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Report Period: April 16 to April 30, 2022

Report No.: 2022 Willamette RST Bi-Weekly Report 04/16 to 04/30 by EAS

Re: WILLAMETTE VALLEY FISH PASSAGE MONITORING VIA ROTARY SCREW TRAPS

Project Schedule

Table 1. Project Schedule

Site	Task	Start	End	Days
Big Cliff Dam RST	Operation	12/01/2021	2/15/2022	292
Big Cliff Dam RST	Operation	3/15/2022	10/15/2022	
Big Cliff Dam Tailrace	Trap Efficiency Release (1,000 Fish)	12/22/2021	12/22/2021	1
Green Peter Tailrace- Middle Santiam River RST	Trap Install	03/02/2022	03/02/2022	1
Green Peter Tailrace- Middle Santiam River RST	Operation	03/03/2022	06/30/2022	120
Green Peter Tailrace- Middle Santiam River RST	Trap Efficiency Release (643 Fish)	03/29/2022	03/29/2022	1
Green Peter Tailrace- Middle Santiam River RST	Trap Efficiency Release (521 Fish)	04/30/2022	04/30/2022	1
Foster Dam Head of Reservoir-South Santiam River RST	Trap Install	03/16/2022	03/16/2022	1
Foster Dam Head of Reservoir-South Santiam River RST	Operation	03/10/2022	06/30/2022	113
Cougar Dam RST	Operation	11/30/2021	11/30/2022	366
Cougar Dam	Trap Efficiency Release (1,200 Fish, 600 per route)	01/19/2022	1/19/2022	1
Cougar Dam	Trap Efficiency Release (735 Fish, ~365 per route)	04/20/2022	4/20/2022	1
Cougar Dam Head of Reservoir	Highline and Trap Install	03/7/2022	3/7/2022	1
Cougar Dam Head of Reservoir	Operation	03/8/2022	06/30/2022	115
Cougar Dam Head of Reservoir	Trap Efficiency Release (806 Fish)	03/18/2022	03/18/2022	1
Dexter Dam Tailrace RST	Highline Install	03/02/2022	03/02/2022	1
Dexter Dam Tailrace RST	Trap Install	03/03/2022	03/03/2022	1
Dexter Dam Tailrace RST	Operation	03/07/2022	12/16/2022	285
Dexter Dam Tailrace RST	Trap Efficiency Release (988 Fish)	03/23/2022	03/23/2022	1
Lookout Dam Tailrace RSTs	Operation	03/15/2022	07/31/2022	139
Lookout Dam Tailrace RSTs	Trap Efficiency Release (1,013 fish, PWR route)	04/13/2022	04/13/2022	1
Lookout Point Head of Reservoir RST	Trap Install	03/06/2022	03/06/2022	1
Lookout Point Head of Reservoir RST	Operation	03/07/2022	12/16/2022	285

Lookout Point Head of Reservoir RST	Trap Efficiency Release (993 fish)	04/05/2022	04/05/2022	1
Lookout Point Head of Reservoir RST	Trap Efficiency Release (989 fish)	04/14/2022	04/14/2022	1
Fall Creek Dam Tailrace RST	Operation	03/15/2022	07/15/2022	123
Fall Creek Head of Reservoir RST	Trap and Highline Install	01/11/2022	01/11/2022	1
Fall Creek Head of Reservoir RST	Operation	01/02/2022	05/31/2022	150
Hills Creek Dam RO and PWR	Deployment	10/12/2021	10/12/2021	1
Hills Creek Dam RO	Operation	10/15/2021	03/01/2022	138
Hills Creek Dam PWR	Operation	10/15/2021	03/01/2022	138
Hills Creek Dam	Trap Efficiency Release (1,200 fish, 600 per route)	01/6/2022	01/6/2022	1
Hills Creek Dam	Trap Efficiency Release (1,200 fish, 600 per route)	02/16/2022	02/16/2022	1
Hills Creek Dam	Trap Efficiency Release (1,200 fish, 600 per route)	02/23/2022	02/23/2022	1
Hills Creek Dam RSTs	Trap Removal	03/01/2022	03/01/2022	1

Summary of Rotary Screw Trap Data

Rotary screw traps (RSTs) have been operated at eleven locations in the southern Willamette River watershed. For this reporting period, traps were being operated at the following ten locations: Big Cliff Dam, Green Peter Tailrace- Middle Santiam, Foster Dam Head of Reservoir- South Santiam, Cougar Dam, Cougar Dam Head of Reservoir, Fall Creek Dam Tailrace, Fall Creek Head of Reservoir, Dexter Dam Tailrace, Lookout Dam Tailrace, and Lookout Point Head of Reservoir.

The RST's at Big Cliff Dam and Lookout Dam Tailrace started sampling on March 15th. On March 1st the Middle Fork Willamette River below Hills Creek Dam RST's were removed for the sampling season in conjunction with the end of RO spill and to prioritize the limited number of screw traps to other locations.

Below Dam sites that include both RO and PWR to monitor passage routes include South Fork McKenzie River below Cougar Dam and on the Middle Fork of the Willamette River in the Lookout Dam Tailrace. Below dam sites that include one RST to monitor passage include the Green Peter Tailrace- Middle Santiam, the Middle Fork of the Willamette River below Dexter Dam and Fall Creek Dam Tailrace which is a tributary on the Middle Fork of the Willamette. At the Green Peter Dam Tailrace, the single RST is placed to sample fish passing through spillways, regulating outlets, and powerhouse outlets. The RST at Dexter Dam is placed to monitor fish passage through the spillways and powerhouse outlets. The RST in the Fall Creek Dam Tailrace is placed in a position to sample fish passing through the regulating outlet.

The RST on the North Santiam River below Big Cliff Dam was not sampled while fish passage measures were not being implemented from 16 February 2022 to 14 March 2022. Sampling resumed on 15 March 2022 in accordance with Task 2.2.

Above reservoir sites include Fall Creek Head of Reservoir, Lookout Point Head of Reservoir on the Middle Fork Willamette River, Foster Dam Head of Reservoir- South Santiam, and Cougar Dam Head of Reservoir on the South Fork McKenzie.

Sampling start dates are included in Table 2, and season total collection numbers are displayed in Table 3. The locations of the RST's are depicted in Figures 1 through 10.



Figure 1. Big Cliff RST Location



Figure 2. Green Peter Tailrace- Middle Santiam River RST Location



Figure 3. Foster Dam Head of Reservoir- South Santiam RST Location



Figure 4. Cougar Dam RST Locations



Figure 5. Cougar Dam Head of Reservoir RST Location

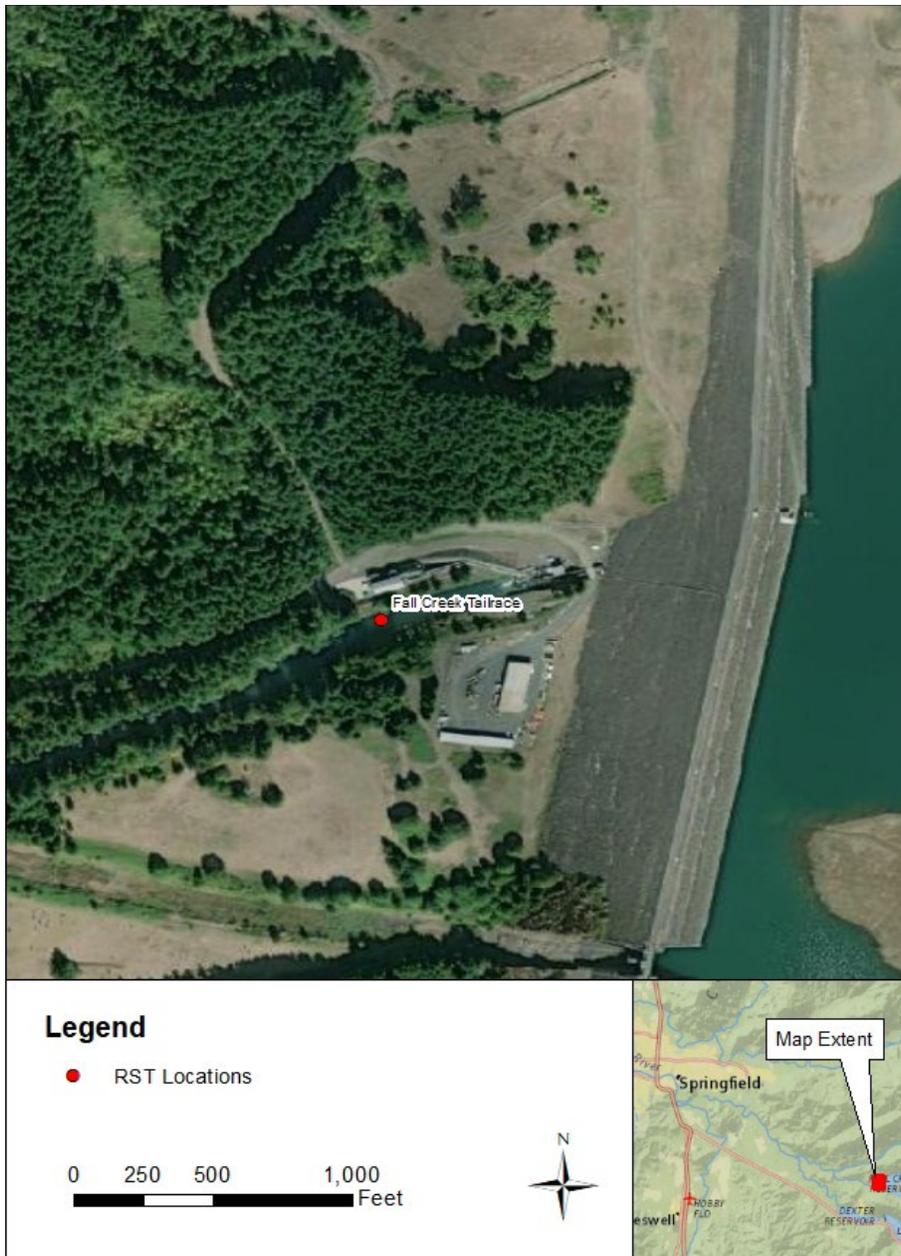


Figure 6. Fall Creek Dam Tailrace RST Location



Figure 7. Fall Creek Head of Reservoir RST Location



Figure 8. Dexter Dam RST Location



Figure 9. Lookout Point Dam Tailrace RST Location



Figure 10. Lookout Point Head of Reservoir RST Location

Table 2. Sampling Dates for Reporting Period

Site	Total Sampling Period Start	Current Reporting Period Start	Current Reporting Period End	Days Sampled This Period	Total Days Sampled
Big Cliff Dam	12/1/2021	4/16/2022	4/30/2022	15	121
Green Peter Tailrace- Middle Santiam River	3/2/2022	4/16/2022	4/30/2022	15	60
Foster Dam Head of Reservoir- South Santiam	3/16/2022	4/16/2022	4/30/2022	15	46
Cougar Dam PH	12/1/2021	4/16/2022	4/30/2022	15	151
Cougar Dam RO	12/1/2021	4/16/2022	4/30/2022	15	151
Cougar Dam Head of Reservoir	3/7/2022	4/16/2022	4/30/2022	9	48
Fall Creek Dam Tailrace*	3/15/2022	4/16/2022	4/30/2022	15	47
Fall Creek Head of Reservoir	1/13/2022	4/16/2022	4/30/2022	15	108
Dexter Dam Tailrace	3/7/2022	4/16/2022	4/30/2022	15	55
Lookout Point Dam	3/15/2022	4/16/2022	4/30/2022	15	47
Lookout Point Head of Reservoir	3/10/2022	4/16/2022	4/30/2022	15	62

*Fall Creek Dam Tailrace trap was being operated by the Corps until EAS began sampling the site on March 15th per Task 7.1

Table 3. Willamette Valley Rotary Screw Trap Monitoring Catch Summary

Site	Species	Catch (Reporting Period)	Recaptures (Reporting Period)	Total Catch	Total Recaptures
Big Cliff Dam	CHS	244	0	350	40
Big Cliff Dam	STW	7	0	8	0
Green Peter Tailrace- Middle Santiam	CHS	0	0	0	4
Green Peter Tailrace- Middle Santiam	STW	6	0	6	0
Foster Dam Head of Reservoir- South Santiam	CHS	6	0	54	0
Foster Dam Head of Reservoir- South Santiam	STW	36	0	71	1
Cougar Dam	CHS	53	83	818	152
Cougar Dam Head of Reservoir	CHS	118	0	329	41
Fall Creek Dam Tailrace	CHS	0	0	0	0
Fall Creek Head of Reservoir	CHS	0	0	7	1
Dexter Dam Tailrace	CHS	1	0	2	2
Lookout Point Dam	CHS	2	2	2	2
Lookout Point_Head of Reservoir	CHS	4	0	56	72

North Santiam – Big Cliff Dam

The RST on the North Santiam River below Big Cliff Dam was not sampled while fish passage measures were not being implemented from 16 February 2022 to 14 March 2022. Sampling resumed on 15 March 2022 in accordance with Task 2.2.

Target Species

This reporting period began on April 16 and ended on April 30. There was a total of 244 Chinook salmon (CHS) and 7 Winter Steelhead (STW) captured during the 15-day sampling period (Figure 11). Sampling duration was 100% for the RST. Table 4 provides life stage, length, and weight data for all Chinook salmon and Winter Steelhead that have been caught at the Big Cliff Dam site to-date and for the reporting period. Figure 12 shows length frequency data to-date.

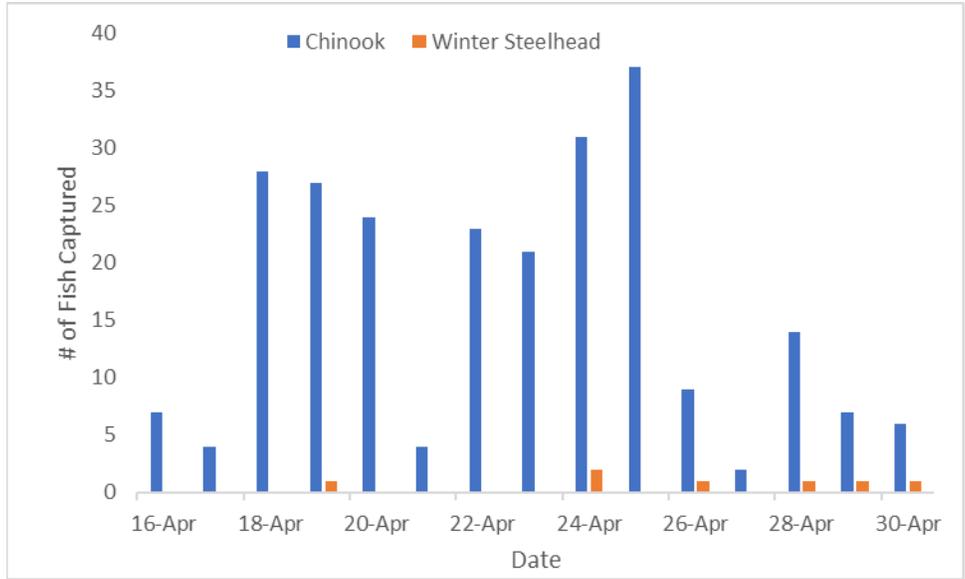
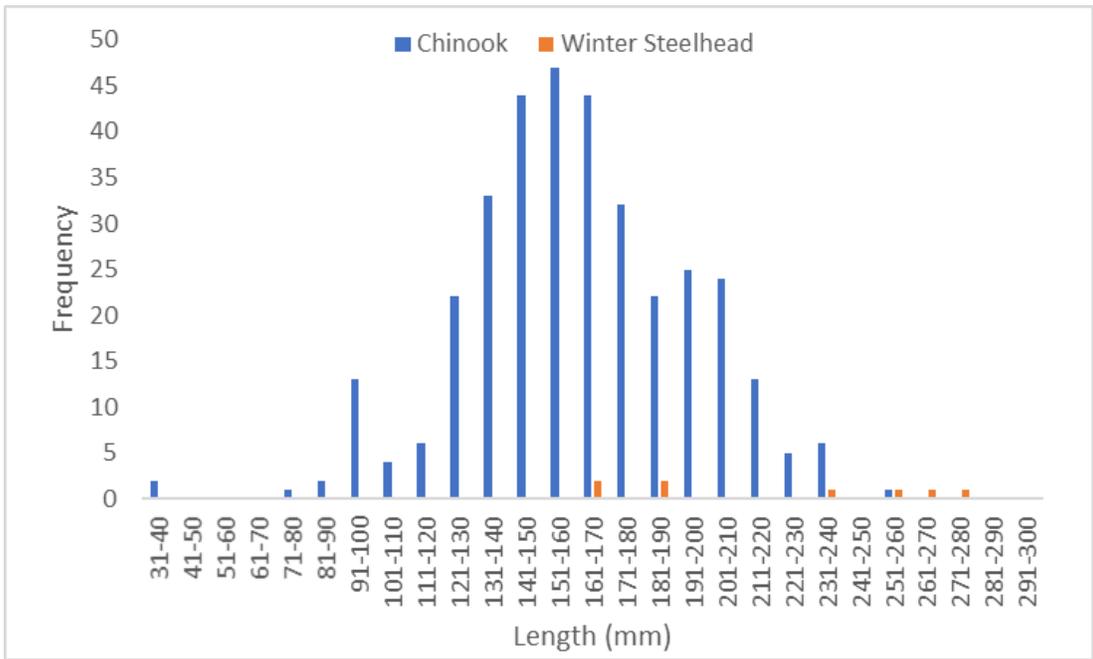


Figure 11. Chinook and Winter Steelhead Captured per day 04/16/2022 to 04/30/2022 (Big Cliff)



*Figure does not include fish without heads

Figure 12. Length Frequency of Juvenile Chinook and Winter Steelhead Sampled Season To-Date (Big Cliff)

Trapping Efficiency

A total of 996 juvenile hatchery Chinook (parr) were bismark brown dyed, adipose clipped and released on 12/22/2021 below Big Cliff Dam. A total of 39 fish were recaptured in the 8ft trap 12/23/2021, with 1 more fish captured in the 8ft trap 02/15/2022 for a total of 40 recaptures. Trapping efficiency was 4.01%.

Of the 40 fish recaptured, only the 1 fish that was captured on 2/15/2022 had injuries present. The 39 fish recaptured on 12/23/2021 had no injuries present. The injured fish had copepods on its fins and in the branchial cavity. Mt. Hood Environmental staff noted that fish appeared to be in good condition upon retrieval from the hatchery.

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	996	40	4.01% (40/996)

Table 4. Descriptive Statistics of Target Species Captured at Big Cliff Dam Season To-Date

To-Date										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Big Cliff	PWR	CHS	Fry	2	32	33	32.5	N/A	N/A	N/A
		CHS	Parr	19	78.0	130.0	101.2	6.1	20.1	11.9
		CHS	Smolt	329	109.0	260.0	166.4	11.7	180.6	47.7
		STW	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		STW	Smolt	8	161	280	217.6	38.4	230.5	108

*Fish that were missing heads are not included in length and weight calculations.

April 16-30, 2022										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Big Cliff	PWR	CHS	Fry	2	32	33	32.5	N/A	N/A	N/A
		CHS	Parr	1	100	100	100	8.4	8.4	8.4
		CHS	Smolt	240	109	260	165.5	11.7	180.6	7.0
		STW	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		STW	Smolt	7	161	269	208.7	38.4	159.3	90.5

*Fish that were missing heads are not included in length and weight calculations (1 BO fish for reporting period).

24-Hour Post Collection Holding Trial

127 Spring Chinook and 3 Winter Steelhead were captured during the current reporting period and held for 24 hours. 23 Chinook (18.1%) and 0 Winter Steelhead (0%) died in holding.

Injuries and Copepod Infection

Partial descaling <20% was observed in 136 of the 244 Chinook captured (55.7%) and 80 displayed descaling >20% (32.8%). 163 displayed body injury (66.8%) and 34 Chinook had eye injury (13.9%). 215 Chinook had copepods present in the branchial cavity (88.1%) and 37 had copepods on fins (15.2%). 4 displayed gas bubble disease, level 1 (1.6%).

Partial descaling <20% was observed in 6 of the 7 Winter Steelhead captured (85.7%) and 1 displayed descaling >20% (14.3%). 5 displayed body injury (71.4%) and 0 Winter Steelhead had eye injury. 2 Winter Steelhead had copepods present in the branchial cavity (28.6%) and 4 had copepods on fins (57.1%).

Table 5. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon and Winter Steelhead for Sampling Period. (Big Cliff Dam).

Site	Species	# Fish Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Big Cliff Dam	Chinook	244	136	80	163	34	215	37	86
Big Cliff Dam	Winter Steelhead	7	6	1	5	0	2	4	1

Non-Target Species

11 non-targets were captured during this sampling period. A summary of to-date non-target species catch and mortality numbers are listed in Table 6.

Table 6. Summary of Non-target Species (Big Cliff Dam)

Species	PWR Capture	PWR Mortality	Season Total	Season Total Mortality
Bluegill	4	2	14	4
Brook Lamprey	0	0	0	0
Bullhead	0	0	1	0
Crappie	0	0	0	0
Longnose Dace	0	0	0	0
Kokanee	5	1	103	38
Red-Sided Shiner	0	0	0	0
Sculpin	0	0	0	0
Spotted Bass	0	0	0	0
Sucker	0	0	0	0
Whitefish	0	0	4	0
Cutthroat	0	0	3	0
<i>O. mykiss</i> (clipped)	0	0	1	0
Pumpkinseed	2	1	3	2
Unknown	0	0	2	0
Totals	11	4	131	44

Stream Statistics

Basic stream statistics at the Big Cliff Dam site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14181410. Gage height (feet) is the only metric provided at this gage. During the reporting period, daily maximum values for instantaneous gage height ranged from 1,109.5 feet to 1,110.3 feet (mean: 1,109.6 feet). Figure 13 shows instantaneous gage height.

Stream temperatures were recorded every 2 hours for the length of the report period for the RO and PWR RST's (Figure 14). Temperature probes operated normally throughout this reporting period.

Flows through the Powerhouse and RO during the reporting period averaged 1,652.9 and 0 cubic feet per second (cfs) (Figure 15). Catch per unit of effort (CPUE) data are summarized in Table 7. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 7. Summary of salmonid CPUE, Big Cliff Dam.

	Chinook	Winter Steelhead
Description	(8 ft)	(8 ft)
Catch	244	7
Effort (hrs)	362.6	362.6
CPUE (fish/hr)	0.673	0.019

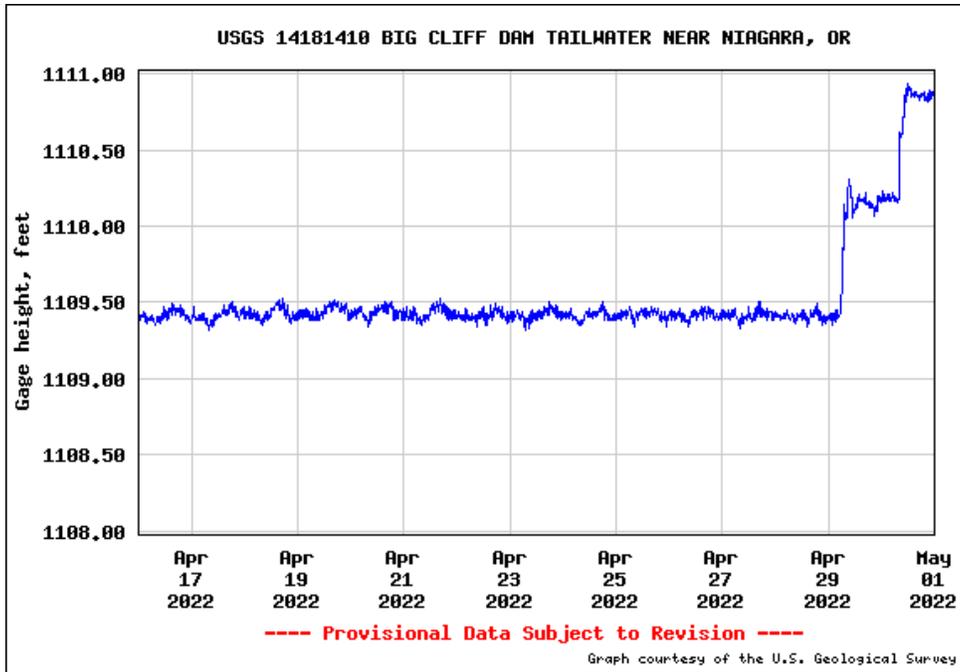


Figure 13. Gage height (ft); below Big Cliff Dam

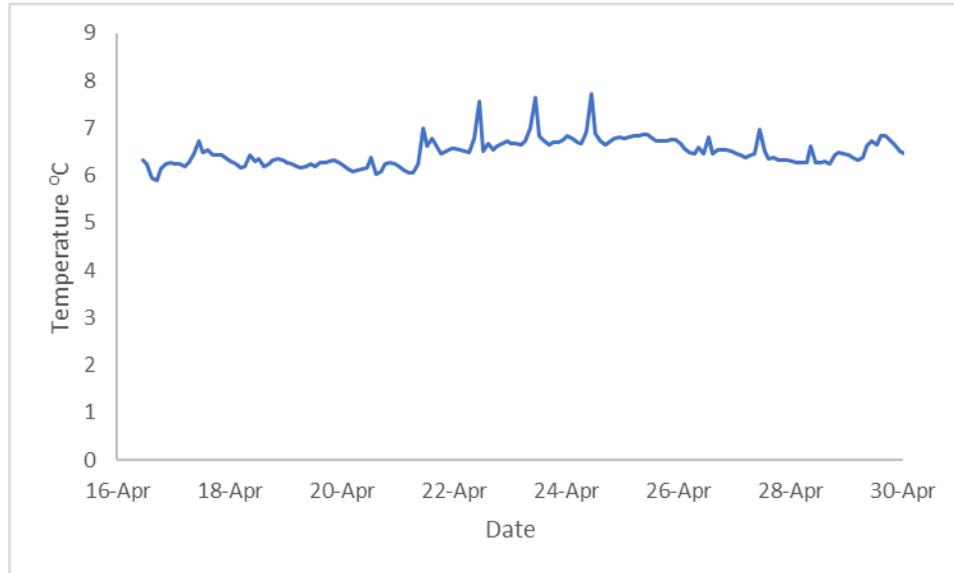


Figure 14. Temperature at RST (Big Cliff Dam)

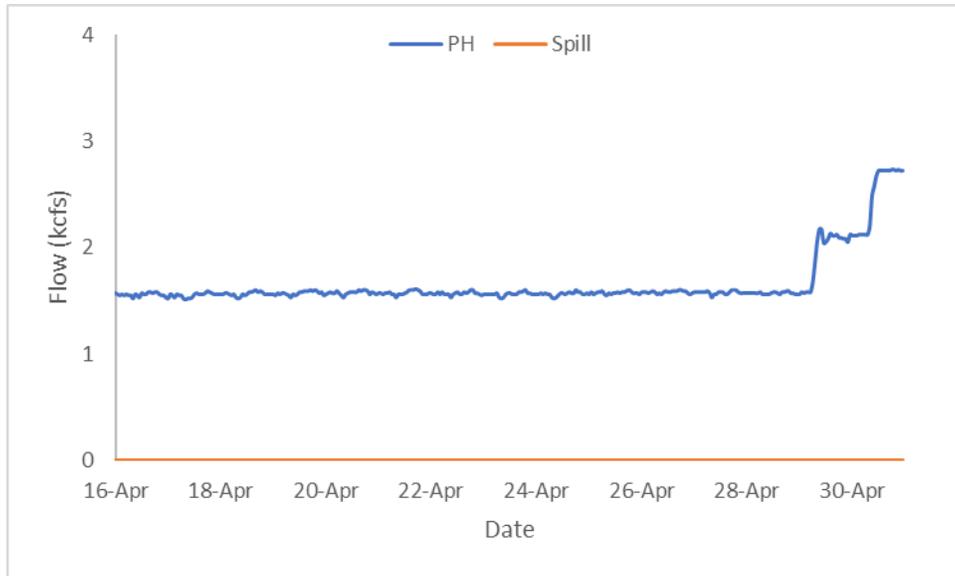
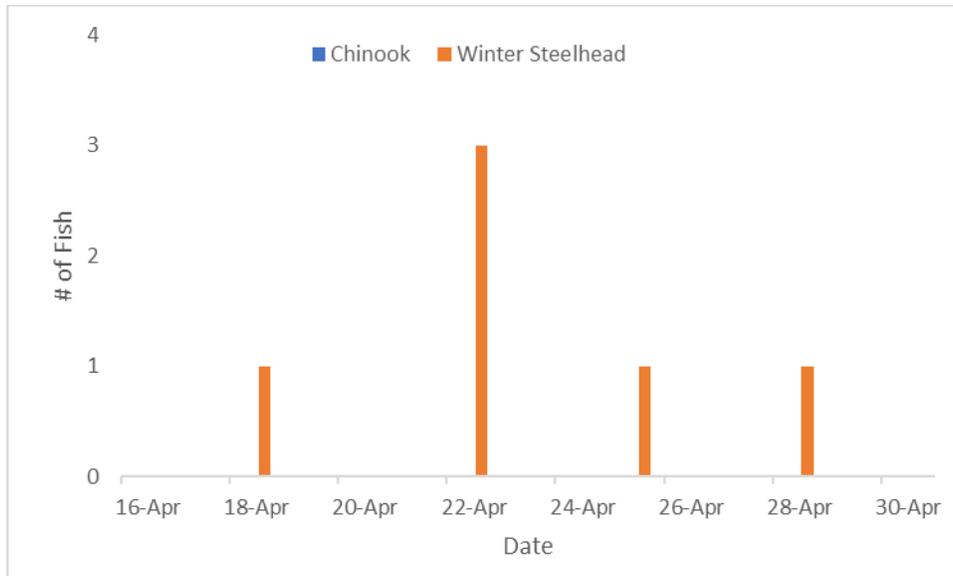


Figure 15. Hourly Flows PWR vs. RO (Big Cliff Dam)

Middle Fork Santiam– Green Peter Tailrace

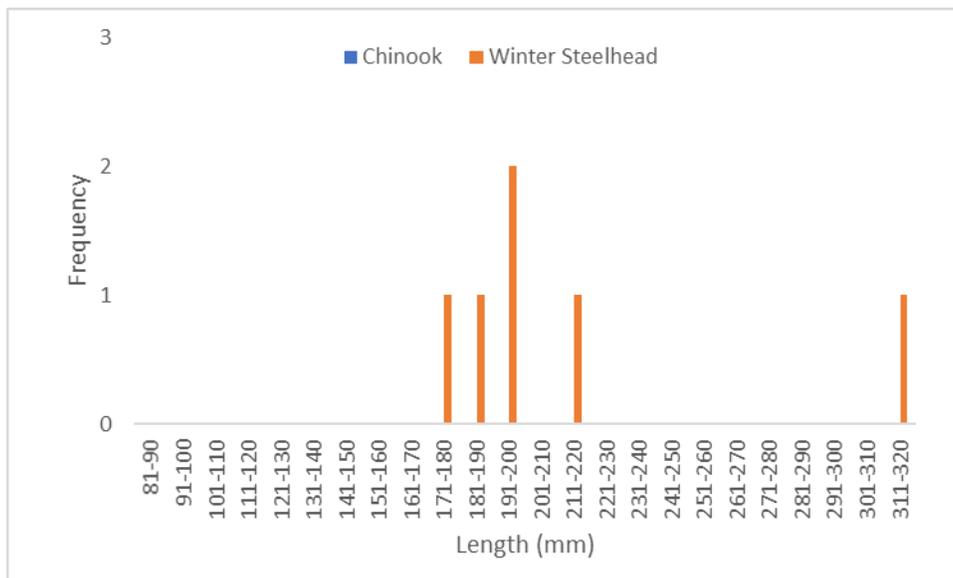
Target Species

This reporting period began on April 16 and ended on April 30. No Chinook Salmon (CHS) were captured. 6 Winter Steelhead (STW) were captured during the 15-day sampling period (Figure 16). 3 radio-tagged Chinook were captured during this reporting period (2 on April 20 and 1 on April 22). Sampling duration was 100% for the RST. Table 8 provides life stage, length, and weight data for all target species that have been caught at the Green Peter Dam site to-date and for the reporting period. Figure 16 shows the daily capture numbers for Chinook and Winter Steelhead and Figure 17 shows length frequency data to-date.



*Recaptured fish for trapping efficiency trials not included.

Figure 16. Chinook and Winter Steelhead Captured Per Day 04/16/2022 to 04/30/2022 (Green Peter Tailrace- Middle Santiam)



*Figure does not include fish without heads or fish used for trapping efficiency trials.

Figure 17. Length Frequency of Juvenile Chinook and Winter Steelhead Sampled Season To-Date (Green Peter Tailrace- Middle Santiam River)

Trapping Efficiency

521 juvenile Chinook salmon were adipose clip, bismarck brown dyed and released on 04/30/2022. The trap was not sampled after this release until May 1st and the recaptures will be reported as part of the next reporting period.

A total of 643 juvenile hatchery Chinook (parr) were bismarck brown dyed, adipose clipped and released on 03/29/2022 below Green Peter Dam. 214 dyed and adipose clipped fish were released below the PWR and 429 dyed and adipose clipped fish were released below the Spillway to evaluate the efficiency of the screw trap in the tailrace. A total of 4 fish were recaptured in the 8ft trap on 03/30/2022. Trapping efficiency was 0.62%

Mt. Hood Environmental staff noted that fish appeared to be in good condition upon retrieval from the hatchery.

Green Peter Dam Tailrace- Middle Santiam	Release #	Recapture #	Capture Efficiency
8ft Trap	643	4	0.62% (4/643)

Table 8. Descriptive Statistics of Target Species Captured at the Green Peter Tailrace-Middle Santiam River Season To-Date

To-Date										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Green Peter Dam Tailrace-Middle Santiam	Spill	STW	Parr	0	0	0	0	0	0	0
		STW	Smolt	6	175	320	213.7	46.2	316.1	107.1

April 16-30,2022										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Green Peter Dam Tailrace-Middle Santiam	Spill	STW	Parr	0	0	0	0	0	0	0
		STW	Smolt	6	175	320	213.7	46.2	316.1	107.1

*Fish that were missing heads are not included in length and weight calculations.

24-Hour Post Collection Holding Trial

6 Winter Steelhead were captured during the current reporting period; All fish died in holding (100%).

Injuries and Copepod Infection

No Spring Chinook were captured at Green Peter Dam; therefore, no injuries were reported for Spring Chinook. A total of 6 Winter Steelhead were captured during this reporting period. 3 of the 6 (50%) Winter Steelhead showed partial descaling <20% and 2 showed descaling >20% (33.3%). 6 of the fish showed body injuries (100%) and 1 had eye injury (16.7%). 0 fish had copepods (0%) in the branchial cavity and 1 fish had copepods on the fins (16.7%). 5 displayed gas bubble disease (83.3%, 2 at level 1, 1 at level 2, 1 at level 3, and 1 at level 4). A summary of injuries observed on Winter Steelhead during the reporting period is provided in Table 9, and target species injuries for the duration of the season are provided in Appendix A.

Table 9. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon for Sampling Period. (Green Peter Tailrace- Middle Santiam River).

Site	Trap	# Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Green Peter	8 ft	6	3	2	6	1	0	1	6

*DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

Collected DNA and Scale Samples

No live target fish were captured for the reporting period and thus, no scale or DNA samples were collected.

Non-Target Species

A total of 164 non-target species fish were captured during the reporting period; the data is summarized below in Table 10. 2 Bluegill and 55 Kokanee displayed Gas Bubble Disease (Bluegill at level 1, 17 Kokanee at level 1, 26 Kokanee at level 2, 8 Kokanee at level 3, and 4 Kokanee at level 4). 3 radio-tagged Chinook salmon were captured during this reporting period (not included in the non-target table). 1 was unharmed, 1 was injured (DS<20 and FID), and 1 was dead. Live radio-tagged fish were put through a brief condition assessment and released; they were not anaesthetized.

Table 10. Summary of Non-target Species (Green Peter Tailrace- Middle Santiam River).

Species	Capture	Mortality	Season Total Capture	Season Total Mortality
Bluegill	61	45	66	49
Brook Lamprey	0	0	0	0
Bullhead	0	0	0	0
Crappie	0	0	0	0
Longnose Dace	0	0	0	0
Kokanee	99	47	115	54
Red-Sided Shiner	0	0	0	0
Sculpin	0	0	0	0
Smallmouth Bass	0	0	1	0
Sucker	1	1	2	2
Whitefish	0	0	0	0
Cutthroat	0	0	0	0

<i>O. mykiss</i> (clipped)	3	2	4	2
Totals	164	95	188	107

Stream Statistics

Basic stream statistics at the Green Peter Dam Tailrace- Middle Santiam site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14186110. Gage height (feet) is the only metric provided at this gage. During the reporting period, daily maximum values for instantaneous gage height ranged from 697.1 feet to 699.4 feet (mean: 697.5 feet). Figure 18 shows instantaneous gage height.

Stream temperatures were recorded every 2 hours for the length of the report period for the RST (Figure 19). Temperature probes operated normally throughout this reporting period.

Flows through the Powerhouse and Spillway during the reporting period averaged 0 and 1,212.1 cubic feet per second (cfs) respectively (Figure 20). Catch per unit of effort (CPUE) data are summarized in Table 11. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 11. Summary of salmonid CPUE, Green Peter Tailrace- Middle Santiam River.

	Chinook	Winter Steelhead
Description	8ft	8 ft
Catch	0	6
Effort (hrs)	356.3	356.3
CPUE (fish/hr)	0	0.017

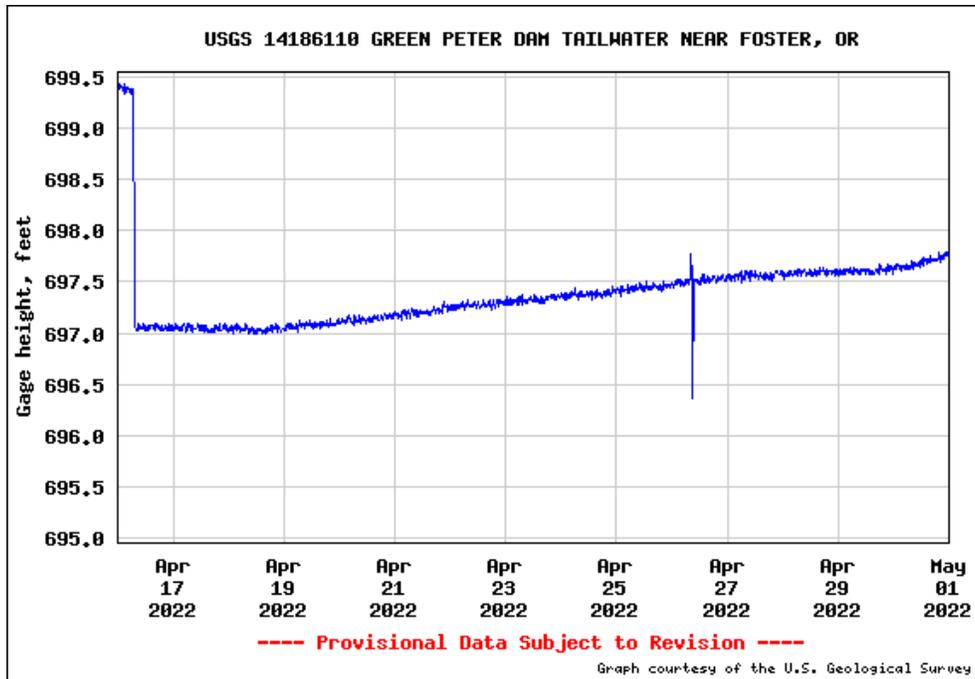


Figure 18. Gage Height (feet); below Green Peter Dam

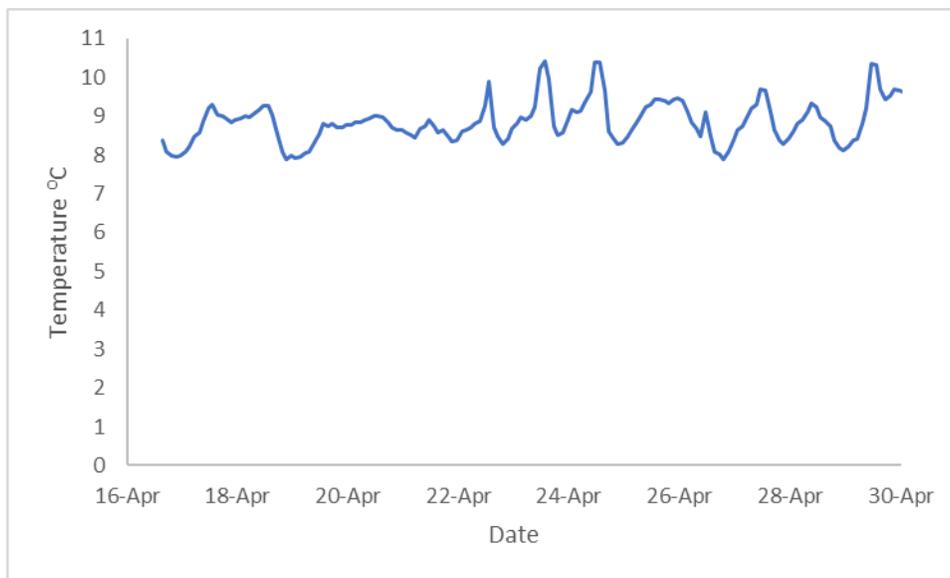


Figure 19. Temperature at RST (Green Peter Tailrace- Middle Santiam River)

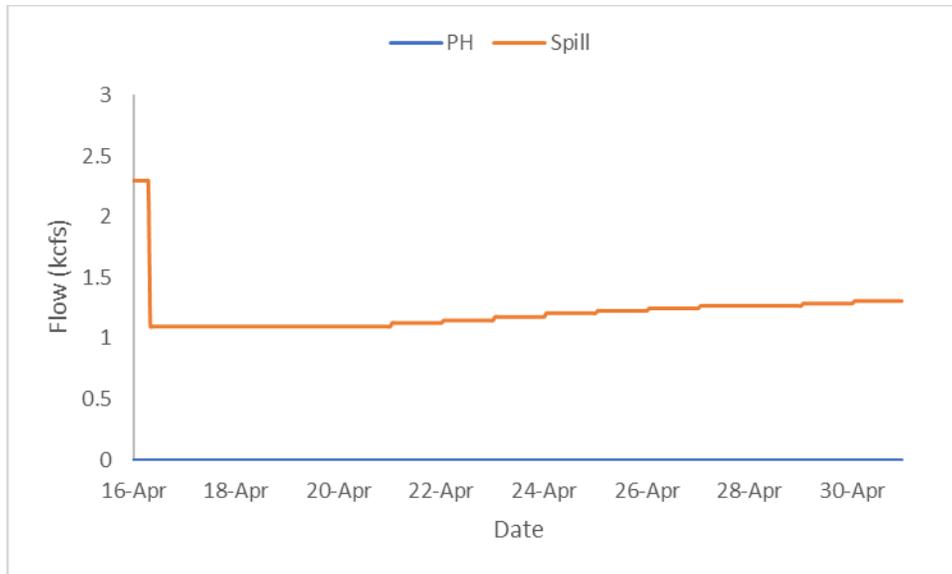


Figure 20. Hourly Flows PWR vs. Spill (Green Peter Dam)

South Fork Santiam– Foster Dam Head of Reservoir

Target Species

This reporting period began on April 16 and ended on April 30. There was a total of 6 Chinook salmon (CHS) and 36 Winter Steelhead captured (Figure 21) during the 15-day sampling period. Sampling duration was 100% for the RST. Table 12 provides life stage, length, and weight data for all Chinook Salmon and Winter Steelhead that have been caught at the Foster Dam Head of Reservoir- South Santiam site to-date and for the reporting period. Figure 21 shows the daily capture numbers for Chinook and Winter Steelhead and Figure 22 shows length frequency data to-date for both species.

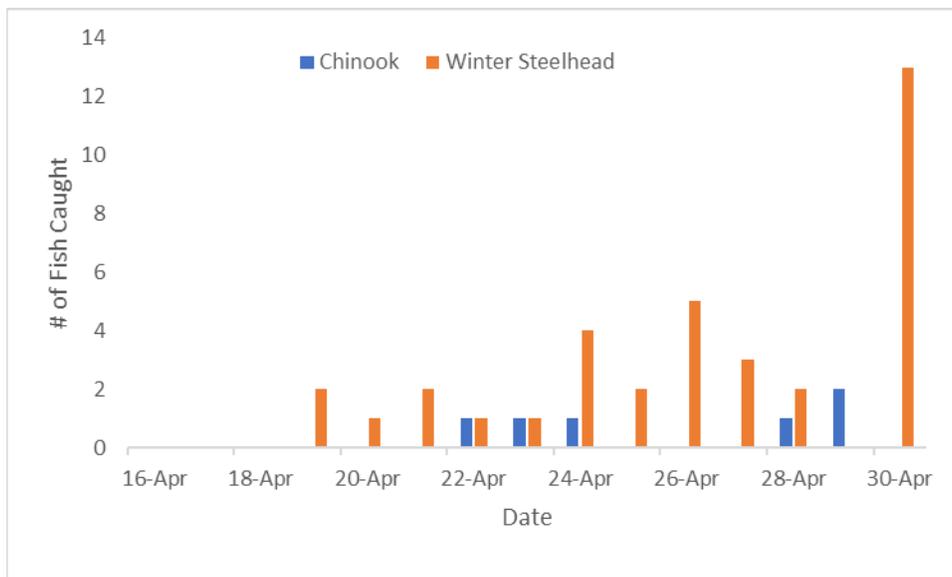


Figure 21. Chinook and Winter Steelhead Captured Per Day 04/16/2022 to 04/30/2022 (Foster Dam Head of Reservoir- South Santiam)

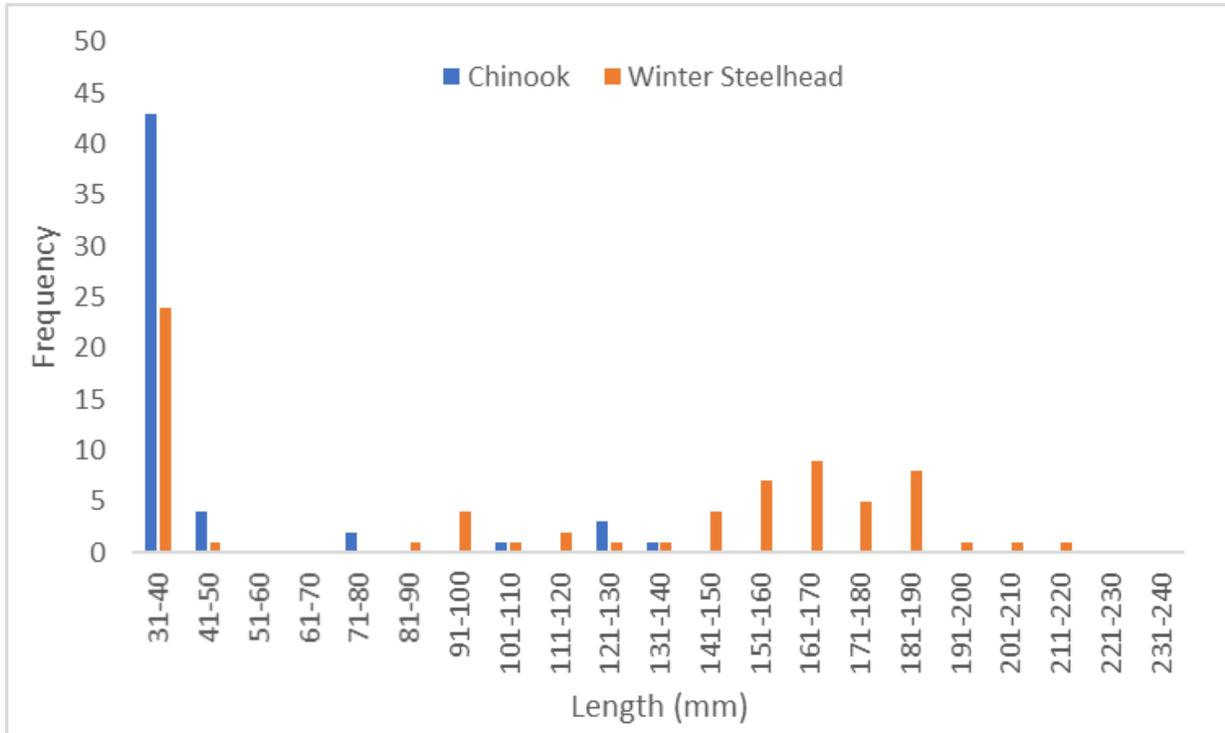


Figure 22. Length Frequency of Juvenile Chinook and Winter Steelhead Sampled Season To-Date (Foster Dam Head of Reservoir- South Santiam)

Trapping Efficiency

10 Chinook and 47 Winter Steelhead have been caudal clipped and released upstream for the purpose of conducting run of river trapping efficiency trials. To date, one of the released Winter Steelhead has been recaptured. Currently, trapping efficiency for Winter Steelhead is 2.1%. Only fish large enough to be safely caudal clipped have been used for efficiency trials.

Table 12. Descriptive Statistics of Target Species Captured at the Foster Dam Head of Reservoir- South Santiam Site Season To-Date

To-Date										
Site	Trap	Species	Life stage	Collected	Length (mm)*		Weight (g)*			
					Min	Max	Mean	Min	Max	Mean
Foster Dam Head of Reservoir-South Santiam	5 ft	CHS	Fry	47	32	49	35.3	N/A	N/A	N/A
		CHS	Parr	4	73	127	97	3.1	24.7	11.7
		CHS	Smolt	3	120	138	129	19.6	27.5	23.5
		STW	Fry	25	31	46	35.1	N/A	N/A	N/A
		STW	Parr	12	88	183	122.9	7.7	63.6	24.3
		STW	Smolt	34	129	213	169.1	21.1	75.3	48.0
April 16-30, 2022										
Site	Trap	Species	Life stage	Collected	Length (mm)*		Weight (g)*			
					Min	Max	Mean	Min	Max	Mean
Foster Dam Head of Reservoir-South Santiam	5 ft	CHS	Fry	2	37	37	37.0	N/A	N/A	N/A
		CHS	Parr	3	73	127	93.3	3.1	24.7	10.8
		CHS	Smolt	1	138	138	138.0	27.5	27.5	27.5
		STW	Fry	15	31	38	35.2	N/A	N/A	N/A
		STW	Parr	3	118	183	156.7	17.6	63.6	45.2
		STW	Smolt	18	131	213	174.2	27.7	75.3	51

*Most fry are too small to collect accurate weight measurements in the field.

Injuries and Copepod Infection

Partial descaling <20% was observed in 2 of the 6 Chinook captured (33.3%) and 0 displayed body injury (0%). No Chinook had eye injuries or copepods present. Partial descaling <20% was observed on 10 of the 36 Winter Steelhead captured (27.8%). Body injuries were present on 5 Winter Steelhead (13.8%) and 0 displayed eye injury (0%). No copepods were present on any of the Winter Steelhead captured (0%). A summary of injuries observed during the reporting period are provided in Table 13, and for the duration of the season are provided in Appendix A.

Table 13. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon and Winter Steelhead for Sampling Period. (Foster Dam Head of Reservoir- South Santiam).

Site	Species	# Fish Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Foster Dam Head of Reservoir- South Santiam	Chinook	6	2	0	0	0	0	0	0
	Winter Steelhead	36	10	0	5	0	0	0	0

Collected DNA and Scale Samples

For the reporting period, DNA was collected from 20 Winter Steelhead and 4 Spring Chinook. Scale samples were collected from 9 Winter Steelhead. All other target fish were too small to sample (less than 45 mm fork length for DNA and less than 50 mm fork length for scales).

Non-Target Species

No non-target species fish were captured during the reporting period; the data is summarized below in Table 14.

Table 14. Summary of Non-target Species (Foster Dam Head of Reservoir).

Species	PWR Capture	PWR Mortality	Season Total	Season Total Mortality
Bluegill	0	0	0	0
Brook Lamprey	0	0	0	0
Bullhead	0	0	0	0
Crappie	0	0	0	0
Longnose Dace	0	0	1	0
Kokanee	0	0	0	0
Red-Sided Shiner	0	0	0	0
Sculpin	0	0	0	0
Spotted Bass	0	0	0	0
Sucker	0	0	3	0
Whitefish	0	0	0	0
Cutthroat	0	0	28	0
<i>O. mykiss</i>	0	0	0	0
Pumpkinseed	0	0	0	0
Unknown	0	0	0	0
Totals	0	0	32	0

Stream Statistics

Basic stream statistics at the Foster Dam Head of Reservoir- South Santiam site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14185000. Discharge (cfs) and

Gage height (feet) are available at this gage. During the reporting period, daily maximum values for instantaneous discharge ranged from 781.0 cfs to 2,720.0 cfs (mean: 1,398.5 cfs). Figure 23 shows instantaneous discharge.

Stream temperatures were recorded every 2 hours for the length of the report period for the 5-foot RST (Figure 24). Temperature probes operated normally throughout this reporting period.

Catch per unit of effort (CPUE) data are summarized in Table 15. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 15. Summary of salmonid CPUE, Foster Dam Head of Reservoir- South Santiam.

	Chinook	Winter Steelhead
Description	(5 ft)	
Catch	6	56
Effort (hrs)	355.2	355.2
CPUE (fish/hr)	0.017	0.158

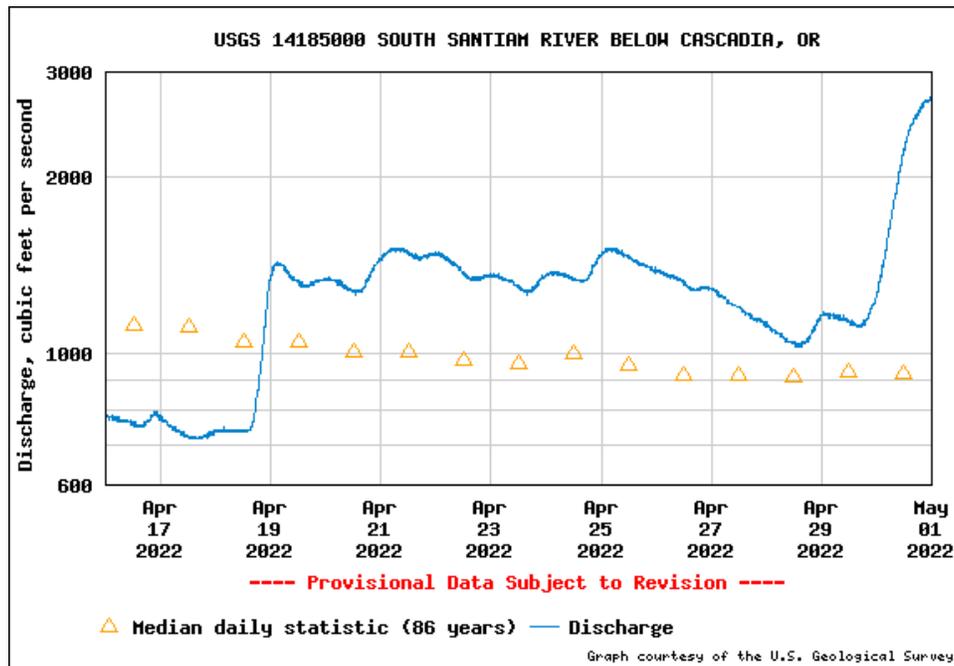


Figure 23. Discharge (cfs); Foster Dam Head of Reservoir – S. Santiam)

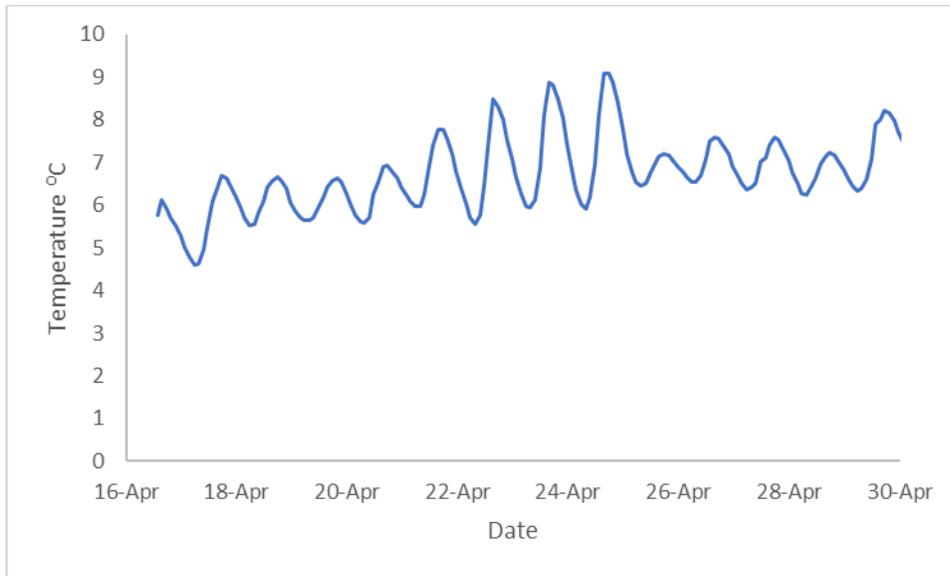
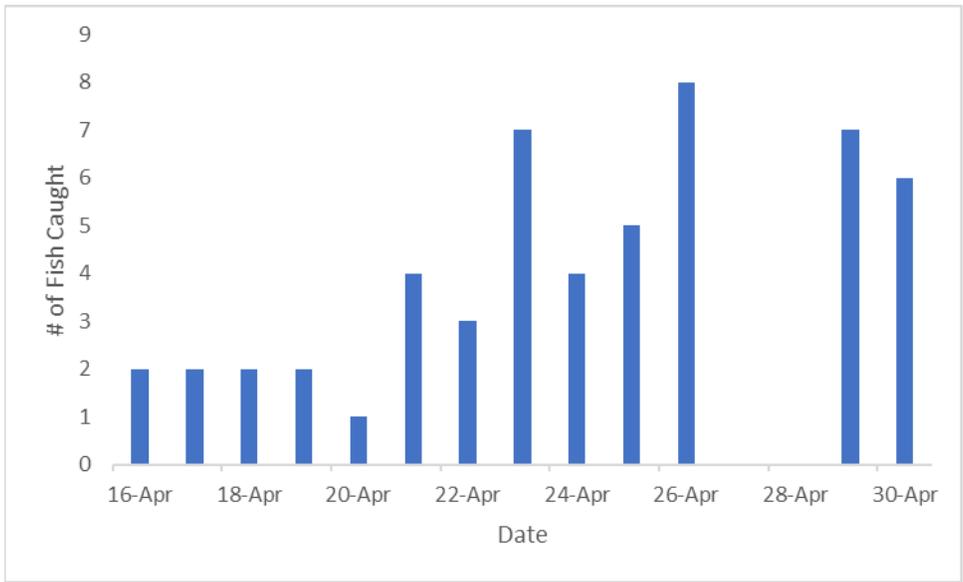


Figure 24. Temperature at RST (Foster Dam Head of Reservoir – S. Santiam)

South Fork McKenzie – Cougar Dam

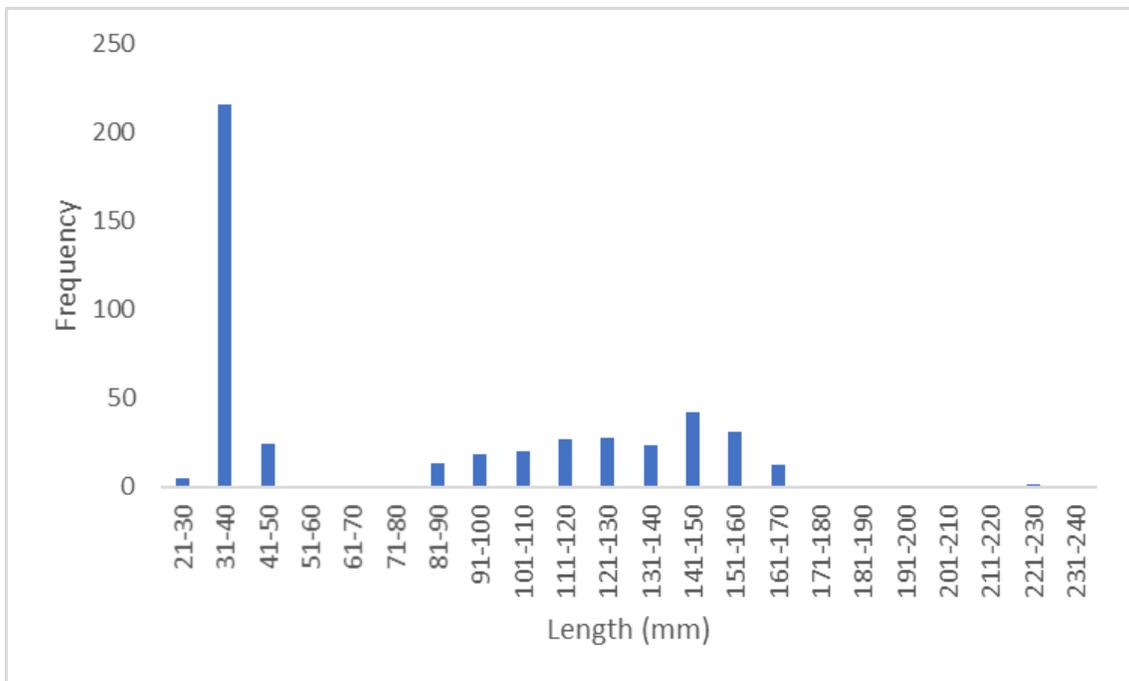
Target Species

This reporting period began on April 16 and ended on April 30. There was a total of 53 Chinook Salmon (CHS) captured during the 15-day sampling period (Figure 25). Sampling duration was 100% for both the RO RST and Powerhouse RST. Table 16 provides life stage, length, and weight data for all Chinook salmon that have been caught at the Cougar Dam site to-date and for the reporting period. Figure 25 shows the daily capture numbers for chinook and Figure 26 shows length frequency data to-date.



*Recaptured fish for trapping efficiency trials not included.

Figure 25. Chinook Captured Per Day 04/16/2022 to 04/30/2022 (Cougar Dam)



*Figure does not include fish without heads or fish used for trapping efficiency trials.

Figure 26. Length Frequency of Juvenile Chinook Sampled Season To-Date (Cougar Dam)

Trapping Efficiency

A total of 735 juvenile hatchery Chinook (parr) were bismark brown dyed, adipose clipped, left and right ventrally clipped and released on 04/20/2022 below Cougar Dam. 357 dyed, adipose, and left ventrally clipped fish were released below the PWR and 378 dyed, adipose, and right ventrally clipped fish were released below the RO to evaluate the efficiency of the screw traps at those locations. A total of 62 fish were recaptured in the 8ft PH traps and 21 in the 5ft RO trap during this reporting period. Route-specific trapping efficiency was 17.37% at the PH traps and 5.56% at the RO.

Of the 83 fish recaptured, 10 were dead and an additional 72 were injured. Injuries were descaling (67), eye hemorrhage (6), and fin damage (74). Mt. Hood Environmental staff noted that fish appeared to be in good condition upon retrieval from the hatchery with some descaling and fin damage as is expected in hatchery fish of this size.

Cougar Dam	Release #	Recapture #	Capture Efficiency
PH Route	357	62	17.37% (62/357)
RO Route	378	21	5.56% (21/378)

Table 16. Descriptive Statistics of Target Species Captured at the Cougar Dam Season To-Date

To-Date										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Cougar Dam	RO	CHS	Fry	13	34	48	39.0	N/A	N/A	N/A
		CHS	Parr	112	72	164	105.7	4.2	41.1	13.4
		CHS	Smolt	155	92	230	139.4	8.8	86.1	29.0
Cougar Dam	PWR	CHS	Fry	232	27	47	36.2	N/A	N/A	N/A
		CHS	Parr	214	74	165	100.5	4.1	41.0	10.8
		CHS	Smolt	90	76	167	135.6	4.2	44.3	25.9

*Fish that were missing heads are not included in length and weight calculations.

April 16-30, 2022										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Cougar Dam	RO	CHS	Fry	3	39	48	42.3	N/A	N/A	N/A
		CHS	Parr	11	89	164	138.0	7.2	41.1	27.3
		CHS	Smolt	33	109	170	145.1	14.9	49.8	31.7
Cougar Dam	PWR	CHS	Fry	2	38	41	39.5	N/A	N/A	N/A
		CHS	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Smolt	4	154	163	158.5	34.4	43.9	39.4

*Fish that were missing heads are not included in length and weight calculations.

24-Hour Post Collection Holding Trial

A total of 41 Chinook captured in the RSTs, 5 fish from the PWR RST and 36 from the RO RST, were held for ~24 hours in holding tanks and then evaluated for survival rates. In total, 40 of the fish (97.6%) held during this period were released alive. 0 of the 5 PWR RST captured fish died during holding and 1 of the 36 RO RST captured fish (2.8%) died during holding.

Injuries and Copepod Infection

Partial descaling <20% was observed on 24 of 47 Chinook collected at the RO RST (51.1%), and descaling >20% was observed on 15 of 47 Chinook collected at the RO RST (31.9%). Of the 47 Chinook captured in the RO RST 29 displayed body injuries (61.7%) and 12 had eye injuries (25.5%). 2 RO RST Chinook displayed Gas Bubble Disease (level 1) (4.3%). 30 of the RO RST Chinook had copepods present in the branchial cavity (63.8%) and 11 had copepods present on fins (23.4%). Partial descaling <20% was observed on 4 of the 6 Chinook collected at the PWR RST (66.7%). Descaling >20% was observed on 0 of the 6 Chinook collected at the PWR RST (0%). 4 PWR RST fish had bodily injury (66.7%) and 0 had eye injuries (0%). 4 fish had copepods present in the branchial cavity (66.7%) and 1 had copepods present on fins (16.7%). There were 12 chinook mortalities collected in the RO RST (25.5%) and 0 in the PWR RST (0%). Data is summarized below in Table 17. A summary of injuries observed during the reporting period, and for the duration of the season are provided in Appendix A.

Table 17. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon for Sampling Period. (Cougar Dam).

Site	Route	# CHS Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Cougar	RO	47	24	15	29	12	30	11	12
Cougar	PWR	6	4	0	4	0	4	1	0

*DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

Non-Target Species

A total of 8 non-target species fish were captured during the reporting period; the data is summarized below in Table 18.

Table 18. Summary of Non-target Species (Cougar Dam).

Species	RO Capture	RO Mortality	PWR Capture	PWR Mortality	Season Total Capture	Season Total Mortality
Bluegill	0	0	0	0	0	0
Lamprey	0	0	0	0	1	0
Bullhead	0	0	0	0	0	0
Crappie	0	0	0	0	0	0
Dace	1	1	1	0	4	1
Kokanee	0	0	0	0	0	0
Red-Sided Shiner	0	0	0	0	0	0
Sculpin	0	0	3	0	24	0
Spotted Bass	0	0	0	0	0	0
Sucker	0	0	0	0	0	0
Whitefish	0	0	0	0	1	0
Cutthroat	0	0	1	0	28	1
<i>O. mykiss</i>	2	0	0	0	79	1
Bull Trout	0	0	0	0	1	0
Unknown	0	0	0	0	21	1
Totals	3	1	5	0	159	4

Stream Statistics

Basic stream statistics at the Cougar Dam site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14159410. Gage height (feet) is the only metric provided at this gage. During the reporting period, daily maximum values for instantaneous gage height ranged from 1,253.6 feet to 1,253.9 feet (mean: 1,253.6 feet). Figure 27 shows instantaneous gage height.

Stream temperatures were recorded every 2 hours for the length of the report period for the RO and PWR RST's (Figure 28 and 29 respectively). Temperature probes for the RO and PWR RST operated normally throughout this reporting period.

Flows through the Powerhouse and RO during the reporting period averaged 564.4 and 467.5 cubic feet per second (cfs) respectively (Figure 30). Catch per unit of effort (CPUE) data are summarized in Table 19. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 19. Summary of salmonid CPUE, Cougar Dam.

Description	Chinook	
	RO (5ft)	PWR(8ft)
Catch	47	6
Effort (hrs)	360.2	720.8
CPUE (fish/hr)	0.130	0.008

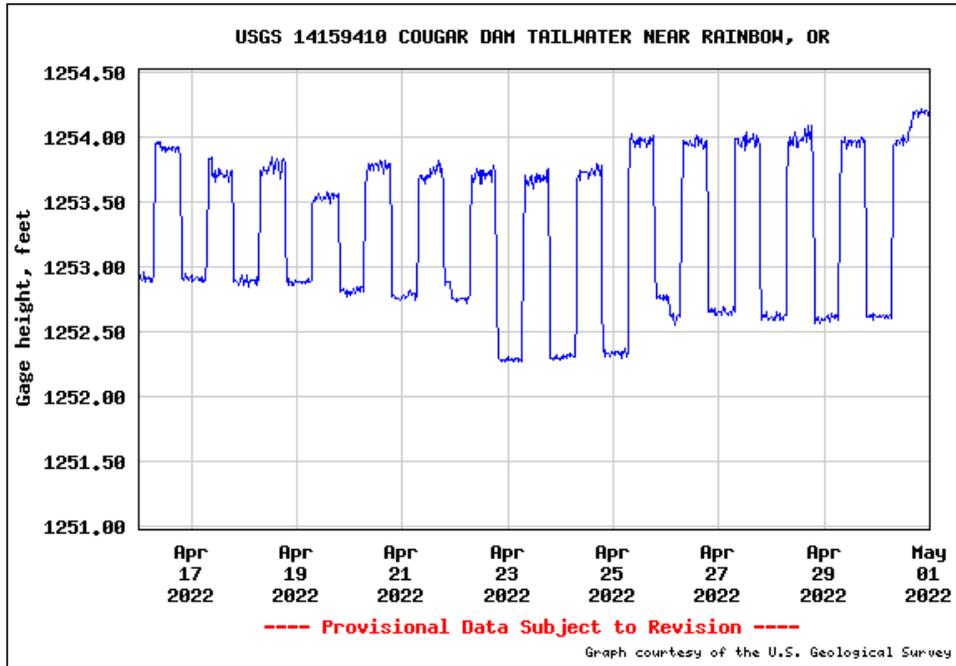


Figure 27. Gage Height (feet); below Cougar Dam, South Fork McKenzie River

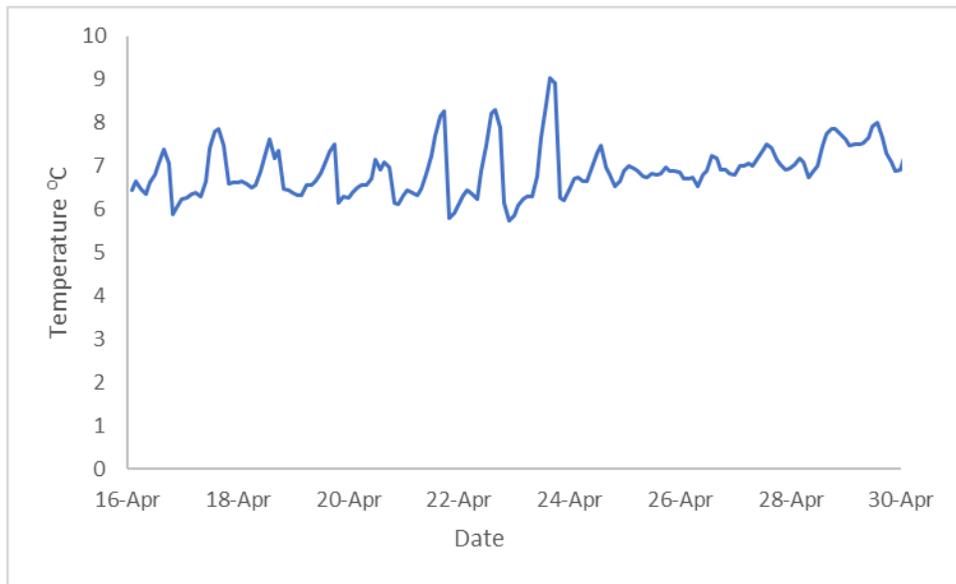


Figure 28. Temperature at RO RST (Cougar Dam)

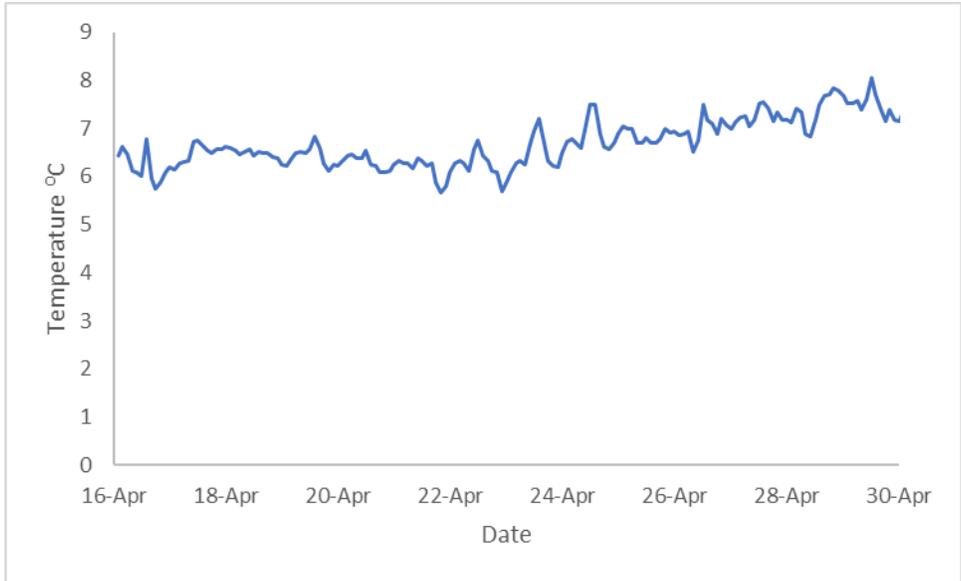


Figure 29. Temperature at PWR RST (Cougar Dam)

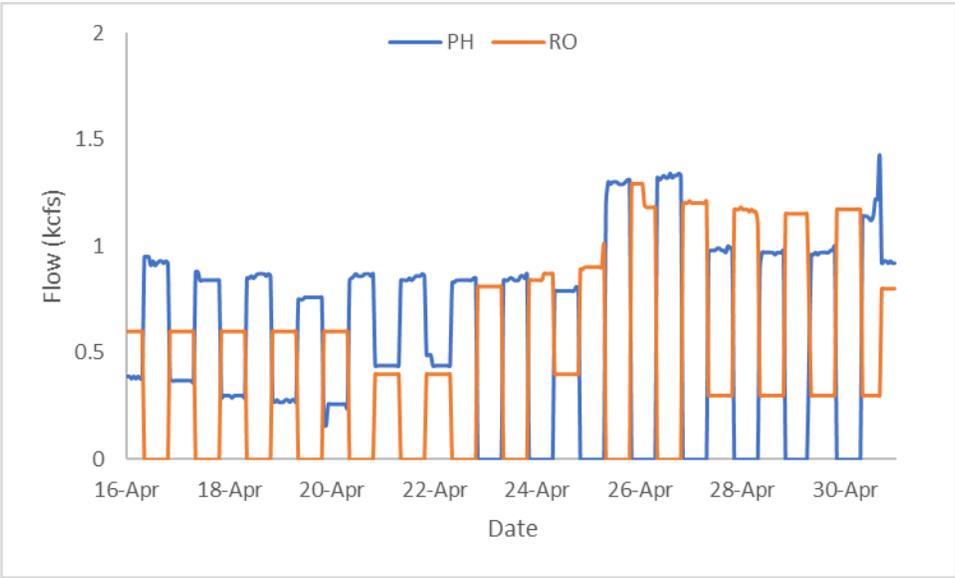


Figure 30. Hourly Flows PWR vs. RO (Cougar Dam)

South Fork of the McKenzie–Cougar Dam Head of Reservoir

Target Species

The reporting period began April 22 and ended April 30. 118 Chinook salmon were captured during the 9-day sampling period (Figure 31). The cone was raised into the non-sampling position on April 8th due to access concerns. A snowstorm restricted access to the site from April 9th to April 22nd. Fishing resumed April 22. Road conditions were checked daily by RST crews during the sampling period. The trap was

operated 60% of the reporting period. Table 20 provides life stage, length, and weight data for all Chinook salmon that have been caught at the site to-date and Figure 32 shows length frequency data to-date.

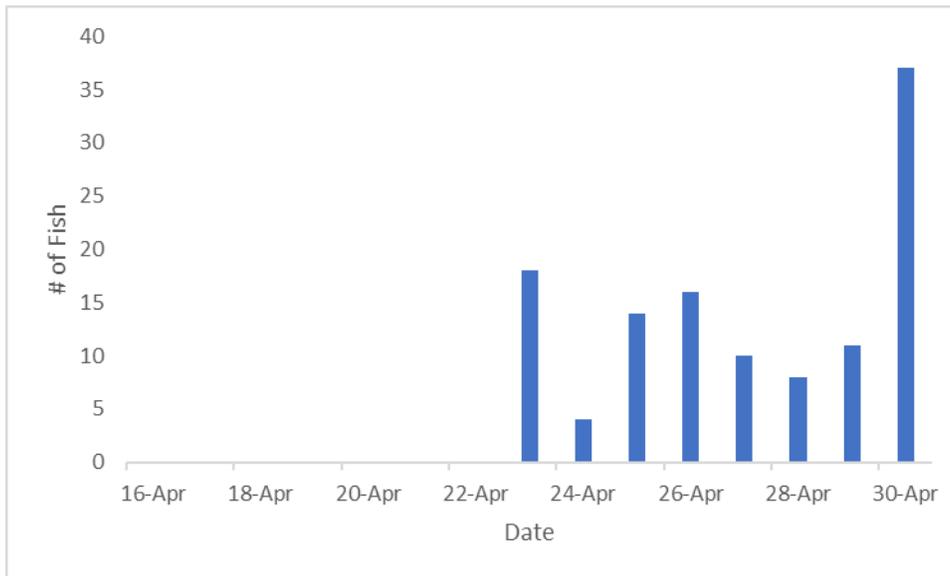


Figure 31. Chinook Captured Per Day 04/16/2022 to 04/30/2022 (Cougar Dam Head of Reservoir)

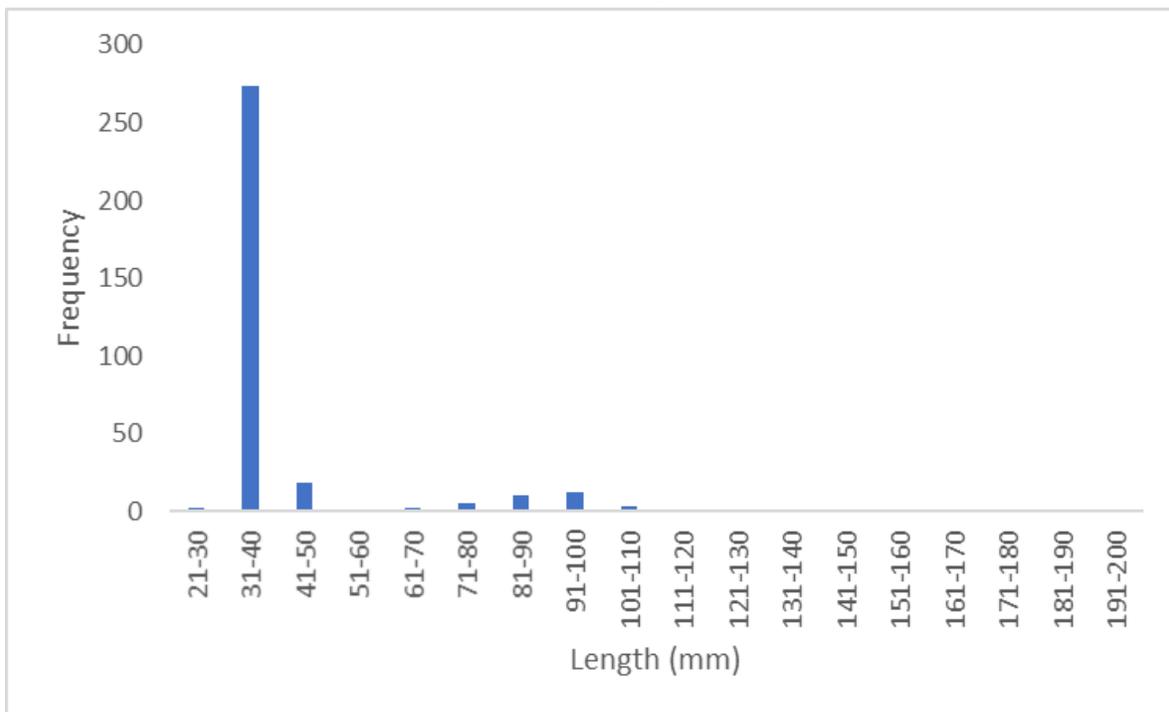


Figure 32. Length Frequency of Juvenile Chinook Sampled Season To-Date (Cougar Dam Head of Reservoir)

Table 20. Descriptive Statistics of Target Species Captured at Cougar Dam Head of Reservoir, Season To-Date and for the Reporting Period

To-Date										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Cougar Dam Head of Reservoir	5 ft	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	35	58	150	90.6	2.3	11.2	7.5
		CHS	Fry	294	28	49	36.3	N/A	N/A	N/A

April 16-30, 2022										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Cougar Dam Head of Reservoir	5 ft	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Fry	118	32	49	37.4	N/A	N/A	N/A

*Most fry are too small to collect accurate weights and thus some metrics are not available for them.

Trapping Efficiency

A total of 806 juvenile hatchery Chinook (smolt) were adipose clipped, left or right ventrally clipped and released on 03/18/2022 upstream of the Cougar Head of Reservoir trap site. A total of 41 fish were recaptured in the 5 ft trap between March 19th and March 25th. Trapping efficiency was 5.1%.

Of the 41 fish recaptured, 26 showed minor descaling and 32 had fin damage. Mt. Hood Environmental staff noted that fish appeared to be in good condition upon retrieval from the hatchery, only noting descaling and fin damage which is common in hatchery raised fish.

Cougar Dam Head of Reservoir	Release #	Recapture #	Capture Efficiency
5ft trap	806	41	5.1% (41/806)

Injuries and Copepod Infection

118 Chinook were captured for the reporting period. Of the fish captured, partial descaling <20% was observed on 0 fish (0%), 0 had copepods (0%), and 2 had bodily injury (1.7%). Injury data for the reporting period is summarized in Table 21. To date injury data can be found in Appendix A.

Table 21. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon for Sampling Period. (Cougar Dam Head of Reservoir)

Site	# CHS Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Cougar Dam Head of Reservoir	118	0	0	2	0	0	0	2

*DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

Collected DNA and Scale Samples

Scales and DNA were collected from 1 of the 118 Chinook captured (0.8%). The rest of the captured fish were under the minimum fork length threshold and samples were not collected (less than 45 mm fork length for DNA and less than 50 mm fork length for scales).

Non-Target Species

A total of 78 non-target fish were captured at the Cougar Dam Head of Reservoir RST during the reporting period; the data is summarized below in Table 22.

Table 22. Summary of Non-target Species (Cougar Dam Head of Reservoir)

Species	5ft Capture	5ft Mortality	Season Total	Season Total Mortality
Bluegill	0	0	0	0
Lamprey	0	0	0	0
Bullhead	0	0	0	0
Bull Trout	0	0	0	0
Crappie	0	0	0	0
Cutthroat Trout	0	0	37	1
Longnose Dace	0	0	2	0
Speckled Dace	0	0	1	0
Red-Sided Shiner	0	0	0	0
Sculpin	0	0	1	0
Spotted Bass	0	0	0	0
Sucker	0	0	0	0
Whitefish	0	0	0	0
<i>O. mykiss</i>	78	1	177	1
Unknown	0	0	1	0
Totals	78	1	219	2

Stream Statistics

Basic stream statistics at the site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14159200. During the reporting period, daily maximum values for instantaneous

discharge ranged from 598.0 cfs to 1,500.0 cfs (mean: 887.7 cfs). Figure 33 shows instantaneous discharge.

Stream temperature was recorded every two hours with a temperature probe at the trap. The temperature probe operated normally during this period. Due to the restricted access above Cougar Dam from heavy snow, data from the temperature probe was not downloaded (Figure 34).

Catch per unit of effort (CPUE) data are summarized in Table 23. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 23. Summary of Chinook CPUE, Cougar Dam Head of Reservoir

	Chinook
Description	5 ft
Catch	118
Effort (hrs)	187.8
CPUE (fish/hr)	0.628

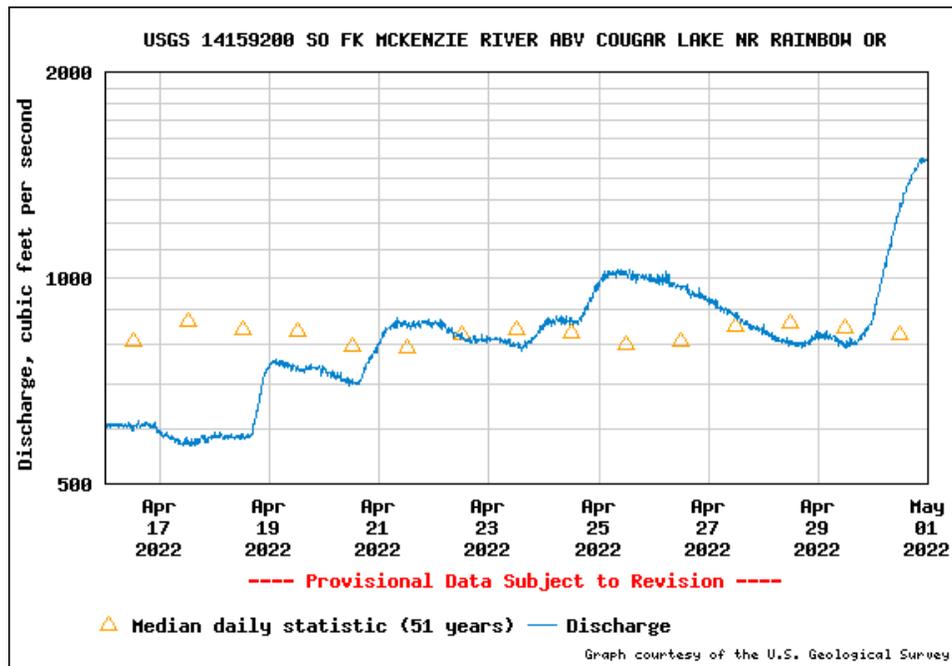


Figure 33. Gage Height (feet); South Fork McKenzie above Cougar Dam

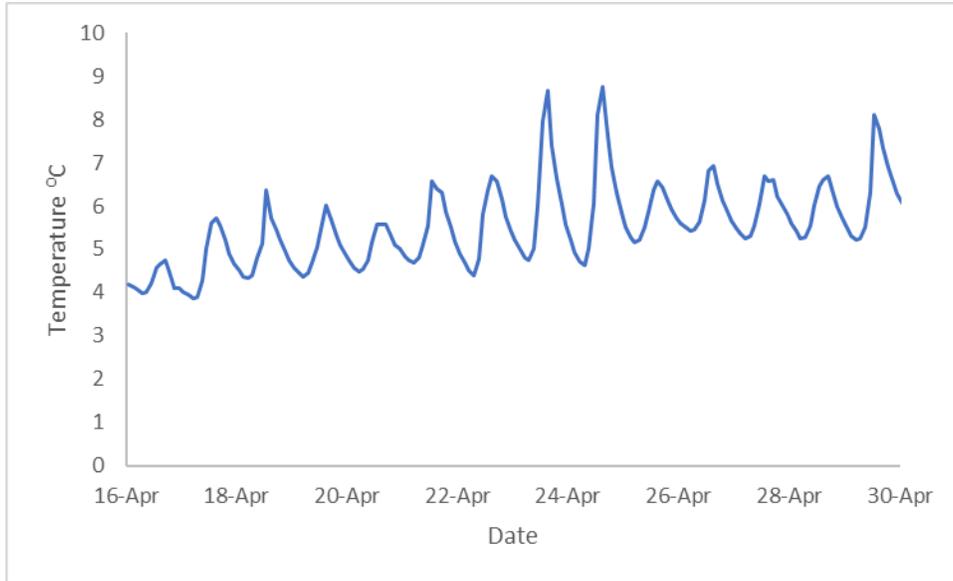


Figure 34. Temperature at RST (Cougar Dam Head of Reservoir)

Middle Fork Willamette – Fall Creek Dam Tailrace

Target Species

The reporting period began April 16 and ended April 30. No Chinook salmon were captured during the 15-day sampling period (Figure 35). The trap was operated 100% of the reporting period. Table 24 provides life stage, length, and weight data for all Chinook salmon that have been caught at the Fall Creek Dam Tailrace site to-date and Figure 36 shows length frequency data to-date.

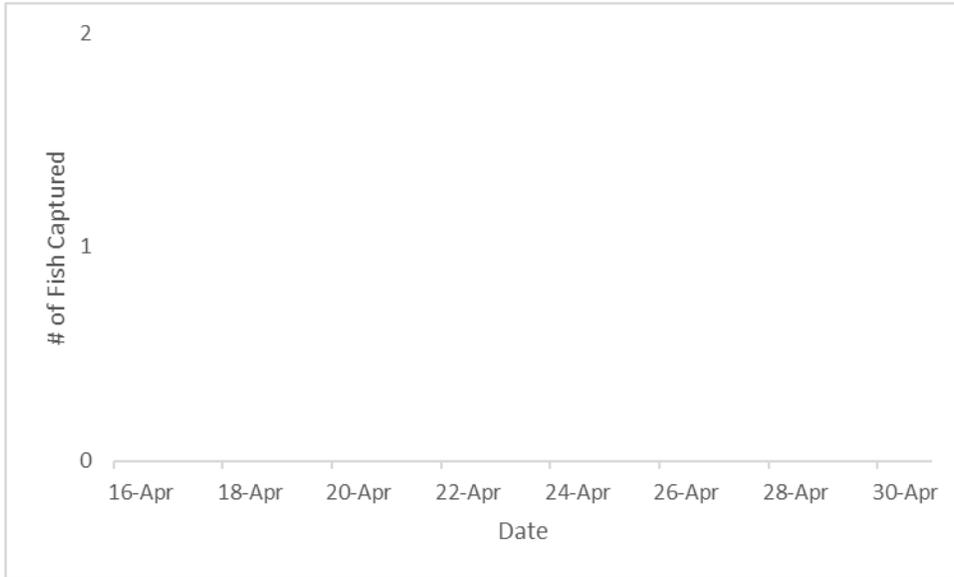


Figure 35. Chinook Captured Per Day 04/16/2022 to 04/30/2022 (Fall Creek Dam Tailrace)

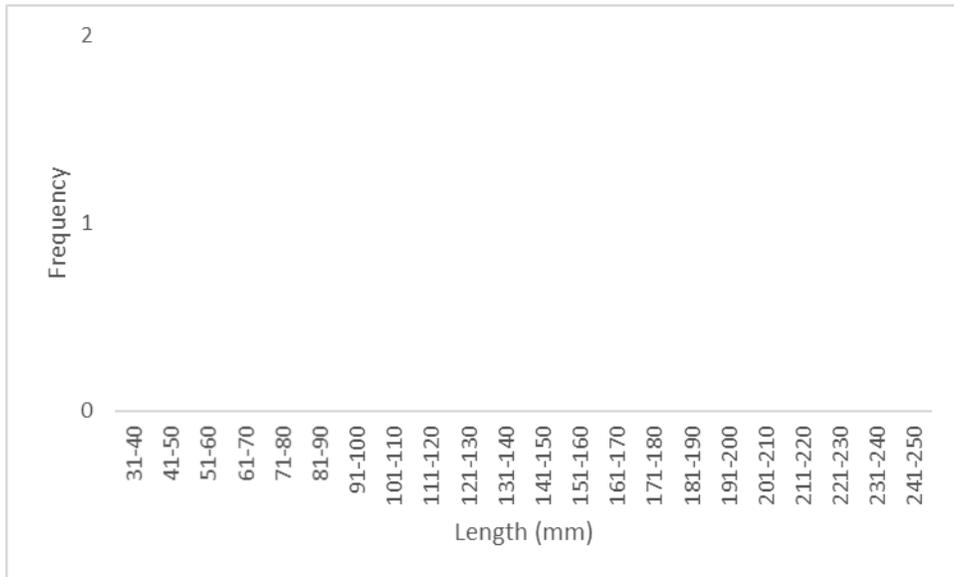


Figure 36. Length Frequency of Juvenile Chinook Sampled Season To-Date (Fall Creek Dam Tailrace)

Table 24. Descriptive Statistics of Target Species Captured at Fall Creek Dam Tailrace, Season To-Date and for the Reporting Period

To-Date										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Fall Creek Dam	RO	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	0	0	0	0	0	0	0

April 16-30,2022										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Fall Creek Dam	RO	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	0	0	0	0	0	0	0

Injuries and Copepod Infection

No Chinook were captured during this reporting period. The data is summarized in Table 25. To date injury data is listed in Appendix A.

Table 25. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon for Sampling Period. (Fall Creek)

Site	# CHS Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Fall Creek Dam	0	0	0	0	0	0	0	0

*DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

Trapping Efficiency

Trapping efficiency trials have not been conducted at the Fall Creek Dam Tailrace site to date.

Non-Target Species

A total of 4 non-target fish were captured at the Fall Creek Dam Tailrace site during the reporting period; the data is summarized below in Table 26.

Table 26. Summary of Non-target Species (Fall Creek Dam Tailrace)

Species	8ft Capture	8ft Mortality	Season Total	Season Total Mortality
Bluegill	0	0	0	0
Lamprey	0	0	0	0
Bullhead	0	0	0	0
Bull Trout	0	0	0	0
Crappie	0	0	0	0
Cutthroat Trout	0	0	4	0
Dace	3	0	86	0
Red-Sided Shiner	0	0	3	0
Sculpin	0	0	0	0
Spotted Bass	0	0	0	0
Sucker	0	0	3	0
Whitefish	0	0	0	0
<i>O. mykiss</i>	1	1	5	1
Totals	4	1	101	1

Stream Statistics

Basic stream statistics at the site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14151000. During the reporting period, daily maximum values for instantaneous discharge ranged from 76.0 cfs to 658.0 cfs (mean: 209.2 cfs). Figure 37 shows instantaneous discharge.

Stream temperatures were recorded using temperature probes for the Fall Creek Dam Tailrace RST site during this reporting period. The temperature probe operated normally during this period (Figure 38).

Flows In and Out of reservoir during the reporting period averaged 920.1 cfs and 191.3 cfs respectively (Figure 39).

Catch per unit of effort (CPUE) data are summarized in Table 27. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B

Table 27. Summary of Chinook CPUE, Fall Creek Dam Tailrace

Description	Chinook
	(8 ft)
Catch	0
Effort (hrs)	358.7
CPUE (fish/hr)	0

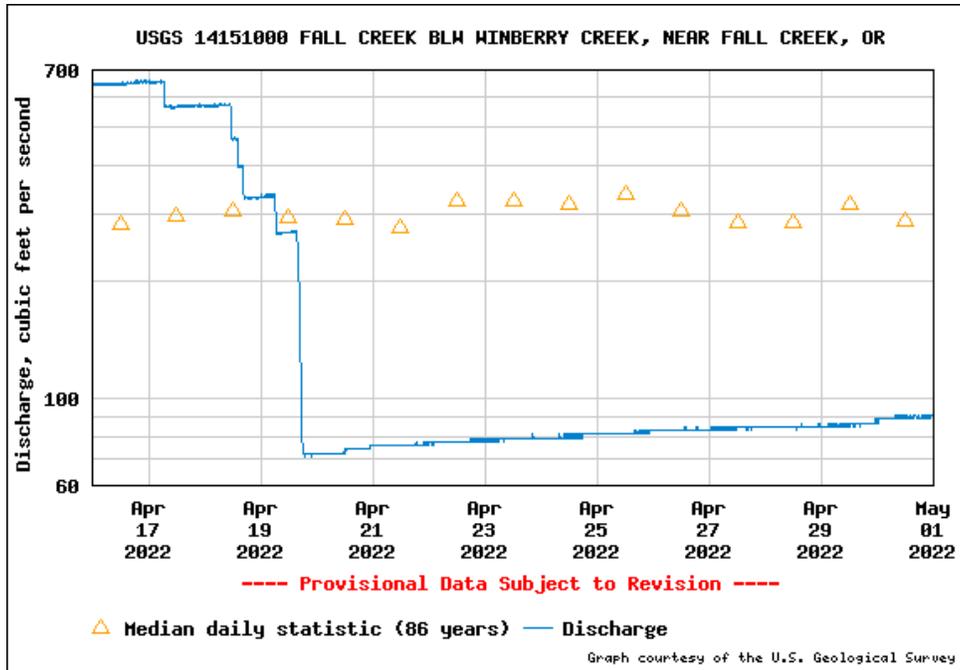


Figure 37. Discharge (cfs); Fall Creek Below Winberry Creek, Near Fall Creek, OR

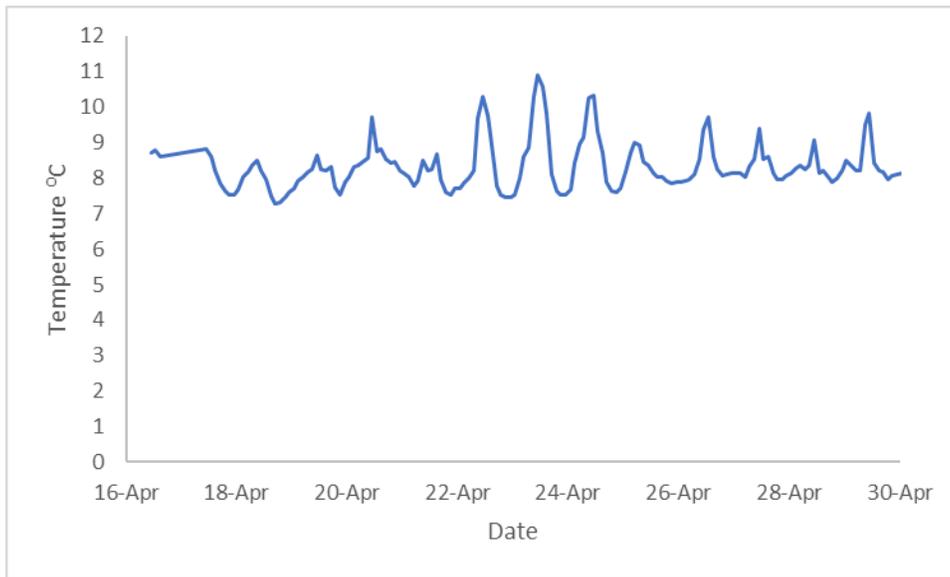


Figure 38. Temperature at RST (Fall Creek Dam Tailrace)

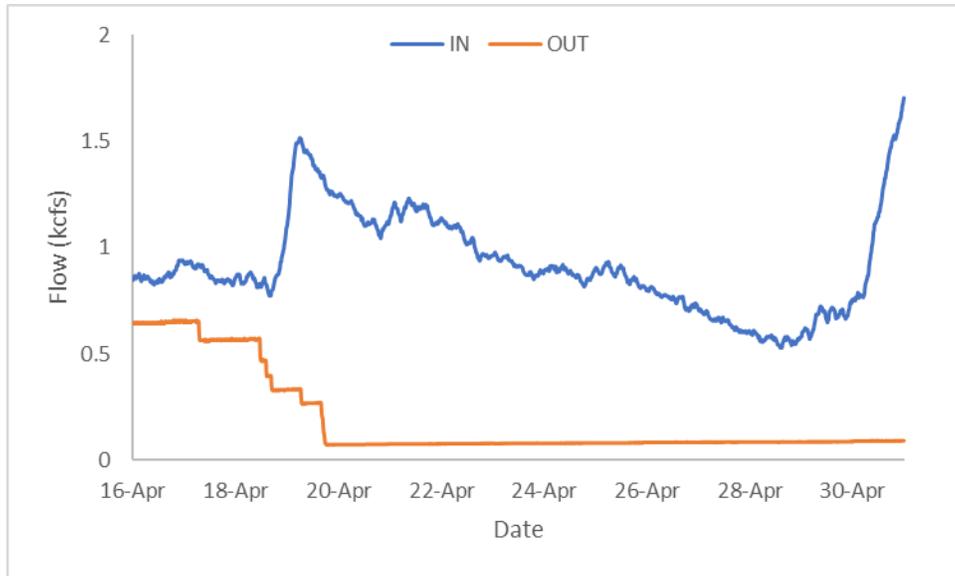


Figure 39. Hourly Flows PWR vs. RO (Fall Creek Tailrace)

Middle Fork Willamette – Fall Creek Head of Reservoir

Target Species

The reporting period began April 16 and ended April 30. 0 Chinook salmon was captured during the 15-day sampling period (Figure 40). The trap was operated 100% of the reporting period. Table 28 provides life stage, length, and weight data for all Chinook salmon that have been caught at the Fall Creek Head of Reservoir site to-date and Figure 41 shows length frequency data to-date.

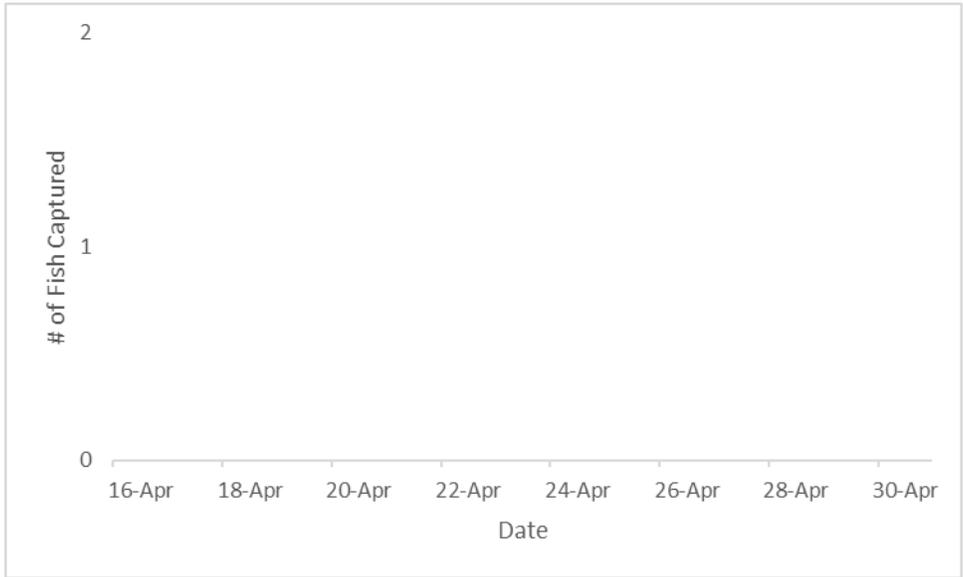


Figure 40. Chinook Captured Per Day 04/16/2022 to 04/30/2022 (Fall Creek Head of Reservoir)

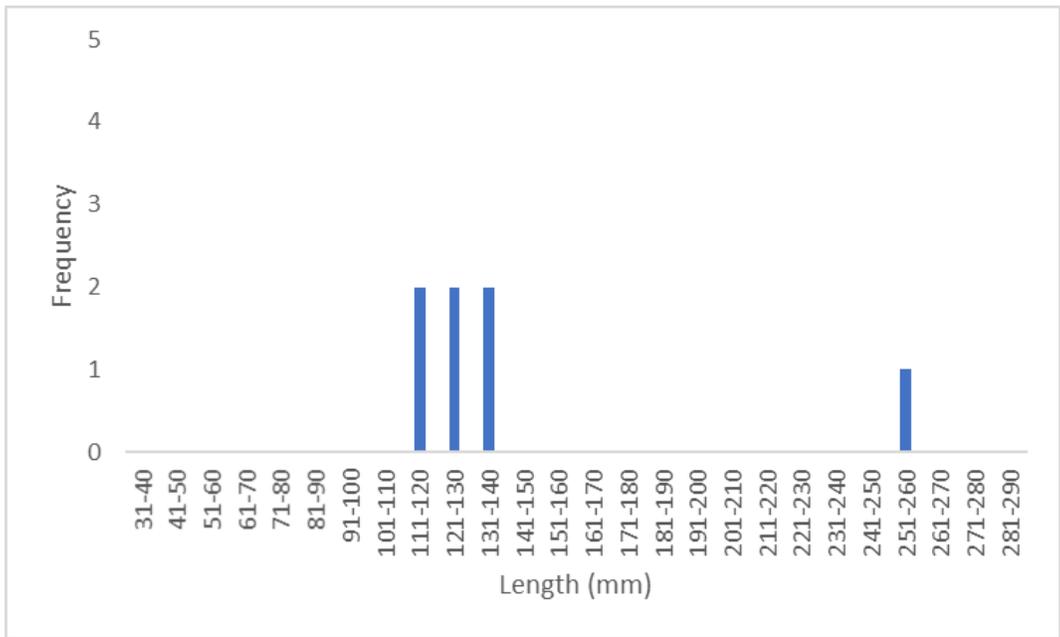


Figure 41. Length Frequency of Juvenile Chinook Sampled Season To-Date (Fall Creek Head of Reservoir)

Table 28. Descriptive Statistics of Target Species Captured at Fall Creek Head of Reservoir, Season To-Date and for the Reporting Period

To-Date										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Fall Creek Head of Reservoir	8 ft	CHS	Smolt	5	127	255	157.2	21.5	108.5	214.3
		CHS	Parr	2	119	120	119.5	16.1	19.8	18.0

April 16-30,2022										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Fall Creek Head of Reservoir	8 ft	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	0	0	0	0	0	0	0

Injuries and Copepod Infection

No Chinook were captured during this reporting period.

Table 29. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon for Sampling Period. (Fall Creek Head of Reservoir)

Site	# CHS Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Fall Creek Head of Reservoir	0	0	0	0	0	0	0	0

*DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

Trapping Efficiency

0 Chinook were caudal clipped and released upstream to conduct a run of river trapping efficiency trial during this period. 7 fish have been released for efficiency testing to date. 1 fish was recaptured during a previous reporting period (released March 18 and recaptured March 22) for an efficiency of 14.3%.

Collected DNA and Scale Samples

No Chinook were captured during this reporting period.

Non-Target Species

A total of 196 non-target fish were captured at the Fall Creek Head of Reservoir site during the reporting period; the data is summarized below in Table 30. ODFW released AD clipped hatchery *O. mykiss* near

our trap site during this reporting period. Therefore, 79 hatchery *O. mykiss* captured were assessed for condition and then released (fish were not anaesthetized).

Table 30. Summary of Non-target Species (Fall Creek Head of Reservoir)

Species	8ft Capture	8ft Mortality	Season Total	Season Total Mortality
Bluegill	0	0	0	0
Lamprey	24	0	203	2
Bullhead	0	0	0	0
Bull Trout	0	0	0	0
Crappie	0	0	0	0
Cutthroat Trout	10	0	79	0
Longnose Dace	2	0	17	0
Speckled Dace	0	0	3	0
Red-Sided Shiner	0	0	1	0
Sculpin	0	0	2	1
Spotted Bass	0	0	0	0
Sucker	0	0	3	0
Whitefish	0	0	0	0
<i>O. mykiss</i>	81	7	346	8
<i>O. mykiss (clipped)</i>	79	0	79	0
Totals	196	7	733	11

Stream Statistics

Basic stream statistics at the Fall Creek site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14150290. During the reporting period, daily maximum values for instantaneous gage height ranged from 4.1 feet to 5.4 feet (mean: 4.7 feet). Figure 42 shows instantaneous gage height.

Stream temperatures were recorded every 2 hours for the Fall Creek RST (Figure 43). Temperature probes for the Fall Creek RST operated normally throughout this reporting period.

Catch per unit of effort (CPUE) data are summarized in Table 31. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 31. Summary of Chinook CPUE, Fall Creek Head of Reservoir

	Chinook
Description	8 ft
Catch	0
Effort (hrs)	368.3
CPUE (fish/hr)	0

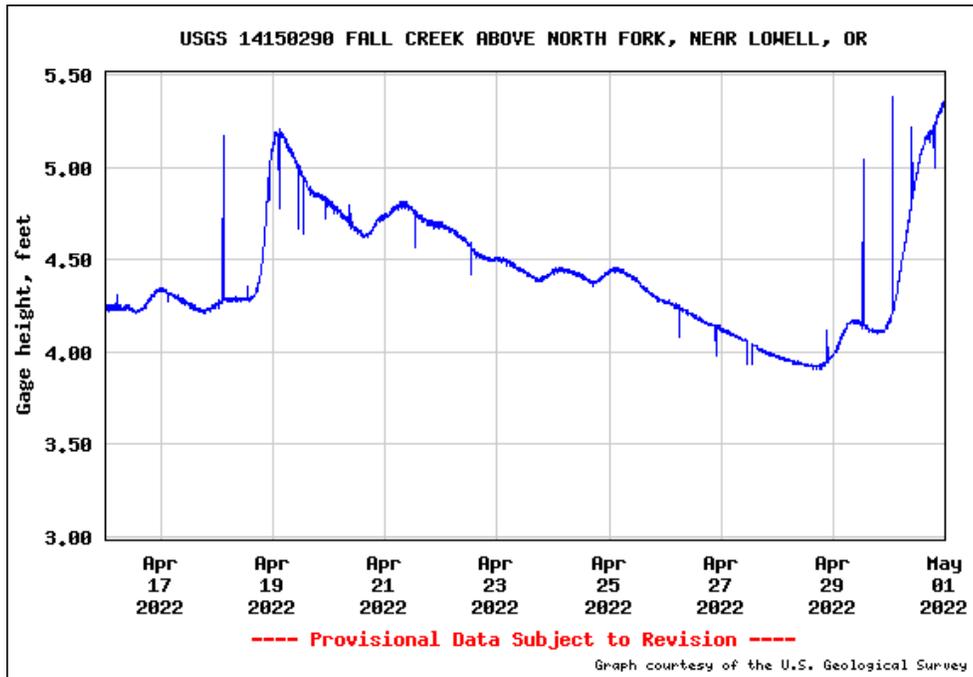


Figure 42. Gage Height (feet); Fall Creek Above North Fork, Near Lowell OR

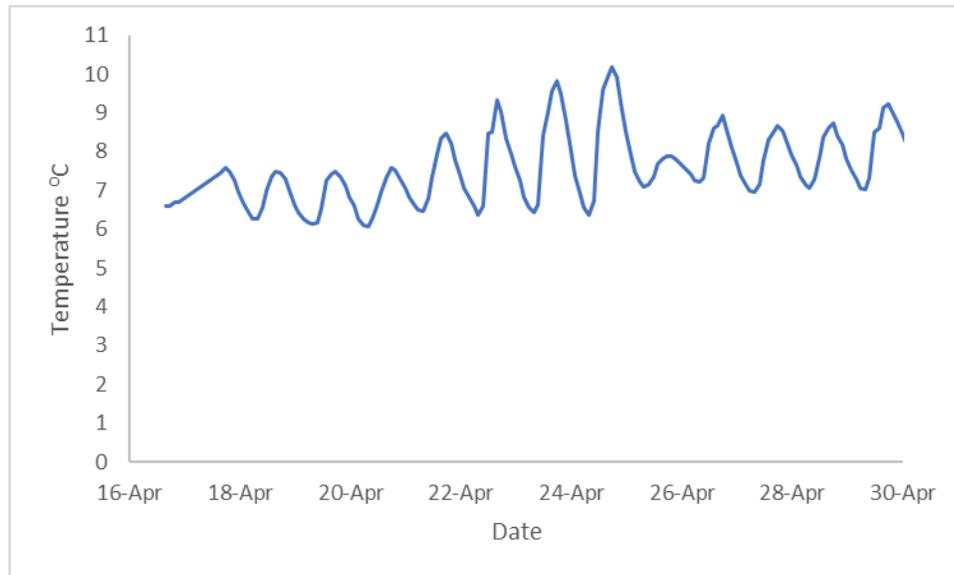
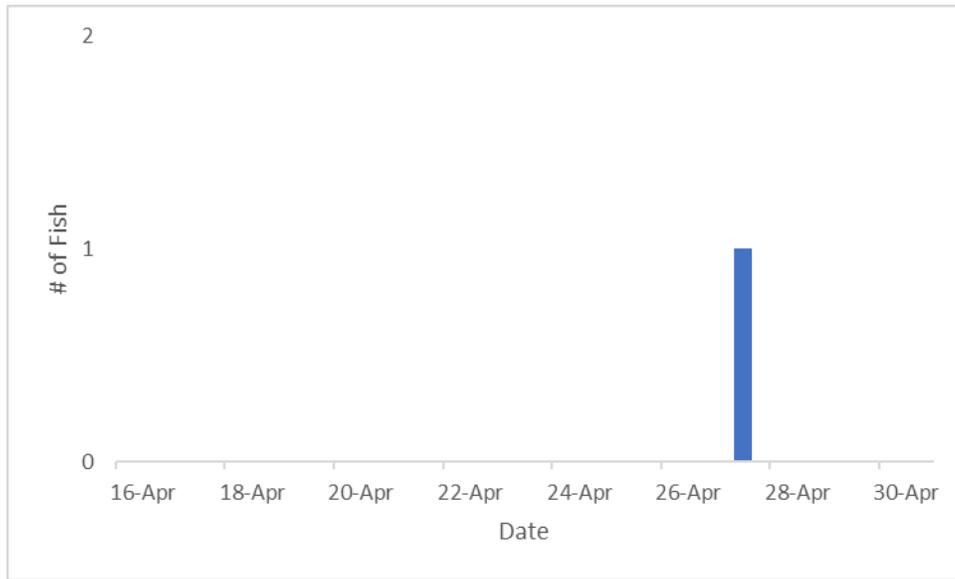


Figure 43. Temperature at RST (Fall Creek Head of Reservoir)

Middle Fork Willamette– Dexter Dam

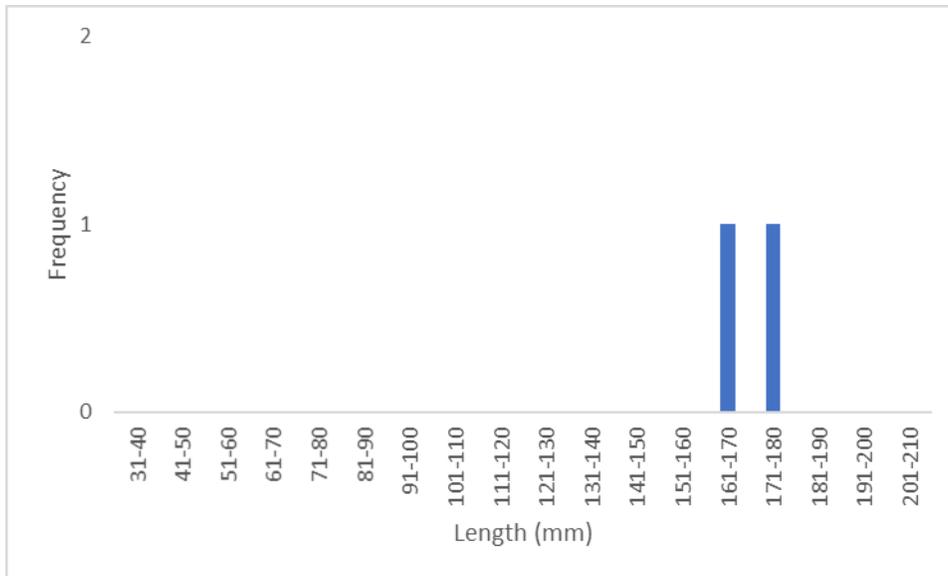
Target Species

This reporting period began on April 16 and ended on April 30. There was 1 Chinook salmon (CHS) captured during the 15-day sampling period (Figure 44). Sampling duration was 100% for the 5 ft RST. Table 32 provides life stage, length, and weight data for all Chinook salmon that have been caught at the Dexter Dam site to-date and for the reporting period. Figure 44 shows the daily capture numbers for Chinook and Figure 45 shows length frequency data to-date.



*Recaptured fish for trapping efficiency trials not included.

Figure 44. Chinook Captured Per Day 04/16/2022 to 04/30/2022 (Dexter Dam)



*Figure does not include fish without heads or fish used for trapping efficiency trials.

Figure 45. Length Frequency of Juvenile Chinook Sampled Season To-Date (Dexter Dam)

Table 32. Descriptive Statistics of Target Species Captured at the Dexter Dam RST Season To-Date

To-Date										
Site	Trap	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Dexter Dam	5 ft	CHS	Parr	0	0	0	0	0	0	0
		CHS	Smolt	2	170	179	174.5	53.9	61.4	57.7

April 16-30, 2022										
Site	Trap	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Dexter Dam	5 ft	CHS	Parr	0	0	0	0	0	0	0
		CHS	Smolt	1	170	170	170	53.9	53.9	53.9

*Fish that were missing heads are not included in length and weight calculations.

Trapping Efficiency

A total of 988 juvenile hatchery Chinook (parr) were bismark brown dyed, adipose clipped, upper caudal clipped and released on 03/23/2022 below Dexter Dam. Fish were released in small groups into different locations in the spillway flow to evaluate the traps efficiency capturing fish passing through spill. 2 fish were recaptured in the 5-foot RST for an efficiency of 0.2%.

Both fish recaptured were injured. Injuries were descaling and fin damage. Mt. Hood Environmental staff noted that fish appeared to be in good condition upon retrieval from the hatchery but did note some descaling and fin damage present as is common among hatchery fish of this age.

Dexter Dam	Release #	Recapture #	Capture Efficiency
Spill	988	2	0.2% (2/988)
Powerhouse	N/A	N/A	N/A

24-Hour Post Collection Holding Trial

The one Chinook captured was held for 24 hours. All fish survived holding (100%) during this reporting period.

Injuries and Copepod Infection

1 Chinook was captured during this reporting period. It displayed descaling less than 20%.

Table 33. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon for Sampling Period. (Dexter Dam).

Site	Route	# CHS Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Dexter Dam	PWR	1	1	0	0	0	0	0	0

*DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

Non-Target Species

A total of 66 non-target species fish were captured during the reporting period; the data is summarized below in Table 34. Dexter Fish Facility releases adipose clipped Chinook near our trapping site. Adipose clipped Chinook caught in our trap are being counted as non-target fish to provide better clarity on data concerning run of river Chinook. 3 sculpin captured during this period displayed gas bubble disease (1 level 2, 1 level 3, and 1 level 4).

Table 34. Summary of Non-target Species (Dexter Dam).

Species	Capture	Mortality	Season Total	Season Total Mortality
Bluegill	0	0	1	0
Brook Lamprey	0	0	0	0
Bullhead	0	0	0	0
Crappie	1	1	5	2
Longnose Dace	10	1	17	2
Speckled Dace	0	0	1	0
Kokanee	0	0	0	0
Red-Sided Shiner	0	0	0	0
Sculpin	41	2	134	5
Spotted Bass	0	0	0	0
Sucker	0	0	1	0

Whitefish	0	0	0	0
Cutthroat	2	0	2	0
<i>O. mykiss</i>	0	0	5	0
<i>O. mykiss</i> (clipped)	3	0	3	0
Chinook (AD Clipped)	9	0	14	0
Totals	66	4	183	9

Stream Statistics

Basic stream statistics at the Dexter Dam site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14149510. Gage height (feet) is the only metric provided at this gage. During the reporting period, daily maximum values for instantaneous gage height ranged from 637.0 feet to 638.5 feet (mean: 637.5 feet). Figure 46 shows instantaneous gage height.

Stream temperatures were recorded every two hours using a temperature probe at the Dexter Dam RST site during this reporting period. Temperature probes operated normally, and the data is shown below in figure 47.

Flows through the Powerhouse and Spill during the reporting period averaged 0 and 1,782.7 cubic feet per second (cfs) respectively (Figure 48). Catch per unit of effort (CPUE) data are summarized in Table 35. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 35. Summary of salmonid CPUE, Dexter Dam.

	Chinook
Description	8 ft
Catch	1
Effort (hrs)	377.7
CPUE (fish/hr)	0.003

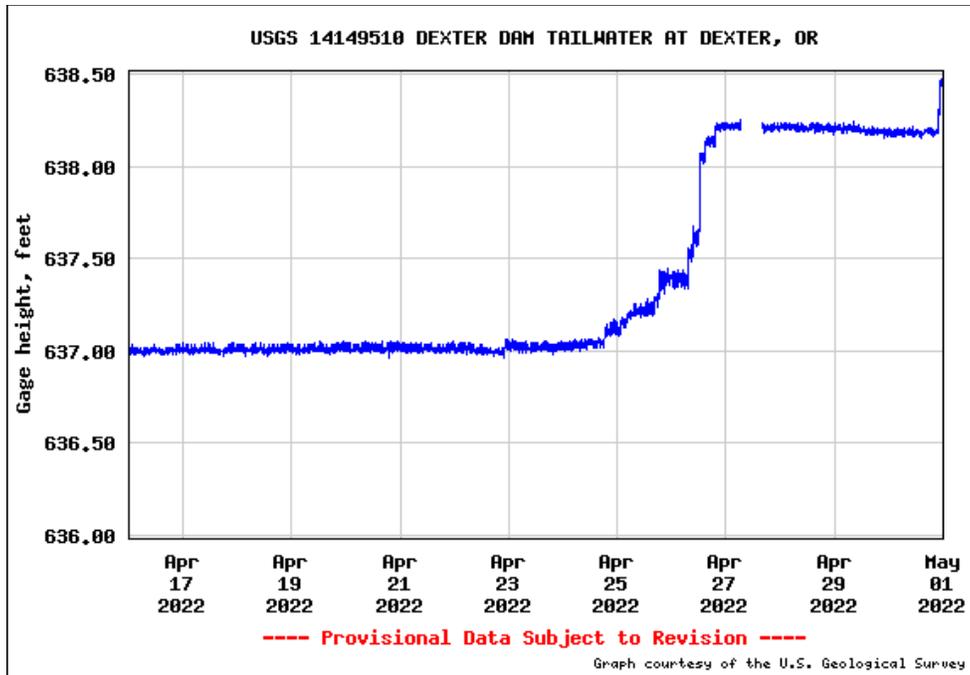


Figure 46. Gage Height (feet); below Dexter Dam, Middle Fork Willamette

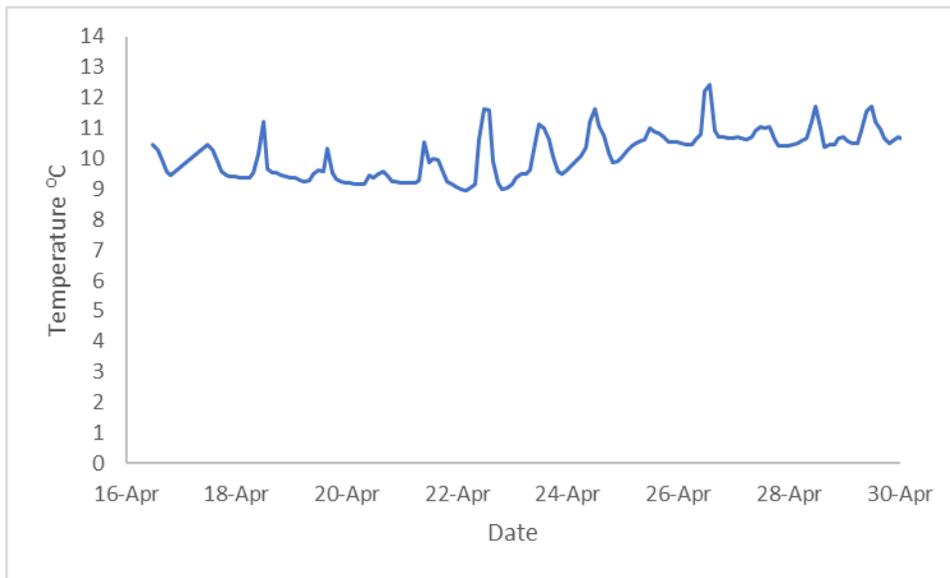


Figure 47. Temperature at RST (Dexter Dam)

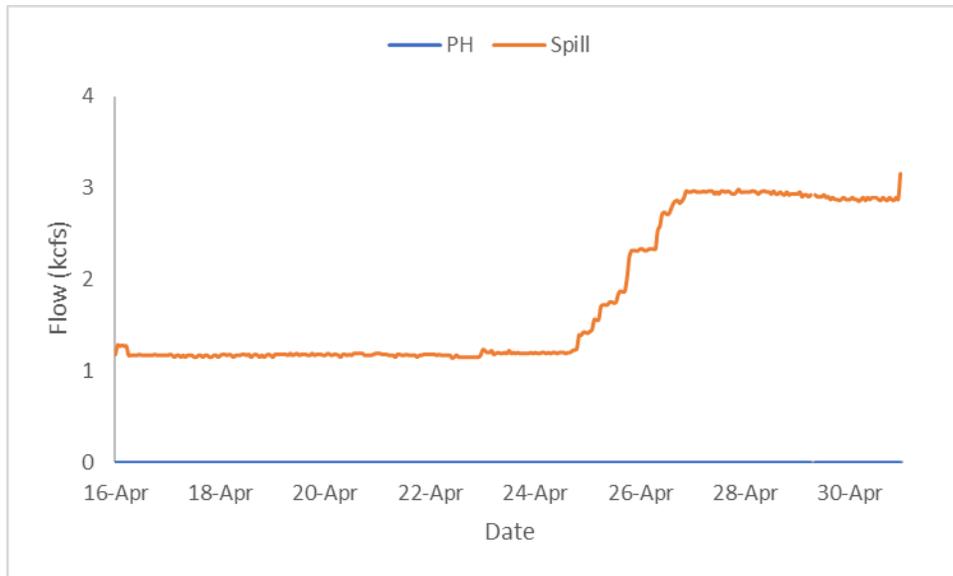


Figure 48. Hourly Flows PWR vs. Spill (Dexter Dam)

Middle Fork Willamette – Lookout Dam Tailrace

Target Species

The reporting period began April 16 and ended April 30. 2 Chinook salmon were captured during the 15-day sampling period (Figure 49). The traps were operated 100% of the reporting period. Table 36 provides life stage, length, and weight data for all Chinook salmon that have been caught at the Lookout Point Dam Tailrace site to-date and Figure 50 shows length frequency data to-date.

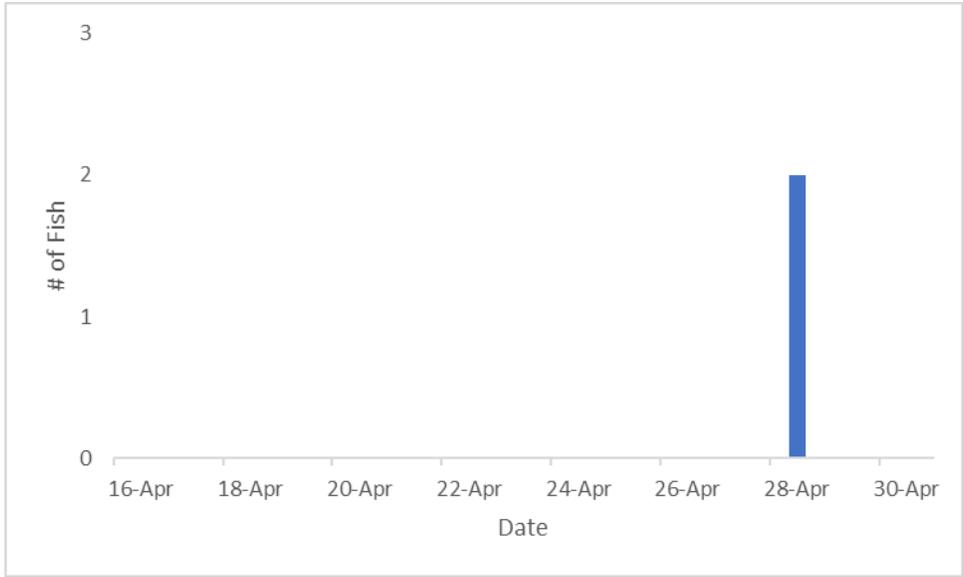


Figure 49. Chinook Captured Per Day 04/16/2022 to 04/30/2022 (Lookout Point Dam Tailrace)

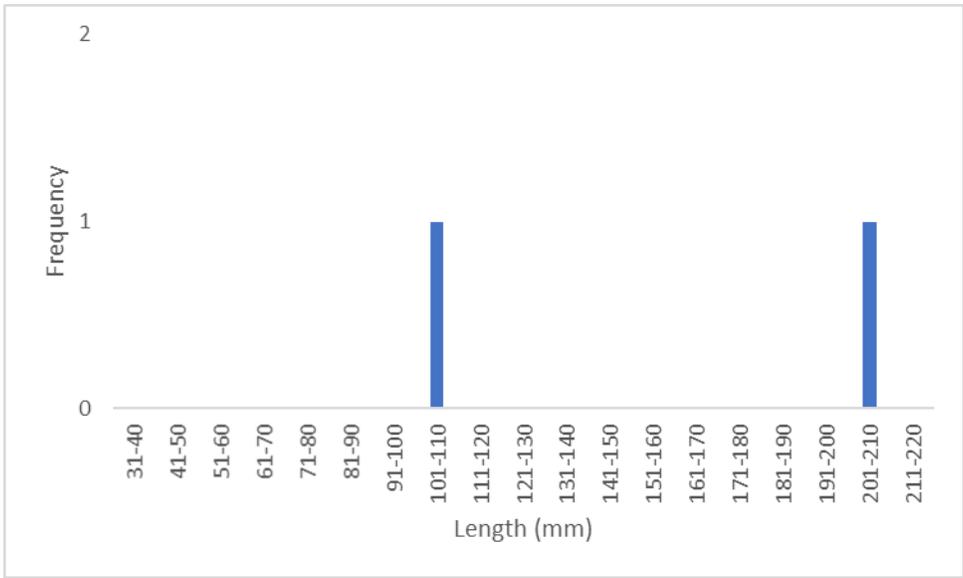


Figure 50. Length Frequency of Juvenile Chinook Sampled Season To-Date (Lookout Point Dam Tailrace)

Table 36. Descriptive Statistics of Target Species Captured at Lookout Point Dam Tailrace, Season To-Date and for the Reporting Period

To-Date										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Lookout Point Dam	PH 1	CHS	Smolt	1	210	210	210	108.9	108.9	108.9
		CHS	Parr	0	0	0	0	0	0	0
		CHS	Fry	0	0	0	0	0	0	0
	PH 2	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	0	0	0	0	0	0	0
		CHS	Fry	0	0	0	0	0	0	0
	Spill	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	1	104	104	104	13.5	13.5	13.5
		CHS	Fry	0	0	0	0	0	0	0

April 16-30, 2022										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Lookout Point Dam	PH 1	CHS	Smolt	1	210	210	210	108.9	108.9	108.9
		CHS	Parr	0	0	0	0	0	0	0
		CHS	Fry	0	0	0	0	0	0	0
	PH 2	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	0	0	0	0	0	0	0
		CHS	Fry	0	0	0	0	0	0	0
	Spill	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	1	104	104	104	13.5	13.5	13.5
		CHS	Fry	0	0	0	0	0	0	0

*Some fry are too small to accurately weigh and are omitted from the above tables.

24-Hour Post Collection Holding Trial

A total of 1 Chinook captured in the RSTs was held during this reporting period. The fish, captured in the spill trap, survived the hold.

Trapping Efficiency

A total of 1,013 juvenile hatchery Chinook (parr) were bismark brown dyed and adipose clipped, right ventral fin clipped and released on 04/13/2022 below Lookout Point Dam. Fish were released in small groups directly into powerhouse flow at 17:00 to 19:00. 2 fish were recaptured in the PH 1 RST for an efficiency of 0.2%. 1 Lookout Point Dam trap efficiency fish was captured downstream in the Dexter RST on 4/15/2022.

Mt. Hood Environmental staff noted that fish appeared to be in good condition upon retrieval from the hatchery but did note some descaling and fin damage present as is common among hatchery fish of this age.

Lookout Dam	Release #	Recapture #	Capture Efficiency
Powerhouse	1,013	2	0.2% (2/1,013)

Injuries and Copepod Infection

1 Chinook was captured in the Powerhouse channel RST. This fish exhibited descaling >20%, bodily injuries, eye injuries, and was dead. 1 Chinook was captured in the Spill RST and exhibited descaling >20%.

Table 37. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon for Sampling Period (Lookout Point Dam Tailrace).

Site	Route	# CHS Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Lookout Point Dam Tailrace	PWR	1	0	1	1	1	1	0	1
	Spill	1	0	1	0	0	0	0	0

*DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

Non-Target Species

9 non-target species were captured during the reporting period; the data is summarized below in Table 38.

Table 38. Summary of Non-target Species (Lookout Point Dam Tailrace).

Species	PWR Capture	PWR Mortality	Spill Capture	Spill Mortality	Season Total	Season Total Mortality
Bluegill	0	0	0	0	1	0
Lamprey	0	0	0	0	0	0

Bullhead	0	0	0	0	1	0
Bull Trout	0	0	0	0	0	0
Crappie	1	1	0	0	2	1
Cutthroat Trout	0	0	0	0	0	0
Longnose Dace	0	0	0	0	0	0
Red-Sided Shiner	0	0	0	0	0	0
Sculpin	0	0	1	0	1	0
Smallmouth Bass	3	1	0	0	37	10
Sucker	2	1	0	0	2	1
Whitefish	0	0	0	0	0	0
<i>O. mykiss</i>	0	0	0	0	0	0
Chinook (clipped)	1	0	1	0	2	0
Totals	7	3	2	0	46	12

Stream Statistics

Basic stream statistics at Lookout Dam Tailrace site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14149010. Gage height (feet) is the only metric provided at this gage. During the reporting period, daily maximum values for instantaneous gage height ranged from 691.6 feet to 694.1 feet (mean: 693.1 feet). Figure 51 shows instantaneous gage height.

Stream temperatures were recorded using both temperature probes and daily with handheld thermometers for the Lookout Dam Tailrace RST site during this reporting period. Temperature was taken during daily site visits and was used to formulate figure data for PWR and Spill until the 28th when probes were deployed (figures 52 and 53).

Flows through the Powerhouse and Spill during the reporting period averaged 445.4 and 1,248.9 cubic feet per second (cfs) respectively (Figure 54). On April 21 at 22:00, powerhouse flow ceased and spill began at 11:00 on April 22. Catch per unit of effort (CPUE) data are summarized in Table 39. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 39. Summary of Chinook CPUE at Lookout Point Dam Tailrace.

Description	Chinook		
	PH 1	PH 2	Spill
Catch	1	0	1
Effort (hrs)	361.3	361.2	362.9
CPUE (fish/hr)	0.003	0	0.003

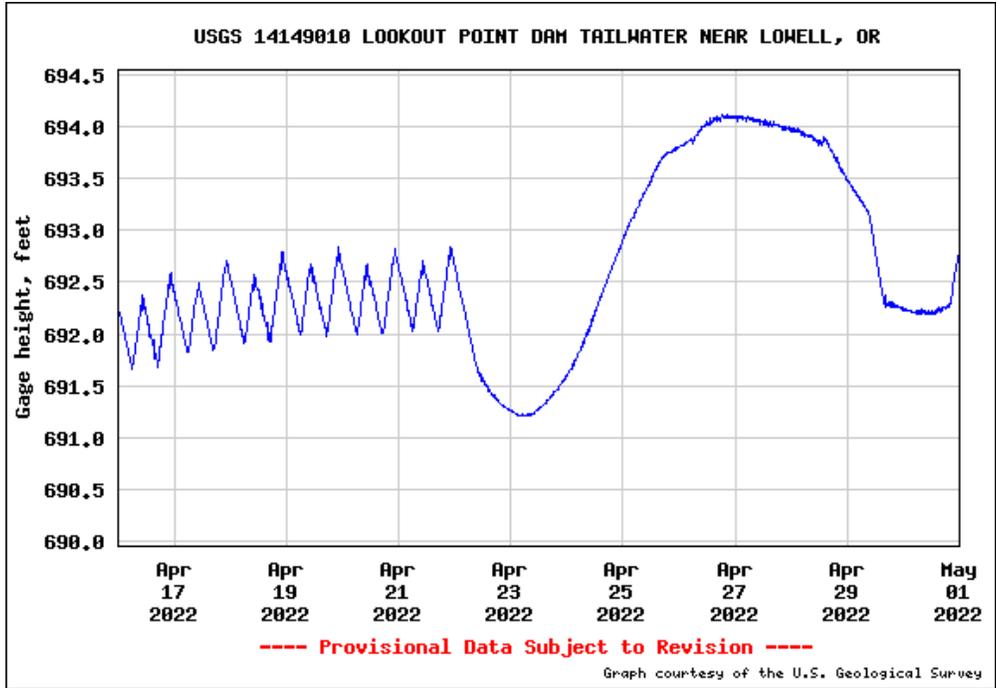


Figure 51. Gage Height (feet); below Lookout Dam

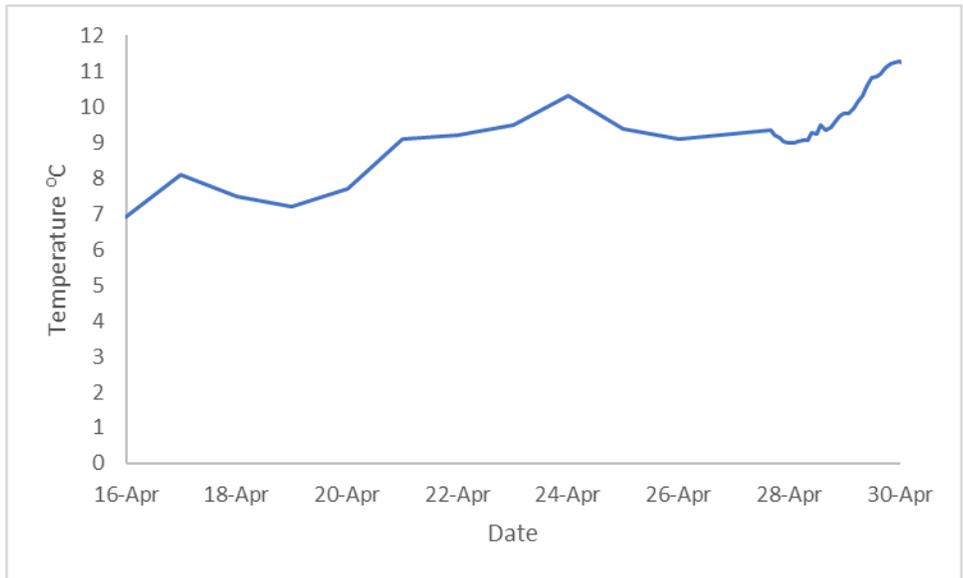


Figure 52. Temperature at RST (Lookout Dam PWR)

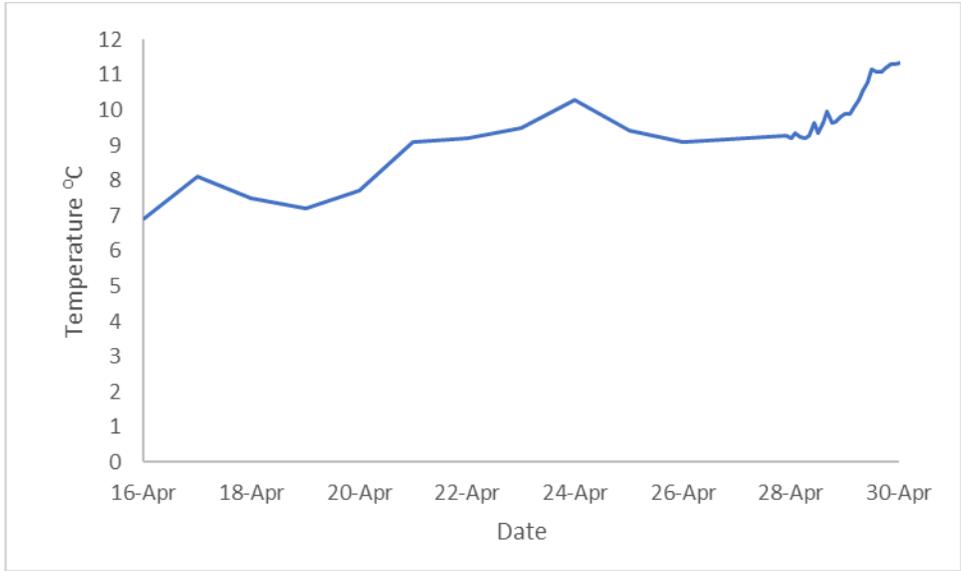


Figure 53. Temperature at RST (Lookout Dam Spill)

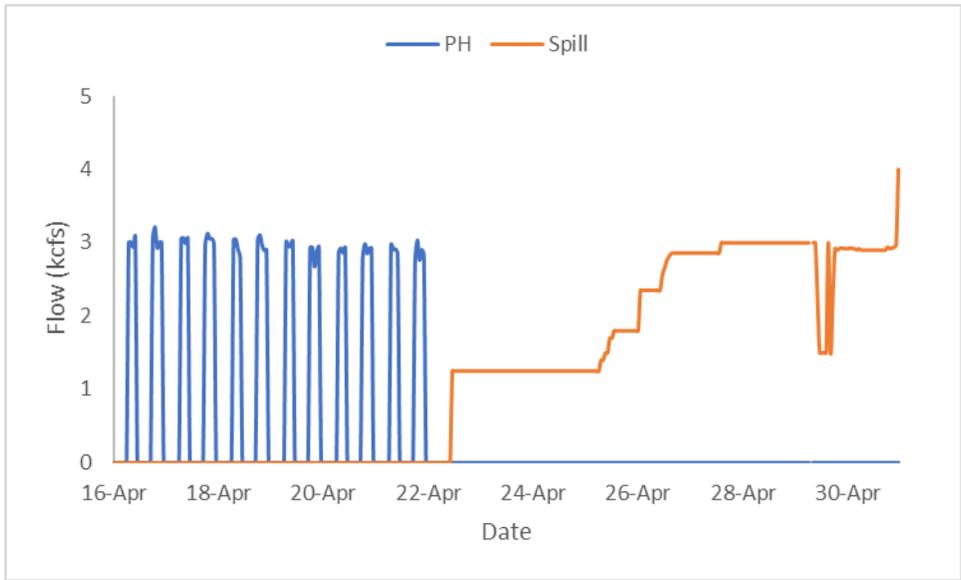


Figure 54. Hourly Flows PWR vs. Spill (Lookout Dam Tailrace)

Middle Fork Willamette – Lookout Point Head of Reservoir

Target Species

The reporting period began April 16 and ended April 30. 4 Chinook salmon were captured during the 15-day sampling period (Figure 55). The trap was operated 100% of the reporting period. Table 40 provides life stage, length, and weight data for all Chinook salmon that have been caught at the Middle Fork Willamette Above Lookout Point site to-date and Figure 56 shows length frequency data to-date.

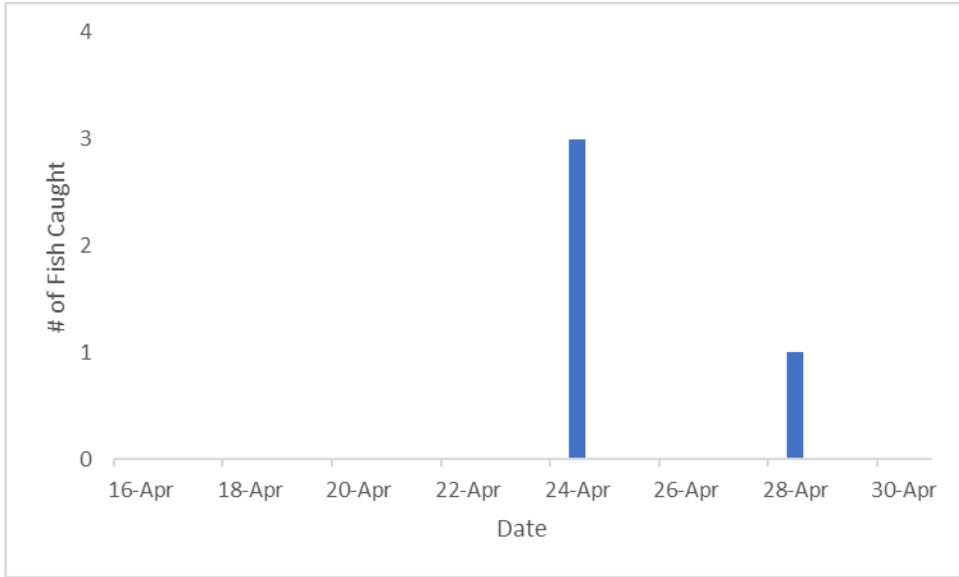


Figure 55. Chinook Captured Per Day 04/16/2022 to 04/30/2022 (Lookout Point Head of Reservoir)

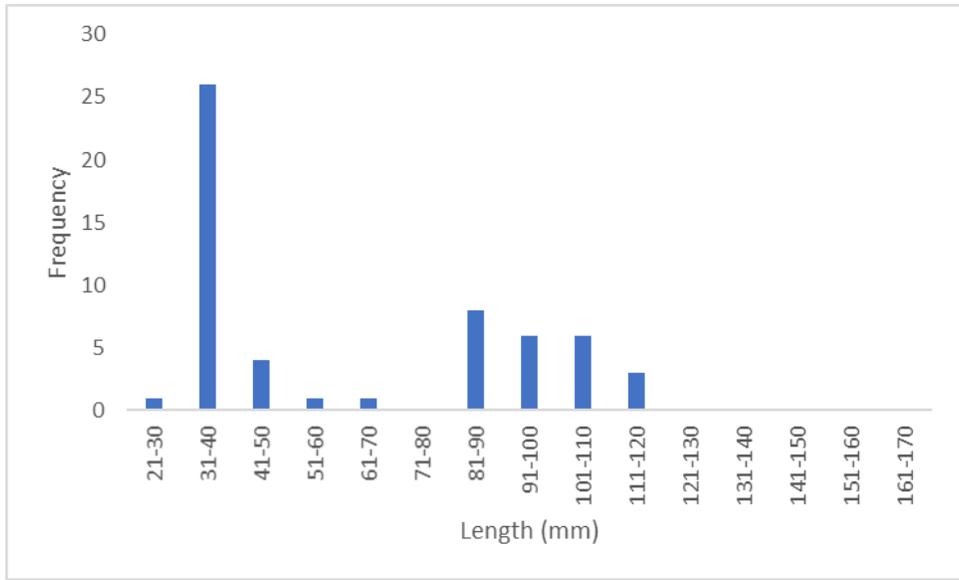


Figure 56. Length Frequency of Juvenile Chinook Sampled Season To-Date (Lookout Point Head of Reservoir)

Table 40. Descriptive Statistics of Target Species Captured at Lookout Point Head of Reservoir, Season To-Date and for the Reporting Period

To-Date										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Lookout Point Head of Reservoir	5 ft	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	25	51	115	94.2	1.5	119.8	8.8
		CHS	Fry	31	28	49	35.7	N/A	N/A	N/A

April 16-30, 2022										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Lookout Point Head of Reservoir	5 ft	CHS	Smolt	0	0	0	0	0	0	0
		CHS	Parr	4	51	112	84.5	1.5	19.8	9.5
		CHS	Fry	0	0	0	0	N/A	N/A	N/A

*Some fry are too small to accurately weigh and are omitted from the above tables.

Trapping Efficiency

Two trapping efficiency trials have been conducted to date, one on April 5th and one on April 14th.

A total of 993 juvenile hatchery Chinook (parr) were bismark brown dyed and adipose clipped and released on 04/05/2022 above the Lookout Point Head of Reservoir trap. Fish were released in small groups to evaluate the traps efficiency capturing fish migrating downstream. 53 fish were recaptured in the 5-foot RST for an efficiency of 5.3%.

A total of 989 juvenile hatchery Chinook (parr) were bismark brown dyed and adipose clipped and released on 04/14/2022 above the Lookout Point Head of Reservoir trap. Fish were released in small groups to evaluate the traps efficiency capturing fish migrating downstream. 19 fish were recaptured in the 5-foot RST for an efficiency of 1.9%.

Of the 53 fish recaptured from the April 5th release, 6 were dead and the rest were injured. Injuries were descaling and fin damage. Of the 19 fish recaptured from the April 14th release, all 19 were injured. Injuries were descaling and fin damage. Mt. Hood Environmental staff noted that fish appeared to be in good condition upon retrieval from the hatchery but did note some descaling and fin damage present as is common among hatchery fish of this age.

Lookout Point Head of Reservoir	Release #	Recapture #	Capture Efficiency
04/05/2022	993	53	5.3% (53/993)
04/14/2022	989	19	1.9% (19/989)

Injuries and Copepod Infection

Partial descaling <20% was observed on 4 of the 4 Chinook captured (100%). 0 Chinook displayed bodily injuries (0%) and 0 had eye injury. 0 Chinook had copepods present on its fins (0%). Injury data for the reporting period is shown in table 41. To date data can be found in Appendix A.

Table 41. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon for Sampling Period (Lookout Point Head of Reservoir).

Site	# CHS Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Lookout Point Head of Reservoir	4	4	0	0	0	0	0	0

*DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

Collected DNA and Scale Samples

Scales and DNA were collected for all four of the Chinook captured for the reporting period (100%).

Non-Target Species

4 non-target species were captured during the reporting period; the data is summarized below in Table 42.

Table 42. Summary of Non-target Species (Lookout Point Head of Reservoir).

Species	8ft Capture	8ft Mortality	Season Total	Season Total Mortality
Bluegill	0	0	1	0
Lamprey	0	0	0	0
Bullhead	0	0	0	0
Bull Trout	0	0	0	0
Crappie	0	0	0	0
Cutthroat Trout	0	0	5	0
Longnose Dace	2	0	3	0
Red-Sided Shiner	0	0	1	0
Sculpin	1	1	1	1
Smallmouth Bass	0	0	1	0
Sucker	0	0	4	0
Whitefish	0	0	0	0
<i>O. mykiss</i>	1	1	28	1
Totals	4	2	44	2

Stream Statistics

Basic stream statistics for the Lookout Point Head of Reservoir RST site were calculated from data downloaded from the U.S. Geological Survey stream gage number 14148000. During the reporting period, daily maximum values for instantaneous discharge ranged from 2,610.0 cfs to 4,410.0 cfs (mean: 3,225.3 cfs). Figure 57 shows instantaneous discharge.

Stream temperatures were recorded every two hours using a temperature probe at the Lookout Point Head of Reservoir RST site during this reporting period. The probe operated normally during this period. (Figure 58)

Flows into Lookout Point Reservoir averaged 3,072.1 cfs (Figure 59). Catch per unit of effort (CPUE) data are summarized in Table 43. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 43. Summary of Chinook CPUE at Lookout Point Head of Reservoir.

	Chinook
Description	5 ft
Catch	4
Effort (hrs)	359.1
CPUE (fish/hr)	0.011

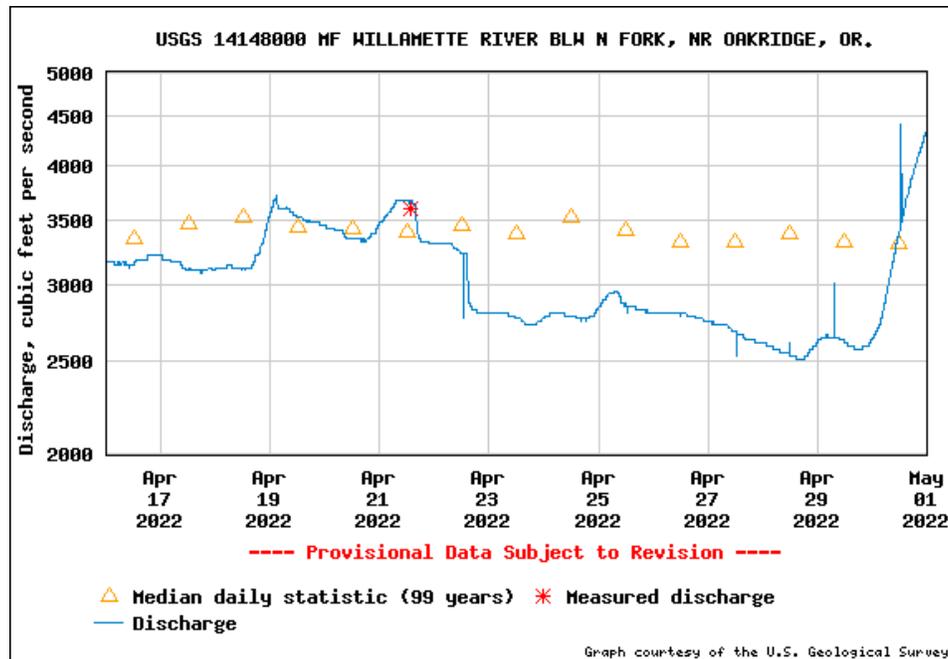


Figure 57. Discharge (cfs); above Lookout Point Reservoir, Below Oakridge, OR

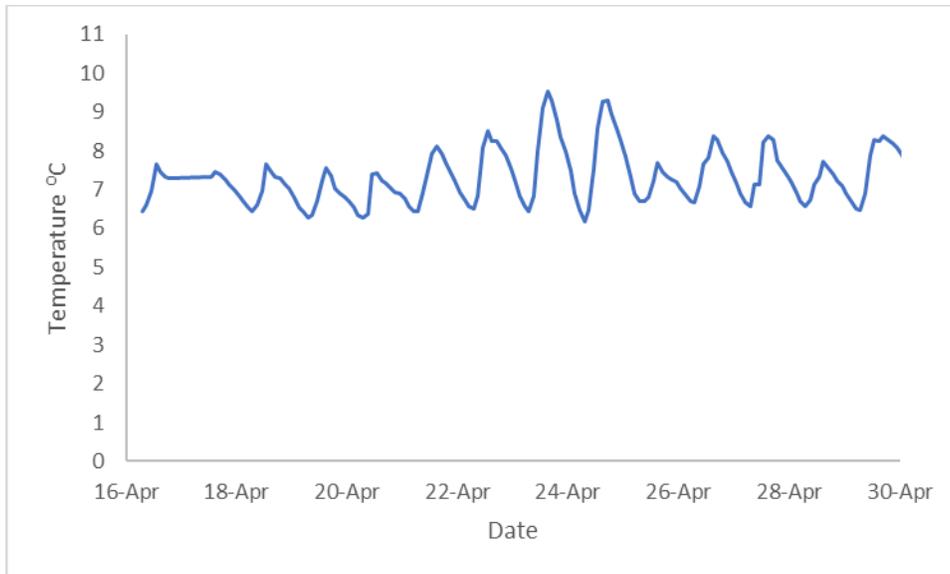


Figure 58. Temperature at RST (Lookout Point Head of Reservoir)

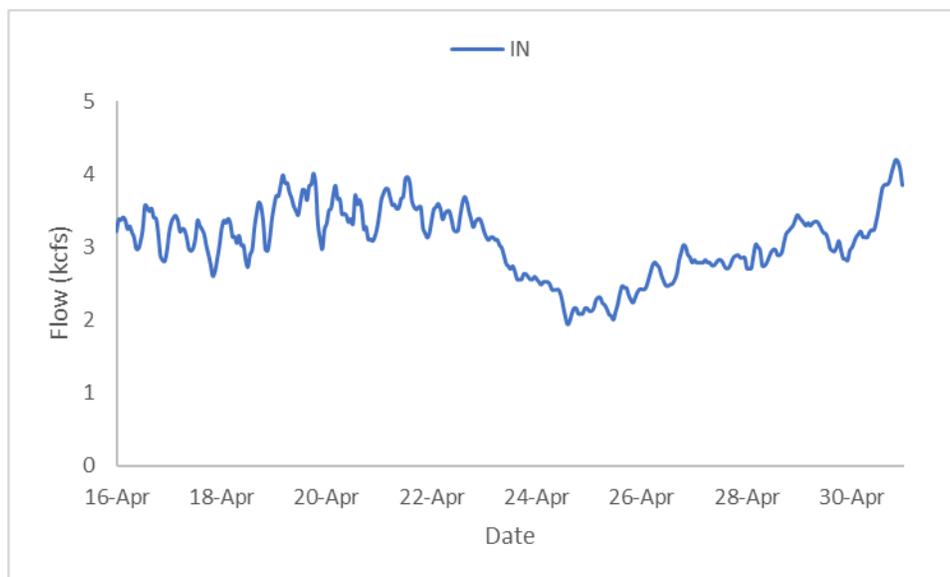


Figure 59. Hourly Flows (Lookout Point Head of Reservoir site)

Issues Encountered

A storm dropped several inches of snow in the Cougar Dam area on April 9th. In preparation for access restriction, we raised the cone at the Cougar Dam Head of Reservoir site until access to the trap was unrestricted. Trapping resumed April 22.

Upcoming USACE Support Services

None

Appendix A

Chinook (CHS)

		Injuries During Reporting Period (4-16-2022 to 4-30-2022)																					
Site/Trap/Life Stage	Total Fish	MJUNK	DS<2	BLO	EYB	FUN	BKD	COP	DS>2	PRD	FID	HBO	BO	HO	BVT	HBP	BRU	TEA	OPD	HIN	FVB	POP	GBD
Big Cliff Dam	244		136	1	34	1		216	80		##	3	8	1	13	3	26	11	30	19	14	4	4
8 ft	244		136	1	34	1		216	80		##	3	8	1	13	3	26	11	30	19	14	4	4
Parr	1							1								1							
Smolt	240		136	1	34	1		215	80		##	3	8		13	2	26	11	30	19	14	3	4
Unknown	1													1								1	
Fry	2																						
Foster Dam HOR	6		2																				
5 ft	6		2																				
Parr	3		1																				
Smolt	1		1																				
Fry	2																						
Cougar Dam	53		28		12		3	37	15		28	1			2		2	5	9	8	1	2	2
RO	47		24		12		3	33	15		25	1			2		2	5	7	7	1	2	2
Parr	11		6		1			9	2		7								1				1
Smolt	33		18		11		3	24	12		18	1			2		1	5	5	6	1	2	1
Fry	3								1								1			1	1		
PH	6		4					4			3								2	1			
Smolt	4		4					4			3								1	1			
Fry	2																		1				
Cougar Dam HOR	118																				2		
5 ft	118																				2		
Fry	118																				2		
Dexter Dam Tailrace	1		1																				
5 ft	1		1																				
Smolt	1		1																				
Lookout Point HOR	4		1																				
5 ft	4		1																				
Parr	4		1																				

Chinook (CHS)

		Injuries to-date																					
Site/Trap/Life Stage	Total Fish	MUNK	DS<2	BLO	EYB	FUN	BKD	COP	DS>2	PRD	FID	HBO	BO	HO	BVT	HBP	BRU	TEA	OPD	HIN	FVB	POP	GBD
Big Cliff Dam		351	185	1	45	2		309	101	1	176	4	8	1	19	5	35	13	42	28	14	5	4
8 ft		351	185	1	45	2		309	101	1	176	4	8	1	19	5	35	13	42	28	14	5	4
Parr		19	5			1		13	1		3					2			1				
Smolt		329	180	1	45	1		296	100	1	173	4	8		19	3	35	13	41	28	14	4	4
Unknown		1													1							1	
Fry		2																					
Foster Dam HOR		54	6		1						1												
5 ft		54	6		1						1												
Parr		4	2																				
Smolt		3	3								1												
Fry		47	1		1																		
Cougar Dam		818	1 335		65	2	3	329	80	2	173	2	3	2	12	1	21	15	43	27	13	4	11
RO		280	157		48	1	3	183	50	2	102	2			5	1	14	8	28	18	7	2	11
Parr		112	58		22			62	16		32				1		4	1	6	5			6
Smolt		155	99		25	1	3	121	33	2	70	2			4	1	9	7	21	12	7	2	5
Fry		13			1				1								1		1	1			
PH		538	1 178		17	1		146	30		71		3	2	7		7	7	15	9	6		2
Parr		214	120		10	1		85	14		44		1		4		2	2	5	3	4		
Smolt		90	58		5			61	14		23		2		3		3	1	7	4	2		
Fry		232	1		2				2		4						2	4	3	2			2
Unknown		2													2								
Cougar Dam HOR		329	21					3			7								3	2			
5 ft		329	21					3			7								3	2			
Parr		35	20					3			6												
Fry		294	1								1								3	2			
Fall Creek HOR		7	3					2			1												
8 ft		7	3					2			1												
Parr		2	2					1			1												
Smolt		5	1					1															
Dexter Dam Tailrace		2	2								1												
5 ft		2	2								1												
Smolt		2	2								1												
Lookout Dam Tailrace		2			1			1	2								1						
PH 1		1			1			1	1								1						
Smolt		1			1			1	1								1						
Spill		1							1														
Parr		1							1														
Lookout Point HOR		56	13					1			5						1						
5 ft		56	13					1			5						1						
Parr		25	13					1			5						1						
Fry		31																					

Steelhead (O. mykiss)

Injuries During Reporting Period (4-16-2022 to 4-30-2022)																							
Site/Trap/Life Stage	Total Fish	MUNK	DS<2	BLO	EYB	FUN	BKD	COP	DS>2	PRD	FID	HBO	BO	HO	BVT	HBP	BRU	TEA	OPD	HIN	FVB	POP	GBD
Big Cliff Dam	7		6					5	1		3						2		1	1			
8 ft	7		6					5	1		3						2		1	1			
Smolt	7		6					5	1		3						2		1	1			
Green Peter Tailrace -	6		3		1			1	2		4						4		1	1			5
8 ft	6		3		1			1	2		4						4		1	1			5
Smolt	6		3		1			1	2		4						4		1	1			5
Foster Dam HOR	36		10								5												
5 ft	36		10								5												
Parr	3		2								1												
Smolt	18		8								4												
Fry	15																						

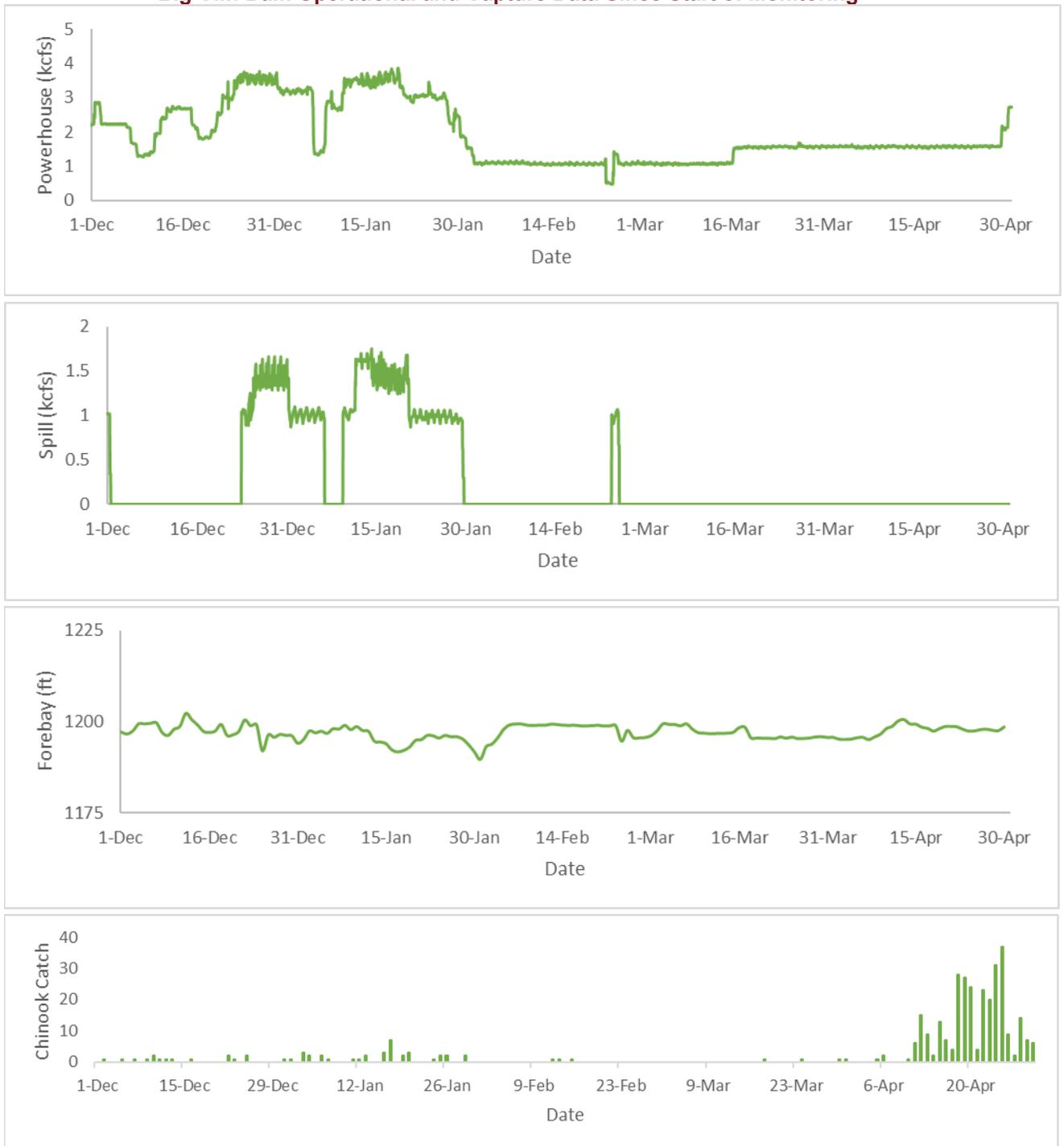
Steelhead (O. mykiss)

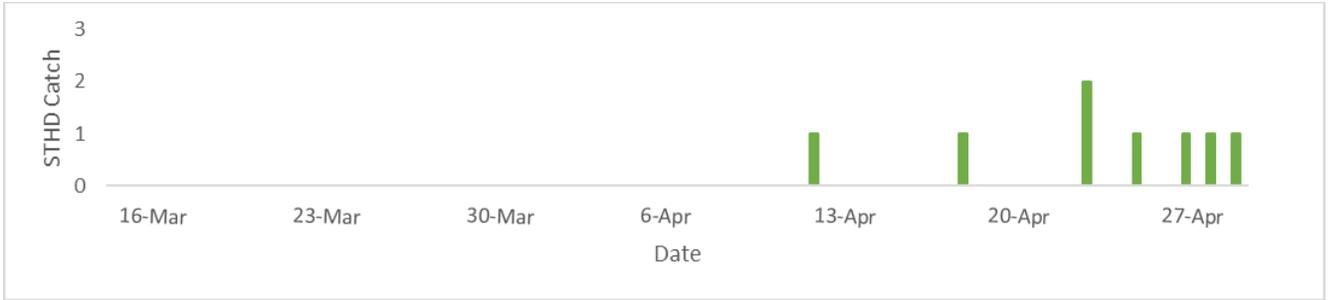
Injuries to-date																							
Site/Trap/Life Stage	Total Fish	MUNK	DS<2	BLO	EYB	FUN	BKD	COP	DS>2	PRD	FID	HBO	BO	HO	BVT	HBP	BRU	TEA	OPD	HIN	FVB	POP	GBD
Big Cliff Dam	8		6					6	2		4						2		2	2			
8 ft	8		6					6	2		4						2		2	2			
Smolt	8		6					6	2		4						2		2	2			
Green Peter Tailrace -	6		3		1			1	2		4						4		1	1			5
8 ft	6		3		1			1	2		4						4		1	1			5
Smolt	6		3		1			1	2		4						4		1	1			5
Foster Dam Head of R	71		22					1			8								1				
5 ft	71		22					1			8								1				
Parr	12		5					1			1												
Smolt	34		17								7							1					
Fry	25																						

Injury Code	Description of Injury/Condition
NXI	Live fish with no external injuries
MUNK	Mortality with no external injuries
DS<2	Descaling <20%
BLO	Bloated
EYB	Bloody Eye (hemorrhage)
BVT	Bleeding from Vent
FVB	Fin Blood Vessels Broken
GBD	Gas Bubble Disease (fin ray/eye inclusions)
POP	Pop Eye (eye popping out of head)
HIN	Head Injury
OPD	Opercle Damage
TEA	Body Injury (tears, scrapes, mechanical damage)
BRU	Bruising (any part of the body)
HBP	Hole Behind Pectoral Fin
DS>2	Descaling > 20%
HO	Head Only
BO	Body Only
HBO	Head Barely Connected
FID	Fin Damage
PRD	Predation Marks (vert. claw or teeth marks)
COP	Copepods (on gills or fins)
BKD	BKD (distended abdomen)
FUN	Fungus

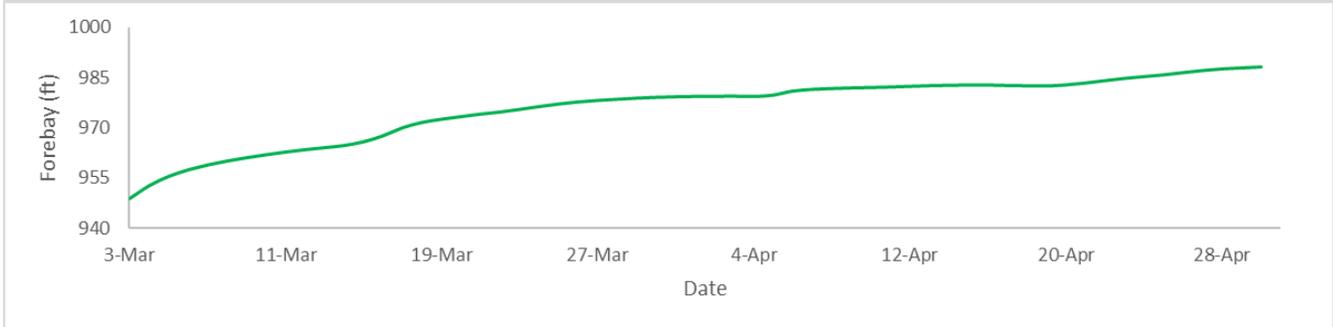
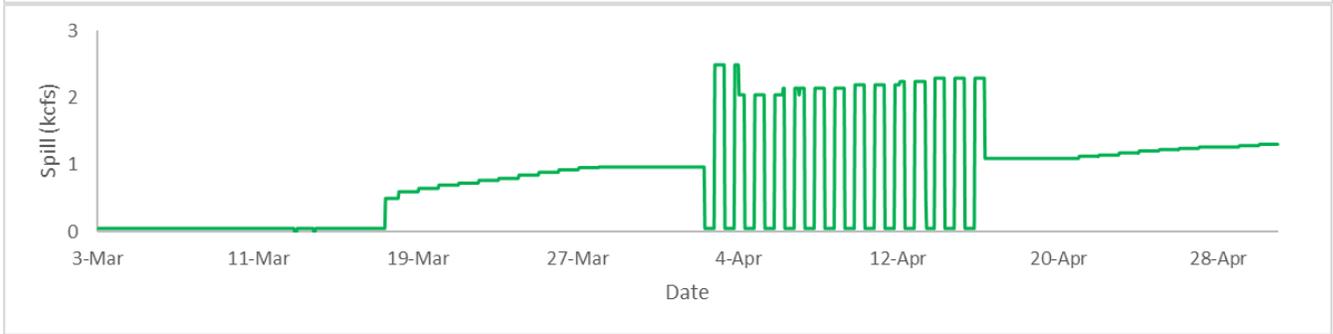
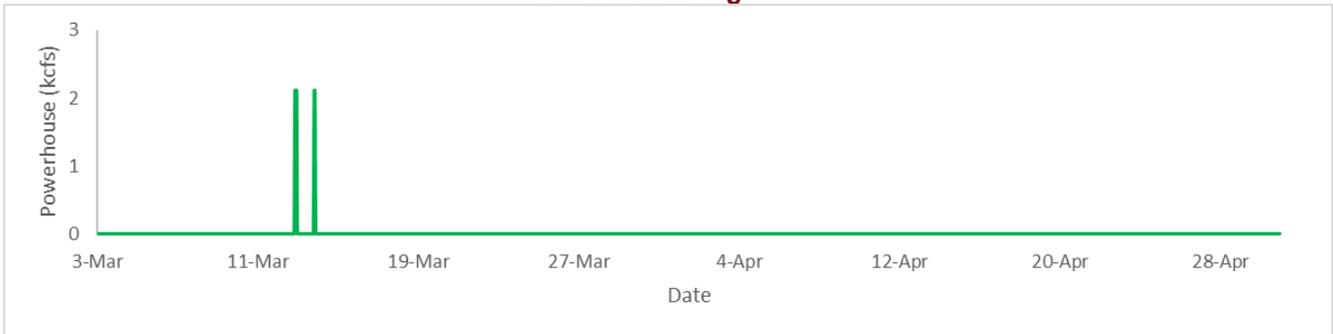
Appendix B

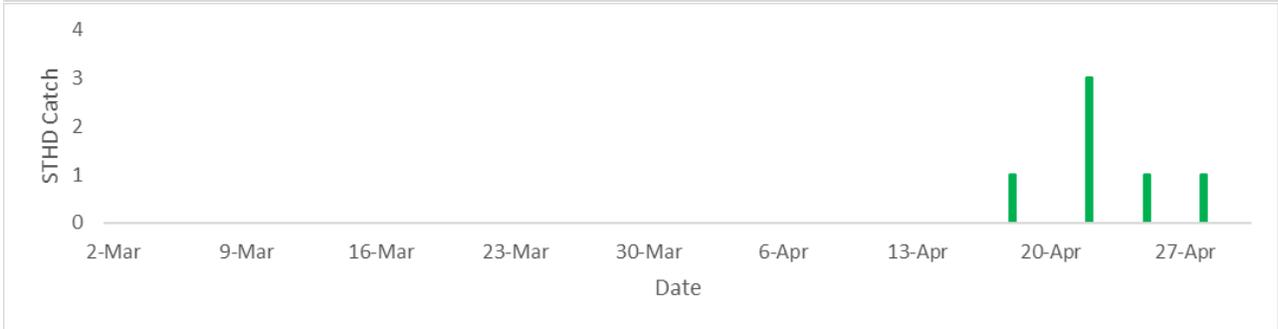
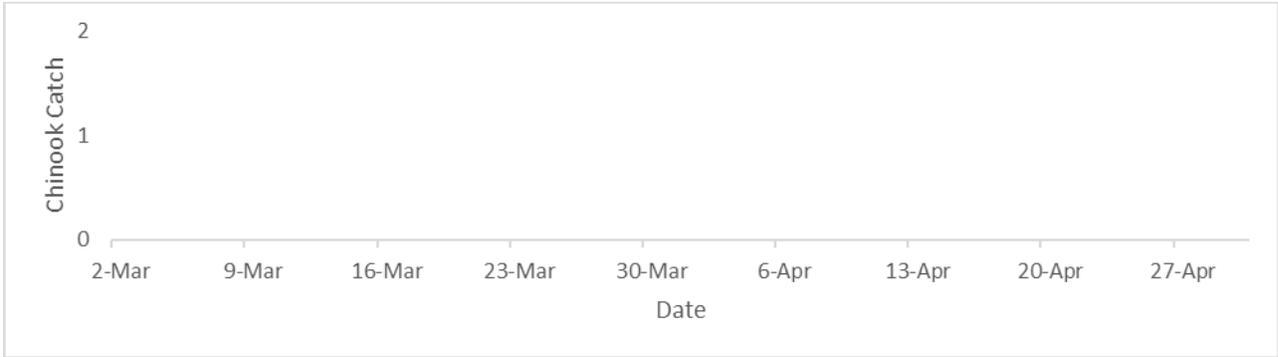
Big Cliff Dam Operational and Capture Data Since Start of Monitoring



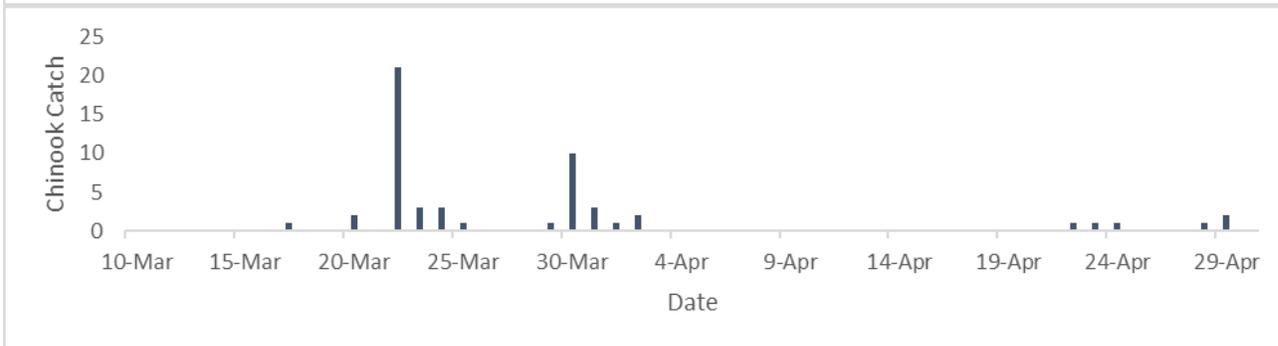
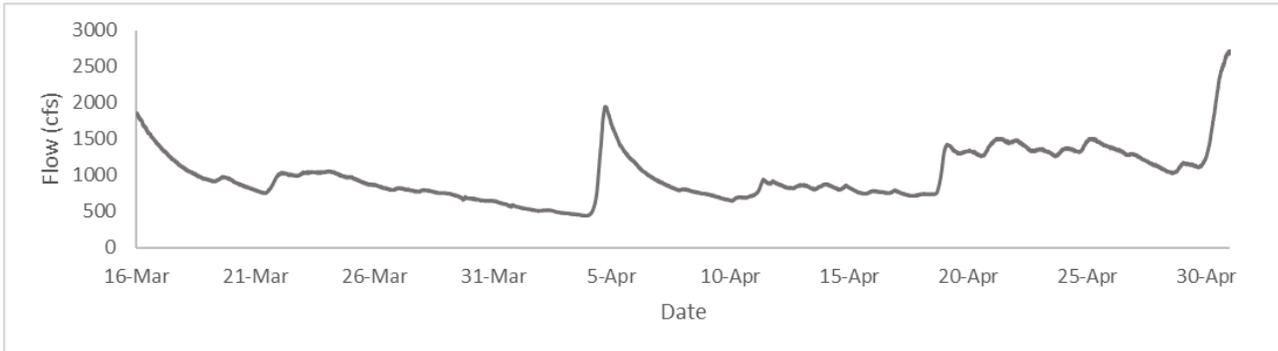


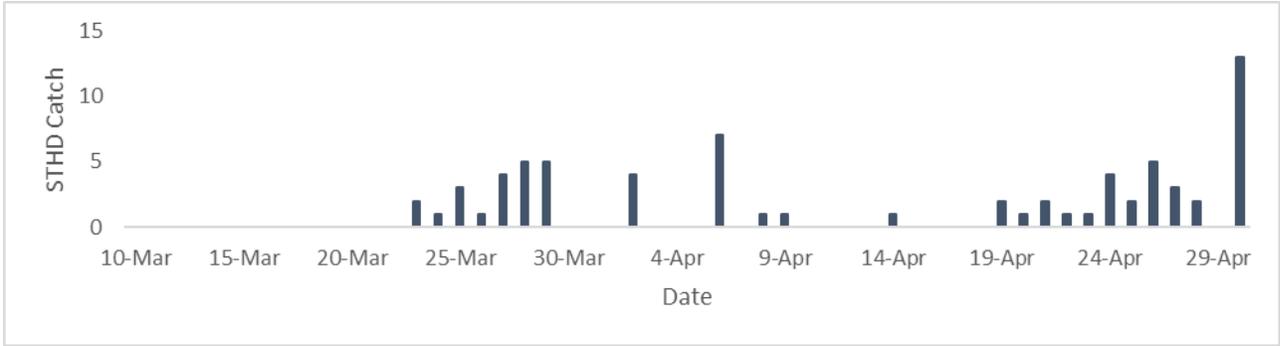
Green Peter Dam Operational and Green Peter Tailrace- Middle Santiam River Capture Data Since Start of Monitoring



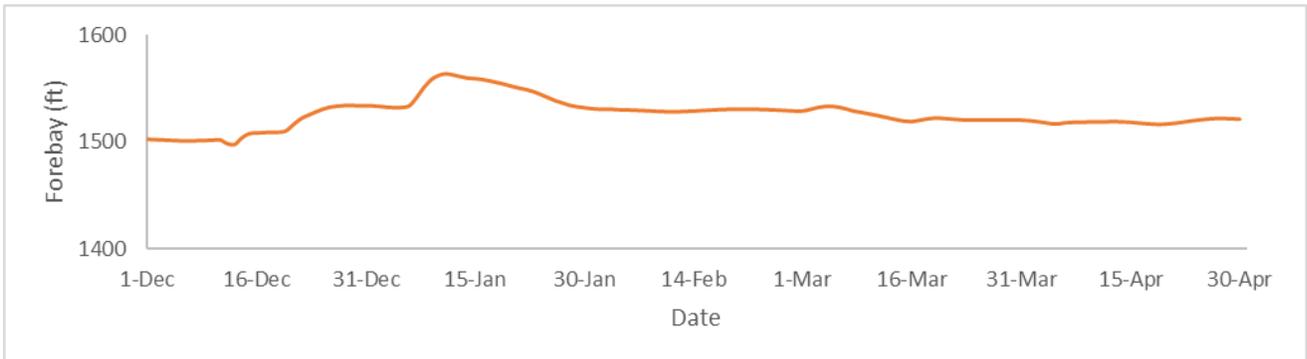
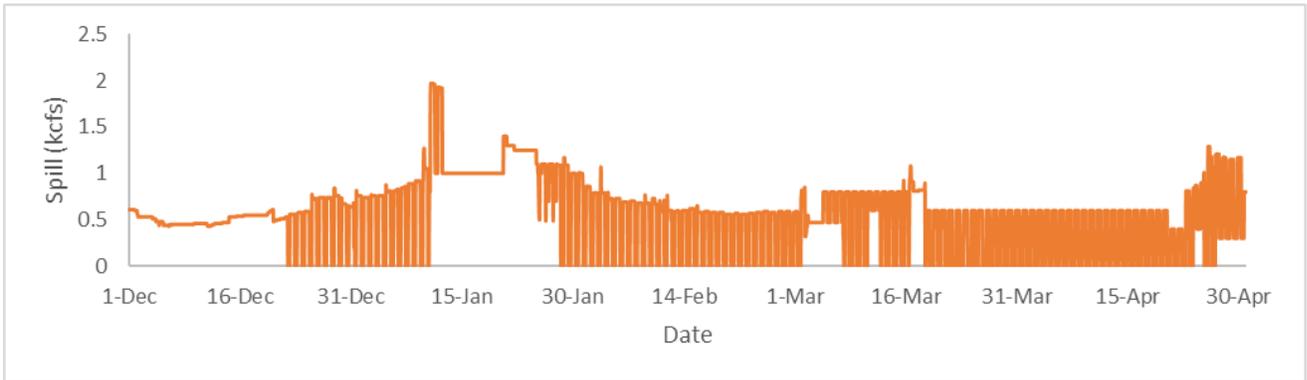
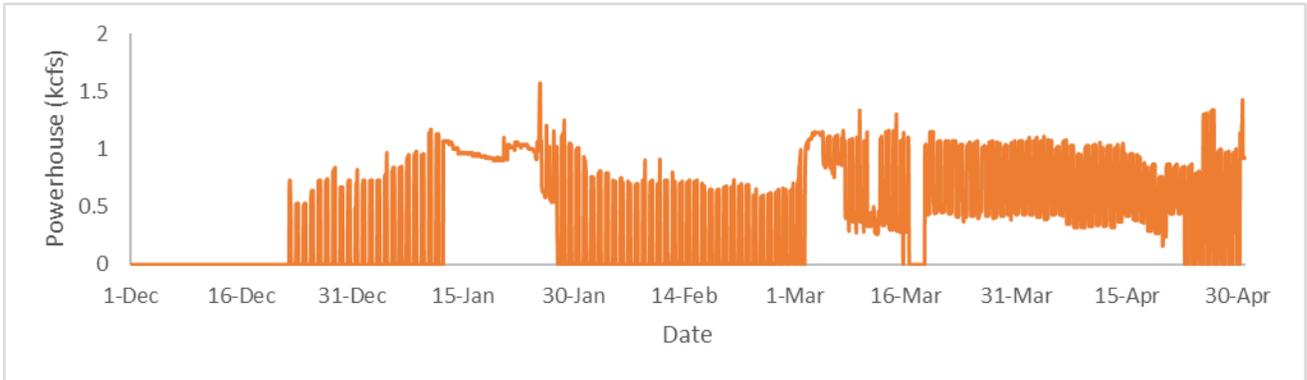


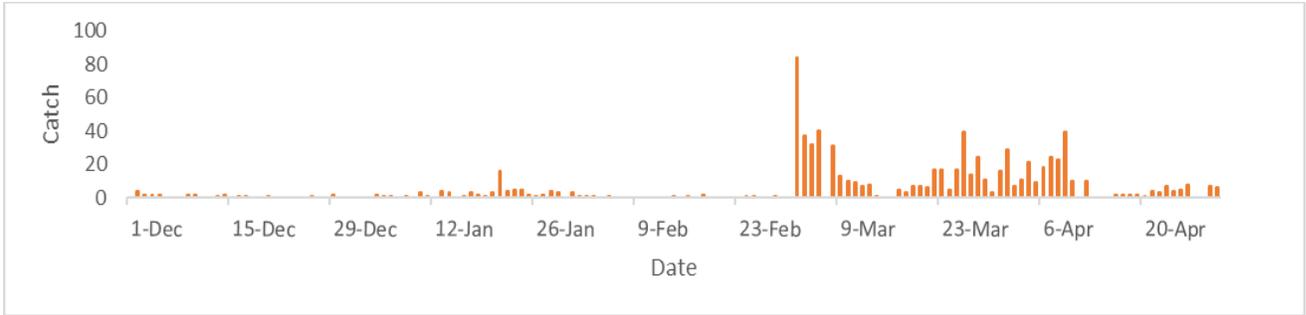
South Santiam River Above Foster Dam Discharge and Foster Dam Head of Reservoir Capture Data



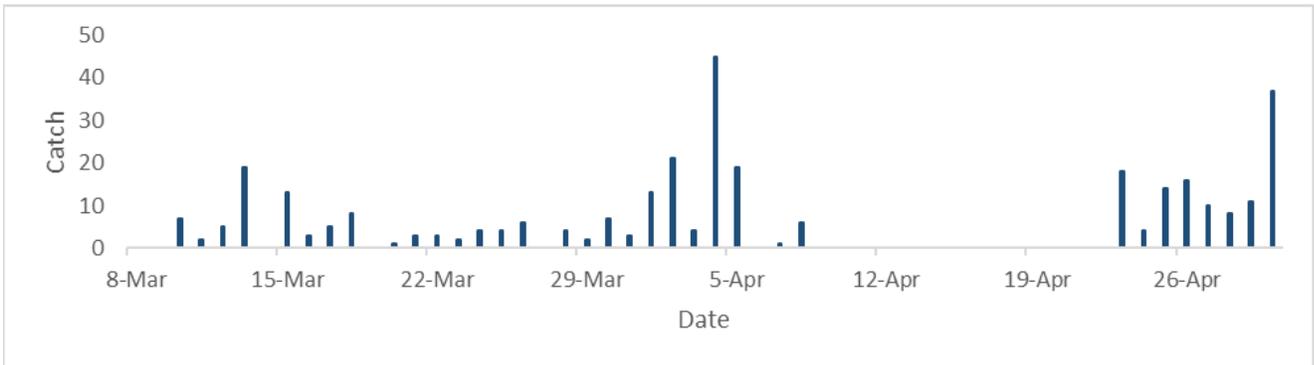
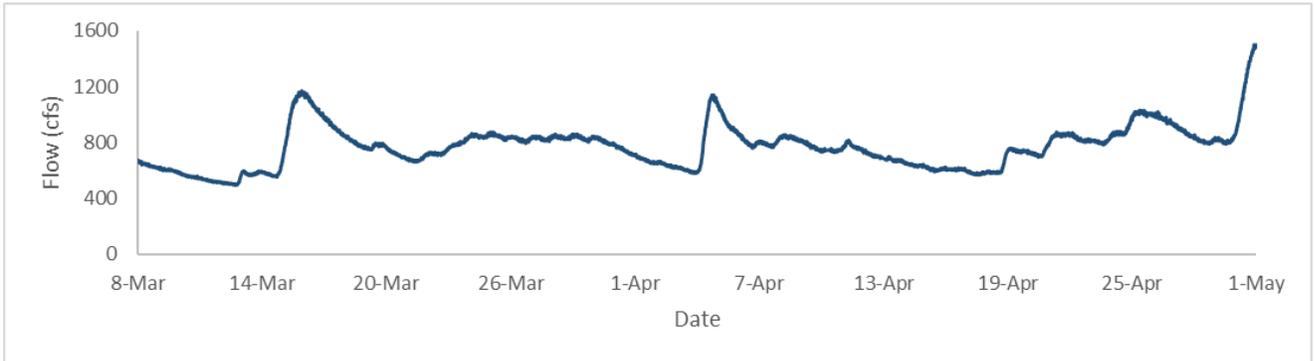


Cougar Dam Operational and Capture Data Since Start of Monitoring

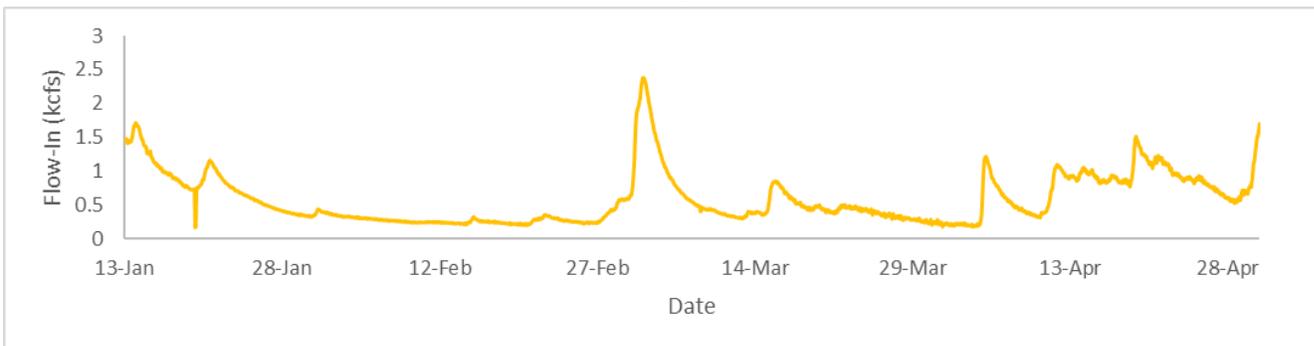


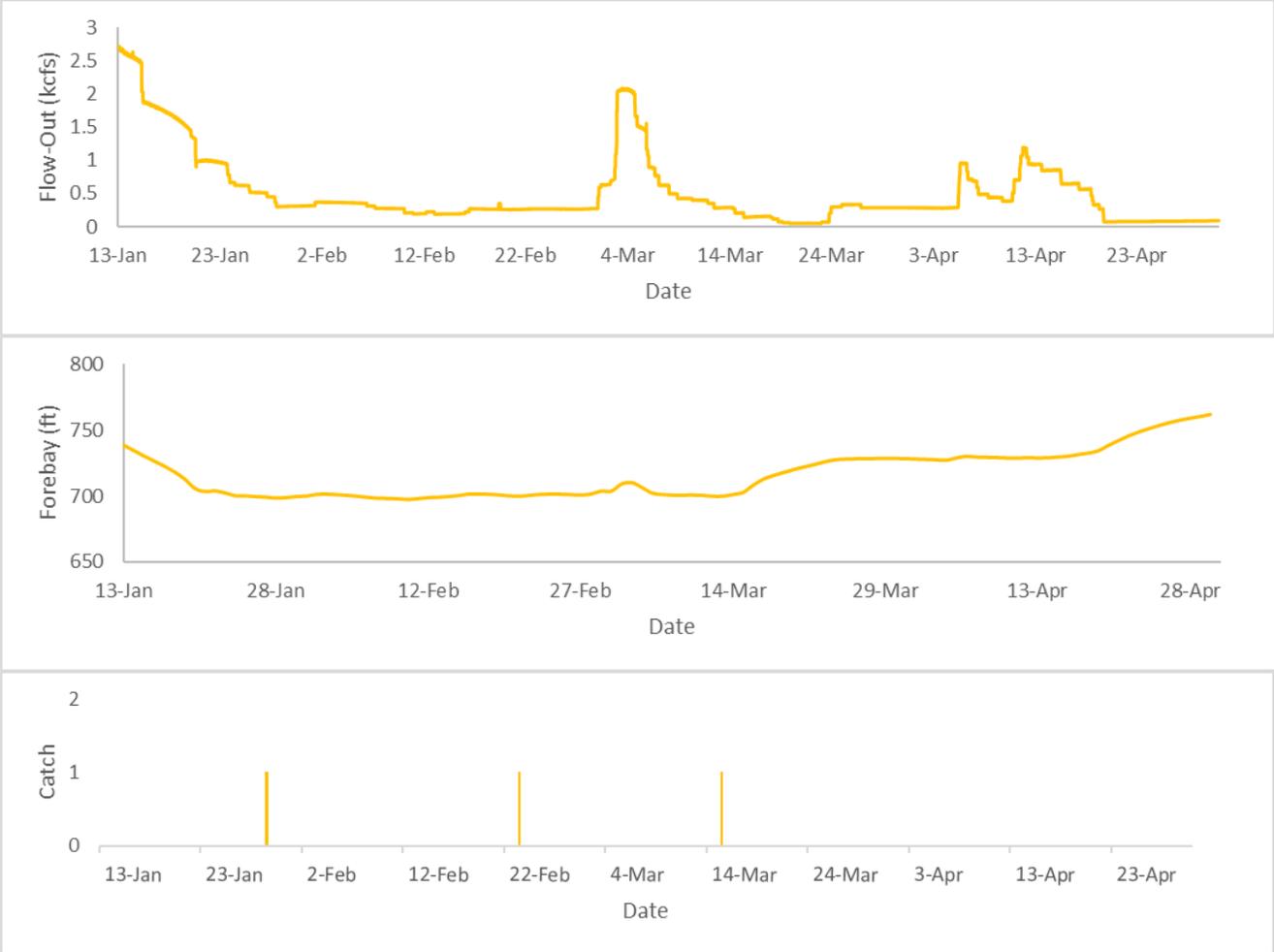


South Fork McKenzie above Cougar Dam Discharge and Cougar Dam Head of Reservoir Capture Data Since Start of Monitoring

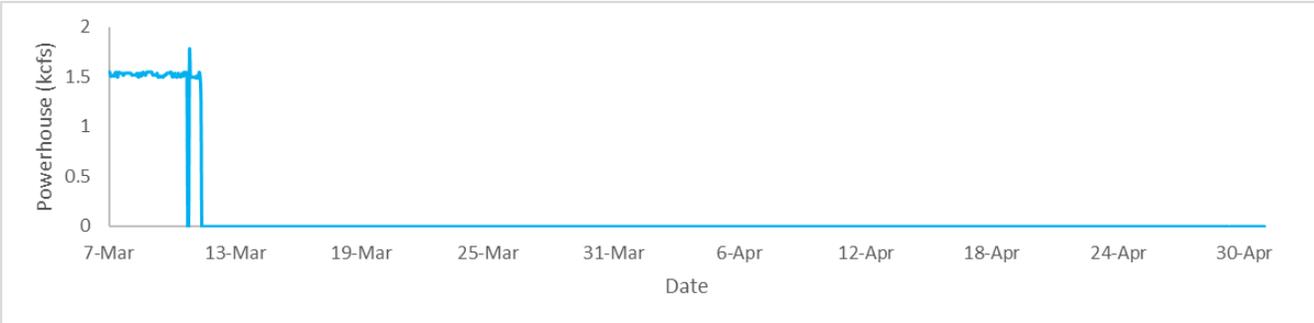


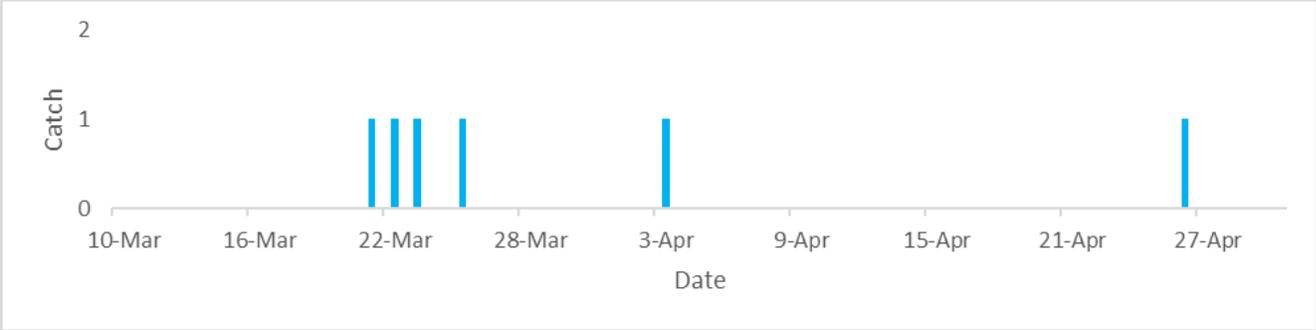
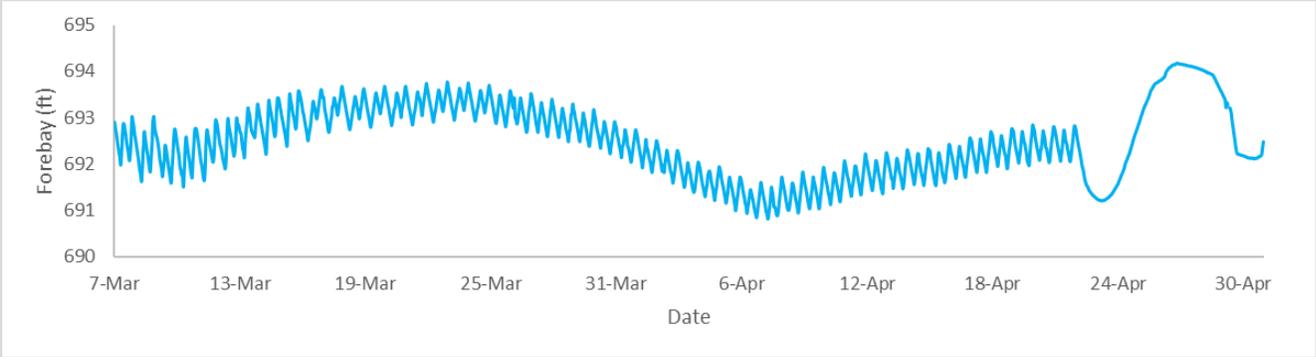
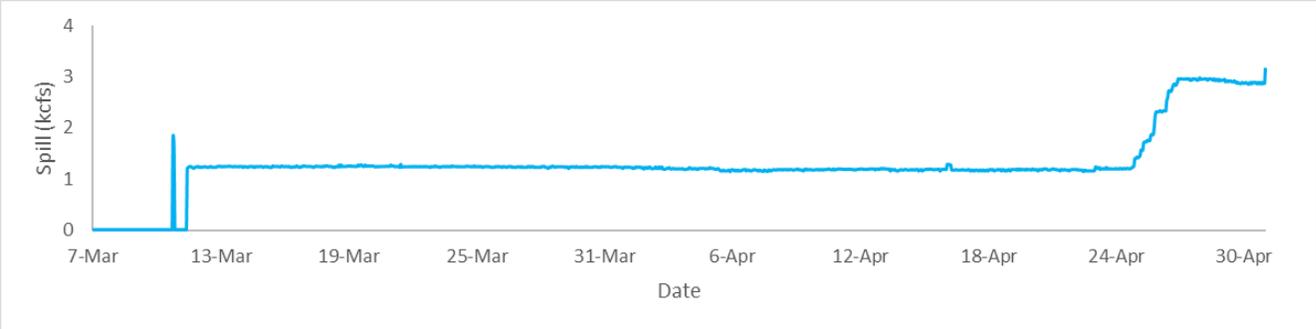
Fall Creek Dam Operational and Fall Creek Head of Reservoir Capture Data Since Start of Monitoring



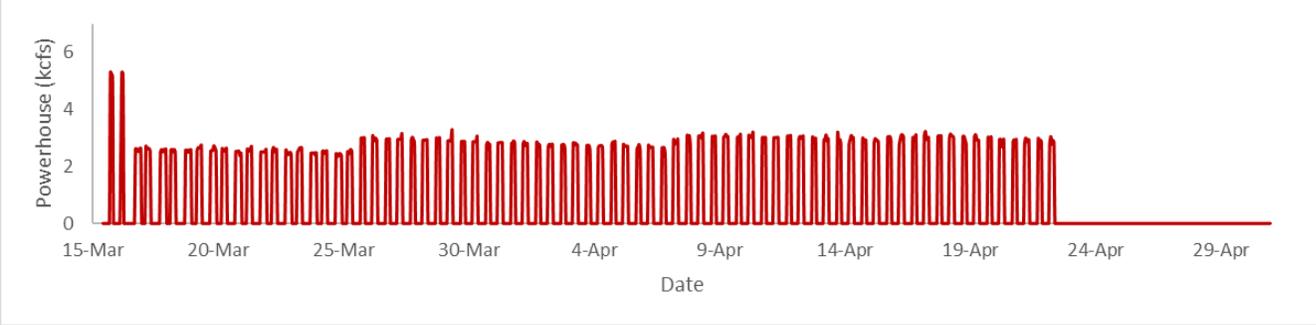


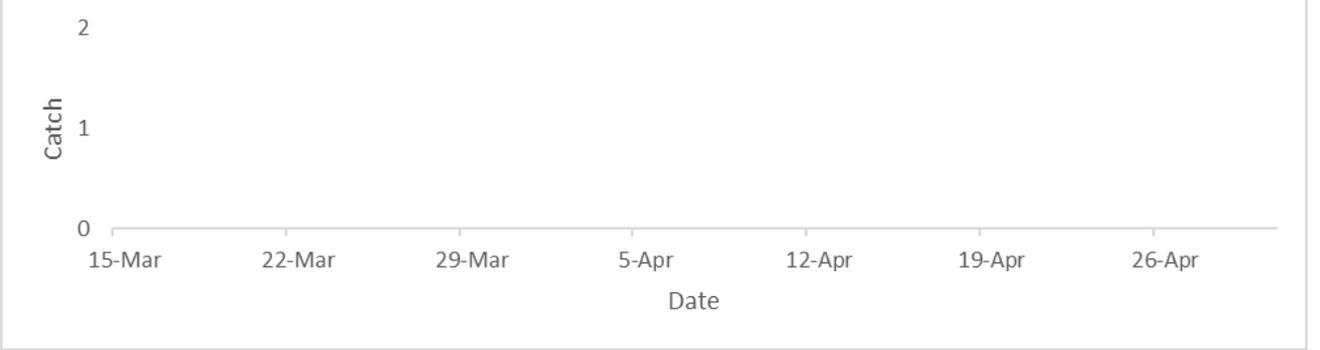
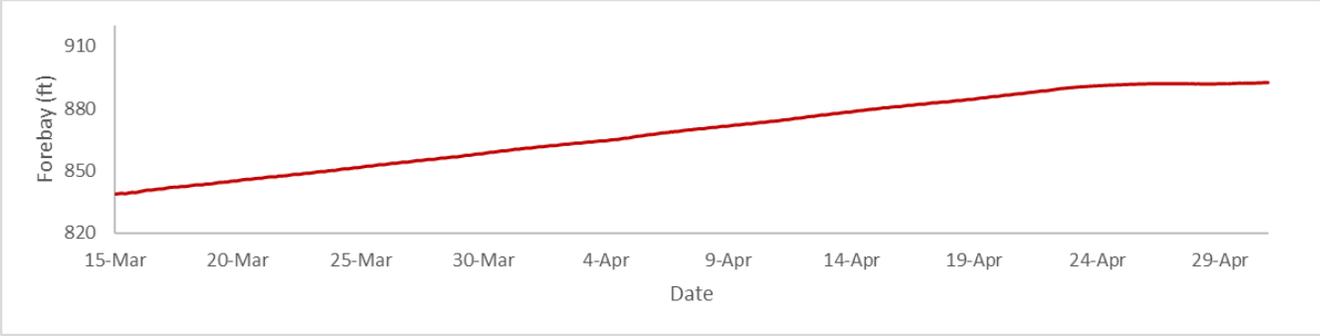
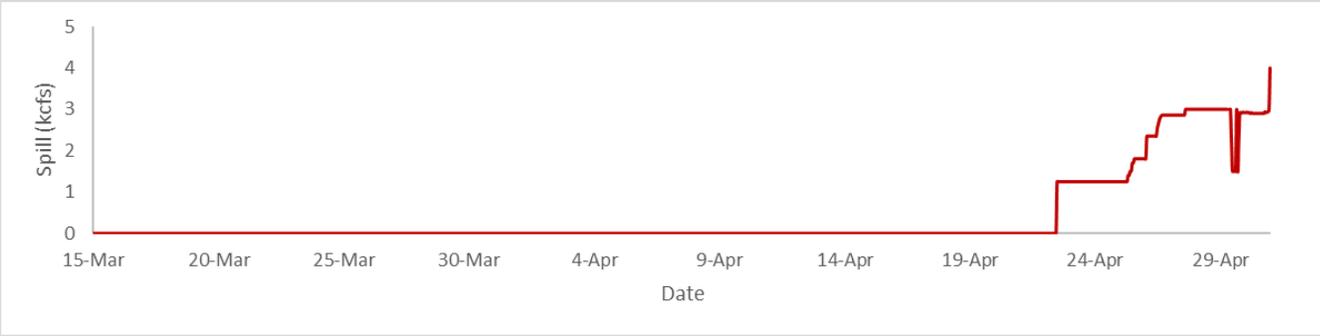
Dexter Dam Operational and Capture Data Since Start of Monitoring



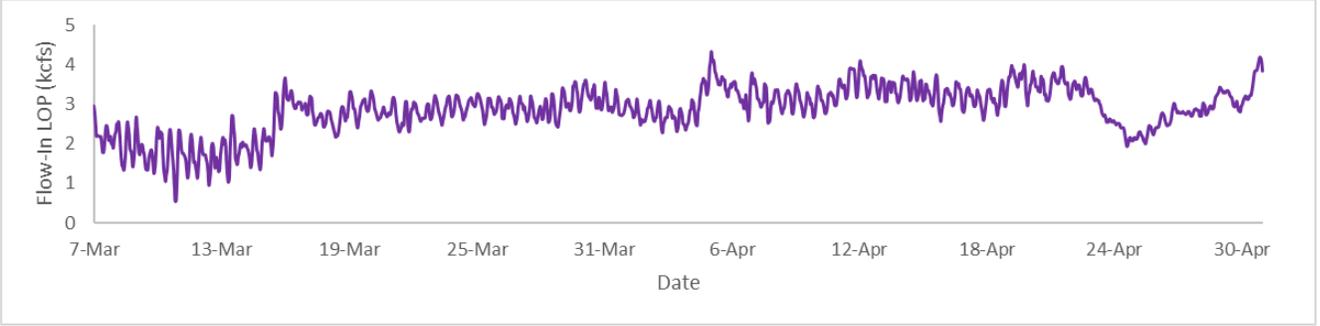


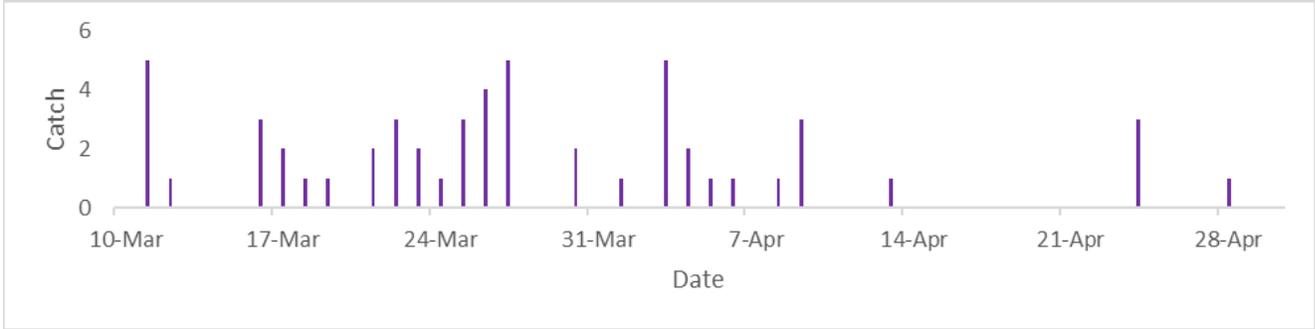
Lookout Dam Tailrace Operational and Capture Data



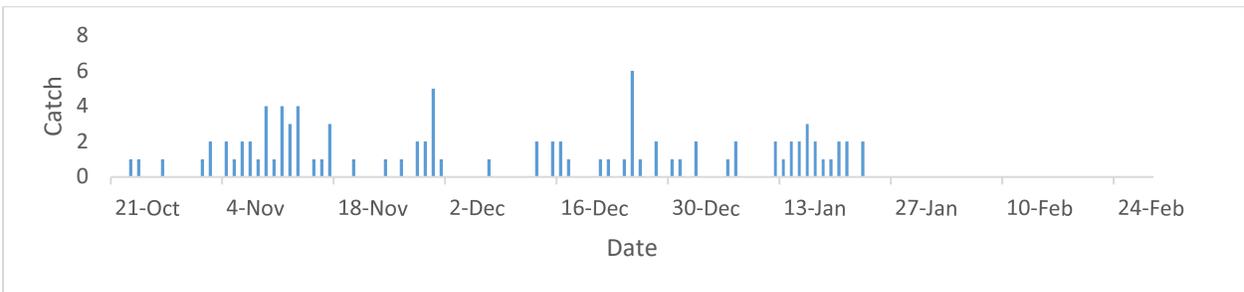
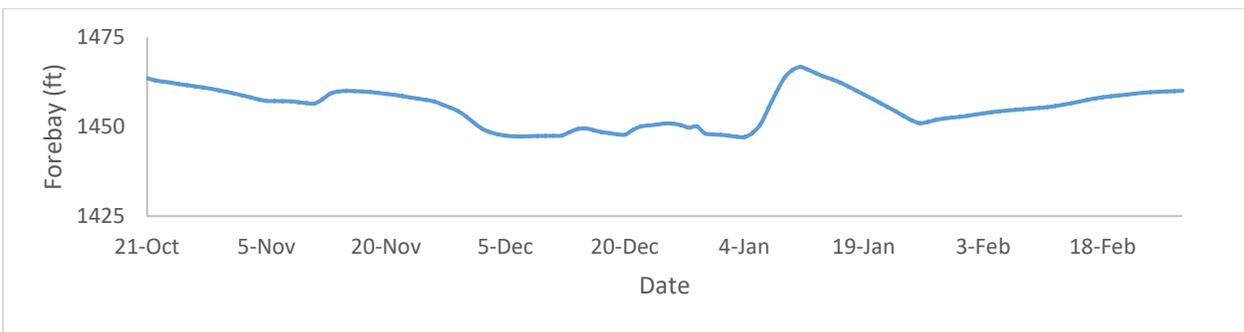
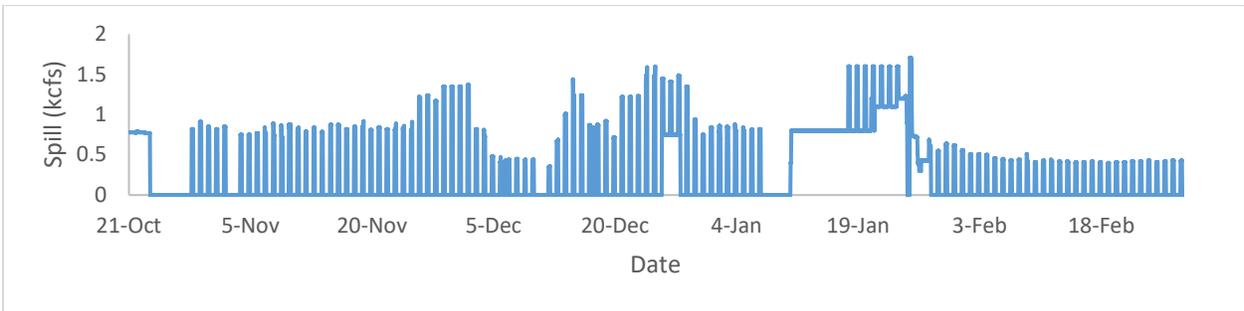
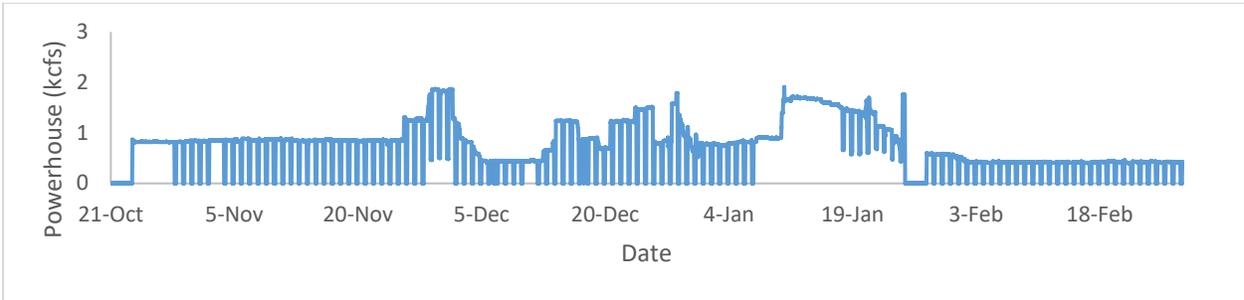


Lookout Point Head of Reservoir Operational and Capture Data Since Start of Monitoring





Hills Creek Dam Operational and Capture Data Since Start of Monitoring



Appendix C

Hills Creek Trapping Efficiency 1/6/2022

Hills Creek Dam	Release #	Recapture #	Capture Efficiency
PH Route	596	20	3.36% (20/596)
RO Trap	RO Route- 605	13	2.15% (13/605)
	PH Route- 592	5	0.84% (5/592)

*Live fish captured at the PH trap are released just downstream of the PH trap, upstream of the RO trap and therefore retained in the capture efficiency estimates for the RO Trap if they arrive in the lower trap.

*Any dead fish captured at the PH trap are excluded from the RO trap capture efficiency estimate as they are not alive at time of re-release.

Cougar Dam Trapping Efficiency (01/19/22)

Cougar Dam	Release #	Recapture #	Capture Efficiency
PH Route	405	40	9.88% (40/405)
RO Route	410	28	6.83% (28/410)

Appendix D

Summary of Project PIT Tagged Fish for Reporting Period

Site	Trap	# of PIT Tagged Fish
Big Cliff Dam	8 foot	161
Foster Dam Head of Reservoir- South Santiam	5 foot	25
Cougar Dam	PWR	4
Cougar Dam	RO	34
Green Peter Tailrace- Middle Santiam	8 foot	1
Dexter Dam Tailrace	5 foot	1
Lookout Point Head of Reservoir	5 foot	2
Lookout Dam Tailrace	Spill	1

Summary of ODFW PIT Tagged fish Encountered to Date

Site	Date	Trap	Species	PIT Tag #
Cougar Dam	4/7/2022	RO	Chinook	3DD.003BD59645
Cougar Dam	3/3/2022	PH	Chinook	3DD.003DA4DC74
Cougar Dam	3/4/2022	PH	Chinook	3DD.003E14CA70
Cougar Dam	3/4/2022	PH	Chinook	384.36F2B2C5D2
Cougar Dam	3/5/2022	PH	Chinook	3DD.003E14CC20
Cougar Dam	3/8/2022	PH	Chinook	3DD.003E14CD8D
Cougar Dam	3/6/2022	RO	Chinook	3DD.003E14C9D6
Cougar Dam	1/8/2022	RO	Chinook	3DD.0077780789
Cougar Dam	1/14/2022	RO	Chinook	384.36F2B2C55F

Summary of PIT Tagged and Radio Tagged fish Encountered for Reporting Period

Site	Date	Trap	Species	Pit Tag #
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC85E
Green Peter Tailrace- Middle Santiam River	4/20/2022	8 ft	Chinook	3DD.003BD55AB7
Green Peter Tailrace- Middle Santiam River	4/20/2022	8 ft	Chinook	3DD.003BD55C54
Green Peter Tailrace- Middle Santiam River	4/22/2022	8 ft	Chinook	3DD.003BD55B02

List of Project PIT Tagged Fish for Reporting Period with site, tagging date, trap, species, and PIT Tag #

Site	Date	Trap	Species	Pit Tag #
Big Cliff Dam	4/16/2022	8 ft	Chinook	3DD.003E1BC891
Big Cliff Dam	4/16/2022	8 ft	Chinook	3DD.003E1BC878
Big Cliff Dam	4/16/2022	8 ft	Chinook	3DD.003E1BC874
Big Cliff Dam	4/16/2022	8 ft	Chinook	3DD.003E1BC89D
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC765
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC75E
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC74A
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC750
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC745
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC72E
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC76A
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC749
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC74B
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC758
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC766
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC75D
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC771
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC731
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC775
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC77A
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC75C
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC72C
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003E1BC73C
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003BD94A49
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003BD94A80
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003BD94A62
Big Cliff Dam	4/18/2022	8 ft	Chinook	3DD.003BD94A92
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC84B
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC8A3
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC87B
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC8A1

Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC888
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC875
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC884
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC892
Big Cliff Dam	4/19/2022	8 ft	O. mykiss	3DD.003E1BC881
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC883
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC86A
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC896
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC854
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC87C
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC863
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC886
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC86E
Big Cliff Dam	4/19/2022	8 ft	Chinook	3DD.003E1BC850
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC890
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC89B
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC87D
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC860
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC862
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC85C
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC85B
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC877
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC84A
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC8A9
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC8A6
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC871
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC89E
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC8A8
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC88F
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC8A7
Big Cliff Dam	4/20/2022	8 ft	Chinook	3DD.003E1BC859
Big Cliff Dam	4/21/2022	8 ft	Chinook	3DD.003E1BC889
Big Cliff Dam	4/21/2022	8 ft	Chinook	3DD.003E1BC85F
Big Cliff Dam	4/21/2022	8 ft	Chinook	3DD.003E1BC880
Big Cliff Dam	4/21/2022	8 ft	Chinook	3DD.003E1BC85D
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC89A

Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC84E
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC851
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC853
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC85E
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC88C
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC894
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC866
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC873
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC86C
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC85A
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC885
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC88A
Big Cliff Dam	4/22/2022	8 ft	Chinook	3DD.003E1BC893
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC75B
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC722
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC742
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC767
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC761
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC748
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC732
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC746
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC733
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC73D
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC772
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC759
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC738
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC740
Big Cliff Dam	4/23/2022	8 ft	Chinook	3DD.003E1BC72F
Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003E1BC71F
Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003E1BC72B
Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003BD94ACA
Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003E1BC720
Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003E1BC77B
Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003E1BC762
Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003E1BC774
Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003E1BC75F

Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003E1BC770
Big Cliff Dam	4/24/2022	8 ft	Chinook	3DD.003E1BC769
Big Cliff Dam	4/24/2022	8 ft	O. mykiss	3DD.003E1BC735
Big Cliff Dam	4/24/2022	8 ft	O. mykiss	3DD.003E1BC76F
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC801
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC832
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003BD94AA1
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7EE
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7FB
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC843
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7E7
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7E8
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7FC
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7FE
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7F1
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7ED
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7F8
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC810
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7F2
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC81E
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC80F
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7E9
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC814
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC83C
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC7F7
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC846
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC827
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC81D
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC819
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC802
Big Cliff Dam	4/25/2022	8 ft	Chinook	3DD.003E1BC82D
Big Cliff Dam	4/26/2022	8 ft	Chinook	3DD.003E1BC7F4
Big Cliff Dam	4/26/2022	8 ft	Chinook	3DD.003E1BC7FF
Big Cliff Dam	4/26/2022	8 ft	Chinook	3DD.003E1BC82E
Big Cliff Dam	4/26/2022	8 ft	Chinook	3DD.003E1BC7F5
Big Cliff Dam	4/26/2022	8 ft	Chinook	3DD.003E1BC828

Big Cliff Dam	4/26/2022	8 ft	Chinook	3DD.003E1BC809
Big Cliff Dam	4/27/2022	8 ft	Chinook	3DD.003E1BC88E
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003E1BC7FA
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003E1BC887
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003BD94B91
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003BD94BB9
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003BD94BCF
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003BD94BCD
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003BD94BAE
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003BD94BCE
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003BD94B78
Big Cliff Dam	4/28/2022	8 ft	Chinook	3DD.003BD94BB0
Big Cliff Dam	4/29/2022	8 ft	O. mykiss	3DD.003E1BC82C
Big Cliff Dam	4/29/2022	8 ft	Chinook	3DD.003E1BC808
Big Cliff Dam	4/29/2022	8 ft	Chinook	3DD.003E1BC7ES
Big Cliff Dam	4/30/2022	8 ft	Chinook	3DD.003E1BC806
Big Cliff Dam	4/30/2022	8 ft	Chinook	3DD.003E1BC7EC
Big Cliff Dam	4/30/2022	8 ft	Chinook	3DD.003E1BC81B
Big Cliff Dam	4/30/2022	8 ft	Chinook	3DD.003E1BC807
Big Cliff Dam	4/30/2022	8 ft	Chinook	3DD.003E1BC823
Big Cliff Dam	4/30/2022	8 ft	Chinook	3DD.003E1BC80B
Big Cliff Dam	4/30/2022	8 ft	O. mykiss	3DD.003E1BC829
Cougar Dam	4/17/2022	PH	Chinook	3DD.003E1BC84C
Cougar Dam	4/18/2022	PH	Chinook	3DD.003E1BC7EF
Cougar Dam	4/19/2022	PH	Chinook	3DD.003E1BC830
Cougar Dam	4/19/2022	PH	Chinook	3DD.003E1BC82F
Cougar Dam	4/16/2022	RO	Chinook	3DD.003E1BC744
Cougar Dam	4/16/2022	RO	Chinook	3DD.003E1BC754
Cougar Dam	4/18/2022	RO	Chinook	3DD.003E1BC805
Cougar Dam	4/21/2022	RO	Chinook	3DD.003E1BC743
Cougar Dam	4/21/2022	RO	Chinook	3DD.003E1BC74E
Cougar Dam	4/21/2022	RO	Chinook	3DD.003E1BC7CC
Cougar Dam	4/22/2022	RO	Chinook	3DD.003E1BC7AD
Cougar Dam	4/22/2022	RO	Chinook	3DD.003E1BC791
Cougar Dam	4/23/2022	RO	Chinook	3DD.003E1BC7C6
Cougar Dam	4/23/2022	RO	Chinook	3DD.003E1BC7D4

Cougar Dam	4/23/2022	RO	Chinook	3DD.003E1BC7B8
Cougar Dam	4/23/2022	RO	Chinook	3DD.003E1BC7A6
Cougar Dam	4/23/2022	RO	Chinook	3DD.003E1BC7BC
Cougar Dam	4/23/2022	RO	Chinook	3DD.003E1BC793
Cougar Dam	4/24/2022	RO	Chinook	3DD.003E1BC861
Cougar Dam	4/24/2022	RO	Chinook	3DD.003E1BC857
Cougar Dam	4/24/2022	RO	Chinook	3DD.003E1BC86D
Cougar Dam	4/24/2022	RO	Chinook	3DD.003E1BC876
Cougar Dam	4/25/2022	RO	Chinook	3DD.003E1BC763
Cougar Dam	4/25/2022	RO	Chinook	3DD.003E1BC721
Cougar Dam	4/25/2022	RO	Chinook	3DD.003E1BC777
Cougar Dam	4/25/2022	RO	Chinook	3DD.003E1BC747
Cougar Dam	4/25/2022	RO	Chinook	3DD.003E1BC778
Cougar Dam	4/26/2022	RO	Chinook	3DD.003E1BC852
Cougar Dam	4/26/2022	RO	Chinook	3DD.003E1BC8AA
Cougar Dam	4/26/2022	RO	Chinook	3DD.003E1BC849
Cougar Dam	4/26/2022	RO	Chinook	3DD.003E1BC87E
Cougar Dam	4/26/2022	RO	Chinook	3DD.003E1BC872
Cougar Dam	4/30/2022	RO	Chinook	3DD.003E1BC773
Cougar Dam	4/30/2022	RO	Chinook	3DD.003E1BC757
Cougar Dam	4/30/2022	RO	Chinook	3DD.003E1BC776
Cougar Dam	4/30/2022	RO	Chinook	3DD.003E1BC779
Cougar Dam	4/30/2022	RO	Chinook	3DD.00E1BC763A
Cougar Dam	4/30/2022	RO	Chinook	3DD.00E1BC761C
Dexter Dam Tailrace	4/27/2022	5 ft	Chinook	3DD.003E1BC74C
Foster Dam Head of Reservoir- South Santiam River	4/19/2022	5 ft	O. mykiss	3DD.003E1BC73B
Foster Dam Head of Reservoir- South Santiam River	4/19/2022	5 ft	O. mykiss	3DD.003E1BC76C
Foster Dam Head of Reservoir- South Santiam River	4/20/2022	5 ft	O. mykiss	3DD.003E1BC8A5
Foster Dam Head of Reservoir- South Santiam River	4/21/2022	5 ft	O. mykiss	3DD.003E1BC858
Foster Dam Head of Reservoir- South Santiam River	4/21/2022	5 ft	O. mykiss	3DD.003E1BC89C
Foster Dam Head of Reservoir- South Santiam River	4/22/2022	5 ft	Chinook	3DD.003E1BC87F
Foster Dam Head of Reservoir- South Santiam River	4/22/2022	5 ft	O. mykiss	3DD.003E1BC868
Foster Dam Head of Reservoir- South Santiam River	4/23/2022	5 ft	Chinook	3DD.003E1BC77D
Foster Dam Head of Reservoir- South Santiam River	4/23/2022	5 ft	O. mykiss	3DD.003E1BC741
Foster Dam Head of Reservoir- South Santiam River	4/24/2022	5 ft	O. mykiss	3DD.003E1BC77F
Foster Dam Head of Reservoir- South Santiam River	4/24/2022	5 ft	O. mykiss	3DD.003E1BC728

Foster Dam Head of Reservoir- South Santiam River	4/24/2022	5 ft	O. mykiss	3DD.003E1BC723
Foster Dam Head of Reservoir- South Santiam River	4/24/2022	5 ft	O. mykiss	3DD.003E1BC729
Foster Dam Head of Reservoir- South Santiam River	4/25/2022	5 ft	O. mykiss	3DD.003E1BC760
Foster Dam Head of Reservoir- South Santiam River	4/25/2022	5 ft	O. mykiss	3DD.003E1BC77E
Foster Dam Head of Reservoir- South Santiam River	4/26/2022	5 ft	O. mykiss	3DD.003E1BC7F6
Foster Dam Head of Reservoir- South Santiam River	4/26/2022	5 ft	O. mykiss	3DD.003E1BC803
Foster Dam Head of Reservoir- South Santiam River	4/26/2022	5 ft	O. mykiss	3DD.003E1BC7F9
Foster Dam Head of Reservoir- South Santiam River	4/27/2022	5 ft	O. mykiss	3DD.003E1BC824
Foster Dam Head of Reservoir- South Santiam River	4/27/2022	5 ft	O. mykiss	3DD.003E1BC841
Foster Dam Head of Reservoir- South Santiam River	4/27/2022	5 ft	O. mykiss	3DD.003E1BC804
Foster Dam Head of Reservoir- South Santiam River	4/29/2022	5 ft	Chinook	3DD.003E1BC812
Foster Dam Head of Reservoir- South Santiam River	4/28/2022	5 ft	O. mykiss	3DD.003E1BC88B
Foster Dam Head of Reservoir- South Santiam River	4/28/2022	5 ft	O. mykiss	3DD.003E1BC895
Foster Dam Head of Reservoir- South Santiam River	4/28/2022	5 ft	Chinook	3DD.003E1BC84F
Green Peter Tailrace- Middle Santiam River	4/18/2022	8 ft	O. mykiss	3DD.003E1BC835
Lookout Dam Tailrace	4/28/2022	Spill	Chinook	3DD.003E1BC7BD
Lookout Point Head of Reservoir	4/24/2022	5 ft	Chinook	3DD.003E1BC86B
Lookout Point Head of Reservoir	4/28/2022	5 ft	Chinook	3DD.003E1BC76D