



Energizing Life in Our Communities

June 8, 2021

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
Water Quality Monitoring Plan – 2019 Annual Report
License Article 401 (b)**

Dear Secretary Bose:

Enclosed is Public Utility District No. 1 of Snohomish County's Water Quality Monitoring Plan Annual Report for 2020 pursuant to License Article 401 (b) for the Jackson Hydroelectric Project. The draft report was provided to the Aquatic Resources Committee for a 30-day review and comment period; no comments were received requesting changes. Consultation documentation is included in the report's appendices.

If you have any questions on the Water Quality Monitoring Plan Annual Report for 2020, please do not hesitate to contact me.

Sincerely,

/s/ Keith Binkley

Keith Binkley
Manager, Natural Resources
(425) 783-1760
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Enclosed: Water Quality Monitoring Plan Annual Report for 2020

cc: Aquatic Resources Committee
Monika Kannadaguli, Ecology Northwest Regional Office Water Quality Program

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



License Article 401: Water Quality Monitoring Plan – 2020 Annual Report



Everett, WA

June 2021

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). 2021. Water Quality Monitoring Plan 2020 Annual Report, License Article 401, for the Henry M. Jackson Hydroelectric Project, FERC No. 2157. June 2021.

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

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List of Acronyms and Abbreviations

7-DAD Max	seven-day average of the daily maximum
ARC	Aquatic Resource Committee
District	Public Utility District No. 1 of Snohomish County
Ecology	Washington Department of Ecology
FERC	Federal Energy Regulatory Commission
Project	Henry M. Jackson Hydroelectric Project, FERC No 2157
RM	river mile
USGS	U.S. Geological Survey
WQMP	Water Quality Monitoring Plan

1. INTRODUCTION

Public Utility District No. 1 of Snohomish County (the District) received a license on September 2, 2011 (License), from the Federal Energy Regulatory Commission (FERC) for the Henry M. Jackson Hydroelectric Project (Project). The FERC approved the Water Quality Monitoring Plan (WQMP) on March 30, 2012, pursuant to License Article 401(a). The District is to file a report with the FERC by June 30 of each year detailing the monitoring efforts of the previous calendar year, pursuant to License Article 401(b).

This WQMP Annual Report covers activities conducted in calendar year 2020. Monthly measurements of reservoir water quality are presented in Appendix A. Appendices B, C, and D present the data from continuous monitoring of water temperature in the river and tributary systems. Appendix B shows graphical data, Appendix C shows tabular data, and Appendix D shows seven-day average of the daily maximum water temperature in tabular format. This WQMP Annual Report was provided to the Aquatic Resources Committee (ARC) [consisting of the City of Everett, City of Sultan, Snohomish County, Washington Department of Ecology (Ecology), Washington Department of Fish and Wildlife, Tulalip Tribes, U.S. Forest Service, National Marine Fisheries Service, U.S. Fish and Wildlife Service and American Whitewater] for a 30-day review and comment period on April 29, 2021. Consultation documentation is included in Appendix E.

The annual report fulfills monitoring and reporting requirements as stipulated in Ecology's 401 Water Quality Certification Order (Order No. 7918, October 18, 2010). As described in the 401 Certification Order (Section 9.0, Monitoring and Reporting Requirements), the report includes summaries of the water quality data, and includes sample dates, times, locations, and results. Compliance with state water quality standards is discussed, as well. The report will be submitted to the hydropower certification manager at Ecology's Water Quality Program Northwest Regional Office, and FERC.

The WQMP requires the District to collect water quality data in and around Spada Lake Reservoir, the Sultan River between river mile (RM) 15.8 and RM 0.2, and the Skykomish River at RM 14.1 and RM 13.2 (Table 1-1).

Table 1-1. Parameters to be monitored, locations, and sampling frequency.

Parameter	South Fork Sultan River	Spada Lake Reservoir	Sultan River										Skykomish River	Frequency
	Upriver from bridge	Near log boom	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2	
Water temperature	•	•	•	•	•	•	•	•	•	•	•	•	•	Year-round in stream reaches at all locations except RM 15.5, 14.3, and 11.3 which are monitored from April 1-October 31 only. Lake profile is monitored between May 1 and October 31.
Dissolved oxygen	•	•					•			•				May 1 to October 31. Monthly in stream reaches. Monthly for lake profile.
Turbidity	•	•					•			•				May 1 to October 31. Monthly in stream reaches. Monthly for lake profile.
pH	•	•					•			•				May 1 to October 31. Monthly in stream reaches. Monthly for lake profile.
Secchi transparency		•												May 1 to October 31. Monthly.
Flow discharge	•		•				•	•	•	•				Year-round. Daily.
Reservoir elevation		•												Year-round. Daily.

The following sections of this report are organized and structured as water flows, beginning in the upper portion of the Sultan watershed.

2. RESERVOIR MONITORING

2.1. *Climatic Conditions*

2.1.1. Rainfall Data

Rainfall data for 2020 is incomplete as the weather station at Culmback Dam was removed prior to re-roofing of the control building. For the months of August and September 2020, the rain gauge was not functioning. Total rainfall is therefore the sum off all months except August and September. For historical context, August and September have on average received 3.8 and 7.7 inches of precipitation annually, since the project began retaining precipitation records at Culmback Dam in 1986. During 2020, a total of 196.7 inches of rain was recorded at the Culmback Dam Weather Station. The rainfall measured during 2020 was greater than the historical annual average of 162.1 inches. Monthly rainfall averaged 19.67 inches and ranged between a low of 4.1 inches in July and a high of 48.2 inches in January (Table 2-1). During 2020, the highest recorded daily rainfall (8.4 inches) occurred on January 6, 2020.

Table 2-1. Monthly rainfall, Culmback Dam Weather Station, 2020.

Month	Rainfall (inches)
January	48.2
February	22.9
March	17.0
April	6.9
May	11.8
June	6.3
July	4.1
August	N/A
September	N/A
October	23.5
November	26.3
December	29.7

2.1.2. Snow Survey Measurements

Beginning in 1986, the District has conducted annual surveys of the snowpack, typically during late March. Since inception, the annual mean snow and water depth at Stickney Ridge (elevation 3,600 feet) are 98.3 and 41.6 inches, respectively. During the 2020 survey (March 19), there were 112.2 inches of snow at the Stickney Ridge station (Figure 2-1) which was 114 percent of historical mean. In terms of water content, the 49.2 inches recorded during the 2020 survey equated to 118 percent of the historic mean.

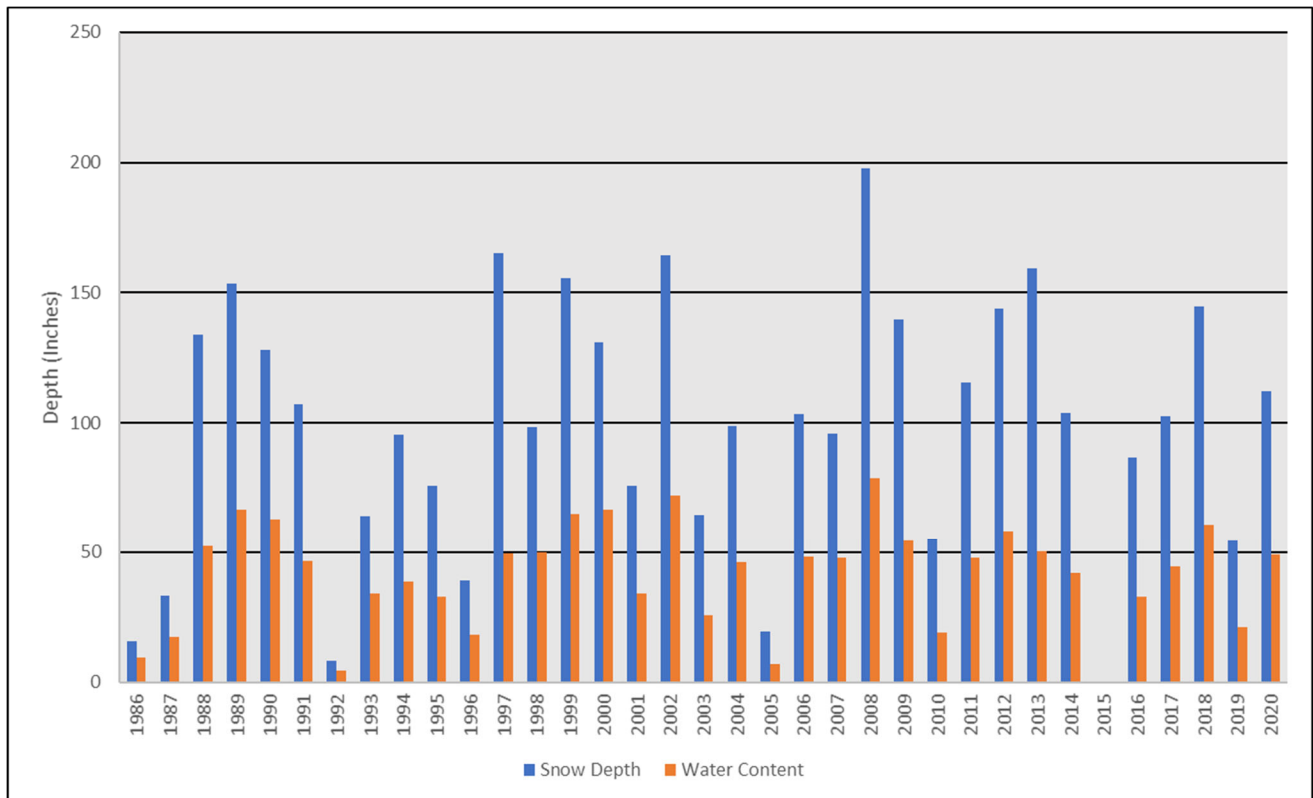


Figure 2-1. Snow survey data, Stickney Ridge, Sultan Watershed, 1986-2020.

2.1.3. Reservoir Inflow

Three tributaries feed into Spada Lake Reservoir: the South Fork Sultan River, Williamson Creek, and the mainstem Sultan River, including Elk Creek. Historically, the U.S. Geological Survey (USGS) has operated gages at several locations within the basin. Currently, the South Fork Sultan River is the only tributary that is actively gaged. At this location, the USGS operates Station No. 12137290, South Fork Sultan River near Sultan, WA, which provides real time information for Project operations. Hydrologic modeling indicates that the South Fork Sultan River, on average, accounts for between 14 and 22 percent of total inflow into the reservoir, depending on conditions. The 2020 hydrograph for this station is presented in Figure 2-2. Instantaneous flow values ranged from 6.6 to 4,210 cfs. Mean daily flow during 2020 averaged 158 cfs and ranged between a low of 6.6 cfs and a high flow of 1,990 cfs. The average mean annual flow, based on the USGS Water Year, for this station is 132.6 cfs (Period of Record 1992-2020).

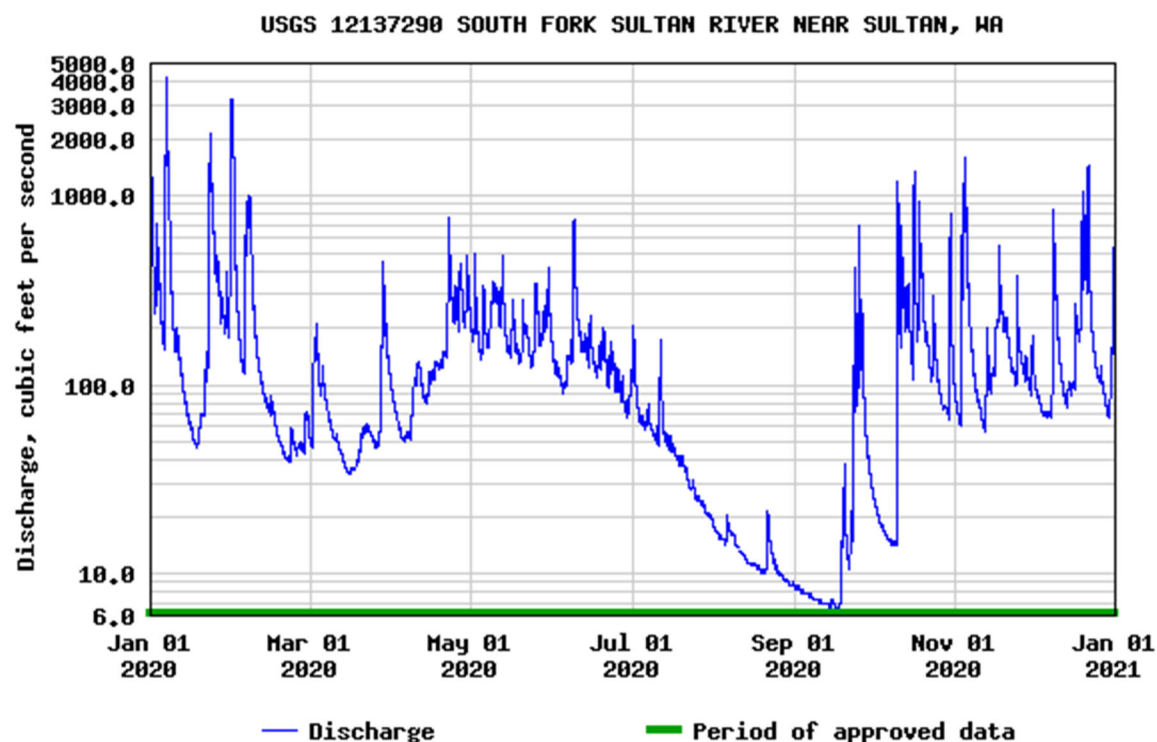


Figure 2-2. Hydrograph for the South Fork Sultan River, USGS Station No. 12137290, 2020 calendar year.

2.2. Reservoir Operations

2.2.1 Project Outflow

In the absence of reservoir spill, the vast majority of Project outflow occurs through the power tunnel, as indexed by daily plant generation. In 2020, the Project experienced two spill events. The first event occurred in January (01/31/20 – 02/03/20) and the second event in February (02/07/20 – 02/09/20). Daily plant generation during 2020 is depicted in Figure 2-3. A total of 488,815 megawatt hours were produced during 2020 equating to 116.8 percent of the historic annual average of 418,358 megawatt hours.

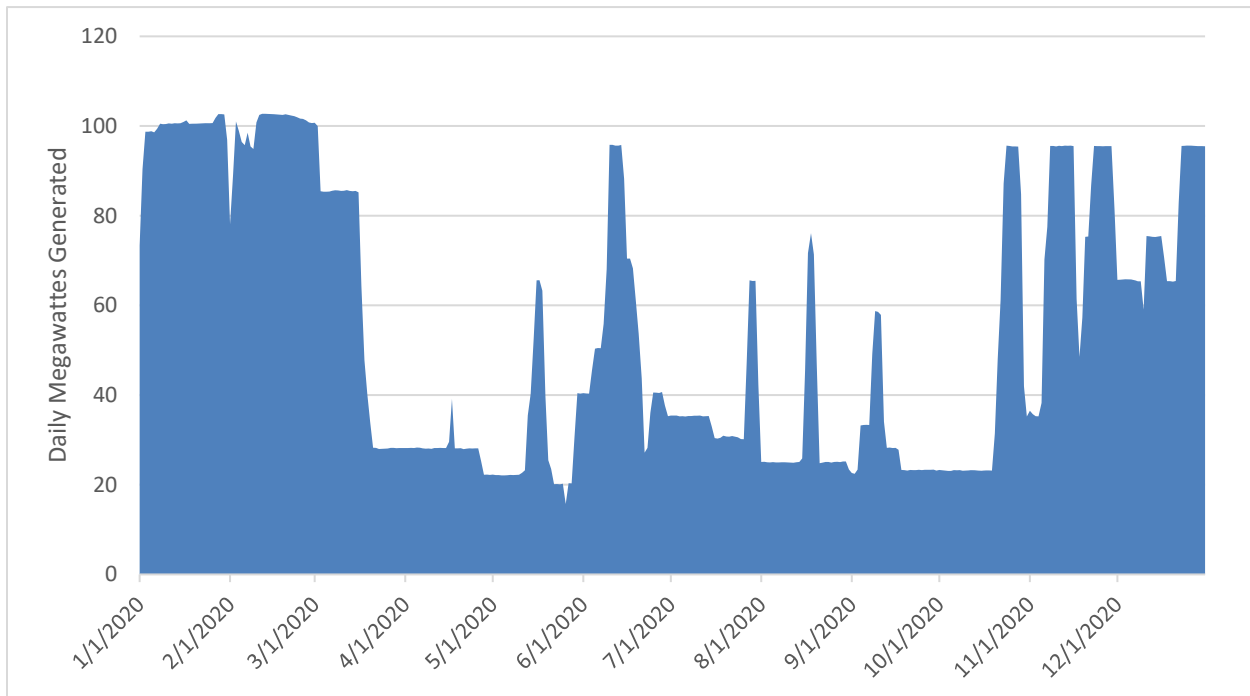


Figure 2-3. Daily plant generation, Jackson Hydroelectric Project, 2020.

2.2.2. Reservoir Elevation

Water surface elevation in Spada Lake Reservoir is partitioned into five states, which define how the Project is to be operated through the year. States 1 and 2 require full generation to withdraw 1,300 cfs for spill/flood control. State 3 is a discretionary zone, which allows the District to operate in a range defined by the maximum of states 1 and 2 or minimum defined by State 4. State 4 requires minimum generation to maintain the instream flows for fish and habitat protection and water supply for the City of Everett. A fifth state (State 5) lies below reservoir elevation 1,380 feet msl, during which the Project does not operate. During 2020, Spada Lake Reservoir was drafted and filled in accordance with the rule curves established for the Project (Figure 2-4).

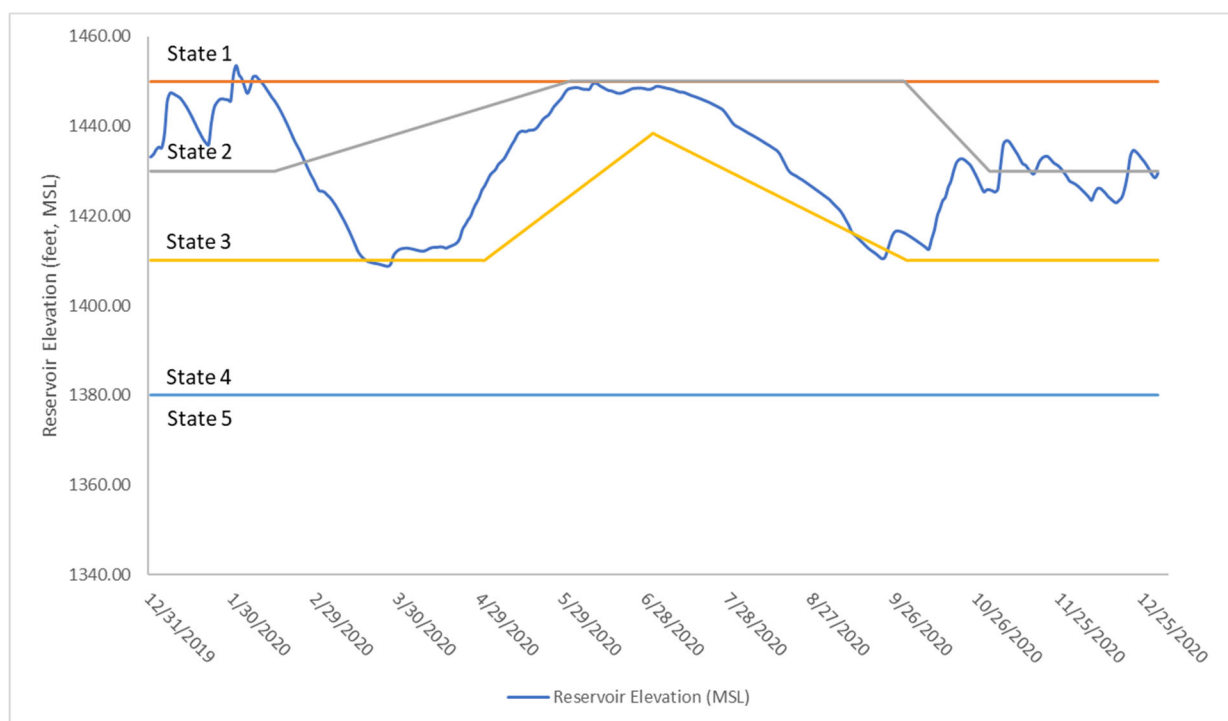


Figure 2-4. Daily water surface elevation, Spada Lake Reservoir, 2020.

2.3. Water Quality

Monthly sampling of water quality in Spada Lake Reservoir occurred on the following dates during 2020: April 30, May 21, June 18, July 30, August 24, September 29, and October 20. Sampling was conducted cooperatively with the City of Everett and included profile measurements of conventional parameters including temperature, pH, dissolved oxygen, and turbidity. Additional sampling included measurements of nutrients, phytoplankton, and zooplankton.

By summary, Spada Lake Reservoir was weakly stratified and thoroughly oxygenated during May. Zooplankton, in particular *Holopedium*, had reached their summer maximum density in July. The highest phytoplankton biovolume of the year was also recorded in July. The warmest water temperature was documented in July and the thermocline was set between 20 and 26 feet in depth. The effects of the thermocline on dissolved oxygen were apparent as dissolved oxygen levels below saturation persisted near the bottom of the reservoir during late summer/early fall. During the course of the year, most biological activity took place in the epi- and metalimnion. Additional water quality information is provided below by parameter.

2.3.1. Temperature

Spada Lake Reservoir temperatures ranged from 4.0 to 21.1 °C depending on month and depth (Appendix A). Temperature stratification was first evident during the April sampling session. April had the coolest water temperatures while July had the warmest water temperatures. The thermocline was strongest in July; however, August also had a resistance to mixing. The strongest point in the thermocline dropped from 20 feet in July to 56 feet in September. A weak thermocline extended to a depth of 70 feet in October.

2.3.2. pH

The highest measured pH was 6.9 in July at a depth of 20 feet. The lowest pH of 5.7 was measured in September at a depth of 120 feet and was likely due to increased bacterial degradation of organic matter.

2.3.3. Dissolved Oxygen

Dissolved oxygen ranged from a low of 8.6 mg/L in September to a high of 12.0 mg/L in April. By saturation values, the maximum of 101 percent in July was likely due to increasing primary production, and the minimum of 69 percent of saturation at depth in October was likely due to limited photosynthetic oxygen production and bacterial degradation of organic matter.

2.3.4. Turbidity

In each month sampled, the surface was less turbid than at depth. Turbidity values at the surface and at depth decreased from April to July and increased from July to October. Through most of the season, the cut-off points between higher and lower turbidities can be traced to the thermal structure of the reservoir.

2.3.5. Secchi Transparency

Secchi transparency ranged from a high of 26 feet in July to a low of 7 feet in April and October (Table 2-2).

Table 2-2. Secchi transparency, Spada Lake Reservoir, 2020.

Date	Result (feet)
4/30/2020	7
5/21/2020	10
6/18/2020	23
7/30/2020	26
8/24/2020	12
9/29/2020	9
10/20/2020	7

2.3.6. Nutrients

Total phosphorus concentrations were between 4.6 and 7.4 µg/L for most of the summer, both at the surface and at depth. An increase in total phosphorus was noted throughout the water column during September sampling. Total nitrogen was also relatively constant between 88.9 and 149.4 µg/L for most of the summer with an increase noted in September and again in October. Nitrate showed more variation over time and depth, with values ranging between 2.1 and 125.7 µg/L from April through October. Silica concentrations were relatively stable throughout the water column, ranging from 1,030 and 1,826 µg/L.

2.3.7. Phytoplankton

The greatest total volume (µm³/mL) of phytoplankton occurred in the August sample, of which *Cyanophyta* was the predominant taxon by total biovolume. *Cyanophyta*, were again the predominant taxon by total volume for September, whereas, *Chlorophyta* were the predominant taxon by total volume in October. In situ chlorophyll and dissolved oxygen readings indicate that primary production took place predominantly between the surface and a depth of 30 feet, peaking in May (3.2 µg/L).

2.3.8. Zooplankton

Conochilus (single), were the dominant zooplankter in all months sampled except May and June. *Epischura* and *Holopedium* were the dominant zooplankters in May and June, respectively. *Holopedium* peaked in July at 7 colonies per liter. The largest diversity in zooplankton species occurred in August and September. The total number of zooplankton/L ranged from 0.09 (April and May) to 22.4 (July) and averaged 6.42 between April and October.

3. RIVER MONITORING

3.1. Background

Maintaining suitable water temperatures in the Sultan River is an important aspect of the Project operation. Water temperature influences fish behavior, especially anadromous fish during the freshwater phase of their life cycle. The Sultan River produces Chinook, coho, chum and pink salmon, and steelhead trout, plus resident fish species.

The Project's water storage and conveyance system is complex with discharge into the Sultan River occurring at three facilities – Culmback Dam, Diversion Dam, and Powerhouse (Figure 3-1). At Culmback Dam, a 10-inch cone valve is used to variably release an annual water budget of 23,831 acre-feet into Reach 3 of the Sultan River, immediately downstream of the dam. Further downstream, the additional water necessary to meet instream flow requirements (at the Diversion Dam) is routed through the Francis turbine units at the Powerhouse, then the Lake Chaplain pipeline to a former City Water diversion tunnel connected to another water line discharging into the river at the Diversion Dam at RM 9.8. Except for infrequent spill at Culmback Dam, these releases, plus tributary flows to the river, provide the instream flow for fish species throughout eleven river miles upstream from the Powerhouse. Pelton turbines, which discharge directly to the river at RM 4.5, provide additional water when needed to meet minimum instream flow requirements below the Powerhouse.

Water temperatures in Reach 3, immediately downstream of Culmback Dam, are seasonally influenced by releases through a 24-inch cone valve blended in concert with water discharged through the 10-inch cone valve. The releases are described in detail in the annual reporting for the Water Temperature Conditioning Plan for Reach 3 (District 2010). Downstream, water temperatures at the Diversion Dam are influenced by flow volume and the depth of release at Culmback Dam (whether through the intake structure, cone or Howell-Bunger valves, or by spill), by tributary flows, and by meteorological conditions. Moveable panels at the Spada Lake Reservoir intake structure control the level and, hence, the temperature at which water is withdrawn from the reservoir to the powerhouse intake when conditions allow. When isothermal conditions exist in the reservoir, no change in water temperature can be achieved by moving the panels on the intake structure. The degree of temperature control possible by panel manipulation varies seasonally with the degree of temperature stratification in the reservoir. Panel position settings during 2020 are presented in Table 3-1.



Jackson Project Hydraulics

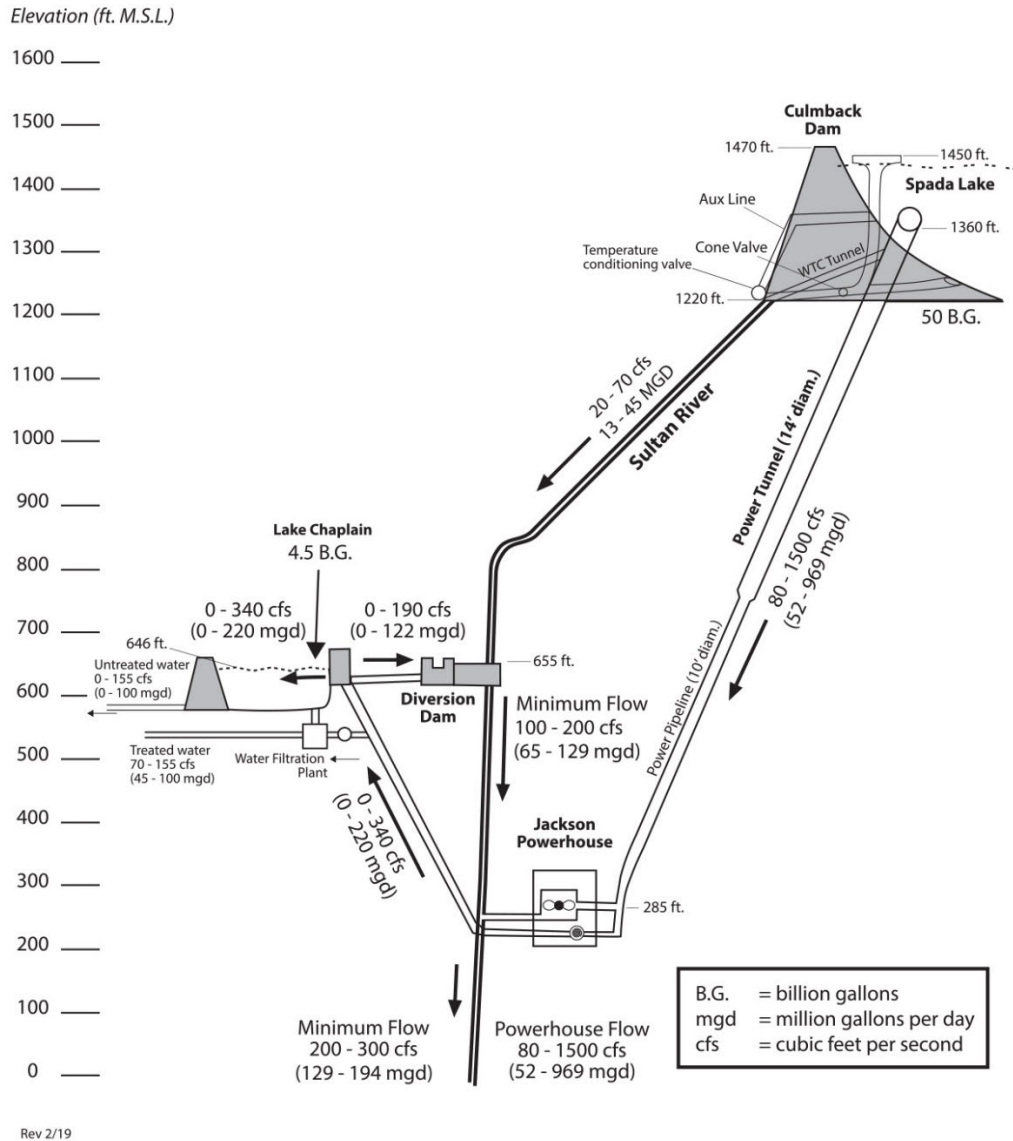


Figure 3-1. Schematic of water conveyance system, Jackson Hydroelectric Project.

Table 3-1. Settings for selective withdrawal panels, Spada Lake Reservoir, 2020.

Dates	Panel Setting	Upper Opening (elevation in feet msl)	Lower Opening (elevation in feet msl)
Beginning of year to 5/11/20	E	1,380 – 1,360	None
5/12/20 to 6/21/20	C	1,425 – 1,405	None
6/22/20 to 7/19/20	C-D	1,422.5 – 1,400	None
7/20/20 to 8/24/20	D	1,405 – 1,385	None
8/25/20 to end of year	E	1,380 – 1,360	None

3.2. Continuous Temperature Monitoring

The District monitored water temperature at 12 locations within the Project area during 2020 (Figure 3-2). The RM 15.5, 14.3, and 11.3 locations were monitored from April 1-October 31. All other sites were monitored throughout the year. These locations, in order from upstream to downstream, include:

- South Fork Sultan River, upstream of Culmback Dam, near RM 18.2;
- Sultan River, within the bypass reach immediately downstream of Culmback Dam, at RM 15.8;
- Sultan River, within the bypass reach at the base of the Sultan River Canyon Trail, at RM 15.5;
- Sultan River, within the bypass reach, near RM 14.3;
- Sultan River, within the bypass reach, near RM 11.3;
- Sultan River, within the bypass reach immediately upstream of the Diversion Dam, near RM 9.8;
- Sultan River, immediately downstream of the Diversion Dam, near RM 9.6;
- Sultan River, upstream of the Powerhouse, near RM 4.9;
- Sultan River, downstream of the Powerhouse, near RM 4.4,
- Sultan River, near the confluence with the Skykomish River, at RM 0.2;
- Skykomish River, upstream of the confluence with the Sultan River, at RM 14.1; and
- Skykomish River, downstream of the confluence with the Sultan River, at RM 13.2.

Water temperature monitoring at Sultan River RM 14.3 and 11.3, are part of the Water Temperature Conditioning Plan monitoring sites for Reach 3; the remaining 10 stations are those required for monitoring under the WQMP.

In general, water temperatures in the Sultan Basin during 2020 were slightly cooler than 2019 and consistent with those collected during 2008 and 2009 by CH2M Hill and presented in the Water Quality Final Technical Report (CH2M Hill 2009). Figures depicting water temperatures during 2020 are presented in Appendix B. A tabulation of all mean daily temperature data for 2020 is presented in Appendix C. The seven-day average of the daily maximum temperature (7-DAD Max) is presented in Appendix D. Data gaps are attributed to malfunctioning equipment or equipment lost due to vandalism.

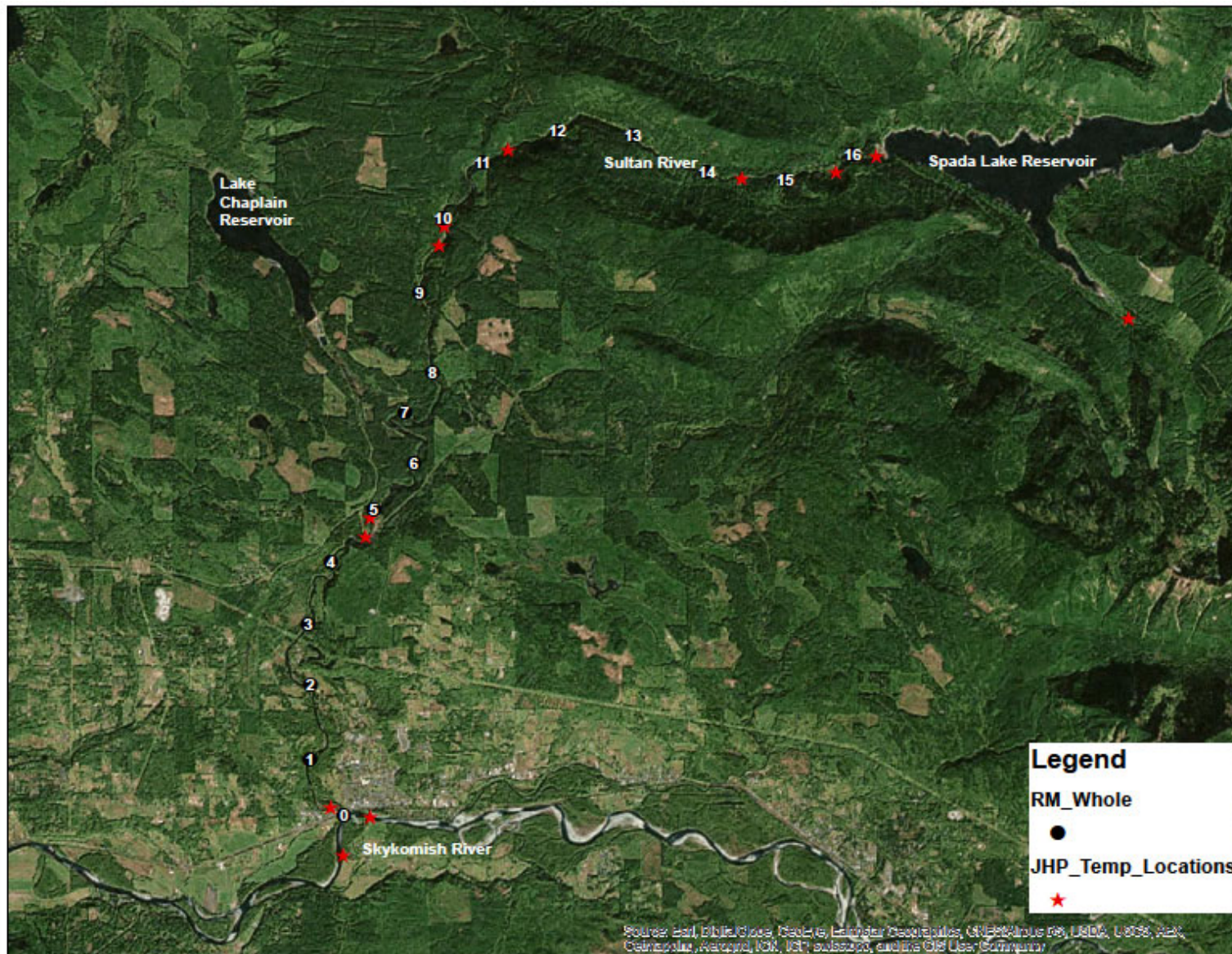


Figure 3-2. Locations of water temperature monitoring, Jackson Hydroelectric Project.

3.3. *Synoptic Measurements of Water Quality*

Synoptic measurements of water quality were collected during late spring, summer, and early fall 2020 at the South Fork Sultan River (tributary to Spada Lake Reservoir) and at two locations in the Sultan River downstream of Culmback Dam (Table 3-2).

Table 3-2. Synoptic monthly measurements of water quality, Sultan River, 2020.

Location	Date	Temp °C	pH Units	Turb NTU	LDO mg/l
South Fork Sultan River (SF)					
	4/30/2020	3.9	6.8	0.1	12.7
	5/21/2020	5.0	7.1	0.3	12.2
	6/18/2020	8.9	6.8	0.5	10.7
	7/29/2020	13.0	7.1	0.2	9.7
	8/19/2020	13.6	6.9	1.1	9.8
	9/29/2020	9.7	6.3	0.7	11.0
	10/20/2020	7.4	6.4	0.3	11.7
Sultan River upstream of Diversion Dam (RM 9.8)					
	4/30/2020	8.0	7.0	3.0	11.8
	5/21/2020	8.4	6.9	2.4	11.6
	6/18/2020	10.8	7.2	1.3	10.7
	7/29/2020	15.9	7.2	2.1	9.6
	8/19/2020	10.6	7.0	0.9	10.7
	9/29/2020	12.7	6.5	2.2	10.8
	10/20/2020	8.9	7.2	1.8	11.6
Sultan River downstream of Powerhouse (RM 4.4)					
	4/30/2020	7.5	6.9	2.9	12.0
	5/21/2020	9.3	6.8	2.3	11.6
	6/18/2020	13.6	7.4	2.5	9.9
	7/29/2020	10.2	6.7	0.7	10.8
	8/19/2020	12.0	7.0	1.2	10.4
	9/29/2020	10.9	6.6	4.9	11.1
	10/20/2020	10.2	6.9	3.0	11.4

4. DATA QUALITY AND COMPLIANCE

Monitoring of water quality during 2020 adhered to the protocols and procedures outlined in the WQMP. All surveys locations and parameters of measurement were consistent with those outlined in the WQMP. All data were reviewed and accepted to accurately represent conditions at the time of sampling. Washington State water temperature criteria was exceeded two days (16.2 degrees C on 7/28-29/2020) at one site on the Sultan River, downstream of the reservoir at RM 9.8. This exceedance was attributable to longitudinal warming in the 6-mile bypass reach downstream of Culmback Dam. During summer 2020, both stations on the Skykomish River exceeded the state water temperature criteria for 51 and 52 days, respectively (Appendix D). Due to malfunctioning equipment, water temperature data was not available for these two locations for most of July 2020. Project operations were conducted in accordance with License conditions throughout the sampling period.

5. REFERENCES

CH2M Hill. 2009. Water Quality Final Technical Report. Henry M. Jackson Hydroelectric Project (FERC No. 2157) Water Quality Parameter Study (RSP 1). Prepared for Public Utility District No. 1 of Snohomish County. August 2009.

District. 2010. Water Temperature Conditioning Plan for Reach 3. Henry M. Jackson Hydroelectric Project (FERC No. 2157). 2010.

FERC. 2011. Order Issuing New License, Project No. 2157-188. 136 FERC ¶ 62,188. September 2, 2011. Available at:
<http://www.snopud.com/Site/Content/Documents/relicensing/License/20110902LICENSE.pdf>

APPENDIX A

Monthly Reservoir Water Quality Sampling

Date	Depth	Depth	Elevation	Temperature	Conductivity	pH	Dissolved Oxygen	Chlorophyll	Turbidity
M/D/Y	feet	meters	feet	degrees C	µmhos/cm		mg/L	RFU	NTU
4/30/2020	1.7	0.5	1424.0	8.6	23	6.1	11.2	0.2	2.6
4/30/2020	3.4	1.0	1422.3	7.2	22	6.3	11.4	0.2	3.0
4/30/2020	6.6	2.0	1419.1	6.8	22	6.2	11.4	0.2	3.3
4/30/2020	10.0	3.0	1415.7	6.5	22	6.1	11.5	0.2	3.4
4/30/2020	13.1	4.0	1412.6	6.2	22	6.0	11.5	0.1	3.6
4/30/2020	16.6	5.0	1409.1	6.2	22	6.0	11.5	0.2	3.3
4/30/2020	19.7	6.0	1405.9	6.0	22	6.1	11.5	0.1	3.5
4/30/2020	23.1	7.0	1402.5	5.8	22	6.0	11.5	0.2	3.5
4/30/2020	26.4	8.0	1399.3	5.6	22	6.0	11.6	0.2	3.6
4/30/2020	29.8	9.0	1395.9	5.5	22	6.0	11.6	0.1	3.6
4/30/2020	32.9	10.0	1392.8	5.3	22	6.0	11.6	0.2	3.8
4/30/2020	36.2	11.0	1389.4	5.3	22	6.1	11.6	0.1	3.6
4/30/2020	39.5	12.0	1386.1	5.3	22	6.3	11.6	0.0	3.8
4/30/2020	42.7	13.0	1383.0	5.2	22	6.3	11.5	0.2	3.8
4/30/2020	45.9	14.0	1379.8	5.1	22	6.3	11.5	0.2	3.9
4/30/2020	49.2	15.0	1376.4	5.1	22	6.2	11.6	0.4	3.8
4/30/2020	55.9	17.0	1369.8	4.9	22	6.2	11.6	0.1	4.1
4/30/2020	62.2	19.0	1363.4	4.6	22	6.1	11.6	0.1	4.3
4/30/2020	69.0	21.0	1356.6	4.4	22	6.1	11.6	0.1	4.3
4/30/2020	75.7	23.0	1350.0	4.3	22	6.1	11.6	0.2	4.5
4/30/2020	82.1	25.0	1343.6	4.2	22	6.1	11.6	0.3	4.5
4/30/2020	88.6	27.0	1337.1	4.2	22	6.0	11.6	0.1	4.3
4/30/2020	95.2	29.0	1330.5	4.1	22	6.0	11.5	0.1	4.9
4/30/2020	101.5	31.0	1324.1	4.0	22	6.0	11.5	0.2	5.1
4/30/2020	111.7	34.0	1314.0	4.0	22	6.0	11.4	0.2	5.9
4/30/2020	121.4	37.0	1304.3	4.0	22	6.1	11.2	0.2	6.8
4/30/2020	131.2	40.0	1294.5	4.0	22	6.1	11.1	0.2	7.6
4/30/2020	141.3	43.0	1284.3	4.0	23	6.0	11.0	0.2	7.8
4/30/2020	150.9	46.0	1274.8	4.0	23	6.1	10.9	0.2	8.9
4/30/2020	160.8	49.0	1264.9	4.0	23	6.0	10.8	0.3	9.5
4/30/2020	162.9	50.0	1262.8	4.0	23	6.2	10.7	0.3	10.1

Date	Depth	Depth	Elevation	Temperature	Conductivity	pH	Dissolved Oxygen	Chlorophyll	Turbidity
M/D/Y	feet	meters	feet	degrees C	µmhos/cm		mg/L	RFU	NTU
5/21/2020	1.7	0.5	1438.8	9.2	21	6.2	11.4	0.4	1.8
5/21/2020	3.3	1.0	1437.2	9.1	21	6.3	11.4	0.5	1.9
5/21/2020	6.6	2.0	1433.9	8.8	21	6.3	11.4	0.7	2.1
5/21/2020	9.8	3.0	1430.7	8.7	21	6.3	11.5	0.8	2.2
5/21/2020	13.1	4.0	1427.4	8.7	21	6.3	11.4	1.0	2.2
5/21/2020	16.4	5.0	1424.1	8.4	21	6.4	11.5	0.9	2.2
5/21/2020	19.7	6.0	1420.8	8.1	21	6.3	11.4	1.0	2.1
5/21/2020	23.2	7.0	1417.3	8.0	21	6.3	11.4	0.9	2.1
5/21/2020	26.2	8.0	1414.3	8.0	20	6.2	11.4	0.8	2.1
5/21/2020	29.5	9.0	1411.0	7.9	21	6.2	11.4	0.6	2.1
5/21/2020	32.8	10.0	1407.6	7.7	21	6.2	11.4	0.4	2.1
5/21/2020	36.1	11.0	1404.4	7.4	20	6.2	11.4	0.1	2.2
5/21/2020	39.4	12.0	1401.1	7.3	21	6.2	11.4	0.1	2.2
5/21/2020	42.6	13.0	1397.8	7.0	21	6.2	11.4	0.1	2.4
5/21/2020	46.0	14.0	1394.5	6.8	21	6.2	11.5	0.0	2.4
5/21/2020	49.2	15.0	1391.3	6.6	21	6.2	11.5	0.0	2.5
5/21/2020	55.6	17.0	1384.9	6.0	21	6.1	11.5	0.2	2.5
5/21/2020	62.4	19.0	1378.1	5.6	21	6.0	11.6	0.0	2.6
5/21/2020	68.8	21.0	1371.7	5.4	21	6.0	11.6	0.1	3.1
5/21/2020	75.5	23.0	1365.0	5.1	21	5.9	11.6	0.0	3.2
5/21/2020	82.1	25.0	1358.4	5.0	21	5.9	11.6	0.1	3.4
5/21/2020	88.6	27.0	1351.9	4.9	21	5.9	11.6	0.0	3.5
5/21/2020	95.1	29.0	1345.4	4.7	21	5.9	11.6	0.2	3.5
5/21/2020	101.7	31.0	1338.8	4.6	22	5.9	11.6	0.2	3.7
5/21/2020	111.5	34.0	1329.0	4.5	22	5.9	11.6	0.2	4.0
5/21/2020	121.4	37.0	1319.1	4.3	22	5.8	11.5	0.2	5.0
5/21/2020	131.2	40.0	1309.3	4.2	22	5.9	11.5	0.1	5.1
5/21/2020	141.1	43.0	1299.4	4.1	22	5.9	11.4	0.1	5.7
5/21/2020	150.6	46.0	1289.9	4.1	22	5.8	11.3	0.1	6.7
5/21/2020	160.7	49.0	1279.8	4.1	22	5.8	11.2	0.2	7.4
5/21/2020	165.1	50.0	1275.4	4.1	22	6.0	11.0	0.2	9.8

Date	Depth	Depth	Elevation	Temperature	Conductivity	pH	Dissolved Oxygen	Chlorophyll	Turbidity
M/D/Y	feet	meters	feet	degrees C	µmhos/cm		mg/L	RFU	NTU
6/18/2020	1.6	0.5	1445.7	13.8	21	6.5	10.4	0.1	0.4
6/18/2020	3.3	1.0	1444.1	13.2	20	6.6	10.4	0.1	0.5
6/18/2020	6.6	2.0	1440.8	12.6	20	6.6	10.5	0.2	0.5
6/18/2020	9.9	3.0	1437.5	12.4	20	6.6	10.5	0.1	0.5
6/18/2020	13.2	4.0	1434.1	11.9	21	6.5	10.7	0.1	0.6
6/18/2020	16.3	5.0	1431.0	11.0	21	6.5	10.9	0.2	0.7
6/18/2020	19.6	6.0	1427.7	10.1	20	6.5	11.2	0.4	0.7
6/18/2020	23.0	7.0	1424.4	9.6	20	6.4	11.3	0.3	0.8
6/18/2020	26.2	8.0	1421.1	9.3	20	6.3	11.3	0.5	0.8
6/18/2020	29.4	9.0	1417.9	8.9	19	6.3	11.2	0.5	0.8
6/18/2020	32.7	10.0	1414.7	8.6	19	6.2	11.2	0.5	0.8
6/18/2020	36.1	11.0	1411.2	8.4	19	6.2	11.2	0.5	0.7
6/18/2020	39.3	12.0	1408.0	8.3	19	6.2	11.2	0.5	0.8
6/18/2020	42.7	13.0	1404.7	8.2	19	6.2	11.1	0.5	0.7
6/18/2020	45.8	14.0	1401.5	8.0	19	6.2	11.1	0.4	0.7
6/18/2020	49.2	15.0	1398.1	7.8	19	6.1	11.1	0.2	0.8
6/18/2020	55.9	17.0	1391.4	7.2	20	6.1	11.1	0.1	0.9
6/18/2020	62.4	19.0	1385.0	6.6	20	6.1	11.1	0.0	1.1
6/18/2020	68.9	21.0	1378.5	6.1	21	6.1	11.2	0.1	1.5
6/18/2020	75.5	23.0	1371.8	5.9	21	6.0	11.2	0.0	1.7
6/18/2020	82.1	25.0	1365.3	5.6	21	6.0	11.2	0.0	1.8
6/18/2020	88.5	27.0	1358.9	5.4	21	6.0	11.2	0.0	2.4
6/18/2020	95.1	29.0	1352.2	5.3	21	6.0	11.1	0.1	2.7
6/18/2020	101.4	31.0	1345.9	5.2	21	5.9	11.1	0.1	2.8
6/18/2020	111.5	34.0	1335.8	5.2	21	5.9	11.1	0.0	3.0
6/18/2020	121.4	37.0	1325.9	5.1	22	5.9	11.1	0.0	3.0
6/18/2020	131.2	40.0	1316.2	4.9	21	5.9	11.2	0.1	2.9
6/18/2020	141.1	43.0	1306.2	4.8	22	5.9	11.2	0.1	3.2
6/18/2020	151.0	46.0	1296.4	4.5	22	6.0	11.2	0.1	4.0
6/18/2020	160.7	49.0	1286.6	4.3	22	5.9	11.1	0.0	4.5
6/18/2020	172.2	53.0	1275.1	4.3	22	5.9	9.1	0.2	5.6

Date	Depth	Depth	Elevation	Temperature	Conductivity	pH	Dissolved Oxygen	Chlorophyll	Turbidity
M/D/Y	feet	meters	feet	degrees C	µmhos/cm		mg/L	RFU	NTU
7/30/2020	1.7	0.5	1438.9	21.1	23	6.6	8.7	0.2	0.5
7/30/2020	3.3	1.0	1437.3	20.9	23	6.7	8.7	0.2	0.6
7/30/2020	6.6	2.0	1434.0	20.8	23	6.7	8.7	0.2	0.6
7/30/2020	9.9	3.0	1430.7	20.8	23	6.7	8.7	0.2	0.5
7/30/2020	13.2	4.0	1427.4	20.7	23	6.7	8.7	0.2	0.5
7/30/2020	16.3	5.0	1424.2	20.5	23	6.7	8.7	0.2	0.5
7/30/2020	19.7	6.0	1420.9	17.5	23	6.9	9.2	0.2	0.4
7/30/2020	23.1	7.0	1417.5	15.7	22	6.7	10.0	0.3	0.5
7/30/2020	26.2	8.0	1414.4	14.0	21	6.8	10.4	0.3	0.6
7/30/2020	29.4	9.0	1411.2	13.0	21	6.7	10.7	0.4	0.6
7/30/2020	32.9	10.0	1407.7	11.1	20	6.6	10.7	0.4	0.6
7/30/2020	36.2	11.0	1404.4	10.4	20	6.6	10.6	0.3	0.7
7/30/2020	39.4	12.0	1401.2	9.4	20	6.5	10.7	0.3	0.6
7/30/2020	42.6	13.0	1398.0	8.7	20	6.4	10.7	0.3	0.6
7/30/2020	45.9	14.0	1394.7	8.0	20	6.4	10.7	0.2	0.6
7/30/2020	49.3	15.0	1391.3	7.3	21	6.4	10.7	0.2	0.7
7/30/2020	55.7	17.0	1384.9	6.7	21	6.3	10.6	0.1	0.9
7/30/2020	62.2	19.0	1378.4	6.2	21	6.3	10.6	0.1	1.0
7/30/2020	68.9	21.0	1371.7	5.9	21	6.3	10.7	0.2	1.1
7/30/2020	75.6	23.0	1365.0	5.8	21	6.2	10.7	0.2	1.3
7/30/2020	82.0	25.0	1358.6	5.7	21	6.2	10.7	0.1	1.3
7/30/2020	88.7	27.0	1351.9	5.6	22	6.2	10.7	0.0	1.4
7/30/2020	95.1	29.0	1345.5	5.6	22	6.1	10.7	0.1	1.5
7/30/2020	101.7	31.0	1338.8	5.5	21	6.1	10.8	0.2	1.5
7/30/2020	111.6	34.0	1329.0	5.4	21	6.1	10.8	0.1	1.5
7/30/2020	121.3	37.0	1319.2	5.2	22	6.1	10.8	0.2	1.6
7/30/2020	131.1	40.0	1309.4	5.0	22	6.1	10.8	0.2	1.8
7/30/2020	141.0	43.0	1299.6	4.9	22	6.1	10.8	0.2	1.8
7/30/2020	150.9	46.0	1289.7	4.8	22	6.0	10.7	0.2	2.0
7/30/2020	160.8	49.0	1279.7	4.7	22	6.0	10.7	0.1	2.1
7/30/2020	168.1	51.0	1272.5	4.7	22	6.0	10.4	0.4	4.6

Date	Depth	Depth	Elevation	Temperature	Conductivity	pH	Dissolved Oxygen	Chlorophyll	Turbidity
M/D/Y	feet	meters	feet	degrees C	µmhos/cm		mg/L	RFU	NTU
8/24/2020	1.7	0.5	1426.4	20.2	25	6.8	8.8	0.0	1.1
8/24/2020	3.4	1.0	1424.7	20.2	25	6.8	8.8	0.1	1.0
8/24/2020	6.6	2.0	1421.4	20.0	25	6.8	8.8	0.0	1.1
8/24/2020	9.7	3.0	1418.3	20.0	25	6.8	8.8	0.0	1.1
8/24/2020	13.3	4.0	1414.8	20.0	25	6.7	8.8	0.1	1.1
8/24/2020	16.4	5.0	1411.7	20.0	25	6.8	8.8	0.2	1.2
8/24/2020	19.6	6.0	1408.5	19.9	25	6.8	8.8	0.1	1.1
8/24/2020	23.1	7.0	1405.0	19.2	25	6.8	9.0	0.2	1.0
8/24/2020	26.2	8.0	1401.8	17.5	24	6.7	9.4	0.2	0.9
8/24/2020	29.6	9.0	1398.4	15.5	23	6.6	9.6	0.2	0.9
8/24/2020	32.8	10.0	1395.3	13.8	22	6.5	9.7	0.3	1.0
8/24/2020	36.1	11.0	1391.9	11.3	21	6.3	9.8	0.1	1.0
8/24/2020	39.4	12.0	1388.7	9.1	21	6.4	10.0	0.1	1.1
8/24/2020	42.7	13.0	1385.3	7.5	21	6.3	10.0	0.1	0.9
8/24/2020	45.9	14.0	1382.1	6.9	21	6.2	10.0	0.1	1.0
8/24/2020	49.3	15.0	1378.8	6.5	21	6.2	10.0	0.1	1.1
8/24/2020	55.8	17.0	1372.2	6.2	22	6.1	10.1	0.0	1.1
8/24/2020	62.2	19.0	1365.9	6.0	22	6.1	10.1	0.0	1.2
8/24/2020	68.8	21.0	1359.3	5.9	22	6.1	10.1	0.0	1.2
8/24/2020	75.2	23.0	1352.9	5.8	22	6.1	10.1	0.0	1.2
8/24/2020	81.8	25.0	1346.3	5.7	22	6.0	10.2	0.0	1.2
8/24/2020	88.5	27.0	1339.5	5.6	22	6.0	10.3	0.0	1.2
8/24/2020	95.5	29.0	1332.6	5.6	22	6.0	10.5	0.0	1.2
8/24/2020	101.8	31.0	1326.3	5.5	21	6.0	10.6	0.0	1.1
8/24/2020	111.5	34.0	1316.6	5.3	22	6.0	10.6	0.1	1.2
8/24/2020	121.3	37.0	1306.8	5.2	22	6.0	10.6	0.0	1.3
8/24/2020	131.2	40.0	1296.9	5.1	22	6.0	10.5	0.0	1.4
8/24/2020	141.0	43.0	1287.1	5.0	22	5.9	10.4	0.0	1.5
8/24/2020	151.0	46.0	1277.1	4.9	22	5.9	10.3	0.0	1.6
8/24/2020	161.0	49.0	1267.1	4.9	22	5.9	10.2	0.0	2.0
8/24/2020	155.8	47.0	1272.3	4.9	22	5.9	10.1	0.0	2.0

Date	Depth	Depth	Elevation	Temperature	Conductivity	pH	Dissolved Oxygen	Chlorophyll	Turbidity
M/D/Y	feet	meters	feet	degrees C	µmhos/cm		mg/L	RFU	NTU
9/29/2020	1.7	0.5	1414.8	16.1	26	6.4	8.8	0.1	2.4
9/29/2020	3.3	1.0	1413.1	16.0	26	6.5	8.8	0.2	2.5
9/29/2020	6.6	2.0	1409.9	16.0	26	6.6	8.9	0.2	2.5
9/29/2020	9.8	3.0	1406.7	15.9	26	6.5	8.9	0.2	2.5
9/29/2020	13.2	4.0	1403.3	15.8	26	6.5	8.9	0.1	2.6
9/29/2020	16.4	5.0	1400.1	15.7	26	6.5	8.8	0.0	2.5
9/29/2020	19.5	6.0	1396.9	15.3	26	6.4	8.7	0.0	2.7
9/29/2020	23.1	7.0	1393.4	14.6	26	6.3	8.7	0.0	4.8
9/29/2020	26.4	8.0	1390.1	13.6	25	6.1	8.6	0.2	6.9
9/29/2020	29.5	9.0	1387.0	12.9	25	6.0	8.6	0.2	8.4
9/29/2020	32.8	10.0	1383.7	12.6	24	5.9	8.6	0.1	7.4
9/29/2020	36.2	11.0	1380.3	12.3	24	5.9	8.6	0.2	9.1
9/29/2020	39.3	12.0	1377.1	12.1	23	5.9	8.9	0.2	8.3
9/29/2020	42.7	13.0	1373.7	11.7	22	5.9	9.1	0.2	7.8
9/29/2020	45.7	14.0	1370.8	11.4	23	5.9	9.1	0.2	8.8
9/29/2020	49.2	15.0	1367.2	10.1	22	5.9	8.9	0.1	5.1
9/29/2020	55.8	17.0	1360.6	6.9	22	5.8	9.0	0.0	2.3
9/29/2020	62.2	19.0	1354.2	6.4	22	5.8	9.1	0.0	2.0
9/29/2020	68.8	21.0	1347.7	5.9	22	5.8	9.4	0.0	1.5
9/29/2020	75.3	23.0	1341.2	5.8	22	5.8	9.6	0.0	1.5
9/29/2020	82.1	25.0	1334.4	5.7	22	5.7	9.6	0.0	1.7
9/29/2020	88.4	27.0	1328.0	5.6	22	5.8	9.7	0.1	1.5
9/29/2020	95.1	29.0	1321.4	5.5	22	5.8	9.9	0.2	1.5
9/29/2020	101.8	31.0	1314.7	5.4	22	5.8	10.0	0.1	1.6
9/29/2020	111.6	34.0	1304.9	5.2	22	5.8	10.0	0.0	1.6
9/29/2020	121.4	37.0	1295.1	5.1	22	5.7	9.9	0.0	1.7
9/29/2020	131.3	40.0	1285.2	5.1	22	5.7	9.8	0.0	1.7
9/29/2020	141.1	43.0	1275.3	5.0	23	5.7	9.5	0.0	2.4
9/29/2020	150.2	46.0	1266.3	5.0	23	5.7	9.3	0.1	3.1
9/29/2020	151.2	46.0	1265.3	5.0	23	5.7	8.5	0.0	3.7

Date	Depth	Depth	Elevation	Temperature	Conductivity	pH	Dissolved Oxygen	Chlorophyll	Turbidity
M/D/Y	feet	meters	feet	degrees C	µmhos/cm		mg/L	RFU	NTU
10/20/2020	1.6	0.5	1431.0	11.0	24	6.2	9.8	0.2	4.1
10/20/2020	3.3	1.0	1429.3	11.0	24	6.3	9.7	0.2	3.9
10/20/2020	6.7	2.0	1425.9	11.0	24	6.3	9.7	0.3	3.9
10/20/2020	9.8	3.0	1422.7	11.0	24	6.3	9.7	0.3	4.0
10/20/2020	13.3	4.0	1419.3	11.0	24	6.3	9.7	0.2	3.9
10/20/2020	16.5	5.0	1416.1	11.0	24	6.3	9.7	0.2	3.8
10/20/2020	19.7	6.0	1412.9	11.0	24	6.3	9.7	0.2	3.9
10/20/2020	23.1	7.0	1409.4	11.0	24	6.3	9.7	0.2	3.9
10/20/2020	26.2	8.0	1406.3	11.0	24	6.3	9.7	0.2	3.9
10/20/2020	29.5	9.0	1403.1	11.0	24	6.3	9.7	0.2	4.1
10/20/2020	32.9	10.0	1399.7	10.9	24	6.3	9.7	0.2	4.4
10/20/2020	36.1	11.0	1396.4	10.9	24	6.3	9.7	0.2	4.5
10/20/2020	39.5	12.0	1393.1	10.9	24	6.3	9.7	0.3	4.6
10/20/2020	42.8	13.0	1389.8	10.8	24	6.2	9.7	0.2	4.4
10/20/2020	45.9	14.0	1386.6	10.7	24	6.2	9.7	0.2	4.7
10/20/2020	49.2	15.0	1383.3	10.6	24	6.2	9.7	0.2	4.7
10/20/2020	55.8	17.0	1376.8	10.3	24	6.2	9.7	0.2	4.8
10/20/2020	62.2	19.0	1370.4	9.7	23	6.1	9.8	0.2	4.7
10/20/2020	68.8	21.0	1363.7	9.1	22	6.1	9.7	0.3	4.7
10/20/2020	75.6	23.0	1357.0	6.4	22	6.1	9.6	0.2	2.7
10/20/2020	82.0	25.0	1350.5	6.0	22	5.9	9.4	0.1	2.3
10/20/2020	88.6	27.0	1344.0	5.9	22	5.9	9.4	0.1	2.0
10/20/2020	95.1	29.0	1337.4	5.7	22	5.9	9.4	0.1	1.9
10/20/2020	101.7	31.0	1330.8	5.7	22	5.9	9.5	0.1	1.8
10/20/2020	111.6	34.0	1320.9	5.5	22	5.9	9.5	0.1	1.9
10/20/2020	121.4	37.0	1311.1	5.4	22	5.9	9.6	0.1	2.0
10/20/2020	131.2	40.0	1301.4	5.3	22	5.9	9.5	0.1	2.5
10/20/2020	141.1	43.0	1291.5	5.2	22	5.9	9.5	0.1	2.5
10/20/2020	151.0	46.0	1281.6	5.2	23	5.9	9.4	0.2	3.1
10/20/2020	160.8	49.0	1271.8	5.1	23	5.9	9.1	0.1	4.3
10/20/2020	162.6	50.0	1270.0	5.1	23	5.8	8.8	0.2	4.8

APPENDIX B

Mean Daily Water Temperature Monitoring – Figures

Figure B-1. Mean Daily Water Temperature in the South Fork Sultan (RM 18.2), and the mainstem Sultan River immediately downstream of Culmback Dam (RM 15.8) during 2020

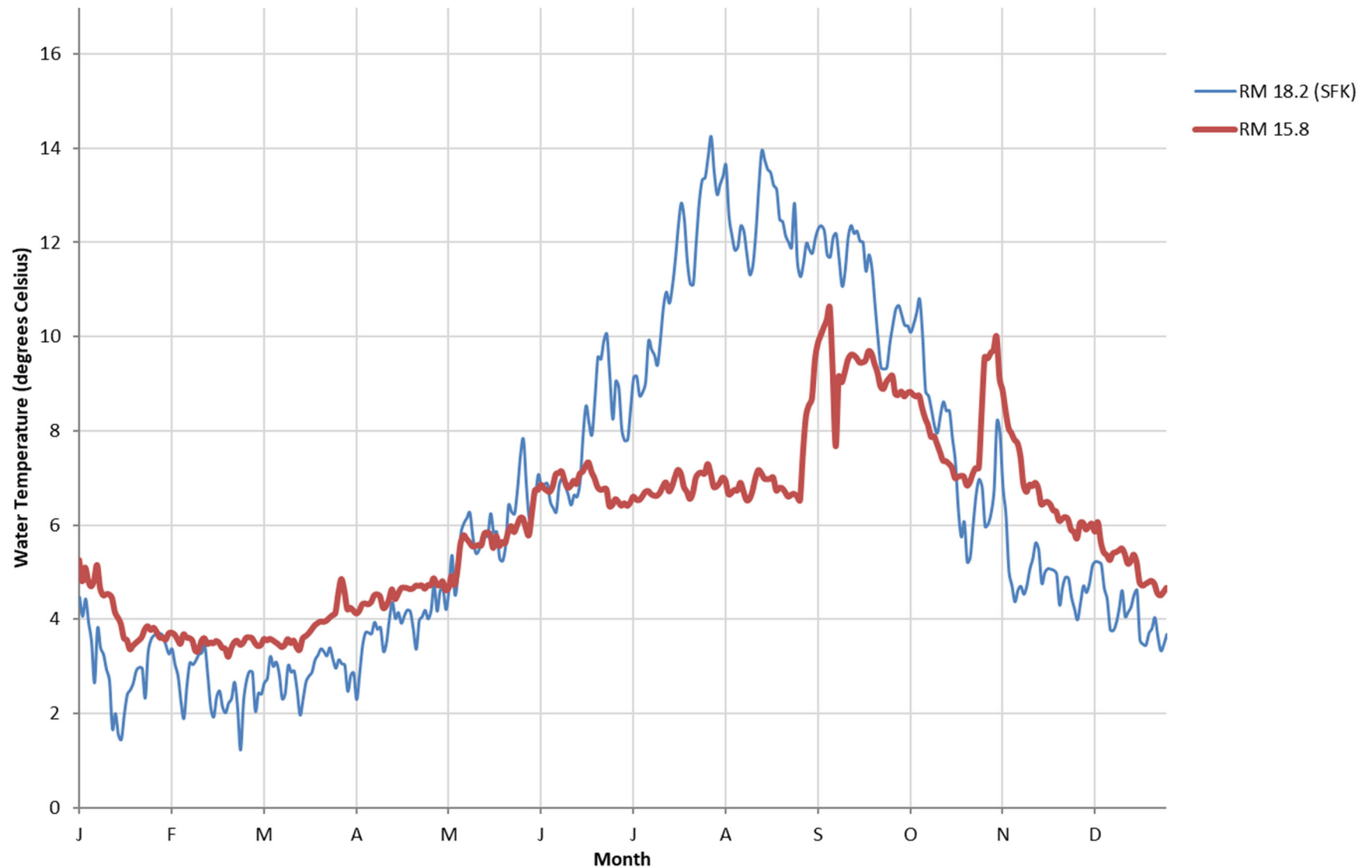


Figure B-2. Longitudinal Depiction of Mean Daily Water Temperature in the Bypass Reach (Reach 3) of the Sultan River during 2020

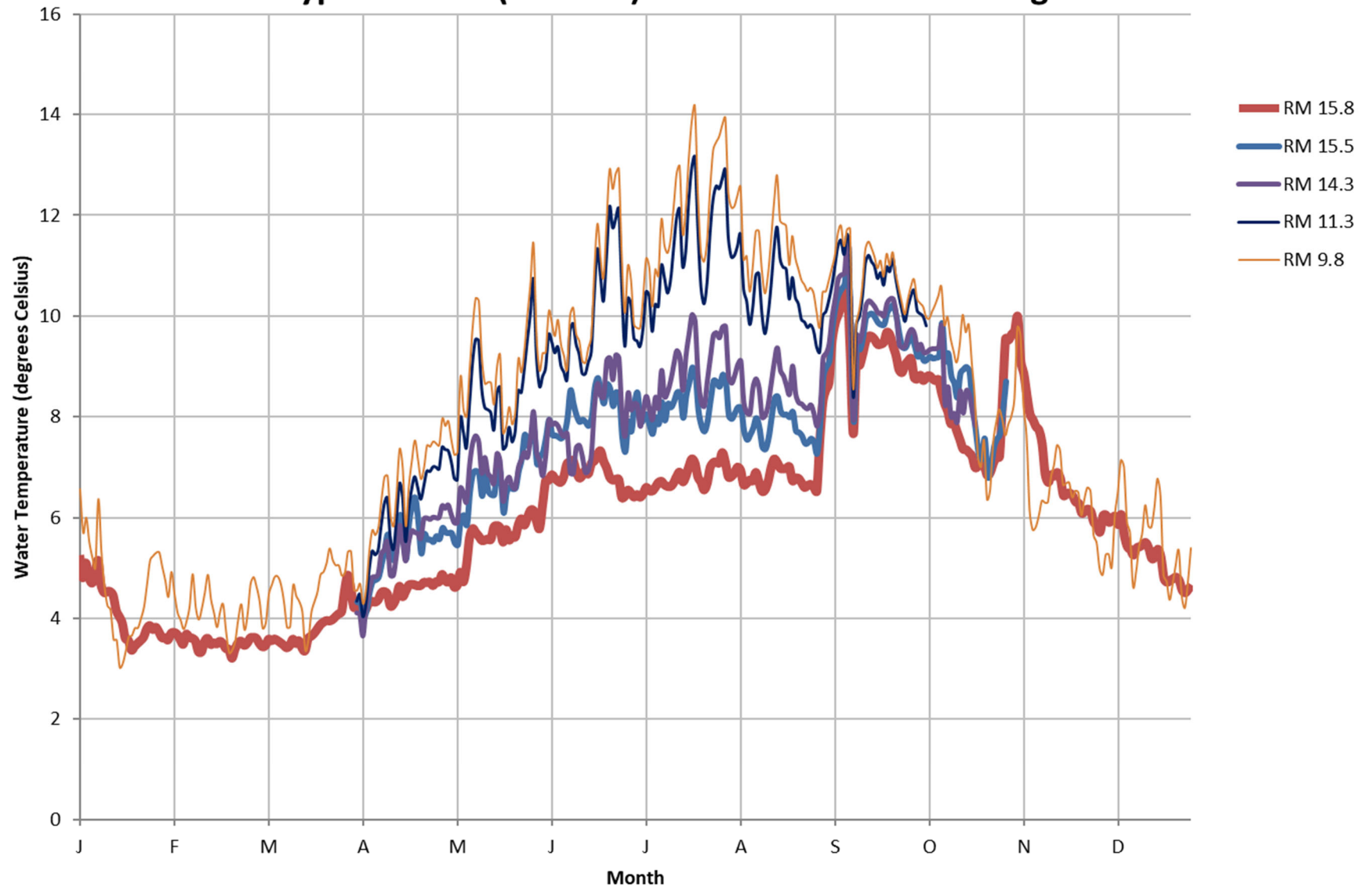
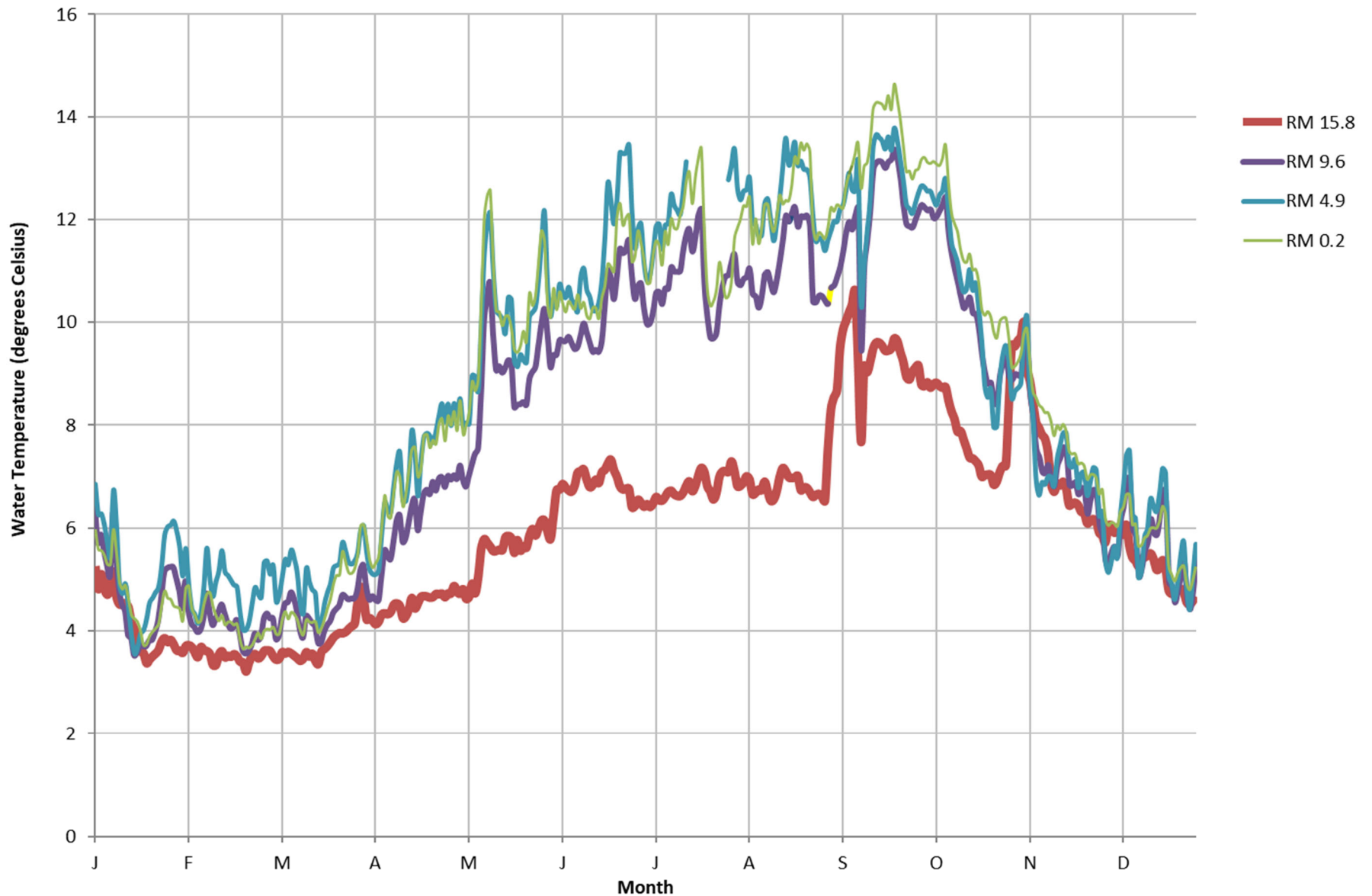
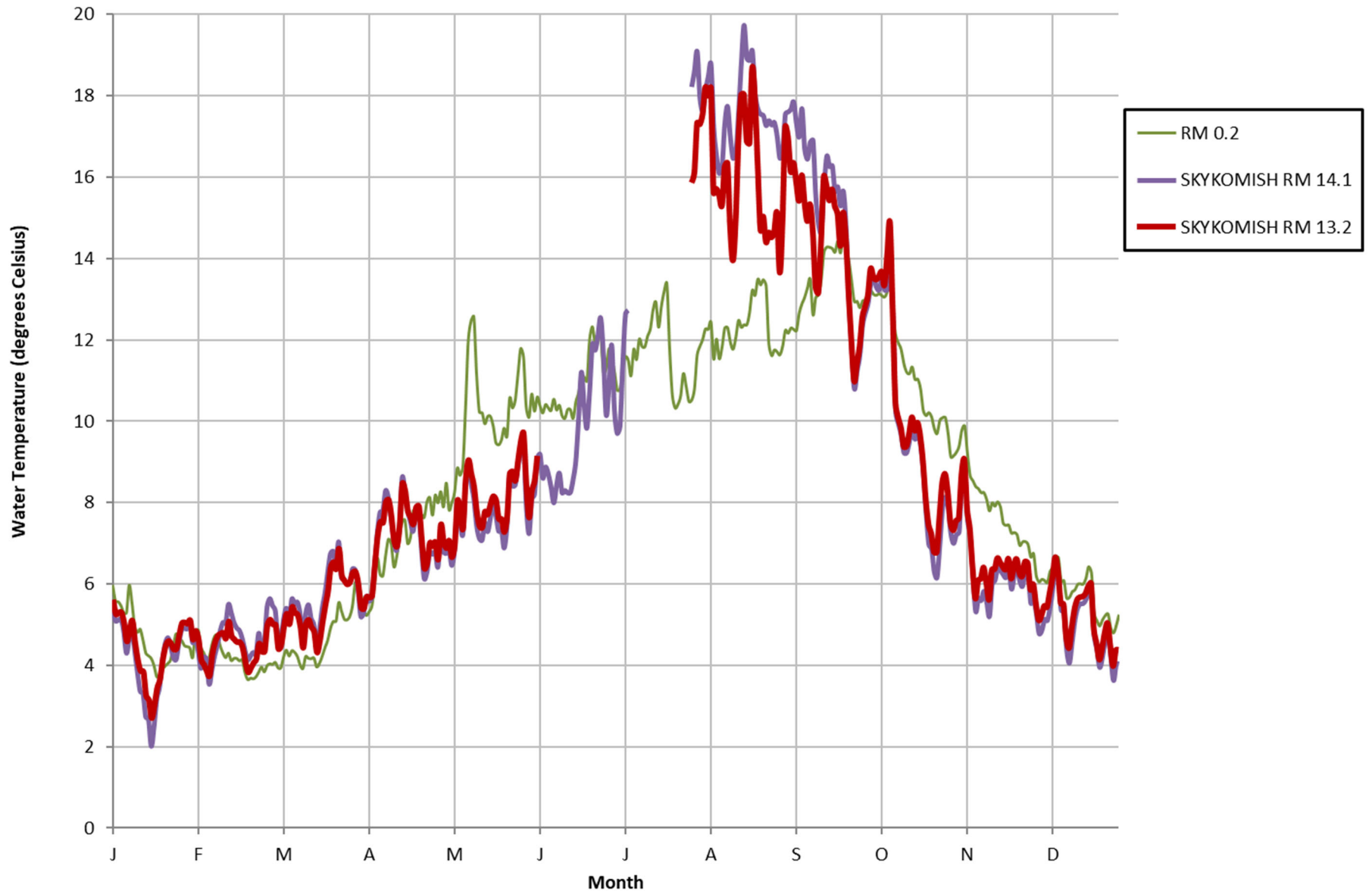


Figure B-3. Longitudinal Depiction of Mean Daily Water Temperature, Sultan River downstream of Culmback Dam during 2020



**Figure B-4. Mean Daily Water Temperature
near confluence of Sultan and Skykomish rivers during 2020**



APPENDIX C

Mean Daily Water Temperature Data in Tabular Format

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
1/1	4.5	5.3				6.6	6.4	6.9	6.1	6.0	5.5	5.6
1/2	4.1	4.8				5.7	5.7	6.3	5.6	5.6	5.1	5.3
1/3	4.4	5.1				6.0	5.9	6.3	5.5	5.6	5.1	5.3
1/4	3.9	4.8				5.5	5.6	6.1	5.4	5.5	5.1	5.3
1/5	3.5	4.7				5.2	5.3	5.7	5.2	5.3	4.9	5.0
1/6	2.7	4.8				5.0	5.1	5.4	5.2	5.3	4.3	4.6
1/7	3.8	5.2				6.4	6.3	6.7	6.1	6.0	4.7	4.9
1/8	3.4	4.7				5.3	5.5	6.1	5.5	5.5	4.9	5.1
1/9	3.3	4.5				4.6	4.8	4.9	4.8	5.0	4.4	4.6
1/10	2.9	4.5				4.2	4.5	4.7	4.7	4.8	3.8	4.1
1/11	2.7	4.5				4.2	4.4	4.9	4.7	4.9	3.4	3.9
1/12	1.7	4.5				3.6	3.9	4.5	4.5	4.6	3.3	3.9
1/13	2.0	4.2				3.6	3.9	3.9	4.2	4.3	2.7	3.3
1/14	1.6	4.0				3.0	3.5	3.6	4.2	4.2	2.7	3.2
1/15	1.5	3.9				3.1	3.6	3.7	4.1	4.2	2.0	2.7
1/16	2.0	3.6				3.3	3.7	3.9	3.9	4.0	2.5	3.0
1/17	2.4	3.6				3.6	3.7	4.0	3.7	3.7	3.2	3.4
1/18	2.5	3.4				3.6	3.7	4.2	3.6	3.7	3.5	3.7
1/19	2.7	3.4				3.8	3.8	4.5	3.7	3.9	4.1	4.1
1/20	2.9	3.5				3.8	3.8	4.6	3.8	4.0	4.5	4.5
1/21	3.0	3.6				4.0	4.0	4.8	3.9	4.1	4.7	4.6
1/22	3.0	3.6				4.2	4.2	4.9	4.1	4.1	4.5	4.5
1/23	2.3	3.8				4.7	4.7	5.3	4.5	4.5	4.2	4.4
1/24	3.3	3.9				5.1	5.2	5.9	4.8	4.8	4.1	4.4
1/25	3.6	3.8				5.2	5.2	6.0	4.6	4.6	4.5	4.7
1/26	3.7	3.8				5.3	5.3	6.1	4.5	4.6	4.9	5.0
1/27	3.7	3.7				5.3	5.2	6.1	4.4	4.5	4.9	5.1
1/28	3.7	3.6				5.0	5.0	5.9	4.4	4.5	4.9	5.0
1/29	3.7	3.6				4.7	4.8	5.6	4.4	4.4	5.0	5.1
1/30	3.4	3.6				4.4	4.5	5.1	4.1	4.2	4.6	4.6
1/31	3.3	3.7				4.9	5.0	5.6	5.0	4.8	4.7	4.9

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
2/1	3.4	3.7				4.5	4.4	4.9	4.8	4.9	4.4	4.7
2/2	3.0	3.7				4.1	4.2	4.4	4.4	4.5	3.9	4.1
2/3	2.8	3.6				4.0	4.1	4.3	4.1	4.3	4.2	4.0
2/4	2.3	3.5				3.8	4.0	4.2	4.0	4.2	4.2	3.9
2/5	1.9	3.7				3.9	4.0	4.3	4.2	4.2	3.5	3.8
2/6	2.6	3.6				4.2	4.3	4.8	4.7	4.5	3.9	4.3
2/7	3.1	3.6				4.9	4.7	5.6	4.9	4.7	4.2	4.6
2/8	3.0	3.5				4.2	4.4	5.0	4.8	4.8	4.5	4.7
2/9	3.1	3.3				4.0	4.1	4.7	4.4	4.5	4.8	4.8
2/10	3.3	3.3				4.2	4.2	5.0	4.1	4.3	5.1	4.8
2/11	3.3	3.5				4.5	4.4	5.2	4.1	4.2	5.0	4.7
2/12	3.4	3.6				4.9	4.5	5.6	4.1	4.3	5.5	5.1
2/13	2.8	3.5				4.4	4.4	5.2	4.0	4.1	5.3	4.7
2/14	2.1	3.5				4.1	4.2	5.1	4.0	4.2	5.1	4.6
2/15	1.9	3.5				3.8	4.1	5.0	4.0	4.2	4.9	4.6
2/16	2.4	3.5				4.1	4.1	4.9	4.0	4.1	4.9	4.6
2/17	2.5	3.5				4.3	4.2	4.9	4.0	4.1	4.7	4.4
2/18	2.1	3.4				3.7	4.0	4.4	3.7	3.8	4.4	4.1
2/19	2.0	3.4				3.3	3.6	4.0	3.5	3.7	4.1	3.8
2/20	2.2	3.2				3.4	3.6	4.0	3.6	3.7	4.2	3.9
2/21	2.3	3.4				3.6	3.6	4.2	3.6	3.7	4.3	4.1
2/22	2.7	3.5				4.0	3.8	4.5	3.6	3.7	4.3	4.2
2/23	2.1	3.5				4.3	4.0	4.8	3.7	3.8	4.8	4.5
2/24	1.2	3.5				3.8	3.8	4.7	3.9	4.0	4.4	4.3
2/25	2.2	3.5				4.1	3.9	4.7	3.7	3.9	4.5	4.3
2/26	2.7	3.6				4.7	4.3	5.3	3.8	4.0	5.4	5.0
2/27	2.9	3.6				4.8	4.4	5.4	3.9	4.0	5.6	5.1
2/28	2.9	3.6				4.6	4.3	5.1	3.9	4.0	5.5	5.0
2/29	2.1	3.5				4.3	4.3	5.3	4.0	4.1	5.3	5.0

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
3/1	2.4	3.4				3.8	3.9	4.6	3.8	3.9	4.6	4.4
3/2	2.4	3.5				3.9	3.9	4.7	3.8	3.9	4.7	4.5
3/3	2.7	3.6				4.5	4.3	5.0	4.3	4.2	5.1	4.9
3/4	2.7	3.6				4.7	4.5	5.4	4.3	4.4	5.4	5.3
3/5	3.2	3.6				4.8	4.6	5.3	4.1	4.2	5.1	5.0
3/6	3.0	3.6				4.8	4.8	5.6	4.3	4.4	5.6	5.4
3/7	3.1	3.5				4.7	4.6	5.4	4.2	4.3	5.5	5.3
3/8	2.8	3.5				4.3	4.4	5.1	4.1	4.2	5.6	5.3
3/9	2.3	3.4				3.8	4.0	4.5	3.9	4.0	5.3	5.0
3/10	2.4	3.5				3.8	3.9	4.3	3.8	3.9	4.5	4.4
3/11	3.0	3.6				4.6	4.3	5.2	4.1	4.2	5.3	5.0
3/12	2.9	3.5				4.4	4.3	5.0	4.1	4.2	5.5	5.1
3/13	2.9	3.6				4.3	4.2	4.8	4.1	4.2	5.2	4.9
3/14	2.5	3.4				4.1	4.1	4.7	4.1	4.2	5.0	4.8
3/15	2.0	3.4				3.4	3.8	4.1	3.9	4.0	4.4	4.3
3/16	2.3	3.6				3.6	3.8	4.2	3.9	4.1	4.9	4.6
3/17	2.7	3.6				4.1	4.0	4.5	4.2	4.2	5.4	5.1
3/18	2.8	3.7				4.3	4.1	4.7	4.4	4.4	5.8	5.5
3/19	2.9	3.8				4.5	4.2	4.9	4.4	4.6	6.3	5.8
3/20	3.1	3.9				4.9	4.4	5.2	4.7	4.9	6.7	6.4
3/21	3.2	3.9				4.9	4.4	5.3	4.8	5.1	6.8	6.5
3/22	3.4	4.0				5.1	4.5	5.3	4.9	5.1	6.5	6.4
3/23	3.3	3.9				5.4	4.7	5.7	5.1	5.6	7.0	6.9
3/24	3.2	4.0				5.2	4.7	5.6	5.0	5.3	6.2	6.2
3/25	3.4	4.0				5.0	4.6	5.3	4.9	5.1	6.1	6.1
3/26	3.2	4.1				5.0	4.6	5.3	4.9	5.1	6.0	6.0
3/27	3.0	4.1				4.8	4.6	5.4	5.0	5.2	6.0	6.0
3/28	3.1	4.6				4.9	4.8	5.5	5.3	5.5	6.4	6.3
3/29	3.1	4.9				5.3	5.2	6.0	5.8	6.1	6.3	6.3
3/30	3.0	4.6				5.3	5.3	6.0	5.8	6.1	5.9	6.0
3/31	2.5	4.2				4.6	4.8	5.5	5.3	5.8	5.2	5.4

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
4/1	2.8	4.2	4.3	4.1	4.3	4.5	4.6	5.2	5.0	5.4	5.3	5.4
4/2	2.9	4.2	4.4	4.1	4.5	4.7	4.7	5.1	5.0	5.2	5.7	5.7
4/3	2.3	4.1	4.0	3.6	4.0	4.3	4.6	5.1	5.0	5.3	5.6	5.7
4/4	2.9	4.2	4.1	4.2	4.3	4.6	4.6	5.2	5.0	5.5	5.7	5.7
4/5	3.5	4.3	4.5	4.5	4.9	5.3	5.1	5.9	5.7	6.0	6.5	6.5
4/6	3.7	4.3	4.7	4.8	5.3	5.7	5.6	6.5	6.2	6.6	7.3	7.2
4/7	3.7	4.3	4.8	4.8	5.3	5.6	5.5	6.3	5.8	6.2	7.8	7.5
4/8	3.7	4.4	4.8	4.9	5.4	5.8	5.4	6.3	5.8	6.2	7.8	7.5
4/9	3.9	4.5	5.1	5.3	5.8	6.3	5.8	6.8	6.3	6.7	8.3	8.0
4/10	3.8	4.5	5.3	5.4	6.3	6.8	6.2	7.3	6.6	7.1	8.1	8.1
4/11	3.8	4.5	5.7	5.5	6.4	6.8	6.3	7.5	6.7	7.0	7.6	7.7
4/12	3.3	4.2	5.3	4.9	5.6	6.0	5.7	6.5	6.1	6.4	7.1	7.1
4/13	3.5	4.3	5.2	4.9	5.4	5.8	5.8	6.5	6.2	6.7	6.8	6.9
4/14	4.0	4.4	5.5	5.3	5.9	6.5	6.1	7.0	6.7	7.1	7.4	7.4
4/15	4.4	4.6	6.0	5.8	6.7	7.4	6.4	7.9	6.9	7.5	8.6	8.5
4/16	4.0	4.4	5.8	5.5	6.4	7.0	6.6	7.5	7.2	7.6	8.3	8.3
4/17	4.1	4.5	5.2	5.1	5.5	5.8	6.0	6.6	6.5	7.0	7.8	7.8
4/18	3.9	4.7	5.9	5.5	6.2	6.6	6.3	7.3	6.9	7.2	7.5	7.7
4/19	4.1	4.7	6.2	5.7	6.6	7.1	6.7	7.8	7.3	7.8	7.3	7.5
4/20	4.2	4.7	6.4	5.7	6.8	7.5	6.8	7.8	7.2	7.8	7.9	7.9
4/21	4.2	4.6	5.9	5.7	6.6	7.2	6.7	7.8	7.1	7.6	7.8	7.9
4/22	3.8	4.7	5.3	5.6	6.4	6.8	6.9	7.7	7.5	7.7	6.9	7.1
4/23	3.4	4.7	5.7	6.0	6.6	7.0	6.7	7.9	7.2	7.6	6.1	6.4
4/24	4.0	4.7	5.6	6.0	6.9	7.4	7.0	8.2	7.7	8.0	6.3	6.5
4/25	4.1	4.7	5.6	6.0	6.9	7.4	7.0	8.4	7.6	8.1	6.8	7.0
4/26	4.2	4.7	5.5	6.0	7.0	7.5	6.8	8.1	7.4	7.7	6.7	6.9
4/27	4.0	4.7	5.6	6.0	7.0	7.5	7.0	8.4	7.7	8.2	6.8	7.0
4/28	4.2	4.7	5.6	6.0	7.0	7.4	6.9	8.0	7.7	8.0	6.4	6.6
4/29	4.8	4.9	5.8	6.2	7.4	8.0	7.0	8.4	7.8	8.3	7.4	7.5
4/30	4.2	4.8	5.7	6.2	7.4	7.8	7.0	8.2	7.6	7.9	6.8	7.0

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
5/1	4.6	4.7	5.7	6.2	7.3	7.9	7.2	8.5	8.0	8.5	6.8	6.9
5/2	4.6	4.8	5.7	6.1	7.1	7.5	6.9	8.0	7.5	7.8	6.9	7.1
5/3	4.2	4.6	5.5	5.9	6.8	7.2	6.8	8.1	7.5	8.0	6.5	6.7
5/4	4.7	4.7	5.5	5.9	6.8	7.3	7.0	8.0	7.7	8.3	6.8	7.0
5/5	5.4	4.9	6.0	6.6	8.0	8.8	7.3	9.0	8.1	8.9	8.0	8.1
5/6	4.5	4.7	6.0	6.5	7.7	8.1	7.5	9.0	8.3	8.7	7.6	7.8
5/7	5.0	5.0	5.9	6.3	7.4	8.0	7.6	8.7	8.4	8.9	7.2	7.4
5/8	5.8	5.6	6.5	7.0	8.2	8.9	8.7	9.9	9.8	10.3	8.5	8.6
5/9	6.0	5.8	6.9	7.5	9.1	9.8	10.0	11.3	11.2	12.0	8.9	9.1
5/10	6.2	5.7	6.9	7.6	9.5	10.4	10.5	11.9	11.7	12.5	8.5	8.7
5/11	6.3	5.6	6.9	7.5	9.5	10.3	10.8	12.1	11.8	12.6	8.1	8.4
5/12	5.8	5.5	6.4	6.9	8.6	9.2	9.8	11.0	10.5	11.1	7.4	7.8
5/13	5.4	5.6	6.9	7.2	8.2	8.7	9.1	10.2	9.7	10.2	7.1	7.4
5/14	5.5	5.6	6.5	6.9	8.1	8.7	9.2	10.2	9.7	10.2	7.1	7.4
5/15	5.7	5.6	6.5	6.8	8.1	8.7	9.0	10.1	9.6	9.9	7.5	7.8
5/16	5.8	5.8	6.5	6.7	7.7	8.2	9.1	9.8	9.9	10.1	7.3	7.7
5/17	5.8	5.8	7.0	7.3	8.5	9.0	9.3	10.5	9.9	10.1	7.6	8.0
5/18	6.2	5.8	6.9	7.1	8.6	9.2	9.2	10.4	9.7	9.9	8.0	8.2
5/19	5.8	5.5	6.1	6.3	7.4	7.7	8.4	9.2	9.2	9.5	7.7	8.1
5/20	5.9	5.8	6.5	6.7	7.4	7.8	8.4	9.1	9.1	9.4	7.3	7.6
5/21	5.3	5.6	6.6	6.8	7.8	8.2	8.4	9.4	9.2	9.5	7.3	7.6
5/22	5.2	5.6	6.6	6.6	7.5	7.8	8.5	9.3	9.3	9.8	6.9	7.3
5/23	5.6	5.6	6.6	6.6	7.7	8.1	8.4	9.2	9.1	9.6	7.4	7.6
5/24	6.4	5.9	6.9	7.0	8.5	9.1	8.9	10.1	9.9	10.6	8.7	8.7
5/25	6.3	6.0	7.2	7.1	8.5	8.9	9.0	10.2	9.9	10.3	8.4	8.8
5/26	6.2	5.9	7.6	7.3	9.0	9.3	9.1	10.3	10.0	10.5	8.4	8.5
5/27	6.8	6.0	7.4	7.2	9.5	10.0	9.6	10.8	10.5	11.2	8.9	9.0
5/28	7.5	6.1	7.6	7.6	10.1	10.7	10.0	11.6	10.9	11.8	9.3	9.5
5/29	7.8	6.1	7.8	8.1	10.7	11.4	10.3	12.2	11.0	11.6	9.5	9.7
5/30	6.8	5.9	7.1	7.3	9.2	9.6	9.8	10.7	10.3	10.3	7.9	8.4
5/31	6.1	5.8	7.2	7.1	8.6	8.9	9.1	10.1	9.9	10.1	7.2	7.6

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
6/1	6.4	6.3	7.3	6.8	8.8	9.3	9.4	10.5	10.1	10.7	8.1	8.3
6/2	6.6	6.7	7.6	7.2	9.0	9.3	9.4	10.3	10.0	10.3	8.2	8.5
6/3	7.1	6.7	7.9	7.9	9.6	10.1	9.7	10.7	10.2	10.6	9.1	9.2
6/4	6.8	6.9	7.6	7.8	9.5	9.9	9.6	10.6	10.2	10.4	9.2	
6/5	6.9	6.8	7.6	7.9	9.3	9.6	9.6	10.5	10.0	10.2	8.6	
6/6	6.9	6.7	7.6	7.8	9.4	9.9	9.7	10.7	10.2	10.4	8.9	
6/7	6.5	6.7	7.6	7.7	9.0	9.4	9.6	10.4	10.0	10.3	8.7	
6/8	6.4	6.8	7.7	7.6	8.9	9.2	9.5	10.4	10.1	10.3	8.4	
6/9	6.3	7.1	8.0	7.7	8.7	8.9	9.5	10.2	10.2	10.5	8.0	
6/10	6.9	7.1	8.5	6.9	9.7	10.0	9.8	10.9	10.0	10.3	8.4	
6/11	7.0	7.1	8.3	6.9	9.9	10.2	10.0	11.1	10.2	10.4	8.7	
6/12	6.8	6.9	8.0	7.4	9.4	9.6	9.8	10.6	9.9	10.1	8.2	
6/13	6.7	6.8	7.9	7.4	9.2	9.5	9.6	10.5	9.9	10.1	8.3	
6/14	6.4	6.8	7.9	7.2	8.9	9.1	9.4	10.2	10.0	10.3	8.2	
6/15	6.6	6.9	7.9	6.9	8.9	9.1	9.5	10.2	10.1	10.3	8.3	
6/16	6.6	6.9	7.8	6.9	9.1	9.4	9.4	10.4	9.9	10.1	8.6	
6/17	6.9	7.1	8.0	7.3	9.3	9.6	9.6	10.8	10.2	10.5	9.0	
6/18	7.9	7.1	8.6	8.2	10.5	10.9	10.3	11.6	10.4	10.7	10.1	
6/19	8.5	7.3	8.8	8.7	11.3	11.8	11.0	12.7	10.7	11.1	11.2	
6/20	8.2	7.3	8.5	8.4	10.8	11.2	10.9	12.4	10.6	11.1	10.4	
6/21	7.9	7.1	8.3	8.4	10.3	10.8	10.5	11.9	10.4	11.0	9.8	
6/22	8.7	7.0	8.6	9.1	11.2	11.9	10.9	12.4	11.0	12.0	10.8	
6/23	9.6	6.8	8.6	9.2	12.2	12.9	11.4	13.3	11.2	12.3	11.9	
6/24	9.5	6.7	8.2	8.7	11.8	12.5	11.3	13.3	11.0	11.9	11.7	
6/25	9.9	6.8	8.5	9.2	11.9	12.8	11.4	13.3	11.1	12.0	12.1	
6/26	10.1	6.8	8.4	9.2	12.1	12.9	11.6	13.5	11.3	12.1	12.5	
6/27	9.2	6.4	7.6	8.1	10.6	11.2	10.9	12.2	10.8	11.2	11.6	
6/28	8.3	6.4	7.3	7.6	9.4	10.1	10.5	11.4	10.9	11.3	10.2	
6/29	9.1	6.5	7.9	8.5	10.3	11.0	10.7	11.8	10.9	11.8	10.9	
6/30	8.9	6.5	7.7	8.1	10.2	10.7	10.8	11.9	11.1	11.6	11.9	

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
7/1	8.0	6.4	8.2	8.3	9.6	9.8	10.3	11.2	10.7	11.2	10.3	
7/2	7.8	6.5	8.5	8.2	9.5	9.8	10.0	10.8	10.3	10.8	9.7	
7/3	7.8	6.4	7.9	7.8	9.4	9.8	10.0	10.9	10.3	10.8	9.9	
7/4	8.5	6.5	7.9	8.1	9.8	10.4	10.2	11.3	10.5	11.3	11.4	
7/5	9.1	6.6	8.0	8.4	10.5	11.1	10.6	11.9	10.7	11.6	12.6	
7/6	9.2	6.5	7.8	8.2	10.4	11.0	10.6	11.9	10.7	11.5	12.7	
7/7	8.8	6.5	7.7	7.9	9.7	10.2	10.4	11.4	10.7	11.1		
7/8	8.8	6.6	8.0	8.4	10.2	10.9	10.7	11.9	10.8	11.8		
7/9	9.0	6.7	7.9	8.2	10.2	10.8	10.7	11.9	10.9	11.5		
7/10	9.9	6.7	8.3	8.9	11.0	11.9	11.1	12.5	11.1	12.0		
7/11	9.7	6.7	7.9	8.4	10.8	11.4	11.0	12.3	11.1	11.8		
7/12	9.6	6.6	8.3	8.5	10.5	11.2	11.0	12.2	11.1	11.8		
7/13	9.4	6.6	8.2	8.7	10.7	11.5	11.0	12.1	11.2	12.1		
7/14	10.0	6.7	8.3	9.0	11.3	12.1	11.4	12.6	11.4	12.3		
7/15	10.6	6.8	8.5	9.3	11.9	12.8	11.7	13.1	11.7	12.7		
7/16	11.0	6.9	8.5	9.2	12.1	13.0	11.8		11.8	12.9		
7/17	10.7	6.7	8.0	8.5	11.0	11.6	11.4		11.6	12.3		
7/18	11.1	6.8	8.4	9.2	11.3	12.1	11.6		11.8	12.8		
7/19	11.6	7.0	8.7	9.6	12.3	13.1	12.1		12.1	13.2		
7/20	12.4	7.2	9.0	10.0	12.9	13.9	12.2		11.9	13.4		
7/21	12.8	7.1	8.9	9.9	13.2	14.2	10.8		10.3	11.8		
7/22	12.5	6.8	8.1	8.8	11.7	12.4	10.1		9.7	10.6		
7/23	11.6	6.7	7.8	8.3	10.6	11.2	9.7		9.5	10.3		
7/24	11.1	6.6	7.7	8.2	10.2	11.1	9.7		9.4	10.4		
7/25	11.1	6.7	7.9	8.7	10.7	11.5	9.8		9.6	10.6		
7/26	12.0	7.0	8.3	9.2	11.6	12.5	10.3		9.9	11.2		
7/27	12.9	7.1	8.7	9.6	12.3	13.3	10.7		10.0	10.9		
7/28	13.3	7.1	8.7	9.7	12.6	13.4	10.9		10.2	10.5		
7/29	13.4	7.1	8.6	9.6	12.5	13.6	10.9	12.8	10.1	10.5	18.2	15.9
7/30	13.8	7.3	8.8	9.8	12.7	13.8	11.2	13.1	10.4	10.8	18.6	16.1
7/31	14.3	7.1	8.7	9.8	12.9	13.9	11.3	13.4	11.4	11.6	19.1	17.3

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
8/1	13.5	6.8	8.0	8.8	11.6	12.4	10.8	12.6	11.4	11.8	17.9	17.3
8/2	13.0	6.8	8.0	8.7	11.2	12.1	10.7	12.4	11.3	12.0	17.6	17.6
8/3	13.2	6.9	8.1	8.8	11.2	12.2	10.8	12.6	11.4	12.3	18.1	18.2
8/4	13.4	7.0	8.2	9.0	11.4	12.4	10.9	12.6	11.4	12.3	18.5	18.0
8/5	13.6	6.9	8.2	9.1	11.6	12.6	11.0	12.8	11.7	12.4	18.8	18.2
8/6	12.6	6.7	7.7	8.3	10.5	11.1	10.6	11.9	11.1	11.5	17.2	15.6
8/7	12.2	6.7	7.5	8.1	10.3	11.2	10.5	11.9	11.1	12.0	16.5	15.7
8/8	11.8	6.7	7.6	8.1	9.8	10.5	10.3	11.7	11.0	11.5	16.1	15.6
8/9	11.9	6.7	7.8	8.6	10.2	11.0	10.5	11.7	11.0	11.8	16.2	15.3
8/10	12.4	6.9	8.0	8.8	10.8	11.7	10.9	12.3	11.5	12.3	17.3	16.3
8/11	12.2	6.7	7.8	8.6	10.8	11.7	11.0	12.4	11.5	12.3	17.7	16.3
8/12	11.8	6.5	7.4	8.0	10.1	10.9	10.8	12.0	11.3	12.0	17.0	14.8
8/13	11.3	6.6	7.4	8.0	9.7	10.4	10.6	11.6	11.1	11.8	16.5	14.0
8/14	11.5	6.7	7.6	8.2	10.0	10.8	10.8	11.9	11.4	12.1	16.6	14.9
8/15	12.2	7.0	8.0	8.7	10.6	11.5	11.2	12.4	11.7	12.5	17.6	16.9
8/16	13.2	7.2	8.4	9.1	11.3	12.2	11.6	13.0	11.7	12.3	18.8	18.0
8/17	13.9	7.1	8.4	9.4	11.8	12.8	12.1	13.6	11.9	12.4	19.7	18.0
8/18	13.8	7.0	8.1	8.9	11.1	11.9	12.0	13.1	12.0	12.4	18.9	16.9
8/19	13.6	7.0	8.0	8.8	11.0	11.8	12.1	13.2	12.3	12.7	18.9	16.8
8/20	13.5	7.0	8.0	8.6	10.9	11.8	12.2	13.5	12.8	13.2	19.1	18.7
8/21	13.2	7.0	8.0	8.5	10.3	11.0	11.9	13.1	12.6	13.1	18.0	17.9
8/22	13.1	6.7	8.1	9.0	10.8	11.6	12.1	13.1	12.7	13.5	17.7	16.3
8/23	12.5	6.8	7.7	8.5	10.4	11.2	12.0	13.0	12.7	13.4	17.5	14.7
8/24	12.4	6.8	7.7	8.3	10.2	10.9	12.1	13.0	12.8	13.5	17.5	15.0
8/25	12.1	6.7	7.6	8.3	9.9	10.7	11.9	12.8	12.6	13.3	17.3	14.4
8/26	12.0	6.6	7.5	8.2	9.9	10.6	10.4	12.1	11.2	11.9	17.4	14.6
8/27	11.9	6.6	7.5	8.2	9.8	10.5	10.4	11.6	10.8	11.6	17.3	14.5
8/28	12.8	6.7	7.6	8.2	9.8	10.6	10.5	11.6	10.9	11.8	17.3	14.7
8/29	11.6	6.6	7.5	8.1	9.7	10.4	10.5	11.6	10.9	11.7	17.0	15.1
8/30	11.3	6.5	7.3	7.8	9.4	10.1	10.4	11.4	10.9	11.6	16.5	13.7
8/31	11.6	7.5	7.9	8.1	9.3	9.8	10.4	11.6	11.0	11.9	16.7	14.9

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
9/1	12.0	8.3	8.8	9.2	10.0	10.5	10.7	11.8	11.2	12.2	17.5	17.2
9/2	11.9	8.5	9.0	9.3	10.1	10.5	10.7	12.0	11.2	12.2	17.6	17.0
9/3	11.8	8.7	9.1	9.5	10.3	10.7	10.9	12.0	11.4	12.3	17.7	16.1
9/4	12.1	9.5	9.8	10.0	10.6	10.9	11.1	12.2	11.6	12.3	17.8	16.4
9/5	12.3	9.9	10.2	10.4	11.0	11.2	11.4	12.3	11.8	12.2	17.3	15.9
9/6	12.4	10.0	10.4	10.7	11.4	11.6	11.7	12.6	12.0	12.7	17.0	15.4
9/7	12.3	10.2	10.5	10.8	11.5	11.8	12.0	12.9	12.4	12.9	17.7	16.1
9/8	11.7	10.3	10.6	10.9	11.2	11.4	11.8	12.6	12.7	13.1	16.7	15.4
9/9	11.7	10.6	11.1	11.4	11.6	11.7	12.1	12.6	12.9	13.3	16.4	14.9
9/10	12.1	9.2	9.8	10.1	11.3	11.7	12.2	13.1	13.2	13.5	16.9	15.3
9/11	12.2	7.7	7.9	7.9	8.4	8.6	9.5	10.4	12.0	12.6	16.9	14.6
9/12	11.6	9.1	9.5	9.6	9.8	9.8	11.1	11.1	12.8	13.0	15.6	13.3
9/13	11.1	9.0	9.3	9.5	10.0	10.1	11.6	11.8	12.9	13.1	14.8	13.2
9/14	11.4	9.2	9.6	9.7	10.4	10.6	12.2	12.4	13.2	13.5	14.6	14.4
9/15	12.1	9.5	10.0	10.2	11.0	11.3	13.0	13.4	13.6	14.2	15.7	16.0
9/16	12.4	9.6	10.0	10.3	11.2	11.5	13.1	13.7	13.8	14.3	16.5	15.8
9/17	12.2	9.6	10.0	10.3	11.1	11.4	13.1	13.6	13.8	14.3	16.3	15.4
9/18	12.2	9.5	10.0	10.2	11.0	11.2	13.1	13.5	13.8	14.2	16.3	15.7
9/19	12.0	9.4	9.9	10.1	10.7	10.9	13.0	13.4	13.7	14.2	15.7	15.3
9/20	12.0	9.4	9.8	10.1	10.9	11.1	13.1	13.6	13.9	14.4	15.8	15.1
9/21	11.4	9.5	9.8	10.0	10.6	10.8	13.2	13.4	13.8	14.1	15.3	14.3
9/22	11.7	9.7	10.1	10.3	11.0	11.2	13.4	13.8	14.1	14.6	15.7	15.1
9/23	11.4	9.6	10.2	10.3	10.9	11.0	13.2	13.5	14.0	14.3	14.8	14.5
9/24	10.7	9.4	10.2	10.3	11.1	11.3	12.8	13.2	13.5	14.0	13.0	13.1
9/25	10.0	9.2	10.0	10.0	10.7	10.8	12.3	12.8	13.0	13.5	11.8	12.0
9/26	9.4	8.9	9.6	9.4	10.4	10.5	11.9	12.3	12.4	12.9	10.8	11.0
9/27	9.3	8.9	9.4	9.4	10.1	10.3	11.9	12.2	12.4	13.0	11.2	11.4
9/28	9.4	9.0	9.4	9.4	9.9	10.0	11.8	12.1	12.3	12.8	11.6	11.8
9/29	9.9	9.1	9.5	9.6	10.2	10.3	12.0	12.3	12.5	13.0	12.4	12.6
9/30	10.3	9.2	9.6	9.7	10.4	10.6	12.2	12.5	12.7	13.0	12.7	12.8

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
10/1	10.6	8.8	9.4	9.6	10.5	10.7	12.3	12.7	12.8	13.2	12.9	13.1
10/2	10.7	8.8	9.2	9.3	10.1	10.3	12.2	12.6	12.8	13.2	13.4	13.8
10/3	10.5	8.8	9.3	9.4	10.0	10.3	12.2	12.6	12.7	13.1	13.5	13.5
10/4	10.2	8.7	9.1	9.3	10.0	10.2	12.2	12.6	12.7	13.1	13.3	13.5
10/5	10.2	8.8	9.1	9.3	9.8	10.0	12.0	12.4	12.7	13.1	13.2	13.6
10/6	10.1	8.8	9.2	9.3		9.9	12.1	12.3	12.7	13.1	13.5	13.7
10/7	10.3	8.8	9.2	9.4		10.1	12.2	12.5	12.8	13.1	13.2	13.3
10/8	10.5	8.7	9.2	9.4		10.2	12.3	12.6	12.8	13.2	13.2	14.1
10/9	10.8	8.7	9.2	9.4		10.4	12.4	12.8	13.0	13.5	13.6	14.9
10/10	10.0	8.5	9.9	9.8		10.6	11.7	12.2	12.3	12.7	12.7	12.7
10/11	8.8	8.3	9.1	8.3		9.8	11.3	11.5	11.8	12.1	10.2	10.5
10/12	8.7	8.1	9.3	8.6		10.0	11.0	11.4	11.5	11.9	9.9	10.1
10/13	8.5	7.9	8.8	8.0		9.6	10.8	11.2	11.3	11.8	9.7	9.8
10/14	8.1	7.9	8.7	8.1		9.3	10.5	10.8	11.1	11.4	9.2	9.4
10/15	8.0	7.7	8.4	7.9		9.1	10.3	10.6	10.8	11.2	9.2	9.4
10/16	8.3	7.5	8.9	8.5		9.4	10.4	10.7	10.8	11.2	9.5	9.7
10/17	8.6	7.4	8.9	8.1		10.0	10.5	11.0	11.0	11.3	9.9	10.1
10/18	8.4	7.4	9.0	8.5		9.7	10.2	10.6	10.7	11.0	9.6	9.8
10/19	8.4	7.3	8.9	8.4		9.8	10.2	10.8	10.7	11.0	9.8	10.0
10/20	7.9	7.2	8.2	8.1		9.1	9.9	10.3	10.4	10.8	9.4	9.6
10/21	7.3	7.0	7.8	7.8		8.4	9.4	9.7	10.1	10.3	8.8	9.0
10/22	6.3	7.0	7.3			7.2	9.0	8.8	9.9	10.1	7.8	8.1
10/23	5.8	7.0	7.2			7.0	8.8	8.5	10.0	10.2	7.0	7.5
10/24	6.1	7.0	7.6			7.5	8.8	8.7	9.9	10.1	6.9	7.2
10/25	5.2	6.8	6.8			6.4	8.4	8.0	9.7	9.8	6.3	6.8
10/26	5.3	6.9	7.0			6.5	8.5	8.0	9.6	9.7	6.2	6.8
10/27	6.0	7.1	7.4			7.5	9.0	8.9	9.8	10.0	7.0	7.7
10/28	6.7	7.2	7.6			7.9	9.2	9.4	9.9	10.1	7.9	8.5
10/29	7.0	7.2	7.7			8.1	9.3	9.6	9.9	10.1	8.1	8.7
10/30	6.8	8.4	8.1			7.9	9.0	9.3	9.4	9.7	7.9	8.2
10/31	6.0	9.6	8.7			7.6	8.9	8.5	8.9	9.1	7.2	7.5

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
11/1	6.0	9.5				7.9	9.0	8.7	9.0	9.2	7.0	7.3
11/2	6.3	9.6				8.0	9.0	8.7	9.1	9.2	7.2	7.6
11/3	6.8	9.7				8.4	9.0	8.8	9.2	9.4	7.3	7.6
11/4	8.2	10.0				9.8	9.7	9.8	9.7	9.8	8.6	8.7
11/5	7.9	9.1				9.6	9.7	10.1	9.9	9.9	8.9	9.1
11/6	6.8	8.9				8.2	8.6	8.8	9.0	9.2	7.6	7.8
11/7	6.2	8.4				7.6	8.2	8.2	8.6	8.7	7.2	7.4
11/8	5.0	8.1				6.1	7.5	7.0	8.5	8.5	6.2	6.4
11/9	4.7	7.9				5.8	7.4	6.6	8.4	8.4	5.3	5.7
11/10	4.4	7.8				5.8	7.1	6.9	8.3	8.3	5.7	6.1
11/11	4.6	7.7				6.0	7.1	6.9	8.2	8.3	5.6	6.1
11/12	4.7	7.5				6.3	7.2	7.0	8.2	8.3	5.8	6.4
11/13	4.5	6.9				6.3	6.9	7.0	8.0	8.1	5.6	6.0
11/14	4.7	6.7				6.3	6.8	6.8	7.7	7.8	5.2	5.6
11/15	5.1	6.9				6.8	7.2	7.3	7.9	8.0	6.0	6.4
11/16	5.3	6.8				7.0	7.4	7.6	7.9	7.9	6.1	6.4
11/17	5.6	6.9				7.4	7.6	7.8	7.9	8.0	6.4	6.6
11/18	5.5	6.8				7.3	7.5	7.9	7.8	7.9	6.3	6.5
11/19	4.8	6.4				6.6	6.8	7.2	7.3	7.5	6.2	6.4
11/20	5.0	6.5				6.7	6.8	7.2	7.3	7.4	6.2	6.4
11/21	5.1	6.5				6.7	6.9	7.3	7.4	7.5	6.4	6.6
11/22	5.1	6.4				6.4	6.7	6.8	7.2	7.3	5.9	6.1
11/23	5.0	6.3				6.5	6.8	7.1	7.2	7.3	6.2	6.5
11/24	5.0	6.3				6.5	6.7	7.1	7.1	7.2	6.4	6.6
11/25	4.3	6.1				6.0	6.3	6.6	6.9	7.0	6.1	6.3
11/26	4.7	6.1				6.4	6.6	6.9	6.9	7.0	5.9	6.2
11/27	4.9	6.2				6.6	6.8	7.2	7.0	7.1	6.3	6.6
11/28	4.9	6.1				6.5	6.7	7.1	6.9	7.0	6.3	6.5
11/29	4.5	5.9				5.7	6.1	6.2	6.7	6.7	5.5	5.9
11/30	4.2	5.9				5.5	5.9	6.3	6.6	6.8	5.6	6.0

	Sultan River										Skykomish River	
DATE	RM 18.2 (SFK)	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	RM 14.1	RM 13.2
12/1	4.0	5.7				5.0	5.4	5.4	6.0	6.2	5.3	5.5
12/2	4.3	6.0				4.9	5.2	5.1	5.9	6.1	4.8	5.1
12/3	4.7	6.1				5.3	5.6	5.4	6.0	6.1	4.9	5.2
12/4	4.6	5.9				5.3	5.7	5.6	6.1	6.1	5.1	5.5
12/5	4.8	6.0				5.0	5.5	5.4	6.0	6.0	5.1	5.4
12/6	5.1	6.0				6.0	6.1	6.2	6.2	6.3	5.4	5.8
12/7	5.2	5.9				6.5	6.5	6.8	6.4	6.4	5.9	6.2
12/8	5.2	6.1				7.1	7.0	7.4	6.7	6.7	6.5	6.7
12/9	5.2	5.6				7.0	6.9	7.5	6.9	6.7	6.2	6.3
12/10	4.7	5.4				5.9	6.0	6.3	6.1	6.1	5.4	5.5
12/11	4.4	5.4				5.7	5.9	6.2	6.1	6.1	5.3	5.5
12/12	3.8	5.3				4.6	5.1	5.0	5.7	5.7	4.4	4.7
12/13	3.8	5.4				4.9	5.2	5.2	5.6	5.7	4.1	4.4
12/14	3.9	5.4				5.4	5.6	5.8	5.8	5.8	4.6	4.9
12/15	4.2	5.5				5.7	5.7	6.0	5.8	5.9	5.1	5.4
12/16	4.6	5.5				6.2	6.2	6.6	6.0	6.0	5.4	5.6
12/17	4.1	5.4				5.8	5.9	6.4	6.1	6.0	5.5	5.7
12/18	4.2	5.2				5.8	5.9	6.3	6.1	6.0	5.5	5.7
12/19	4.3	5.2				6.2	6.2	6.7	6.4	6.1	5.6	5.8
12/20	4.5	5.4				6.8	6.8	7.2	6.8	6.4	5.8	6.0
12/21	4.6	5.2				6.4	6.5	7.1	6.7	6.3	5.8	6.0
12/22	3.6	4.8				4.9	5.0	5.1	5.5	5.3	4.7	4.9
12/23	3.5	4.7				4.7	4.9	4.9	5.3	5.1	4.4	4.6
12/24	3.5	4.8				4.4	4.6	4.6	5.2	5.0	4.0	4.2
12/25	3.7	4.8				4.7	4.8	5.0	5.2	5.1	4.2	4.4
12/26	3.8	4.8				5.0	5.1	5.5	5.3	5.2	4.6	4.8
12/27	4.0	4.8				5.3	5.4	5.7	5.3	5.3	4.8	5.0
12/28	3.6	4.6				4.4	4.7	4.8	5.1	4.9	4.2	4.5
12/29	3.3	4.5				4.2	4.4	4.4	5.0	4.8	3.6	4.0
12/30	3.5	4.6				4.7	4.8	5.0	5.1	5.0	4.0	4.4
12/31	3.7	4.7				5.4	5.4	5.7	5.4	5.3	4.0	4.4

APPENDIX D

*Seven-Day Average of the Daily Maximum (7-DAD Max) Water Temperature in
Tabular Format*

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
1/1	4.5	5.2				6.1	6.0	6.5	5.7	5.8	5.5	5.6
1/2	4.5	5.2				6.2	6.1	6.5	5.7	5.7	5.4	5.6
1/3	4.3	5.2				6.2	6.1	6.5	5.8	5.8	5.3	5.5
1/4	4.3	5.1				6.3	6.2	6.6	5.9	5.8	5.3	5.4
1/5	4.2	5.1				6.2	6.1	6.6	5.8	5.8	5.2	5.4
1/6	4.1	5.0				6.0	6.0	6.4	5.6	5.6	5.1	5.3
1/7	3.8	4.9				5.7	5.8	6.1	5.5	5.5	4.9	5.1
1/8	3.6	4.9				5.5	5.5	5.9	5.4	5.4	4.6	4.9
1/9	3.3	4.8				5.2	5.3	5.7	5.3	5.3	4.4	4.7
1/10	3.2	4.7				4.9	5.1	5.4	5.1	5.2	4.2	4.5
1/11	2.9	4.6				4.5	4.7	5.0	4.8	4.9	3.9	4.3
1/12	2.6	4.4				4.0	4.3	4.5	4.6	4.7	3.5	3.9
1/13	2.4	4.3				3.9	4.2	4.4	4.4	4.6	3.3	3.7
1/14	2.4	4.2				3.8	4.0	4.3	4.3	4.4	3.2	3.6
1/15	2.3	4.0				3.7	3.9	4.2	4.1	4.3	3.2	3.6
1/16	2.4	3.9				3.7	3.9	4.2	4.0	4.1	3.4	3.7
1/17	2.5	3.8				3.8	3.9	4.3	3.9	4.1	3.6	3.8
1/18	2.7	3.7				3.9	4.0	4.4	3.9	4.1	3.8	4.0
1/19	2.9	3.7				4.1	4.0	4.6	3.9	4.1	4.2	4.2
1/20	2.9	3.7				4.2	4.2	4.8	4.0	4.1	4.4	4.4
1/21	3.1	3.7				4.4	4.4	5.1	4.2	4.3	4.5	4.6
1/22	3.2	3.7				4.7	4.6	5.3	4.3	4.4	4.7	4.7
1/23	3.4	3.8				4.9	4.8	5.6	4.4	4.5	4.7	4.8
1/24	3.5	3.8				5.1	5.0	5.8	4.5	4.6	4.8	4.9
1/25	3.6	3.8				5.2	5.2	5.9	4.6	4.7	4.8	5.0
1/26	3.7	3.8				5.3	5.2	6.0	4.6	4.7	4.9	5.1
1/27	3.8	3.8				5.2	5.2	6.0	4.6	4.6	5.0	5.1
1/28	3.8	3.7				5.2	5.2	6.0	4.7	4.7	5.1	5.2
1/29	3.8	3.7				5.1	5.1	5.9	4.8	4.8	5.0	5.2
1/30	3.7	3.7				4.9	4.9	5.6	4.8	4.7	4.9	5.1
1/31	3.6	3.7				4.8	4.8	5.4	4.7	4.7	4.8	4.9

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
2/1	3.4	3.7				4.6	4.6	5.1	4.7	4.6	4.7	4.8
2/2	3.2	3.7				4.5	4.5	4.9	4.6	4.6	4.6	4.6
2/3	3.1	3.7				4.4	4.5	4.9	4.7	4.7	4.4	4.5
2/4	3.0	3.7				4.4	4.4	4.9	4.7	4.6	4.4	4.5
2/5	3.0	3.7				4.4	4.4	5.0	4.6	4.5	4.3	4.5
2/6	3.0	3.7				4.4	4.4	5.0	4.7	4.6	4.5	4.6
2/7	3.1	3.7				4.4	4.4	5.2	4.6	4.6	4.6	4.7
2/8	3.2	3.6				4.5	4.5	5.3	4.6	4.6	4.7	4.8
2/9	3.4	3.6				4.7	4.6	5.5	4.6	4.6	5.0	5.0
2/10	3.4	3.6				4.7	4.6	5.6	4.5	4.5	5.2	5.1
2/11	3.3	3.6				4.6	4.5	5.5	4.4	4.5	5.3	5.1
2/12	3.2	3.6				4.5	4.4	5.4	4.2	4.4	5.4	5.0
2/13	3.0	3.6				4.6	4.4	5.4	4.1	4.3	5.4	5.0
2/14	3.0	3.6				4.6	4.4	5.4	4.1	4.3	5.3	4.9
2/15	2.8	3.6				4.5	4.4	5.3	4.1	4.3	5.2	4.9
2/16	2.6	3.5				4.4	4.2	5.1	4.0	4.2	5.1	4.8
2/17	2.6	3.5				4.3	4.1	4.9	3.9	4.1	5.0	4.7
2/18	2.6	3.5				4.3	4.1	4.8	3.9	4.1	5.0	4.7
2/19	2.7	3.6				4.3	4.0	4.8	3.8	4.0	4.9	4.6
2/20	2.7	3.6				4.3	4.0	4.8	3.8	4.0	5.0	4.6
2/21	2.6	3.6				4.2	3.9	4.8	3.8	4.0	4.9	4.6
2/22	2.6	3.6				4.3	3.9	4.8	3.8	4.0	5.0	4.7
2/23	2.7	3.6				4.5	4.0	5.0	3.8	4.0	5.2	4.8
2/24	2.9	3.7				4.7	4.2	5.2	3.8	4.1	5.4	5.0
2/25	2.9	3.7				4.9	4.3	5.3	3.9	4.1	5.6	5.1
2/26	2.9	3.7				4.9	4.3	5.4	3.9	4.2	5.7	5.3
2/27	2.9	3.7				4.9	4.3	5.4	4.0	4.2	5.7	5.2
2/28	3.0	3.7				4.9	4.3	5.4	4.0	4.2	5.7	5.2
2/29	3.1	3.7				4.9	4.4	5.4	4.1	4.2	5.7	5.3

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
3/1	3.1	3.7				4.9	4.4	5.5	4.1	4.3	5.7	5.3
3/2	3.1	3.7				4.9	4.5	5.4	4.2	4.3	5.6	5.3
3/3	3.1	3.6				4.8	4.5	5.5	4.2	4.3	5.5	5.3
3/4	3.2	3.6				4.9	4.6	5.5	4.3	4.4	5.5	5.3
3/5	3.3	3.6				4.9	4.6	5.6	4.3	4.4	5.7	5.5
3/6	3.3	3.6				5.0	4.7	5.6	4.3	4.5	5.9	5.6
3/7	3.3	3.6				4.9	4.6	5.5	4.2	4.4	5.8	5.5
3/8	3.3	3.6				5.0	4.6	5.5	4.2	4.4	5.8	5.5
3/9	3.3	3.6				5.0	4.5	5.5	4.2	4.4	6.0	5.6
3/10	3.3	3.6				4.9	4.4	5.4	4.2	4.4	5.9	5.5
3/11	3.2	3.6				4.9	4.4	5.3	4.2	4.4	5.9	5.5
3/12	3.1	3.6				4.9	4.3	5.2	4.1	4.4	5.8	5.4
3/13	3.2	3.6				4.9	4.3	5.2	4.2	4.4	5.9	5.4
3/14	3.3	3.7				5.0	4.3	5.3	4.3	4.5	6.1	5.6
3/15	3.3	3.7				5.1	4.3	5.2	4.3	4.6	6.3	5.7
3/16	3.4	3.8				5.1	4.3	5.2	4.4	4.7	6.5	5.8
3/17	3.5	3.8				5.3	4.4	5.4	4.6	4.9	6.9	6.2
3/18	3.6	3.9				5.5	4.4	5.5	4.7	5.1	7.2	6.5
3/19	3.9	4.0				5.7	4.5	5.7	4.9	5.3	7.4	6.8
3/20	3.9	4.0				5.9	4.6	5.9	5.1	5.5	7.7	7.2
3/21	4.0	4.1				5.9	4.7	6.0	5.2	5.7	7.7	7.3
3/22	4.0	4.1				6.0	4.7	6.0	5.2	5.8	7.7	7.3
3/23	4.0	4.1				5.9	4.8	6.0	5.3	5.9	7.5	7.2
3/24	3.9	4.1				5.8	4.8	5.9	5.2	5.9	7.2	7.0
3/25	3.8	4.2				5.6	4.8	5.9	5.3	5.9	7.0	6.9
3/26	3.6	4.3				5.5	4.9	5.9	5.4	6.0	7.0	6.8
3/27	3.6	4.4				5.5	5.0	5.9	5.5	6.0	6.7	6.6
3/28	3.5	4.5				5.4	5.0	5.9	5.5	6.1	6.6	6.5
3/29	3.4	4.5				5.3	5.0	5.9	5.6	6.2	6.5	6.4
3/30	3.4	4.5				5.3	5.0	5.9	5.6	6.2	6.4	6.4
3/31	3.3	4.5				5.2	5.0	5.9	5.6	6.3	6.3	6.3

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
4/1	3.3	4.5	4.5	4.7	5.0	5.3	5.0	5.9	5.6	6.4	6.4	6.4
4/2	3.5	4.4	4.6	4.7	5.0	5.4	5.1	6.0	5.6	6.4	6.4	6.4
4/3	3.7	4.3	4.6	4.8	5.2	5.7	5.2	6.1	5.7	6.6	6.8	6.8
4/4	3.9	4.4	4.7	5.0	5.4	5.9	5.3	6.3	5.8	6.8	7.3	7.2
4/5	4.1	4.4	4.8	5.3	5.6	6.3	5.4	6.5	6.0	7.0	7.8	7.6
4/6	4.4	4.5	4.9	5.6	6.0	6.7	5.6	6.9	6.2	7.4	8.3	8.0
4/7	4.6	4.6	5.1	5.9	6.4	7.3	5.9	7.3	6.5	7.8	8.8	8.5
4/8	4.8	4.6	5.3	6.1	6.8	7.6	6.1	7.6	6.7	8.0	8.9	8.7
4/9	4.7	4.6	5.4	6.2	6.9	7.9	6.3	7.7	6.8	8.1	9.0	8.8
4/10	4.8	4.6	5.5	6.3	7.0	7.9	6.3	7.8	6.8	8.1	8.9	8.7
4/11	4.8	4.7	5.6	6.3	7.2	8.2	6.4	7.9	7.0	8.3	8.8	8.6
4/12	4.9	4.7	5.8	6.4	7.4	8.4	6.6	8.1	7.1	8.5	8.9	8.8
4/13	4.9	4.6	6.0	6.5	7.5	8.5	6.7	8.3	7.3	8.6	8.8	8.7
4/14	5.0	4.6	6.0	6.4	7.3	8.3	6.7	8.2	7.3	8.5	8.7	8.6
4/15	4.9	4.7	6.0	6.3	7.2	8.1	6.7	8.1	7.3	8.5	8.7	8.6
4/16	5.0	4.7	6.1	6.4	7.3	8.2	6.8	8.3	7.5	8.7	8.7	8.6
4/17	5.1	4.7	6.3	6.4	7.5	8.5	7.0	8.4	7.7	8.8	8.8	8.8
4/18	5.1	4.7	6.4	6.3	7.4	8.4	7.0	8.4	7.7	8.8	8.9	8.8
4/19	4.9	4.7	6.3	6.2	7.2	8.1	7.1	8.3	7.8	8.7	8.5	8.5
4/20	4.7	4.7	6.2	6.1	7.1	7.8	7.0	8.3	7.7	8.4	8.1	8.2
4/21	4.6	4.8	6.3	6.2	7.2	8.1	7.2	8.5	7.8	8.7	7.9	8.0
4/22	4.6	4.8	6.2	6.2	7.4	8.2	7.2	8.7	8.0	8.9	7.8	7.9
4/23	4.6	4.8	6.2	6.3	7.4	8.3	7.2	8.7	8.0	8.8	7.7	7.8
4/24	4.5	4.8	6.1	6.3	7.3	8.0	7.2	8.7	8.0	8.7	7.3	7.5
4/25	4.5	4.8	6.0	6.4	7.4	8.1	7.3	8.8	8.1	8.8	7.1	7.3
4/26	4.7	4.8	6.1	6.5	7.6	8.4	7.3	8.9	8.1	9.0	7.2	7.4
4/27	4.8	4.9	6.1	6.5	7.7	8.5	7.3	8.9	8.1	9.0	7.4	7.6
4/28	5.0	4.9	6.2	6.6	7.9	8.7	7.3	9.0	8.2	9.1	7.6	7.7
4/29	5.1	4.9	6.2	6.6	7.9	8.6	7.3	8.9	8.2	8.9	7.5	7.7
4/30	5.1	4.9	6.2	6.6	7.8	8.5	7.3	8.9	8.2	9.0	7.5	7.6

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
5/1	5.3	4.9	6.2	6.7	7.8	8.7	7.4	8.9	8.2	9.1	7.6	7.7
5/2	5.5	4.9	6.3	6.9	8.2	9.1	7.4	9.1	8.3	9.4	7.9	8.0
5/3	5.4	4.9	6.4	6.9	8.3	9.0	7.5	9.2	8.4	9.5	8.0	8.0
5/4	5.7	5.0	6.5	7.1	8.5	9.3	7.7	9.5	8.7	9.9	8.1	8.1
5/5	6.0	5.2	6.7	7.4	8.7	9.6	8.0	9.8	9.1	10.3	8.4	8.4
5/6	6.2	5.3	6.9	7.7	9.2	10.2	8.5	10.4	9.7	11.1	8.7	8.7
5/7	6.6	5.5	7.2	8.1	9.8	10.9	9.1	11.1	10.4	11.8	9.1	9.1
5/8	6.8	5.7	7.5	8.4	10.3	11.5	9.6	11.6	11.0	12.4	9.2	9.3
5/9	6.8	5.7	7.5	8.3	10.2	11.2	10.0	11.9	11.3	12.6	9.1	9.2
5/10	6.9	5.8	7.6	8.4	10.2	11.4	10.2	12.0	11.5	12.7	9.0	9.1
5/11	6.9	5.8	7.6	8.4	10.2	11.2	10.4	12.1	11.5	12.7	8.8	9.0
5/12	6.7	5.8	7.5	8.2	10.0	11.0	10.3	12.0	11.2	12.5	8.6	8.8
5/13	6.6	5.8	7.4	7.9	9.6	10.5	10.1	11.7	11.0	12.0	8.3	8.6
5/14	6.4	5.8	7.3	7.7	9.2	10.1	9.9	11.4	10.6	11.5	8.2	8.4
5/15	6.4	5.8	7.2	7.6	9.0	9.9	9.7	11.2	10.2	11.1	8.3	8.5
5/16	6.4	5.9	7.2	7.5	8.9	9.7	9.5	11.0	10.0	10.8	8.4	8.5
5/17	6.5	5.9	7.0	7.3	8.8	9.5	9.3	10.7	9.8	10.7	8.3	8.5
5/18	6.4	5.9	7.0	7.3	8.8	9.5	9.2	10.6	9.8	10.5	8.4	8.5
5/19	6.2	5.9	7.0	7.2	8.6	9.3	9.1	10.4	9.8	10.5	8.2	8.4
5/20	6.2	5.9	7.0	7.2	8.6	9.3	9.0	10.3	9.6	10.4	8.3	8.4
5/21	6.4	5.9	7.1	7.2	8.8	9.4	9.0	10.4	9.8	10.7	8.6	8.7
5/22	6.3	5.9	7.1	7.2	8.6	9.1	8.9	10.3	9.8	10.6	8.6	8.7
5/23	6.4	5.9	7.4	7.3	8.8	9.5	9.1	10.4	10.0	10.8	8.7	8.8
5/24	6.8	5.9	7.7	7.5	9.4	10.1	9.4	10.9	10.4	11.3	9.1	9.1
5/25	7.2	6.0	7.9	7.7	9.8	10.6	9.7	11.3	10.7	11.8	9.4	9.4
5/26	7.8	6.1	8.2	8.1	10.6	11.4	10.0	11.9	11.0	12.2	9.9	9.8
5/27	7.9	6.2	8.3	8.3	10.9	11.7	10.2	12.3	11.2	12.2	10.1	10.1
5/28	7.7	6.2	8.3	8.2	10.7	11.4	10.2	12.1	11.1	12.0	9.8	9.8
5/29	7.9	6.3	8.3	8.2	11.0	11.7	10.3	12.2	11.2	12.2	9.8	9.8
5/30	7.9	6.4	8.4	8.2	10.9	11.6	10.3	12.2	11.1	12.2	9.6	9.7
5/31	7.9	6.5	8.5	8.3	10.9	11.6	10.3	12.1	10.9	12.0	9.6	9.7

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
6/1	7.7	6.6	8.5	8.3	10.7	11.3	10.1	11.9	10.8	11.7	9.6	
6/2	7.5	6.7	8.3	8.2	10.3	10.8	10.0	11.5	10.6	11.4	9.4	
6/3	7.5	6.8	8.4	8.3	10.3	11.0	10.0	11.5	10.5	11.5	9.3	
6/4	7.6	7.0	8.5	8.4	10.5	11.1	10.0	11.6	10.6	11.5	9.5	
6/5	7.5	7.0	8.5	8.5	10.2	10.9	10.0	11.5	10.5	11.4	9.4	
6/6	7.4	7.0	8.5	8.6	10.1	10.8	10.0	11.3	10.5	11.3	9.4	
6/7	7.2	7.1	8.5	8.3	10.0	10.5	9.9	11.3	10.5	11.1	9.2	
6/8	7.3	7.1	8.5	8.1	10.1	10.6	10.0	11.3	10.4	11.0	9.2	
6/9	7.2	7.1	8.5	8.0	10.0	10.5	10.0	11.3	10.4	10.9	9.1	
6/10	7.1	7.1	8.5	7.9	9.8	10.2	9.9	11.2	10.3	10.8	9.0	
6/11	7.1	7.1	8.5	7.8	9.8	10.1	9.9	11.2	10.3	10.7	8.9	
6/12	7.1	7.2	8.5	7.6	9.8	10.1	9.9	11.1	10.3	10.7	8.9	
6/13	7.2	7.1	8.5	7.5	9.9	10.2	9.9	11.2	10.3	10.6	9.0	
6/14	7.1	7.1	8.4	7.5	9.8	10.1	9.9	11.1	10.3	10.7	9.0	
6/15	7.4	7.1	8.6	7.8	10.1	10.5	10.1	11.4	10.4	10.9	9.4	
6/16	7.9	7.2	8.9	8.1	10.6	11.1	10.4	11.9	10.5	11.2	9.9	
6/17	8.1	7.3	9.0	8.3	10.9	11.3	10.5	12.2	10.7	11.4	10.3	
6/18	8.3	7.3	9.0	8.4	11.1	11.6	10.7	12.4	10.8	11.5	10.6	
6/19	8.8	7.3	9.3	9.0	11.8	12.5	11.1	13.0	10.9	12.0	11.2	
6/20	9.4	7.3	9.5	9.5	12.5	13.3	11.5	13.5	11.2	12.6	11.7	
6/21	9.8	7.3	9.6	9.8	12.9	13.8	11.7	13.9	11.3	12.9	12.1	
6/22	10.1	7.2	9.6	10.0	13.2	14.2	11.8	14.1	11.4	13.1	12.3	
6/23	10.3	7.1	9.5	10.2	13.4	14.4	11.9	14.2	11.5	13.3	12.5	
6/24	10.5	7.0	9.3	10.2	13.4	14.4	11.9	14.2	11.5	13.4	12.7	
6/25	10.5	7.0	9.2	10.1	13.3	14.3	11.9	14.2	11.6	13.4	12.7	
6/26	10.5	6.9	9.0	9.9	13.0	14.1	11.8	14.0	11.6	13.2	12.8	
6/27	10.3	6.8	8.7	9.6	12.5	13.4	11.6	13.7	11.5	12.9	12.7	
6/28	9.9	6.8	8.7	9.4	12.0	12.8	11.4	13.3	11.6	12.7	12.5	
6/29	9.4	6.7	8.5	9.0	11.3	11.9	11.0	12.7	11.4	12.3	12.0	
6/30	8.9	6.6	8.3	8.6	10.6	11.2	10.7	12.2	11.2	11.9	11.6	

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
7/1	8.9	6.6	8.4	8.7	10.6	11.2	10.7	12.1	11.1	12.1	11.6	
7/2	9.2	6.6	8.7	8.9	10.9	11.6	10.8	12.2	11.0	12.4	12.1	
7/3	9.1	6.6	8.6	8.7	10.8	11.4	10.7	12.2	11.0	12.3	12.1	
7/4	9.0	6.6	8.6	8.7	10.7	11.3	10.7	12.1	10.9	12.2		
7/5	9.3	6.7	8.6	8.8	11.0	11.8	10.8	12.3	10.8	12.5		
7/6	9.5	6.7	8.5	8.9	11.1	12.0	11.0	12.5	10.9	12.6		
7/7	9.9	6.7	8.7	9.2	11.7	12.6	11.3	13.0	11.1	13.0		
7/8	10.1	6.8	8.7	9.2	11.7	12.7	11.4	13.0	11.2	13.0		
7/9	10.1	6.8	8.6	9.2	11.7	12.7	11.4	13.0	11.3	12.9		
7/10	10.2	6.8	8.8	9.4	12.0	13.0	11.6	13.1	11.4	13.1		
7/11	10.6	6.8	9.0	9.8	12.6	13.7	11.9	13.5	11.5	13.5		
7/12	10.9	6.9	9.2	10.1	12.9	14.1	12.0	13.7	11.6	13.7		
7/13	11.3	6.9	9.3	10.3	13.4	14.6	12.3		11.8	14.3		
7/14	11.3	6.9	9.1	10.1	13.1	14.2	12.2		11.8	14.1		
7/15	11.6	7.0	9.3	10.4	13.5	14.6	12.3		11.9	14.4		
7/16	12.0	7.1	9.5	10.8	13.9	15.0	12.5		12.0	14.7		
7/17	12.5	7.2	9.7	11.1	14.2	15.4	12.7		12.2	14.9		
7/18	12.9	7.2	9.7	11.2	14.5	15.7	12.6		12.1	14.8		
7/19	13.1	7.2	9.5	10.9	14.1	15.2	12.3		11.8	14.2		
7/20	13.1	7.2	9.3	10.6	13.7	14.8	11.9		11.5	13.4		
7/21	13.1	7.1	9.3	10.6	13.7	14.9	11.7		11.2	13.2		
7/22	13.2	7.1	9.2	10.5	13.6	14.8	11.5		10.9	12.9		
7/23	13.3	7.1	9.1	10.4	13.6	14.7	11.2		10.6	12.6		
7/24	13.3	7.1	9.0	10.3	13.4	14.6	11.0		10.3	12.2		
7/25	13.4	7.1	9.0	10.3	13.4	14.5	11.0		10.5	11.9		
7/26	13.6	7.1	9.2	10.6	13.8	15.0	11.2		10.5	12.0		
7/27	14.1	7.2	9.4	11.0	14.3	15.7	11.5		10.7	12.1		
7/28	14.7	7.4	9.6	11.4	14.8	16.2	11.7		11.1	12.3		
7/29	15.0	7.4	9.6	11.3	14.8	16.2	11.8		11.3	12.4		
7/30	15.0	7.3	9.5	11.1	14.6	16.0	11.8		11.6	12.5		
7/31	15.0	7.3	9.3	10.9	14.3	15.7	11.8		11.8	12.7		

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
8/1	15.0	7.3	9.3	10.8	14.1	15.5	11.8	14.3	11.8	13.1	20.0	20.5
8/2	15.0	7.2	9.2	10.7	13.9	15.4	11.8	14.3	12.1	13.5	20.1	21.3
8/3	14.7	7.1	8.9	10.3	13.3	14.6	11.7	14.0	12.2	13.5	19.9	21.2
8/4	14.3	7.1	8.7	9.9	12.9	14.2	11.6	13.8	12.1	13.6	19.6	21.2
8/5	14.0	7.0	8.6	9.7	12.6	13.8	11.5	13.6	12.1	13.5	19.3	20.7
8/6	13.8	7.0	8.6	9.8	12.5	13.6	11.5	13.5	12.0	13.5	19.1	20.4
8/7	13.7	7.1	8.6	9.8	12.6	13.6	11.6	13.4	12.0	13.5	19.1	20.3
8/8	13.5	7.0	8.5	9.6	12.4	13.4	11.5	13.4	12.0	13.5	18.9	20.1
8/9	13.2	6.9	8.3	9.4	12.0	13.1	11.5	13.1	11.9	13.4	18.6	19.6
8/10	13.1	6.9	8.3	9.5	12.0	13.4	11.6	13.2	11.9	13.7	18.5	20.1
8/11	13.1	6.9	8.4	9.7	12.0	13.4	11.6	13.2	11.9	13.6	18.5	20.5
8/12	13.3	7.0	8.5	9.9	12.3	13.8	11.9	13.5	12.0	14.0	19.0	21.5
8/13	13.4	7.1	8.6	9.9	12.4	13.9	12.0	13.7	12.1	14.0	19.3	22.0
8/14	13.6	7.1	8.6	10.0	12.5	14.0	12.2	13.8	12.2	13.9	19.6	22.2
8/15	13.8	7.1	8.7	10.1	12.5	14.0	12.3	13.8	12.3	13.7	19.7	22.1
8/16	14.1	7.2	8.8	10.3	12.7	14.1	12.4	14.0	12.5	13.7	20.1	22.4
8/17	14.3	7.2	8.9	10.2	12.8	14.1	12.6	14.2	12.7	13.8	20.3	22.7
8/18	14.3	7.2	8.9	10.0	12.5	13.8	12.6	14.2	12.8	13.7	20.4	22.3
8/19	14.4	7.2	8.9	10.0	12.5	13.7	12.8	14.2	12.9	13.8	20.3	21.6
8/20	14.3	7.1	8.8	9.9	12.4	13.6	12.9	14.2	13.1	14.0	20.1	21.2
8/21	14.1	7.1	8.6	9.7	12.1	13.2	12.9	14.0	13.1	14.3	19.7	20.8
8/22	13.8	7.0	8.6	9.6	12.0	13.2	13.0	14.1	13.2	14.6	19.6	20.8
8/23	13.6	7.0	8.5	9.5	11.8	13.0	12.7	13.9	13.1	14.6	19.3	20.7
8/24	13.5	7.0	8.4	9.5	11.8	12.9	12.5	13.7	12.8	14.5	19.2	20.4
8/25	15.3	7.0	8.4	9.7	12.0	13.2	12.4	13.6	12.6	14.4	19.2	20.7
8/26	15.1	6.9	8.3	9.5	11.7	12.9	12.0	13.4	12.3	14.0	18.9	20.6
8/27	14.8	6.9	8.2	9.3	11.5	12.7	11.7	13.2	12.0	13.7	18.7	20.5
8/28	14.7	7.1	8.3	9.3	11.2	12.4	11.4	13.0	11.8	13.5	18.6	20.4
8/29	14.6	7.3	8.4	9.4	11.1	12.3	11.2	12.9	11.6	13.3	18.6	20.7
8/30	14.5	7.6	8.6	9.5	11.0	12.1	11.3	12.8	11.4	13.3	18.5	20.9
8/31	14.5	7.9	8.7	9.6	11.0	12.0	11.5	12.8	11.5	13.4	18.6	21.2

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
9/1	12.5	8.4	9.1	9.9	11.0	12.0	11.7	12.8	11.6	13.5	18.6	21.5
9/2	12.6	8.9	9.4	10.1	11.1	11.9	11.8	12.8	11.7	13.5	18.7	21.2
9/3	12.7	9.5	9.8	10.5	11.3	12.1	12.1	12.9	11.9	13.6	18.8	21.2
9/4	12.8	9.9	10.2	10.9	11.7	12.5	12.5	13.1	12.2	13.8	19.0	21.3
9/5	12.8	10.3	10.4	11.1	11.9	12.6	12.6	13.2	12.6	13.8	18.8	20.8
9/6	12.8	10.9	11.0	11.6	12.2	12.9	12.9	13.3	12.8	13.9	18.7	20.4
9/7	12.8	11.0	11.1	11.7	12.3	12.9	13.0	13.4	13.1	14.0	18.5	20.0
9/8	12.8	10.9	11.0	11.5	12.2	12.7	12.9	13.5	13.3	14.0	18.3	19.3
9/9	12.7	10.7	10.9	11.4	12.1	12.5	12.8	13.4	13.5	14.1	18.1	18.8
9/10	12.5	10.5	10.7	11.1	11.8	12.2	12.7	13.2	13.6	14.0	17.6	18.2
9/11	12.3	10.3	10.5	10.9	11.6	11.9	12.6	13.1	13.5	14.0	17.1	17.7
9/12	12.4	10.1	10.4	10.8	11.5	11.8	12.7	13.2	13.5	14.1	17.0	17.7
9/13	12.4	9.6	10.0	10.4	11.4	11.7	12.7	13.3	13.6	14.2	16.9	17.4
9/14	12.4	9.6	10.0	10.4	11.2	11.6	12.8	13.4	13.7	14.3	16.7	17.1
9/15	12.3	9.6	10.1	10.5	11.3	11.6	13.0	13.4	13.8	14.5	16.5	17.2
9/16	12.4	9.6	10.1	10.5	11.4	11.7	13.3	13.7	13.8	14.7	16.4	17.4
9/17	12.5	9.7	10.1	10.5	11.5	11.9	13.4	14.0	14.0	14.9	16.6	17.6
9/18	12.5	9.8	10.2	10.6	11.6	11.9	13.5	14.1	14.1	15.0	16.7	17.4
9/19	12.4	9.8	10.2	10.6	11.5	11.9	13.6	14.1	14.2	15.1	16.6	17.1
9/20	12.3	9.8	10.2	10.5	11.5	11.8	13.6	14.0	14.2	15.1	16.4	16.7
9/21	12.0	9.8	10.2	10.5	11.4	11.7	13.5	13.9	14.1	14.9	16.0	16.1
9/22	11.8	9.7	10.3	10.5	11.4	11.6	13.4	13.8	14.0	14.8	15.3	15.3
9/23	11.3	9.7	10.3	10.5	11.3	11.5	13.2	13.6	13.8	14.6	14.6	14.6
9/24	10.9	9.6	10.2	10.4	11.1	11.4	13.0	13.4	13.6	14.4	14.0	13.9
9/25	10.6	9.5	10.1	10.3	11.0	11.3	12.8	13.2	13.4	14.2	13.5	13.5
9/26	10.3	9.5	10.1	10.2	10.9	11.1	12.6	13.0	13.2	14.0	13.1	13.1
9/27	10.2	9.4	10.0	10.2	10.8	11.1	12.5	13.0	13.1	13.9	12.8	12.9
9/28	10.2	9.3	9.9	10.1	10.8	11.1	12.5	12.9	13.0	13.8	12.7	12.9
9/29	10.3	9.2	9.8	10.0	10.8	11.2	12.5	13.0	12.9	13.9	13.1	13.5
9/30	10.5	9.2	9.7	10.0	10.8	11.2	12.5	13.0	13.0	13.9	13.5	14.0

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
10/1	10.6	9.2	9.7	10.0	10.7	11.1	12.5	13.0	13.0	13.9	13.8	14.3
10/2	10.7	9.1	9.6	9.9	10.7	11.1	12.6	13.1	13.1	13.9	14.0	14.8
10/3	10.7	9.0	9.6	9.9		11.1	12.6	13.0	13.1	13.9	14.2	15.4
10/4	10.7	9.0	9.5	9.8		11.0	12.6	13.0	13.1	13.8	14.2	15.5
10/5	10.6	8.9	9.4	9.7		10.8	12.6	13.0	13.0	13.8	14.2	15.8
10/6	10.7	8.9	9.4	9.7		10.8	12.6	13.0	13.1	13.8	14.2	16.1
10/7	10.7	8.9	9.6	9.8		10.8	12.5	13.0	13.0	13.7	14.1	15.9
10/8	10.5	8.8	9.7	9.8		10.7	12.5	12.8	12.9	13.6	13.7	15.5
10/9	10.4	8.7	9.7	9.7		10.7	12.3	12.6	12.7	13.3	13.0	14.6
10/10	10.2	8.6	9.7	9.5		10.6	12.1	12.4	12.5	13.1	12.4	13.5
10/11	9.8	8.5	9.6	9.3		10.4	11.8	12.1	12.3	12.9	11.8	12.8
10/12	9.5	8.4	9.5	9.1		10.3	11.6	11.9	12.0	12.7	11.2	11.9
10/13	9.2	8.2	9.6	9.1		10.2	11.2	11.5	11.7	12.3	10.6	10.8
10/14	8.8	8.0	9.5	9.0		10.1	11.0	11.3	11.4	12.0	10.0	10.2
10/15	8.8	7.9	9.4	8.9		10.1	10.8	11.2	11.3	11.9	9.9	10.1
10/16	8.7	7.7	9.3	8.8		10.1	10.7	11.1	11.2	11.7	9.8	10.1
10/17	8.6	7.6	9.2	8.8		10.0	10.6	11.0	11.0	11.5	9.8	10.0
10/18	8.5	7.5	9.0	8.7		9.8	10.4	10.8	10.9	11.3	9.8	10.0
10/19	8.2	7.4	8.9			9.5	10.2	10.6	10.7	11.2	9.6	9.8
10/20	7.8	7.3	8.5			9.1	10.0	10.2	10.6	11.0	9.2	9.5
10/21	7.5	7.3	8.3			8.7	9.8	9.9	10.5	10.8	8.8	9.1
10/22	7.0	7.2	7.9			8.3	9.5	9.6	10.3	10.7	8.4	8.7
10/23	6.6	7.1	7.6			7.8	9.3	9.2	10.1	10.5	7.9	8.3
10/24	6.4	7.1	7.5			7.6	9.1	9.1	10.0	10.3	7.6	8.0
10/25	6.2	7.1	7.5			7.6	9.1	9.0	10.0	10.3	7.5	8.0
10/26	6.3	7.2	7.6			7.7	9.1	9.1	10.0	10.3	7.6	8.1
10/27	6.5	7.5	7.7			7.9	9.2	9.2	9.9	10.2	7.6	8.1
10/28	6.5	7.8	7.9			7.9	9.2	9.2	9.8	10.1	7.7	8.2
10/29	6.6	8.2	8.2			8.1	9.2	9.3	9.7	10.0	7.8	8.3
10/30	6.7	8.6	8.5			8.3	9.3	9.4	9.6	10.0	8.0	8.4
10/31	6.8	9.0	8.6			8.4	9.3	9.4	9.5	9.9	8.0	8.4

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
11/1	7.1	9.4				8.7	9.4	9.4	9.5	9.9	8.1	8.4
11/2	7.3	9.8				9.0	9.5	9.5	9.6	9.8	8.2	8.5
11/3	7.3	9.7				9.0	9.4	9.5	9.5	9.8	8.2	8.4
11/4	7.3	9.6				9.0	9.3	9.4	9.5	9.6	8.2	8.4
11/5	7.2	9.4				8.7	9.1	9.2	9.4	9.5	8.0	8.2
11/6	7.0	9.1				8.4	8.9	8.9	9.3	9.4	7.7	7.9
11/7	6.6	8.8				8.0	8.7	8.6	9.1	9.2	7.4	7.7
11/8	6.1	8.5				7.5	8.3	8.1	8.9	8.9	7.0	7.2
11/9	5.5	8.2				6.9	7.8	7.7	8.5	8.7	6.5	6.8
11/10	5.2	7.9				6.7	7.6	7.4	8.4	8.5	6.2	6.6
11/11	4.9	7.7				6.5	7.4	7.2	8.3	8.4	5.9	6.4
11/12	4.9	7.5				6.5	7.4	7.2	8.2	8.3	5.9	6.3
11/13	5.0	7.3				6.6	7.3	7.3	8.1	8.2	6.0	6.4
11/14	5.1	7.2				6.9	7.4	7.5	8.0	8.2	6.1	6.5
11/15	5.2	7.0				7.1	7.5	7.6	8.0	8.1	6.2	6.6
11/16	5.3	6.9				7.1	7.4	7.6	7.9	8.0	6.3	6.6
11/17	5.4	6.8				7.1	7.4	7.7	7.8	7.9	6.3	6.6
11/18	5.5	6.8				7.2	7.4	7.7	7.7	7.9	6.5	6.7
11/19	5.5	6.7				7.1	7.3	7.6	7.6	7.8	6.4	6.7
11/20	5.5	6.6				7.1	7.2	7.5	7.5	7.7	6.5	6.7
11/21	5.3	6.6				6.9	7.1	7.4	7.4	7.6	6.5	6.7
11/22	5.3	6.6				6.7	6.9	7.3	7.3	7.4	6.4	6.7
11/23	5.1	6.5				6.7	6.9	7.2	7.2	7.4	6.4	6.7
11/24	5.1	6.5				6.7	6.9	7.2	7.2	7.3	6.4	6.7
11/25	5.1	6.4				6.7	6.9	7.2	7.1	7.3	6.4	6.7
11/26	5.0	6.4				6.6	6.8	7.1	7.0	7.2	6.4	6.6
11/27	5.0	6.3				6.5	6.7	7.1	7.0	7.1	6.4	6.6
11/28	4.9	6.2				6.3	6.5	6.9	6.8	7.0	6.2	6.4
11/29	4.8	6.1				6.1	6.4	6.7	6.7	6.9	6.1	6.3
11/30	4.7	6.1				6.0	6.2	6.5	6.6	6.7	5.9	6.2

	RM 18.2	RM 15.8	RM 15.5	RM 14.3	RM 11.3	RM 9.8	RM 9.6	RM 4.9	RM 4.4	RM 0.2	Skykomish	Skykomish
	(SFK) 7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	7 Day	Above	Below
DATE	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	Avg Max	7 Day Avg Max	7 Day Avg Max
12/1	4.7	6.1				5.8	6.1	6.3	6.4	6.6	5.8	6.0
12/2	4.6	6.0				5.6	5.9	6.1	6.3	6.5	5.6	5.9
12/3	4.7	6.1				5.7	5.9	6.1	6.3	6.5	5.6	5.9
12/4	4.8	6.0				5.7	5.9	6.1	6.2	6.4	5.6	5.9
12/5	5.1	6.1				6.0	6.2	6.4	6.4	6.5	5.8	6.0
12/6	5.2	6.1				6.4	6.5	6.7	6.5	6.5	5.9	6.2
12/7	5.2	6.0				6.5	6.5	6.9	6.5	6.5	6.0	6.3
12/8	5.2	5.9				6.5	6.5	6.9	6.5	6.5	6.0	6.2
12/9	5.1	5.8				6.5	6.5	6.9	6.5	6.5	5.9	6.1
12/10	4.9	5.7				6.3	6.4	6.7	6.4	6.3	5.7	5.9
12/11	4.7	5.6				6.1	6.2	6.6	6.3	6.2	5.5	5.7
12/12	4.4	5.5				5.9	6.0	6.4	6.2	6.1	5.3	5.6
12/13	4.3	5.5				5.8	5.9	6.2	6.0	6.0	5.2	5.4
12/14	4.3	5.5				5.8	5.9	6.2	6.0	6.0	5.1	5.4
12/15	4.3	5.5				5.8	5.9	6.2	6.0	6.0	5.2	5.4
12/16	4.5	5.5				6.0	6.0	6.4	6.0	6.0	5.3	5.5
12/17	4.6	5.5				6.2	6.2	6.6	6.2	6.1	5.5	5.7
12/18	4.7	5.5				6.4	6.4	6.8	6.4	6.2	5.7	5.9
12/19	4.5	5.4				6.3	6.3	6.7	6.4	6.2	5.7	5.8
12/20	4.4	5.3				6.1	6.1	6.5	6.3	6.1	5.5	5.7
12/21	4.3	5.2				5.8	5.9	6.2	6.2	5.9	5.3	5.5
12/22	4.2	5.1				5.7	5.8	6.1	6.1	5.8	5.2	5.4
12/23	4.0	5.0				5.5	5.6	5.9	5.9	5.7	5.0	5.2
12/24	3.9	4.9				5.3	5.4	5.7	5.7	5.5	4.9	5.1
12/25	3.9	4.8				5.0	5.2	5.4	5.5	5.3	4.7	4.9
12/26	3.8	4.8				4.9	5.1	5.3	5.3	5.2	4.6	4.8
12/27	3.9	4.8				5.0	5.1	5.3	5.3	5.2	4.5	4.7
12/28	3.9	4.8				5.2	5.2	5.5	5.3	5.2	4.5	4.8
12/29	3.9	4.8				5.4	5.4	5.7	5.4	5.3	4.6	4.9
12/30	4.0	4.8				5.5	5.6	5.9	5.4	5.3	4.7	4.9
12/31	4.0	4.7				5.5	5.6	6.0	5.5	5.3	4.7	4.9

APPENDIX E

Consultation Documentation Regarding Draft Report

Presler, Dawn

From: Applegate, Brock A (DFW) <Brock.Applegate@dfw.wa.gov>
Sent: Thursday, April 29, 2021 4:27 PM
To: Presler, Dawn; Anne Savery; Janet Curran; Jeff Garnett; Jen Ford; Pacheco, James M. (ECY); Mike Rustay; Nate Morgan; snasr@everettwa.gov; Tom O'Keefe
Cc: Tim Romanski; McDonnell, Andrew; Binkley, Keith
Subject: RE: JHP (FERC No. 2157) - Water Quality Monitoring Annual Report for your 30-day consultation

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.

Hi Dawn, As May 31 due date falls on Memorial Day, I will assume by FERC rules, the 1st of June.

Sincerely, Brock

From: Presler, Dawn <DJPresler@SNOPUD.com>
Sent: Thursday, April 29, 2021 12:14 PM
To: Anne Savery <asavery@tulaliptribes-nsn.gov>; Applegate, Brock A (DFW) <Brock.Applegate@dfw.wa.gov>; Janet Curran <janet.curran@noaa.gov>; Jeff Garnett <Jeffrey_Garnett@fws.gov>; Jen Ford <jennifer.ford@usda.gov>; Pacheco, James M. (ECY) <JPAC461@ECY.WA.GOV>; Mike Rustay <mike.rustay@co.snohomish.wa.us>; Nate Morgan <nate.morgan@ci.sultan.wa.us>; snasr@everettwa.gov; Tom O'Keefe <okeefe@americanwhitewater.org>
Cc: Tim Romanski <tim_romanski@fws.gov>; McDonnell, Andrew <AWMcDonnell@SNOPUD.com>; Binkley, Keith <KMBinkley@SNOPUD.com>
Subject: JHP (FERC No. 2157) - Water Quality Monitoring Annual Report for your 30-day consultation

External Email

Hi ARC ,
Please see attached WQ Monitoring Plan 2020 Annual Report for your 30-day review. Please provide comments, if any, by Monday May 31.

Dawn Presler
Sr. Environmental Coordinator
Generation – Natural Resources
Snohomish County PUD No. 1
Everett, WA

(425) 783-1709 (work)