BELOW POWERPLANT NEAR SULTAN, WA

Figure 4. Sultan River immediately downstream of Powerhouse – 09/08/2018.

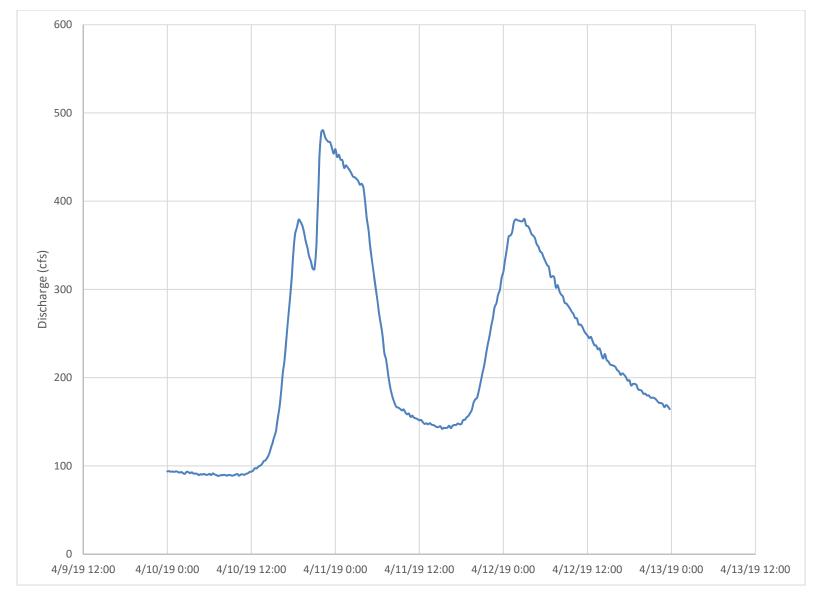


Figure 5. Sultan River immediately upstream of Diversion Dam – 04/10/2019 to 04/11/2019.

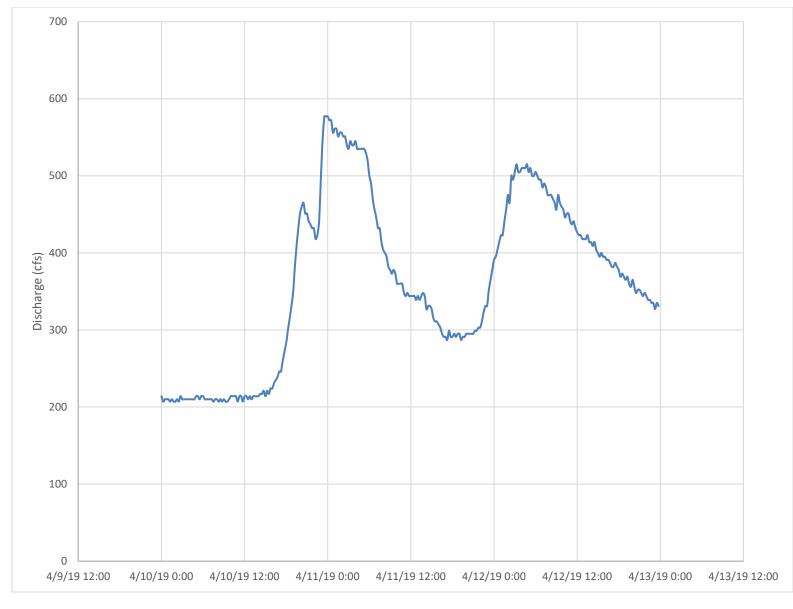
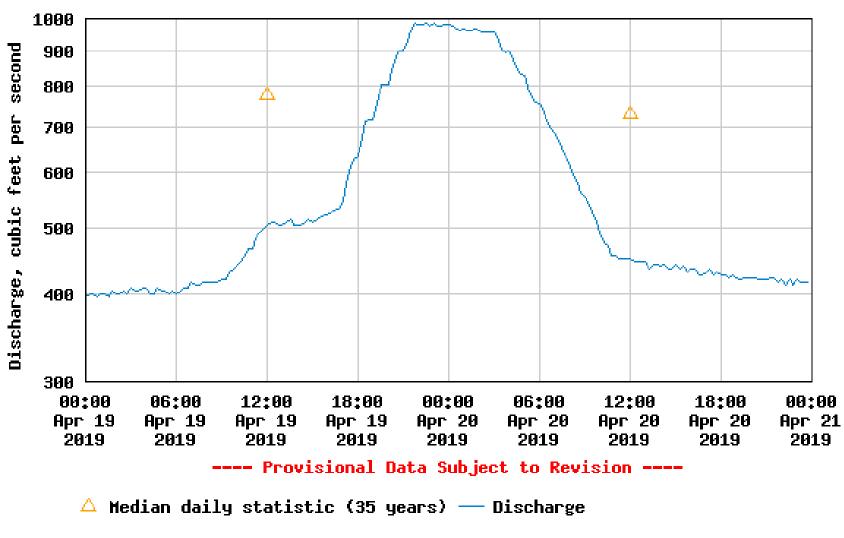


Figure 6. Sultan River immediately upstream of Powerhouse – 04/10/2019 to 04/11/2019.



USGS 12138160 SULTAN RIVER BELOW POWERPLANT NEAR SULTAN, WA

Figure 7. Sultan River immediately downstream of Powerhouse – 04/19/2019 to 04/20/2019.

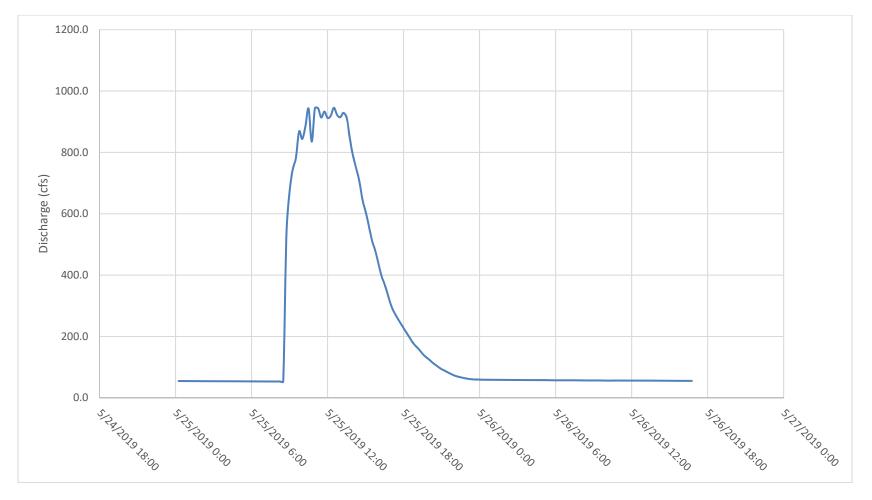


Figure 8. Sultan River immediately upstream of Diversion Dam – 05/25/2019.

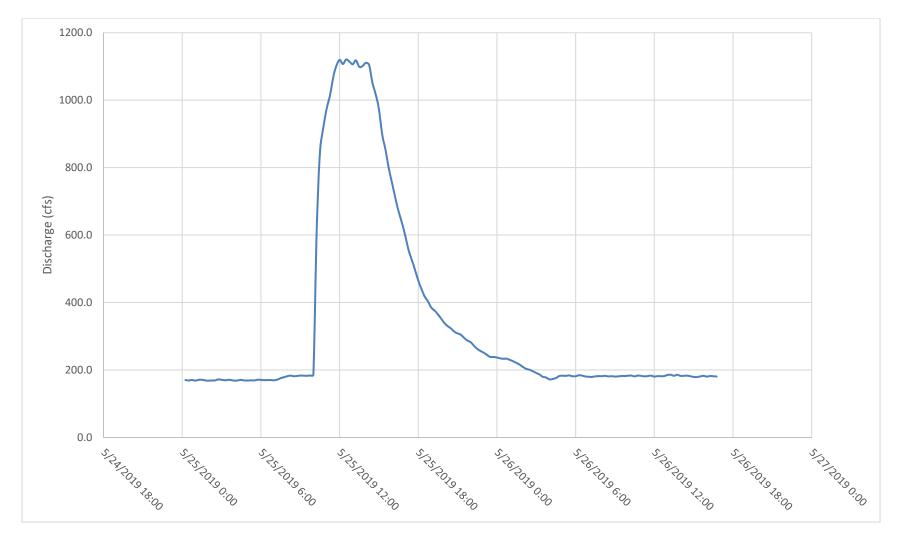
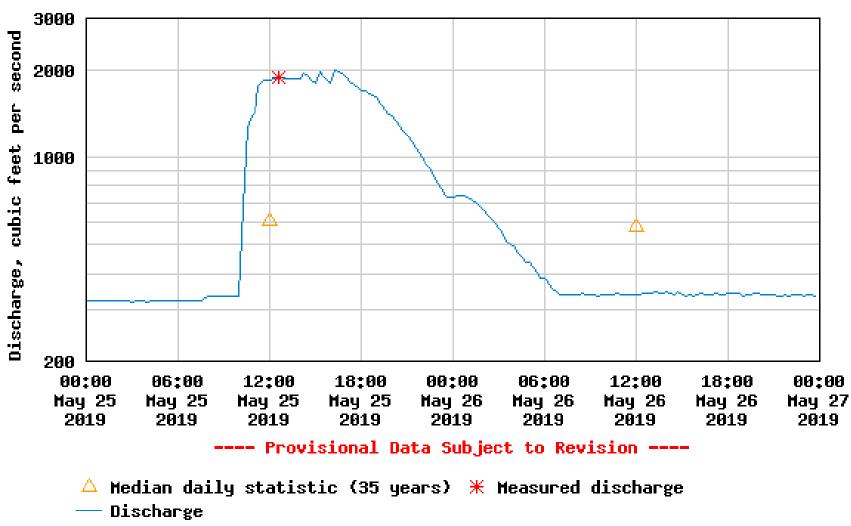


Figure 9. Sultan River immediately upstream of Powerhouse – 05/25/2019.



USGS 12138160 SULTAN RIVER BELOW POWERPLANT NEAR SULTAN, WA

Figure 10. Sultan River immediately downstream of Powerhouse – 05/25/2019

3. SPADA LAKE RESERVOIR WATER SURFACE ELEVATIONS

During this reporting period, Spada Lake Reservoir mean daily water surface elevations ranged between 1,401.8 and 1,446.0 feet msl, with the low on March 18, 2019, and the high on July 7, 2018. Figure 11 displays the mean daily water surface elevations of Spada Lake Reservoir, and Appendix 1 contains the data in tabular format.

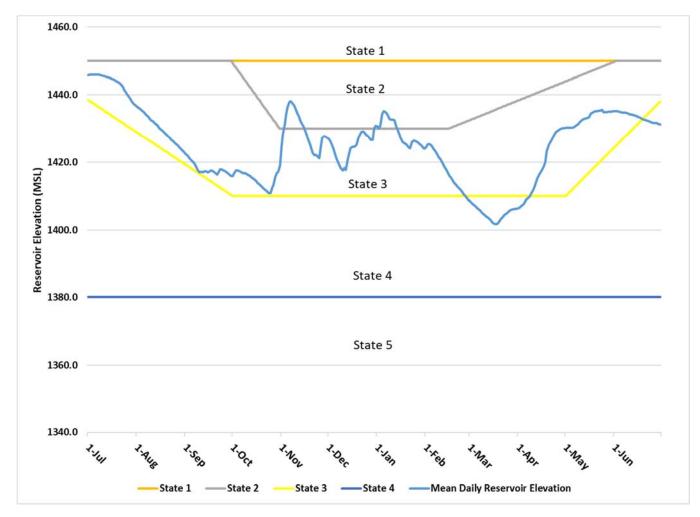


Figure 11. Mean daily water surface elevation, Spada Lake Reservoir, July 1, 2018 – June 30, 2019.

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

In 2018, the water surface in Spada Lake Reservoir dropped below the Project's License Article 406 target elevation of 1,420 feet msl. Specifically, on September 8, 2018, the Spada Lake Reservoir dropped below 1,420 feet msl and continued to decline to an elevation of 1,417 feet msl on September 15, 2018, the final day of the target elevation.⁹ This deviation was the result of abnormally dry weather which severely limited inflows to Spada Lake Reservoir. In August, the total monthly inflow to the reservoir averaged well below 100 cfs, approximately 38% of the long term mean. The influence of these climatic factors on reservoir elevation was further exacerbated by the annual whitewater (under License Article 412: Whitewater Recreation Plan) and process flow (under License Article 416: Process Flow Plan) releases scheduled by the license to occur during the first two weeks of September; these releases were conducted on September 8, 2018. In its letter dated November 9, 2018, FERC stated that the deviation will not be considered a violation of Article 406. Appendix 2 contains documentation regarding this deviation.

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

⁹ Given fluctuations of the reservoir and corresponding oscillations around the target elevation, the District rounds to the nearest mean daily elevation.

Appendix 1

Spada Lake Reservoir Mean Daily Elevations Tabular Format

Date	Reservoir Elevation (feet)	Date	Reservoir Elevation (feet)	Date	Reservoir Elevation (feet)
7/1	1445.82	8/1	1436.59	9/1	1422.51
7/2	1445.94	8/2	1436.21	9/2	1421.99
7/3	1445.97	8/3	1435.86	9/3	1421.47
7/4	1445.94	8/4	1435.46	9/4	1420.93
7/5	1445.94	8/5	1435.05	9/5	1420.41
7/6	1445.99	8/6	1434.63	9/6	1419.89
7/7	1446.02	8/7	1434.12	9/7	1419.38
7/8	1445.92	8/8	1433.61	9/8	1418.28
7/9	1445.83	8/9	1433.07	9/9	1417.44
7/10	1445.74	8/10	1432.54	9/10	1417.08
7/11	1445.58	8/11	1432.21	9/11	1417.1
7/12	1445.43	8/12	1431.89	9/12	1416.96
7/13	1445.28	8/13	1431.48	9/13	1417.26
7/14	1445.11	8/14	1430.97	9/14	1417.26
7/15	1444.94	8/15	1430.36	9/15	1417.03
7/16	1444.76	8/16	1429.9	9/16	1417.11
7/17	1444.53	8/17	1429.48	9/17	1417.54
7/18	1444.3	8/18	1429.02	9/18	1417.4
7/19	1444.04	8/19	1428.59	9/19	1417.11
7/20	1443.74	8/20	1428.12	9/20	1416.75
7/21	1443.4	8/21	1427.68	9/21	1416.37
7/22	1443.07	8/22	1427.19	9/22	1416.96
7/23	1442.39	8/23	1426.71	9/23	1417.8
7/24	1441.43	8/24	1426.24	9/24	1417.82
7/25	1440.76	8/25	1425.78	9/25	1417.64
7/26	1440.09	8/26	1425.37	9/26	1417.37
7/27	1439.4	8/27	1424.93	9/27	1417.05
7/28	1438.73	8/28	1424.47	9/28	1416.67
7/29	1438.03	8/29	1423.99	9/29	1416.27
7/30	1437.36	8/30	1423.52	9/30	1415.86
7/31	1436.97	8/31	1423.02		

Date	Reservoir Elevation (feet)	Date	Reservoir Elevation (feet)	Date	Reservoir Elevation (feet)
10/1	1415.94	11/1	1424.12	12/1	1426.96
10/2	1416.68	11/2	1428.34	12/2	1426.35
10/3	1417.56	11/3	1431.20	12/3	1425.41
10/4	1417.54	11/4	1434.31	12/4	1424.06
10/5	1417.42	11/5	1436.47	12/5	1422.65
10/6	1417.21	11/6	1438.06	12/6	1421.17
10/7	1416.94	11/7	1438.12	12/7	1419.95
10/8	1416.73	11/8	1437.61	12/8	1419.01
10/9	1416.71	11/9	1436.83	12/9	1418.20
10/10	1416.52	11/10	1435.89	12/10	1417.63
10/11	1416.24	11/11	1434.84	12/11	1418.33
10/12	1415.91	11/12	1433.65	12/12	1417.68
10/13	1415.54	11/13	1432.40	12/13	1420.71
10/14	1415.14	11/14	1431.51	12/14	1422.47
10/15	1414.72	11/15	1430.54	12/15	1424.12
10/16	1414.30	11/16	1429.51	12/16	1424.61
10/17	1413.86	11/17	1428.30	12/17	1424.57
10/18	1413.42	11/18	1426.98	12/18	1424.65
10/19	1413.00	11/19	1425.60	12/19	1425.26
10/20	1412.58	11/20	1424.15	12/20	1427.38
10/21	1412.16	11/21	1422.74	12/21	1428.15
10/22	1411.73	11/22	1422.10	12/22	1429.04
10/23	1411.30	11/23	1422.25	12/23	1429.18
10/24	1410.86	11/24	1421.83	12/24	1428.70
10/25	1410.92	11/25	1421.22	12/25	1428.28
10/26	1412.32	11/26	1424.28	12/26	1427.78
10/27	1413.22	11/27	1427.19	12/27	1427.24
10/28	1415.57	11/28	1427.81	12/28	1426.65
10/29	1416.70	11/29	1427.69	12/29	1426.61
10/30	1417.14	11/30	1427.43	12/30	1429.99
10/31	1418.94			12/31	1430.83

Date	Reservoir Elevation (feet)	Date	Reservoir Elevation (feet)	Date	Reservoir Elevation (feet)
1/1	1430.70	2/1	1424.47	3/1	1408.50
1/2	1430.22	2/2	1425.29	3/2	1408.09
1/3	1430.90	2/3	1425.36	3/3	1407.65
1/4	1434.39	2/4	1425.07	3/4	1407.21
1/5	1435.26	2/5	1424.51	3/5	1406.74
1/6	1435.06	2/6	1423.86	3/6	1406.31
1/7	1434.53	2/7	1423.16	3/7	1405.93
1/8	1433.74	2/8	1422.45	3/8	1405.50
1/9	1432.90	2/9	1421.67	3/9	1405.04
1/10	1432.73	2/10	1420.94	3/10	1404.57
1/11	1432.63	2/11	1420.17	3/11	1404.17
1/12	1432.50	2/12	1419.44	3/12	1403.82
1/13	1430.63	2/13	1418.60	3/13	1403.43
1/14	1429.61	2/14	1417.70	3/14	1402.98
1/15	1428.46	2/15	1416.82	3/15	1402.52
1/16	1427.21	2/16	1416.10	3/16	1402.09
1/17	1426.09	2/17	1415.36	3/17	1401.79
1/18	1425.64	2/18	1414.61	3/18	1401.78
1/19	1425.51	2/19	1413.96	3/19	1402.09
1/20	1425.06	2/20	1413.42	3/20	1402.81
1/21	1424.42	2/21	1412.86	3/21	1403.42
1/22	1424.14	2/22	1412.36	3/22	1403.92
1/23	1425.96	2/23	1411.82	3/23	1404.54
1/24	1426.42	2/24	1411.25	3/24	1404.88
1/25	1426.40	2/25	1410.63	3/25	1405.16
1/26	1426.17	2/26	1410.04	3/26	1405.74
1/27	1425.84	2/27	1409.44	3/27	1405.99
1/28	1425.45	2/28	1408.96	3/28	1406.12
1/29	1424.93			3/29	1406.19
1/30	1424.44			3/30	1406.27
1/31	1423.99			3/31	1406.36

Date	Reservoir Elevation (feet)	Date	Reservoir Elevation (feet)	Date	Reservoir Elevation (feet)
4/1	1406.52	5/1	1430.24	6/1	1435.24
4/2	1406.73	5/2	1430.31	6/2	1435.23
4/3	1407.26	5/3	1430.31	6/3	1435.17
4/4	1407.70	5/4	1430.30	6/4	1435.04
4/5	1408.34	5/5	1430.32	6/5	1434.88
4/6	1409.00	5/6	1430.51	6/6	1434.73
4/7	1409.52	5/7	1430.78	6/7	1434.73
4/8	1409.92	5/8	1431.12	6/8	1434.73
4/9	1410.68	5/9	1431.50	6/9	1434.60
4/10	1411.63	5/10	1431.93	6/10	1434.44
4/11	1412.69	5/11	1432.41	6/11	1434.29
4/12	1413.96	5/12	1432.79	6/12	1434.20
4/13	1415.21	5/13	1433.01	6/13	1434.10
4/14	1416.33	5/14	1433.14	6/14	1433.97
4/15	1417.06	5/15	1433.28	6/15	1433.76
4/16	1417.73	5/16	1433.54	6/16	1433.56
4/17	1418.78	5/17	1434.52	6/17	1433.34
4/18	1420.11	5/18	1434.85	6/18	1433.09
4/19	1423.38	5/19	1435.03	6/19	1432.87
4/20	1424.98	5/20	1435.19	6/20	1432.69
4/21	1425.88	5/21	1435.27	6/21	1432.58
4/22	1426.57	5/22	1435.28	6/22	1432.36
4/23	1427.66	5/23	1435.40	6/23	1432.21
4/24	1428.48	5/24	1435.62	6/24	1432.03
4/25	1429.05	5/25	1434.99	6/25	1431.82
4/26	1429.44	5/26	1434.96	6/26	1431.70
4/27	1429.81	5/27	1434.98	6/27	1431.73
4/28	1430.01	5/28	1435.04	6/28	1431.67
4/29	1430.16	5/29	1435.08	6/29	1431.48
4/30	1430.23	5/30	1435.13	6/30	1431.30
		5/31	1435.20	-	

Appendix 2

Documentation Regarding Spada Lake Reservoir Deviation



Your Community Energy Partner

September 17, 2018

VIA ELECTRONIC FILING

Kimberly D. Bose, Secretary Nathaniel J. Davis, Sr., Deputy Secretary Federal Energy Regulatory Commission 888 First Street NE Washington, DC 20426

Re: Jackson Hydroelectric Project, FERC No. 2157 License Article 406 – Reservoir Elevation on September 15, 2018

Dear Secretary Bose:

This letter is to notify the Commission that Public Utility District No. 1 of Snohomish County's (the District) Spada Lake Reservoir of the Jackson Hydroelectric Project (Project) water surface elevation went below the Project's License Article 406 target elevation of 1,420 feet msl defined for the period of August 16 to September 15, 2018. Specifically, on September 8, 2018, the Spada Lake Reservoir dropped below 1,420 feet msl and continued to decline to an elevation of 1,417 feet msl on September 15, 2018, the final day of the target elevation. This deviation was the result of abnormally dry weather which severely limited inflows to Spada Lake Reservoir. In August, the total monthly inflow to the reservoir averaged well below 100 cfs, approximately 38% of the long term mean. The influence of these climatic factors on reservoir elevation was further exacerbated by the annual whitewater (under License Article 412: Whitewater Recreation Plan) and process flow (under License Article 416: Process Flow Plan) releases scheduled by the license to occur during the first two weeks of September. This year, these releases were conducted on September 8, 2018.

The reduction in reservoir elevation level did not create any adverse environmental impacts, nor did it impact the usability of the boat ramp at the South Fork Recreation Site. The Aquatic Resource Committee was notified today of this reservoir elevation event. The information in this letter will be reported in the Operational Compliance Monitoring Report pursuant to License Article 407, as required by License Article 406.

If you have any questions regarding this letter, please do not hesitate to contact Keith Binkley, Manager of Natural Resources, at (425)783-1769 or <u>KMBinkley@snopud.com</u>.

Sincerely,

/s/ Tom DeBoer

Tom DeBoer Assistant General Manager of Generation, Power, Rates and Transmission Management <u>TADeBoer@snopud.com</u> (425) 783-1825

cc: ARC

CERTIFICATE OF SERVICE

I hereby certify that I have this day served via e-mail a copy of the foregoing filing upon each person on the Project's Aquatic Resource Committee in accordance with ordering paragraph K of the Project license issued by the Federal Energy Regulatory Commission on September 2, 2011.

Dated at Everett, Washington, this 17th day of September, 2018.

Derester

Dawn Presler, Sr. Environmental Coordinator Public Utility District No. 1 of Snohomish County PO Box 1107 Everett, WA 98206-1107 Phone: (425) 783-1709 E-mail: DJPresler@snopud.com

Presler, Dawn

From:	Presler, Dawn			
Sent:	Monday, September 17, 2018 10:57 AM			
To: 'Vacirca, Richard -FS'; 'lindsy_asman@fws.gov'; 'Janet Curran - NOAA				
	Savery'; 'Rustay, Michael'; 'Jim Miller (JMiller@everettwa.gov)';			
	'nate.morgan@ci.sultan.wa.us'; ''brock.applegate@dfw.wa.gov'			
	(brock.applegate@dfw.wa.gov)'; ''James (ECY) Pacheco' (JPAC461@ECY.WA.GOV)';			
	'okeefe@americanwhitewater.org'			
Cc:	Binkley, Keith			
Subject:	JHP (FERC No. 2157) - Spada Lake Reservoir elevation target dipped below 1,420			
Attachments:	20180917 reservoir dip below 1420.pdf			

Dear ARC,

This emailing is informing you that we did not make the Spada Lake Reservoir target of 1,420 ft msl as of September 15 per License Article 406; we started to dip below on September 8. This is due to a combination of whitewater/process flow releases on September 8 and low rainfall in the basin. No impacts to recreation in the Reservoir were noted. We will be filing the attached letter with FERC today notifying them of the dip. As a side note, given the completion of Water Temperature Conditioning phase 2 structure this fall, the new target for the reservoir is 1,415 ft msl next September per Article 406.

Please contact Keith with any questions regarding the letter.

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

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

FEDERAL ENERGY REGULATORY COMMISSION Washington, D. C. 20426

OFFICE OF ENERGY PROJECTS

Project No. 2157-239 -- Washington Henry M. Jackson (Sultan) Hydroelectric Project PUD No. 1 of Snohomish County

November 9, 2018

Mr. Tom DeBoer PUD No. 1 of Snohomish County 2320 California Street, P.O. Box 1107 Everett, WA 98206-1107

Subject: Reservoir Elevation Deviation - Article 406

Dear Mr. DeBoer:

This is in response to your report submitted on September 17, 2018, concerning a temporary impoundment water surface elevation deviation at the Henry M. Jackson (Sultan) Hydroelectric Project No. 2157. You submitted the filing pursuant to Article 406 of the license.¹ For the reasons discussed below, we determined that the deviation is not a violation of your license.

License Requirement

Article 406 of the license requires you to operate the Henry M. Jackson Project consistent with the Spade Lake reservoir rule curves as required in the Appendix A, condition 5.2 (A-LA 14). The rule curves divide Spade Lake water elevations into five states that dictate water management and shift throughout the water year (July 1 through June 30). You must maintain a minimum impoundment water surface elevation in Spada Lake Reservoir at or above 1,420 feet mean sea level (msl) from August 16 through

¹*Public Utility District No. 1 of Snohomish County, Washington*, 136 FERC ¶ 62,188 (2011).

Project No. 2157-239

September 15 until a temperature conditioning structure is installed and operational.² You must modify the minimum water surface elevations resulting from system emergencies, operating emergencies beyond your control, and for short periods of time upon mutual agreement with the Aquatic Resource Committee.³ If the impoundment water surface elevation is modified, you must notify the Aquatic Resource Committee and the Commission within two business days after each incident. In addition, you must document the incident in the annual operational compliance monitoring report filed with the Commission pursuant to Article 407, and describe the incident that resulted in the modification of the water surface elevation.

Reservoir Elevation Deviation

In the filing you report that on September 8, 2018, the impoundment water surface elevation at Spada Lake dropped below the required minimum elevation of 1,420 feet msl, and continued to decline to an elevation of 1,417 feet msl, on September 15, 2018, the final day of the target elevation. This deviation resulted from unusually dry weather conditions, which severely limited inflows to Spada Lake. In addition, the influence of these climatic factors on reservoir elevation was intensified by the required annual whitewater and process flow releases, which was scheduled to be conducted on September 8, 2018. You report that this reduction of water level did not create any adverse environmental impacts, nor did it impact the usability of the boat ramp at the South Fork recreation site. Your filing includes an electronic correspondence dated September 17, 2018, in which you notified the incident to the Aquatic Resource Committee, as required by your license. You did not receive any comments regarding the incident. Furthermore, you indicate that the incident will be documented in the annual operational compliance monitoring report as required by your license.

² After the temperature conditioning structure is installed and operational, you must maintain a minimum impoundment water surface elevation in Spada Lake above 1,415 feet mean sea level, from August 16 through September 15.

³The Aquatic Resource Committee consists of representatives of: the National Marine Fisheries Service, the U.S. Forest Service, the U.S. Fish and Wildlife Service, the Washington Department of Fish and Wildlife, the Washington Department of Ecology, the Tulalip Tribes, the Snohomish County, the City of Everett, the City of Sultan, and the American Whitewater.

Project No. 2157-239

Conclusion

After reviewing the information provided, we determined that the temporary impoundment water surface elevation deviation that occurred between September 8 through 15, 2018, at the Henry M. Jackson Project was due to a combination of extremely dry weather conditions and the annual whitewater flow releases scheduled on September 8, 2018, and will not be considered a violation of your requirements under Article 406 of the license. The deviation was a result of abnormally low precipitation over an extended period of time and you took necessary actions to protect the reservoir and aquatic resources. You notified the Aquatic Resources Committee as required by the license and will include the deviation in the next annual operational compliance monitoring report. Additionally, there were no reported adverse environmental effects due to the incident. Your filing fulfills the reporting requirements of your license.

Thank you for your continued cooperation relative to project operation. If you have any questions concerning this letter, please contact Anumzziatta Purchiaroni at (202) 502-6191 or anumzziatta.purchiaroni@ferc.gov.

Sincerely,

Kelly Houff Chief, Engineering Resources Branch Division of Hydropower Administration and Compliance

Appendix 3

Consultation Documentation Regarding Draft Report

Presler, Dawn

From:	Presler, Dawn
Sent:	Monday, August 19, 2019 12:16 PM
То:	'Ford, Jennifer - FS'; 'Janet Curran - NOAA Federal'; 'Asman, Lindsy'; 'Anne Savery';
	''brock.applegate@dfw.wa.gov' (brock.applegate@dfw.wa.gov)'; ''James (ECY) Pacheco' (JPAC461
	@ECY.WA.GOV)'; 'Rustay, Michael'; 'okeefe@americanwhitewater.org'; 'Jim Miller
	(JMiller@everettwa.gov)'; 'nate.morgan@ci.sultan.wa.us'
Cc:	Binkley, Keith
Subject:	JHP (FERC No. 2157) - draft OCMP Annual Report for your 30-day review

Dear ARC,

Attached is the draft Operations Compliance Monitoring Plan Annual Report for Water Year 18-19 for your 30-day review. Please email comments, if any, to me with cc: to Keith by September 18. If you have any questions regarding the attached report, please contact Keith directly. Thank you!



Sincerely,

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

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

Presler, Dawn

From:	Jim Miller <jmiller@everettwa.gov></jmiller@everettwa.gov>
Sent:	Thursday, August 22, 2019 7:09 PM
То:	Presler, Dawn
Subject:	RE: JHP (FERC No. 2157) - draft OCMP Annual Report for your 30-day review

CAUTION: THIS EMAIL IS FROM AN EXTERNAL SENDER. Do not click on links or open attachments if the sender is unknown or the email is suspect.

OK by me.

Jim



James W Miller, P.E.

Engineering Superintendent | Public Works Department P: 425-257-8880; C: 425-418-5630 3200 Cedar St., Everett, WA 98201 everettwa.gov | Facebook | Twitter

Note: Emails and attachments sent to and from the City of Everett are public records and may be subject to disclosure pursuant to the Public Records Act.

From: Presler, Dawn <DJPresler@SNOPUD.com>

Sent: Monday, August 19, 2019 12:16 PM

To: 'Ford, Jennifer - FS' <jford@fs.fed.us>; 'Janet Curran - NOAA Federal' <janet.curran@noaa.gov>; 'Asman, Lindsy' <lindsy_asman@fws.gov>; 'Anne Savery' <asavery@tulaliptribes-nsn.gov>; ''brock.applegate@dfw.wa.gov' (brock.applegate@dfw.wa.gov)' <brock.applegate@dfw.wa.gov>; ''James (ECY) Pacheco' (JPAC461@ECY.WA.GOV)' <JPAC461@ECY.WA.GOV>; 'Rustay, Michael' <mike.rustay@co.snohomish.wa.us>; 'okeefe@americanwhitewater.org' <okeefe@americanwhitewater.org>; Jim Miller <JMiller@everettwa.gov>; 'nate.morgan@ci.sultan.wa.us' <nate.morgan@ci.sultan.wa.us>

Cc: Binkley, Keith <KMBinkley@SNOPUD.com>

Subject: JHP (FERC No. 2157) - draft OCMP Annual Report for your 30-day review

Dear ARC,

Attached is the draft Operations Compliance Monitoring Plan Annual Report for Water Year 18-19 for your 30-day review. Please email comments, if any, to me with cc: to Keith by September 18. If you have any questions regarding the attached report, please contact Keith directly. Thank you!

Sincerely,

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

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