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Report Period: June 1st to June 15th, 2023

Report No.: 2023 Willamette RST Bi-Weekly Report 06/01-06/15 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	02/15/2022	656
Big Cliff Dam RST	Operation	03/15/2022	10/15/2022	
Big Cliff Dam RST	Operation	10/15/2022	12/15/2022	
Big Cliff Dam RST	Operation	12/15/2022	3/15/2023	
Big Cliff Dam RST	Operation	3/16/2023	10/15/2023	
Big Cliff Dam Tailrace	Trap Efficiency Release (1,000 Fish)	12/22/2021	12/22/2021	1
Big Cliff Dam Tailrace	Temporary Trap Removal and Install	05/06/2022	05/13/2022	8
Big Cliff Dam Tailrace	Trap Efficiency Release (1,000 Fish)	05/25/2022	05/25/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (1,000 Fish)	08/09/2022	08/09/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (1,000 Fish)	09/30/2022	09/30/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (500 Fish)	10/13/2022	10/13/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (535 Fish)	10/24/2022	10/24/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (549 Fish)	11/02/2022	11/02/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (510 Fish)	11/16/2022	11/16/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (502 Fish)	12/14/2022	12/14/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (1,010 Fish)	12/19/2022	12/19/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (1,014 Fish)	12/21/2022	12/21/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (704 Fish)	12/27/2022	12/27/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (452 Fish)	12/29/2022	12/29/2022	1
Big Cliff Dam Tailrace	Trap Efficiency Release (500 Fish)	01/25/2023	01/25/2023	1
Big Cliff Dam Tailrace	Trap Efficiency Release (500 Fish)	02/17/2023	02/17/2023	1
Big Cliff Dam Tailrace	Trap Efficiency Release (2,968 Fish)	03/07/2023	03/07/2023	1

Big Cliff Dam Tailrace	Trap Efficiency Release (541 Fish)	03/10/2023	03/10/2023	1
Big Cliff Dam Tailrace	Trap Efficiency Release (498 Fish)	04/28/2023	04/28/2023	1
Big Cliff Dam Tailrace	Trap Efficiency Release (500 Fish)	05/23/2023	05/23/2023	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	05/07/2022	66
Green Peter Tailrace- Middle Santiam River RST	Operation	03/14/2023	11/30/2023	261
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
Green Peter Tailrace- Middle Santiam River RST	Temporary Trap Removal	05/12/2022	05/12/2022	1
Green Peter Tailrace- Middle Santiam River RST	Trap Install	03/14/2023	03/14/2023	1
Green Peter Tailrace- Middle Santiam River RST	Anchor Install	3/23/2023	3/31/2023	8
Green Peter Tailrace- Middle Santiam River RST	Trap Efficiency Release (999 Live Fish)	5/11/2023	5/11/2023	1
Green Peter Tailrace- Middle Santiam River RST	Trap Efficiency Release (1,001 Dead Fish)	5/11/2023	5/11/2023	1
Green Peter Tailrace- Middle Santiam River RST	Trap Efficiency Release (1,000 Fish)	5/25/2023	5/25/2023	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	03/16/2022	06/30/2022	107
Foster Dam Head of Reservoir- South Santiam River RST	Trap Removal	07/01/2022	07/01/2022	1
Foster Dam Head of Reservoir- South Santiam River RST	Trap Install	09/02/2022	09/02/2022	1
Foster Dam Head of Reservoir- South Santiam River RST	Operation	09/02/2022	11/30/2022	90
Foster Dam Head of Reservoir- South Santiam River RST	Trap Removal	12/01/2022	12/01/2022	1
Foster Dam Head of Reservoir- South Santiam River RST	Trap Install	01/30/2023	01/30/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Operation	02/01/2023	11/30/2023	302
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1,000 fish)	09/29/2022	09/29/2022	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (840 fish)	10/25/2022	10/25/2022	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1,006 fish)	11/01/2022	11/01/2022	1

Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1,007 fish)	11/09/2022	11/09/2022	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1,009 fish)	11/15/2022	11/15/2022	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (933 fish)	11/22/2022	11/22/2022	1
Foster Dam Head of Reservoir- South Santiam River RST	Trap Removal	12/06/2022	12/06/2022	1
Foster Dam Head of Reservoir- South Santiam River RST	Trap Install	1/31/2023	1/31/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1005 fish)	02/27/2023	02/27/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (995 fish)	03/09/2023	03/09/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1,025 fish)	03/15/2023	03/15/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (985 fish)	05/11/2023	05/11/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1003 fish)	6/2/2023	6/2/2023	1
Cougar Dam RST	Operation	11/30/2021	11/30/2022	730
Cougar Dam RST	Operation	11/30/2022	11/30/2023	
Cougar Dam	Trap Efficiency Release (1,200 Fish, 600 per route)	01/19/2022	01/19/2022	1
Cougar Dam	Trap Efficiency Release (735 Fish, ~365 per route)	04/20/2022	04/20/2022	1
Cougar Dam	Trap Efficiency Release (993 Fish, RO route)	05/15/2022	05/15/2022	1
Cougar Dam	Trap Efficiency Release (500 Fish, PH route)	07/19/2022	07/19/2022	1
Cougar Dam	Trap Efficiency Release (501 Fish, PH route)	08/11/2022	08/11/2022	1
Cougar Dam	Trap Efficiency Release (442 Fish, RO route)	10/14/2022	10/14/2022	1
Cougar Dam	Trap Efficiency Release (504 Fish, RO route)	11/22/2022	11/22/2022	1
Cougar Dam	Trap Efficiency Release (506 Fish, RO route)	12/13/2022	12/13/2022	1
Cougar Dam	Trap Efficiency Release (1,015 Fish, RO route)	12/15/2022	12/15/2022	1
Cougar Dam	Trap Efficiency Release (500 Fish, RO route)	12/20/2022	12/20/2022	1
Cougar Dam	Trap Efficiency Release (445 Fish, RO route)	12/28/2022	12/28/2022	1
Cougar Dam	Trap Efficiency Release (843 Fish, PH route)	01/12/2023	01/12/2023	1
Cougar Dam	Trap Efficiency Release (500 Fish, RO route)	01/30/2023	01/30/2023	1

Cougar Dam	Trap Efficiency Release (511 Fish, RO route)	3/23/2023	3/23/2023	1
Cougar Dam	Trap Efficiency Release (500 Fish, PH route)	3/23/2023	3/23/2023	1
Cougar Dam	Trap Efficiency Release (491 Fish, RO route)	3/30/2023	3/30/2023	1
Cougar Dam	Trap Efficiency Release (497 Fish, PH route)	3/30/2023	3/30/2023	1
Cougar Dam	Trap Efficiency Release (500 Fish, RO route)	4/18/2023	4/18/2023	1
Cougar Dam	Trap Efficiency Release (197 Fish, PH route)	4/18/2023	4/18/2023	1
Cougar Dam	Trap Efficiency Release (499 Fish, RO route)	05/10/2023	05/10/2023	1
Cougar Dam	Trap Efficiency Release (499 Fish, PH route)	05/10/2023	05/10/2023	1
Cougar Dam	Trap Efficiency Release (507 Fish, PH route)	6/6/2023	6/6/2023	1
Cougar Dam	Temporary RO removal	6/8/2023	6/8/2023	1
Cougar Dam Head of Reservoir	Highline and Trap Install	03/07/2022	03/07/2022	1
Cougar Dam Head of Reservoir	Operation	03/08/2022	06/30/2022	115
Cougar Dam Head of Reservoir	Trap Efficiency Release (806 Fish)	03/18/2022	03/18/2022	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (500 Fish)	05/19/2022	05/19/2022	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (515 Fish)	06/23/2022	06/23/2022	1
Cougar Dam Head of Reservoir	Trap Removal	07/01/2022	07/01/2022	1
Cougar Dam Head of Reservoir	Highline Install	09/14/2022	09/14/2022	1
Cougar Dam Head of Reservoir	Trap Install	09/16/2022	09/16/2022	1
Cougar Dam Head of Reservoir	Operation	09/16/2022	11/30/2022	76
Cougar Dam Head of Reservoir	Trap Efficiency Release (551 Fish)	09/22/2022	09/22/2022	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (608 Fish)	10/5/2022	10/5/2022	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (721 Fish)	11/10/2022	11/10/2022	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (719 Fish)	11/16/2022	11/16/2022	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (752 Fish)	11/23/2022	11/23/2022	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (620 Fish)	11/29/2022	11/29/2022	1
Cougar Dam Head of Reservoir	Trap Removal	11/30/2022	11/30/2022	1
Cougar Dam Head of Reservoir	Trap Install	1/31/2023	1/31/2023	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (506 Fish)	4/14/2023	4/14/2023	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (508 Fish)	05/10/2023	05/10/2023	1
Cougar Dam Head of Reservoir	Trap Efficiency Release (597 Fish)	05/16/2023	05/16/2023	1

Cougar Dam Head of Reservoir	Trap Efficiency Release (510 Fish)	6/8/2023	6/8/2023	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	649
Dexter Dam Tailrace RST	Operation	12/16/2022	12/16/2023	
Dexter Dam Tailrace RST	Trap Efficiency Release (988 Fish)	03/23/2022	03/23/2022	1
Dexter Dam Tailrace RST	Trap Efficiency Release (1000 Fish)	05/04/2022	05/04/2022	1
Dexter Dam Tailrace RST	Trap Efficiency Release (1019 Fish)	05/24/2022	05/24/2022	1
Dexter Dam Tailrace RST	Trap Efficiency Release (981 Fish)	07/21/2022	07/21/2022	1
Dexter Dam Tailrace RST	Trap Efficiency Release (1007 Fish)	10/26/2022	10/26/2022	1
Dexter Dam Tailrace RST	Trap Efficiency Release (775 Fish)	11/01/2022	11/01/2022	1
Dexter Dam Tailrace RST	Trap Efficiency Release (991 Fish)	11/17/2022	11/17/2022	1
Dexter Dam Tailrace RST	Trap Efficiency Release (1,010 Fish)	12/06/2022	12/06/2022	1
Dexter Dam Tailrace RST	Trap Efficiency Release (1,025 Fish)	12/15/2022	12/15/2022	1
Dexter Dam Tailrace RST	Trap Efficiency Release (1,200 Fish)	3/16/2023	3/16/2023	1
Dexter Dam Tailrace RST	Trap Efficiency Release (1,199 Fish)	3/29/2023	3/29/2023	1
Dexter Dam Tailrace RST	Trap Efficiency Release (4,006 Fish)	5/25/2023	5/25/2023	1
Dexter Dam Tailrace RST	Trap Efficiency Release (4,010 Fish)	6/7/2023	6/7/2023	1
Lookout Dam Tailrace RSTs	Operation	03/15/2022	07/31/2022	366
Lookout Dam Tailrace RSTs	Operation	08/01/2022	10/17/2022	
Lookout Dam Tailrace RSTs	Operation	10/17/2022	3/15/2023	
Lookout Dam Tailrace RSTs	Trap Efficiency Release (1,013 fish, PWR route)	04/13/2022	04/13/2022	1
Lookout Dam Tailrace RSTs	Trap Efficiency Release (3,999 fish, PWR route)	05/23/2023	05/23/2023	1
Lookout Dam Tailrace RSTs	Trap Efficiency Release (4011 fish, PWR route)	6/1/2023	6/1/2023	1
Lookout Dam Tailrace RSTs	Trap Efficiency Release (4010 fish, PWR route)	6/14/2023	6/14/2023	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	651
Lookout Point Head of Reservoir RST	Operation	12/16/2022	12/16/2023	
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
Lookout Point Head of Reservoir RST	Trap Efficiency Release (1007 fish)	05/18/2022	05/18/2022	1
Lookout Point Head of Reservoir RST	Trap Efficiency Release (1005 fish)	07/20/2022	07/20/2022	1

Lookout Point Head of Reservoir RST	Trap Efficiency Release (506 fish)	10/27/2022	10/27/2022	1
Lookout Point Head of Reservoir RST	Trap Efficiency Release (510 fish)	11/17/2022	11/17/2022	1
Lookout Point Head of Reservoir RST	Trap Efficiency Release (510 fish)	12/12/2022	12/12/2022	1
Lookout Point Head of Reservoir RST	Trap Efficiency Release (516 fish)	01/13/2023	01/13/2023	1
Lookout Point Head of Reservoir RST	Trap Efficiency Release (760 fish)	6/2/2023	6/2/2023	1
Lookout Point Head of Reservoir RST	Trap Efficiency Release (765 fish)	6/15/2023	6/15/2023	1
Fall Creek Dam Tailrace RST	Operation	03/15/2022	07/15/2022	123
Fall Creek Dam Tailrace RST	Operation	10/15/2023	03/15/2023	275
Fall Creek Dam Tailrace RST	Operation	03/15/2023	07/15/2023	
Fall Creek Dam Tailrace RST	Trap Efficiency Release (518 fish)	06/08/2022	06/08/2022	1
Fall Creek Dam Tailrace RST	Trap Efficiency Release (513 fish)	06/30/2022	06/30/2022	1
Fall Creek Dam Tailrace RST	Trap Efficiency Release (500 fish)	07/13/2022	07/13/2022	1
Fall Creek Dam Tailrace RST	Deployment	10/15/2022	10/15/2022	1
Fall Creek Dam Tailrace RST	Trap Efficiency Release (1,000 fish)	05/11/2023	05/11/2023	1
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
Fall Creek Head of Reservoir RST	Removal	06/02/2022	06/02/2022	1
Fall Creek Head of Reservoir RST	Highline Install	1/17/2023	1/17/2023	1
Fall Creek Head of Reservoir RST	Trap Install	1/18/2023	1/18/2023	1
Fall Creek Head of Reservoir RST	Operation	1/18/2023	05/30/2023	132
Fall Creek Head of Reservoir RST	Trap Efficiency Release (756 fish)	05/05/2023	05/05/2023	1
Fall Creek Head of Reservoir RST	Trap Efficiency Release (750 fish)	05/10/2023	05/10/2023	1
Fall Creek Head of Reservoir RST	Trap Efficiency Release (511 fish)	05/18/2023	05/18/2023	1
Fall Creek Head of Reservoir RST	Trap Efficiency Release (760 fish)	05/24/2023	05/24/2023	1
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
Hills Creek Dam RSTs	Trap Install	09/14/2022	09/14/2022	1
Hills Creek Dam RSTs	Deployment	9/15/2022	9/15/2022	1
Hills Creek Dam RO	Operation	09/15/2022	06/30/2023	289
Hills Creek Dam PWR	Operation	09/15/2022	06/30/2023	289
Hills Creek Dam	Trap Efficiency Release (514 fish, PWR Route)	12/07/2022	12/07/2022	1
Hills Creek Dam	Trap Efficiency Release (516 fish, RO Route)	12/13/2022	12/13/2022	1
Hills Creek Dam	Trap Efficiency Release (482 fish, RO Route)	02/25/2023	02/25/2023	1
Hills Creek Dam	Trap Efficiency Release (528 fish, PWR Route)	02/25/2023	02/25/2023	1
Hills Creek Dam	Trap Efficiency Release (506 fish, PWR Route)	4/26/2023	4/26/2023	1
Hills Creek Dam	Trap Efficiency Release (505 fish, PWR Route)	5/17/2023	5/17/2023	1
Hills Creek Dam	Trap Efficiency Release (508 fish, PWR Route)	6/3/2023	6/3/2023	1
Hills Creek Dam	Trap Efficiency Release (760 fish, RO Route)	6/13/2023	6/13/2023	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 operated at the following ten locations: Big Cliff Dam, Green Peter Dam Tailrace, Foster Dam Head of Reservoir- South Santiam River, Cougar Dam, Cougar Dam Head of Reservoir, Fall Creek Dam, Dexter Dam Tailrace, Lookout Dam Tailrace, Lookout Point Head of Reservoir, and Hills Creek Dam. The trap at the Fall Creek Head of Reservoir site was removed at the end of monitoring period on May 31st.

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, and Hills Creek Dam. Below dam sites that include one RST to monitor passage include Big Cliff Dam, 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 11.



FIGURE 1
Big Cliff Dam

● RST Locations

500 Feet





FIGURE 2 Green Peter Tailrace - Middle Santiam River

● RST Locations

500 Feet





FIGURE 3 Foster Dam Head of Reservoir - South Santiam River

● RST Locations

500 Feet





Imagery Source: 2020, NAIP.



FIGURE 4
Cougar Dam

● RST Locations

500 Feet





Portland
Salem
Eugene



OREGON

FIGURE 5
Cougar Dam Head of Reservoir

● RST Locations

500 Feet



EAS ENVIRONMENTAL
ASSESSMENT
SERVICES

Wholly Owned Subsidiary of Natives of Kodiak



Imagery Source: 2021, ESRI.



FIGURE 6
Fall Creek Dam Tailrace

● RST Locations

500 Feet





FIGURE 7
Fall Creek Head of Reservoir

● RST Locations

500 Feet





Imagery Source: 2021, ESRI.



FIGURE 8
Dexter Dam Tailrace

● RST Locations

500 Feet



EAS ENVIRONMENTAL ASSESSMENT SERVICES
 Wholly Owned Subsidiary of Natives of Kodiak



Imagery Source: 2021, ESRI.



FIGURE 9
Lookout Dam Tailrace

● RST Locations

500 Feet



EAS ENVIRONMENTAL ASSESSMENT SERVICES
 Wholly Owned Subsidiary of Natives of Kodiak



Imagery Source: 2021, ESRI.



FIGURE 10
Lookout Point Head of Reservoir

● RST Locations

500 Feet



EAS ENVIRONMENTAL ASSESSMENT SERVICES
 Wholly Owned Subsidiary of Natives of Kodiak



FIGURE 11
Hills Creek Dam

● RST Locations

500 Feet



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	6/1/2023	6/15/2023	14	486
Green Peter Dam	3/14/2023	6/1/2023	6/15/2023	15	84
Foster Dam Head of Reservoir – South Santiam	2/1/2023	6/1/2023	6/15/2023	15	130
Cougar Dam PH	12/1/2021	6/1/2023	6/15/2023	15	451
Cougar Dam RO	12/1/2021	6/1/2023	6/15/2023	7	443
Cougar Dam Head of Reservoir	2/1/2023	6/1/2023	6/15/2023	15	111
Fall Creek Dam Tailrace	3/15/2022	6/1/2023	6/15/2023	15	296
Fall Creek Head of Reservoir	1/18/2023	6/1/2023	6/15/2023	0	110
Dexter Dam Tailrace	3/7/2022	6/1/2023	6/15/2023	15	453
Lookout Point Dam PH	3/15/2022	6/1/2023	6/15/2023	15	423
Lookout Point Dam Spill	3/15/2022	6/1/2023	6/15/2023	15	423
Lookout Point Head of Reservoir	3/10/2022	6/1/2023	6/15/2023	15	390
Hills Creek Dam	9/16/2022	6/1/2023	6/15/2023	15	271

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	31		1525	859
Big Cliff Dam	STW	6	0	142	0
Green Peter Tailrace- Middle Santiam	CHS	7		100	32
Green Peter Tailrace- Middle Santiam	STW	0	0	11	0
Foster Dam Head of Reservoir- South Santiam	CHS	5		698	762
Foster Dam Head of Reservoir- South Santiam	STW	2	0	252	7
Cougar Dam	CHS	23		3837	883
Cougar Dam Head of Reservoir	CHS	604		5144	360
Fall Creek Dam Tailrace	CHS	0		62	11
Fall Creek Head of Reservoir	CHS	0		150	48
Dexter Dam Tailrace	CHS	1		117	140
Lookout Point Dam	CHS	2		127	34
Lookout Point Head of Reservoir	CHS	14		228	225
Hills Creek Dam	CHS	1		502	185

North Santiam – Big Cliff Dam

Target Species

This reporting period began on June 1st and ended on June 15th. There were a total of 31 Chinook Salmon (CHS) and 6 Winter Steelhead (STW) captured during the 15-day sampling period (Figure 12). The 8 ft trap was raised for repairs on June 8th, 2023. It resumed sampling on June 9th, 2023. Sampling duration was 93.3% 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 13 shows length frequency data to-date.

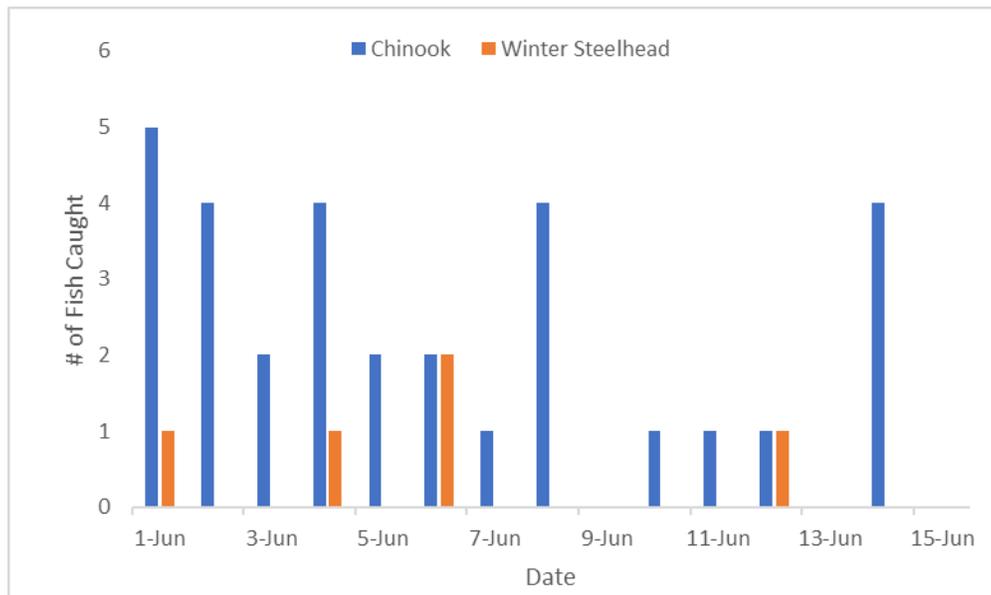
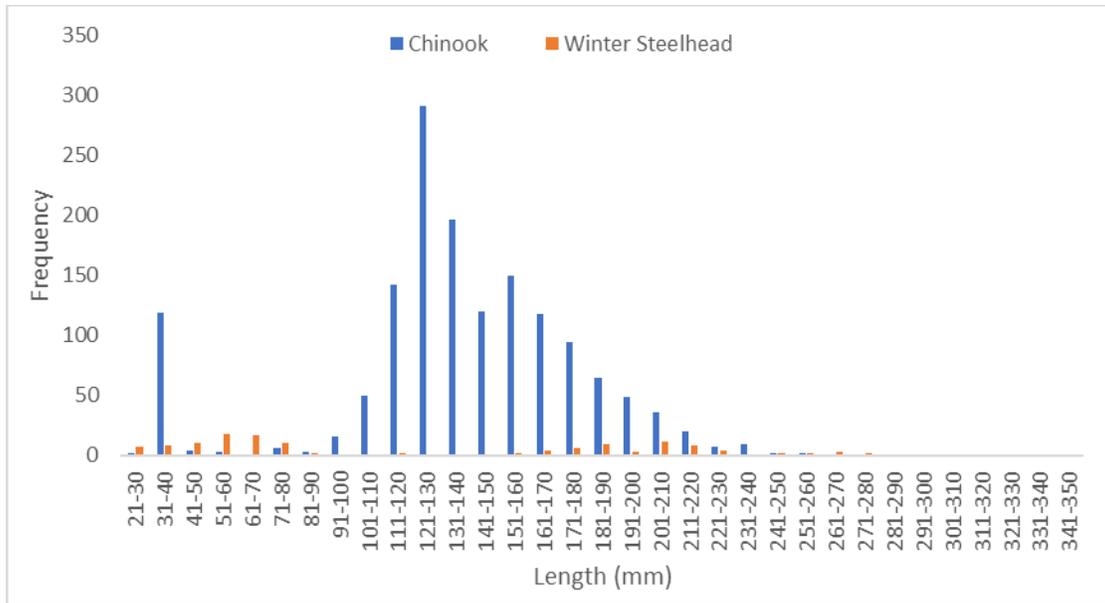


Figure 12. Chinook and Winter Steelhead Captured per day 06/01/2023 to 06/15/2023 (Big Cliff)



*Figure does not include fish without heads

Figure 13. Length Frequency of Juvenile Chinook and Winter Steelhead Sampled Season To-Date (Big Cliff)

Trapping Efficiency

A total of 500 bismarck brown dyed and adipose clipped juvenile hatchery chinook were released on 5/23/2023 below Big Cliff Dam. 6 fish were recaptured in the 8 ft trap for a trapping efficiency of 1.2%.

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	500	6	1.2% (6/500)

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

To-Date (Since Dec. 01, 2021)										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Big Cliff	PWR	CHS	Fry	125	29	48	36.1	1.2	1.4	1.3
		CHS	Parr	35	55	136	94.9	1.8	30.0	10.4
		CHS	Smolt	1363	74	340	148.3	5.4	307.7	38.5
		STW	Fry	31	21	69	40.3	1.1	3.4	1.7
		STW	Parr	47	51	131	67.2	1.3	49.5	5.7
		STW	Smolt	64	157	350	212.4	21.5	442.0	98.7

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

June 1-15, 2023										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Big Cliff	PWR	CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	1	85	85	85.0	4.5	4.5	4.5
		CHS	Smolt	30	94	245	162.6	8.5	124.4	47.9
		STW	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		STW	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		STW	Smolt	6	176	274	217.2	21.5	134.1	86.1

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

24-Hour Post Collection Holding Trial

27 Spring Chinook and 2 Winter Steelhead were captured during the current reporting period and held for 24 hours. 3 Chinook (11.1%) and 0 Winter Steelhead (0.0%) died in holding.

Injuries and Copepod Infection

Partial descaling <20% was observed in 22 of the 31 Chinook captured (71.0%), 9 displayed descaling >20% (29.0%), 27 displayed body injury (87.1%), 4 had eye injury (12.9%), 24 had copepods present in the branchial cavity (77.4%) and 13 had copepods on fins (41.9%). 5 Chinook displayed gas bubble disease (3 level 1, 1 level 2, 1 level 3) (16.1%). There were 4 mortalities (12.9%).

Partial descaling <20% was observed on 2 of the 6 Winter Steelhead captured (33.3%) and 4 displayed descaling >20% (66.7%), 6 displayed body injury (100.0%), 1 had eye injury (16.7%), 2 had copepods present in the branchial cavity (33.3%) and 5 had copepods on fins (83.3%). 2 Winter Steelhead displayed gas bubble disease (1 level 1 and 1 level 3) (33.3%). There were 4 mortalities (66.7%). Injury data is summarized in Table 5.

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	31	22	9	27	4	24	13	4
	Winter Steelhead	6	2	4	6	1	2	5	4

Collected DNA and Scale Samples

For the reporting period, scales and DNA were collected from 31 Spring Chinook and 6 Winter Steelhead. The other targets captured did not meet length criteria for DNA sampling or were too descaled/damaged to collect samples.

PIT Tags

0 Spring Chinook and 0 Winter Steelhead were PIT tagged during this reporting period. The first 60 target fish per week are prioritized for the 24-Hour Post Collection Holding Study. These fish are not tagged to not bias the results of the holding study. More information regarding PIT tagged fish can be found in Appendix D.

Non-Target Species

30 non-targets were captured during this sampling period. A summary of non-target species catch and mortality numbers for 2023 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	2	0	22	3
Brown Bullhead	0	0	3	1
Chinook (Adult)	0	0	0	0
Chinook (clipped)	0	0	2	1
Cutthroat Trout	0	0	0	0
Dace	0	0	0	0
Kokanee	21	0	149	17
Kokanee (clipped)	2	0	8	2
<i>O. mykiss</i> (clipped)	1	1	4	1
Pumpkinseed	2	1	48	6
Unknown	0	0	1	1
Mountain Whitefish	0	0	0	0
Sculpin	0	0	0	0
Totals	30	2	261	38

Stream Statistics

Basic stream statistics at the Big Cliff Dam site were calculated from data downloaded from U.S. Geological Survey stream gauge numbers 14181410 and 14181500. Gauge height (feet) is the only metric provided at gauge 14181410. Total dissolved gas (TDG) saturation data was received from gauge 14181500, 1 rkm downstream of the trap. During the reporting period, daily maximum values for instantaneous gauge height ranged from 1,109.1 to 1,109.6 feet (mean: 1,109.2 feet) during the reporting period. Figure 14 shows instantaneous gauge height.

Total dissolved gas saturation ranged from 104 to 112% during the reporting period (mean: 108.7%). Figure 15 shows total dissolved gas saturation.

Stream temperatures were recorded every 2 hours for the length of the reporting period at the RST (Figure 16). The temperature probe for the trap operated normally throughout this reporting period.

Flows through the Powerhouse and Spill during the reporting period averaged 1,296.6 and 0 cubic feet per second (cfs), respectively (Figure 17). Catch per unit of effort (CPUE) data are summarized in Table 7. , Detroit and Big Cliff forebay elevations and TDG at Niagara are shown in appendix B. 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	31	6
Effort (hrs)	337.8	337.8
CPUE (fish/hr)	0.092	0.018

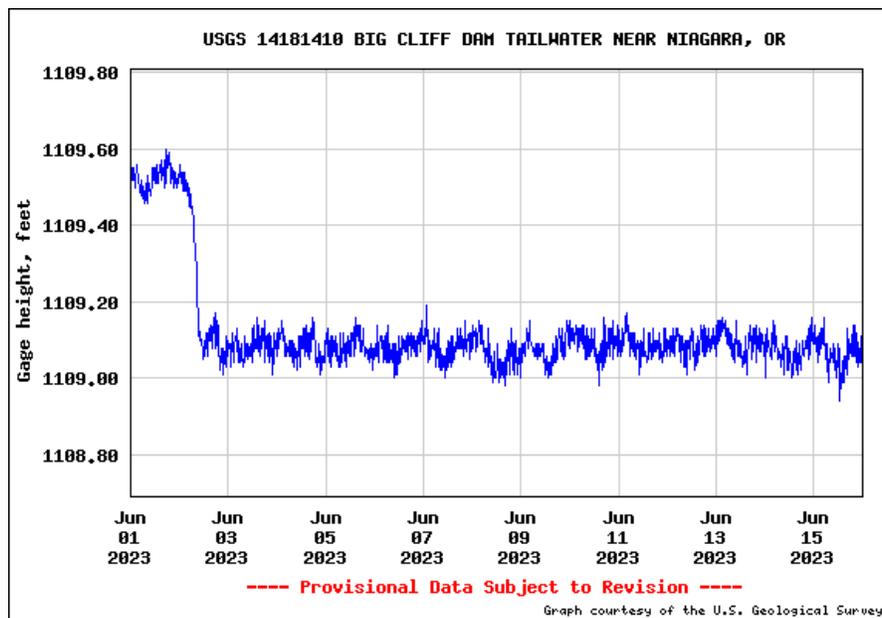


Figure 14. Gauge height (ft); below Big Cliff Dam

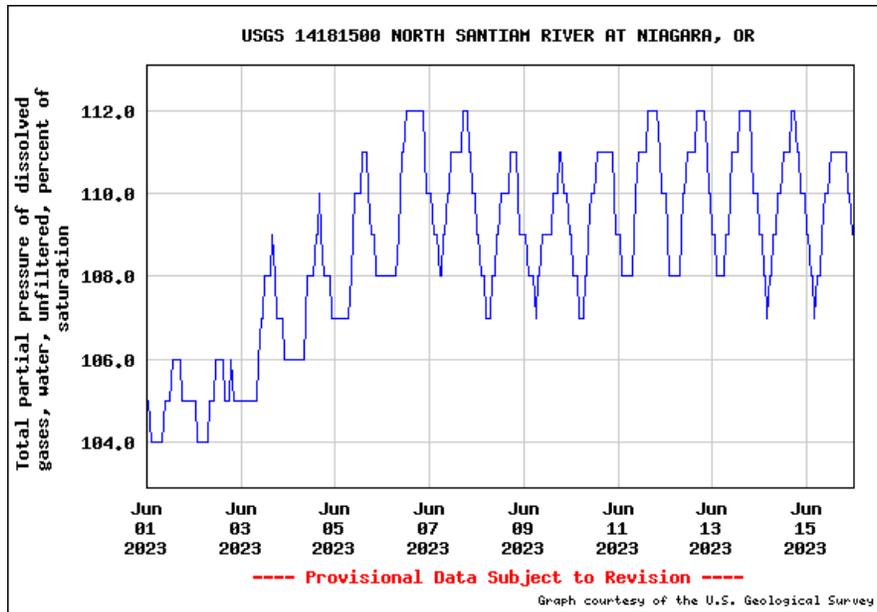


Figure 15. Total Dissolved Gas Saturation (%); below Big Cliff Dam

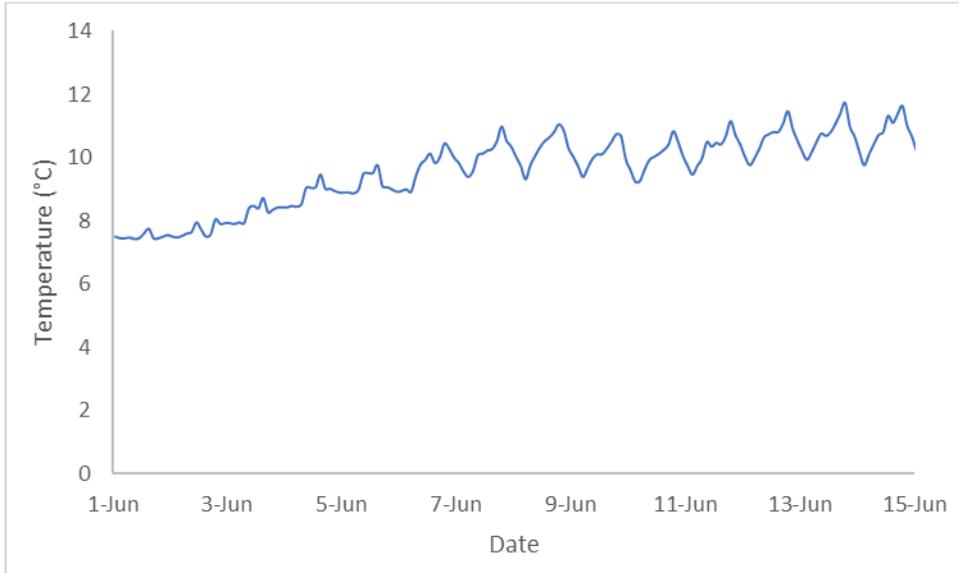


Figure 16. Temperature at RST (Big Cliff Dam)

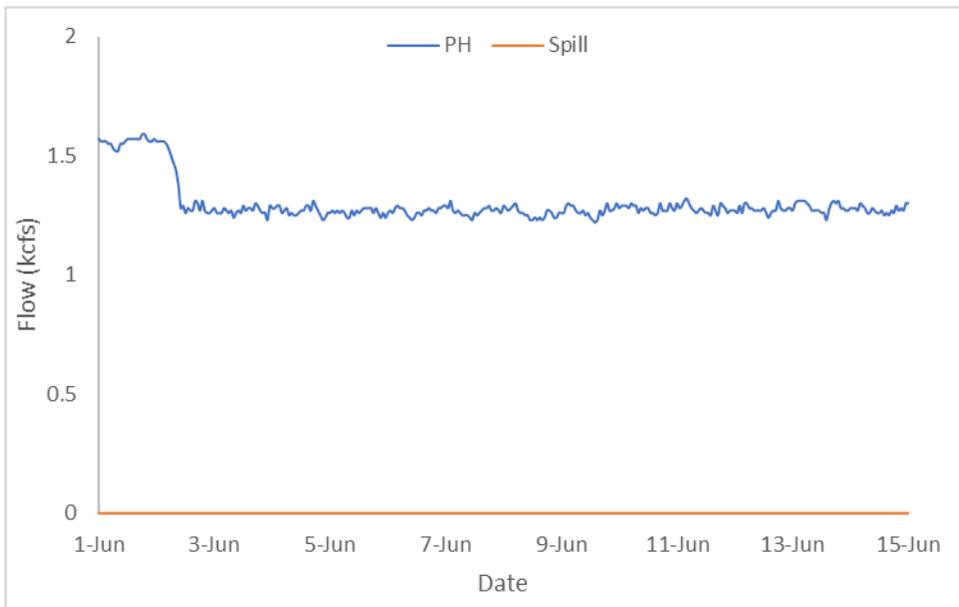
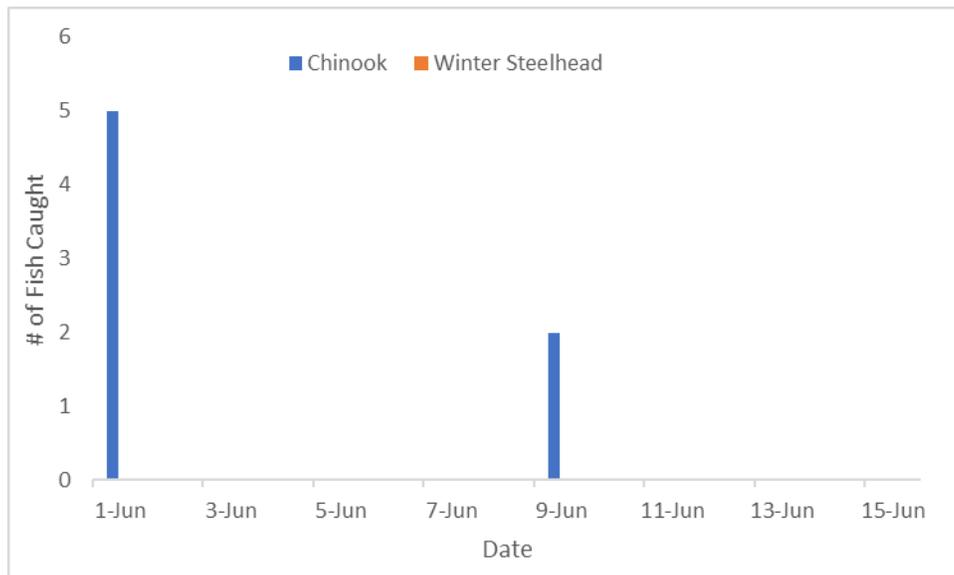


Figure 17. Hourly Flows PWR vs. Spill (Big Cliff Dam)

Middle Fork Santiam– Green Peter Tailrace

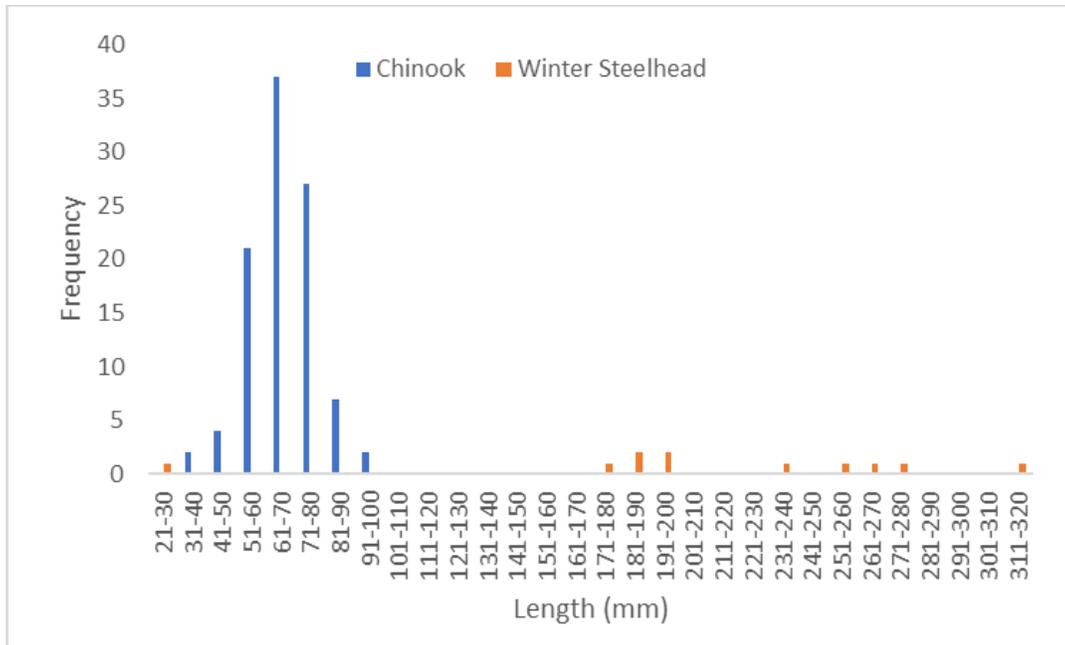
Target Species

This reporting period began on June 1st and ended on June 15th. 7 Chinook Salmon (CHS) and 0 Winter Steelhead (STW) were captured during the 15-day sampling period. Sampling duration was 100.0% 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 18 shows the daily capture numbers for Chinook and Winter Steelhead and Figure 19 shows length frequency data to-date.



*Recaptured fish for trapping efficiency trials not included.

Figure 18. Chinook and Winter Steelhead Captured Per Day 06/01/2023 to 06/15/2023 (Green Peter Tailrace- Middle Santiam)



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

Figure 19. Length Frequency of Juvenile Chinook and Winter Steelhead Sampled Season To-Date (Green Peter Tailrace- Middle Santiam River)

Trapping Efficiency

A total of 1,001 dead juvenile hatchery Chinook (parr) were bismarck brown dyed and released on 5/11/2023 below Green Peter Dam. A total of 0 fish were recaptured in the 8ft trap. Trapping efficiency was 0%.

Green Peter Dam Tailrace- Middle Santiam	Release #	Recapture #	Capture Efficiency
8ft Trap	1,001	0	0% (0/1,001)

A total of 999 juvenile hatchery Chinook (parr) were bismarck brown dyed, adipose fin clipped and released on 5/11/2023 below Green Peter Dam. A total of 2 fish were recaptured in the 8ft trap on 5/12/2023. 7 more fish were captured on 5/16/2023. Trapping efficiency was 0.9%.

Green Peter Dam Tailrace- Middle Santiam	Release #	Recapture #	Capture Efficiency
8ft Trap	999	9	0.9% (9/999)

A total of 1,000 juvenile hatchery Chinook (parr) were bismarck brown dyed, adipose fin clipped and released on 5/25/2023 below Green Peter Dam. A total of 10 fish were recaptured in the 8ft trap on 5/26/2023. Trapping efficiency was 1.0%.

Green Peter Dam Tailrace- Middle Santiam	Release #	Recapture #	Capture Efficiency
8ft Trap	1,000	10	1.0% (10/100)

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	CHS	Fry	15	33	66	52.8	1.1	5.4	2.7
		CHS	Parr	82	44	97	68.6	1.1	10.8	3.8
		CHS	Smolt	3	73	98	85.0	3.3	9.6	6.7
		STW	Fry	1	29	29	29	N/A	N/A	N/A
		STW	Parr	0	0	0	0	0	0	0
		STW	Smolt	5	174	318	228.6	54.4	340.0	122.3

June 1-15, 2023										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Green Peter Dam Tailrace-Middle Santiam	Spill	CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	7	44	97	71.1	1.1	10.8	5.3
		CHS	Smolt	0	N/A	N/A	N/A	N/A	N/A	N/A
		STW	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		STW	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		STW	Smolt	0	N/A	N/A	N/A	N/A	N/A	N/A

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

24-Hour Post Collection Holding Trial

2 Spring Chinook and 0 Winter Steelhead were captured during the current reporting period and held for 24 hours. 0 Chinook (0.0%) and 0 Winter Steelhead (0.0%) died in holding.

Injuries and Copepod Infection

Partial descaling <20% was observed in 2 of the 7 Spring Chinook captured (28.6%) and 2 displayed descaling >20% (14.3%), 4 displayed body injury (57.1%), 0 had eye injury (0.0%), 0 had copepods present in the branchial cavity (0.0%) and 0 had copepods on fins (0.0%). 1 Spring Chinook displayed gas bubble disease (Level 2) (14.3%). There were 5 mortalities (71.4%).

Partial descaling <20% was observed in 0 of the 0 Winter Steelhead captured (0.0%) and 0 displayed descaling >20% (0.0%), 0 displayed body injury (0.0%), 0 had eye injury (0.0%), 0 had copepods present in the branchial cavity (0.0%) and 0 had copepods on fins (0.0%). 0 Winter Steelhead displayed gas bubble disease (0.0%). There were 0 mortalities (0.0%).

A summary of injuries observed on Chinook Salmon and 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 and Winter Steelhead for Sampling Period. (Green Peter Tailrace- Middle Santiam River).

Site	Species	# Collected	# DSC* <20%	# DSC* >20%	# with Body Injuries	# with Eye Injuries	# with COP* In B.C.	# with COP* on Fins	Mortalities
Green Peter	CHS	7	2	1	4	0	0	0	5
	STW	0	0	0	0	0	0	0	0

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

Collected DNA and Scale Samples

For the reporting period, scales and/or DNA were collected from 6 Spring Chinook and 0 Winter Steelhead. The other targets captured did not meet length criteria for DNA sampling or were too descaled/damaged to collect samples.

PIT Tags

No Spring Chinook or Winter Steelhead were PIT tagged during this reporting period. The first 60 target fish per week are prioritized for the 24-Hour Post Collection Holding Study. These fish are not tagged to not bias the results of the holding study. More information regarding PIT tagged fish can be found in Appendix D.

Non-Target Species

72 non-targets were captured during this sampling period. A summary of non-target species catch and mortality numbers for 2023 are listed in table 10.

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

Species	Capture	Mortality	Season Total Capture	Season Total Mortality
Bluegill	18	7	120	66
Crappie	0	0	28	17
Kokanee	51	17	2510	1398
Kokanee (clipped)	0	0	10	2
Largemouth Bass	0	0	1	0
<i>O. mykiss</i> (clipped)	2	0	25	6
Smallmouth Bass	1	0	5	3
Dace	0	0	1	1
Unknown	0	0	1	1
Totals	72	24	2701	1494

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 and 14186200. Gage height (feet) is the only metric provided at gage 14186110. Total dissolved gas saturation data was received from gage number 14186200, 50 meters upstream of the trap. During the reporting period, daily maximum values for instantaneous gage height ranged from 697.9 feet to 698.6 feet (mean: 698.4 feet). Figure 20 shows instantaneous gage height.

Total dissolved gas saturation ranged from 101 to 122% (mean: 109.8%) during the reporting period. Figure 21 shows the total dissolved gas saturation.

Stream temperatures were recorded every 2 hours for the length of the report period for the RST (Figure 22). Temperature probes operated normally throughout this reporting period.

Flows through the Powerhouse and Spillway during the reporting period averaged 880.0 and 640.9 cubic feet per second (cfs) respectively (Figure 23). 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	7	0
Effort (hrs)	360.2	360.2
CPUE (fish/hr)	0.019	0

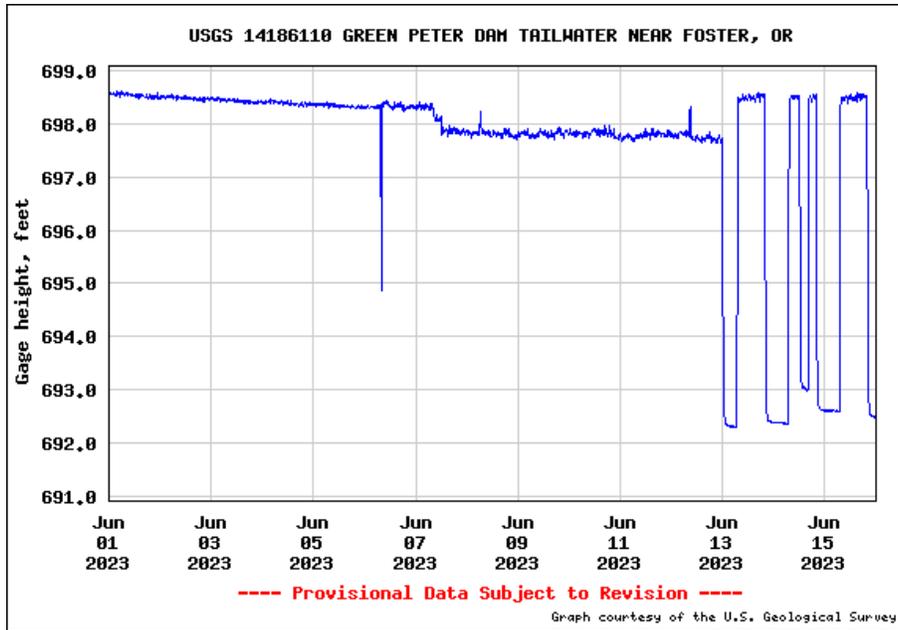


Figure 20. Gage Height (feet); below Green Peter Dam

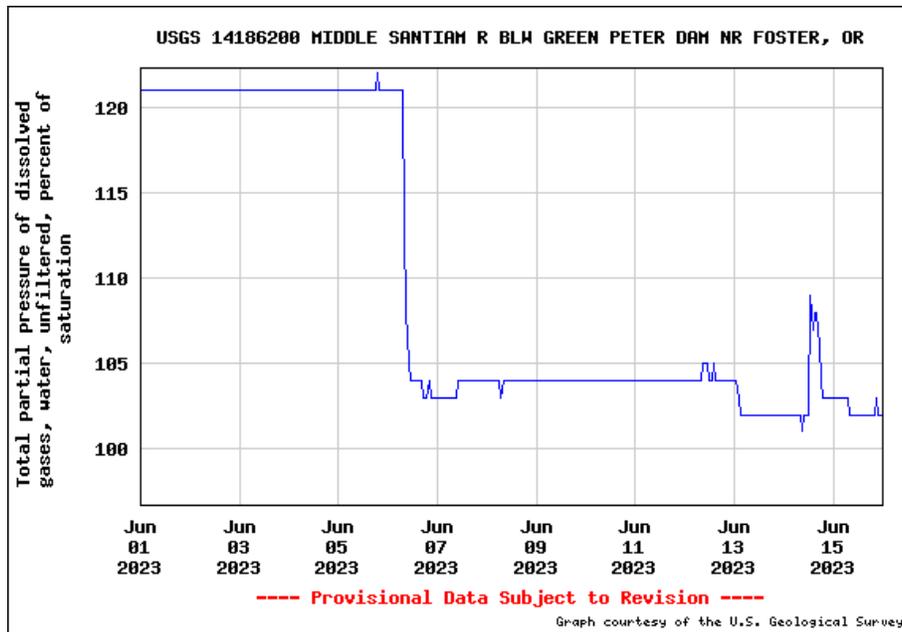


Figure 21. Total Dissolved Gas Saturation (%); below Green Peter Dam

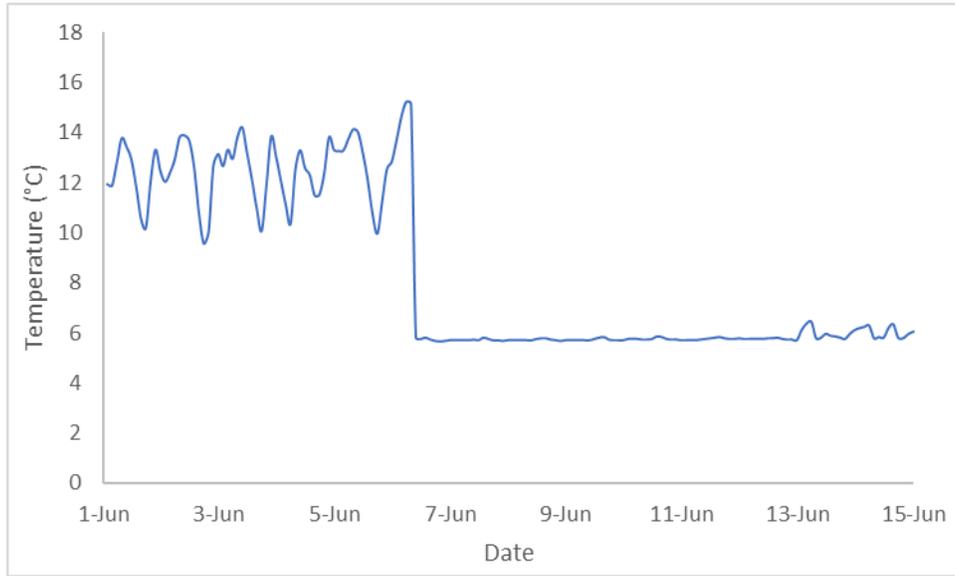


Figure 22. Temperature at RST (Green Peter Tailrace- Middle Santiam River)

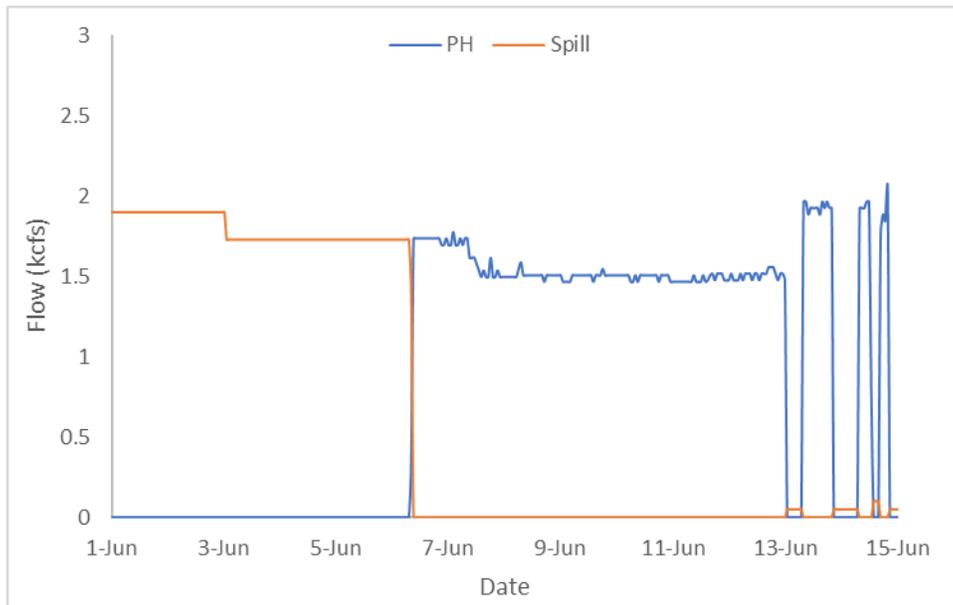


Figure 23. Hourly Flows PWR vs. Spill (Green Peter Dam)

South Fork Santiam– Foster Dam Head of Reservoir

Target Species

This reporting period began on June 1st and ended on June 15th. There were 5 Chinook salmon (CHS) and 2 Winter Steelhead (STW) captured 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 24 shows the daily capture numbers for Chinook and Winter Steelhead and Figure 25 shows length frequency data to-date for both species.

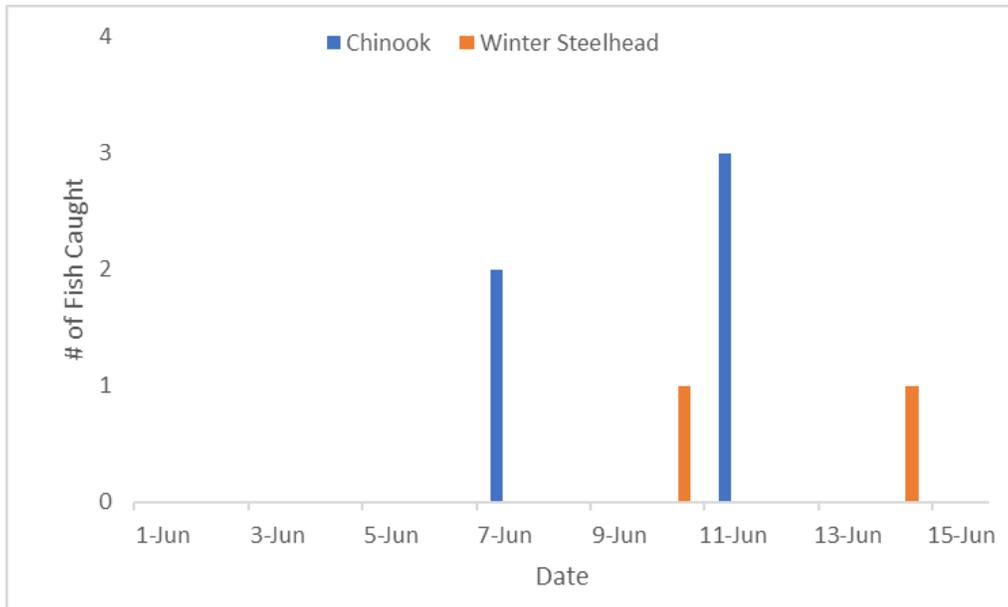


Figure 24. Chinook and Winter Steelhead Captured Per Day 06/01/2023 to 06/15/2023 (Foster Dam Head of Reservoir- South Santiam)

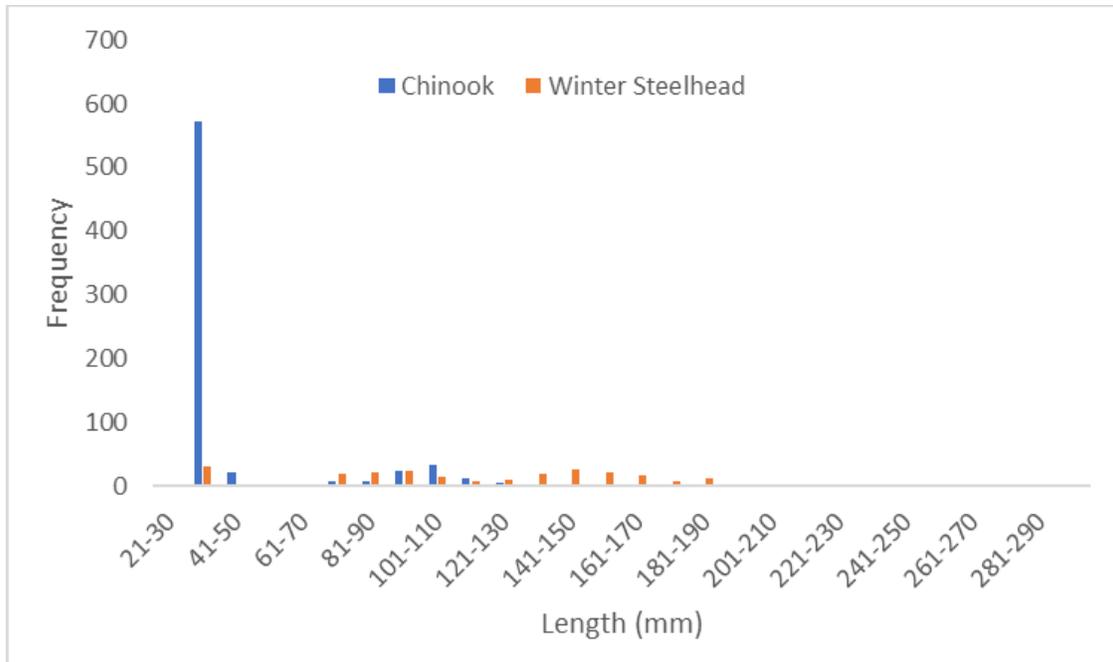


Figure 25. Length Frequency of Juvenile Chinook and Winter Steelhead Sampled Season To-Date (Foster Dam Head of Reservoir- South Santiam)

Trapping Efficiency

A total of 1,003 juvenile hatchery Chinook (yearlings) were bismarck brown dyed, adipose clipped and released on 06/02/2023 at Cascadia Park above the Foster Dam Head of Reservoir- South Santiam trap. 60 fish were recaptured in the 5ft trap. Trapping efficiency was 5.99%.

Foster Dam Head of Reservoir- South Santiam (6/2/2023)	Release #	Recapture #	Capture Efficiency
5 ft Trap	1,003	60	5.99% (60/1,003)

Run of River Trapping Efficiency

Run of river fish captured in the RST have been caudal clipped and released upstream to perform run of river trapping efficiency trials. Only fish large enough to be safely caudal clipped have been used for run of river efficiency trials. Due to low catch numbers, run of river trapping efficiency trials have been suspended until catch rates increase. This year, 27 Spring Chinook and 9 Winter Steelhead have been caudal clipped and released upstream for the purpose of conducting run of river trapping efficiency trials. Release numbers and recaptures for this reporting period are summarized below.

Foster Dam Head of Reservoir- South Santiam	Release #	Recapture #
Chinook	0	0
Winter Steelhead	0	0

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

To-Date (Since Dec. 01, 2021)										
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	597	30	50	36.1	N/A	N/A	N/A
		CHS	Parr	57	56	161	95.7	1.9	44.3	11.7
		CHS	Smolt	44	91	146	110.8	7.3	34.9	14.9
		STW	Fry	37	28	46	34.3	N/A	N/A	N/A
		STW	Parr	125	51	183	106.3	1.7	63.6	16.6
		STW	Smolt	95	100	213	159.8	11.2	164.0	42.8

June 1-15, 2023										
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	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	4	62	78	72.5	1.4	7.1	4.6
		CHS	Smolt	1	91	91	91.0	7.4	7.4	7.4
		STW	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		STW	Parr	1	122	122	122.0	24.0	24.0	24.0
		STW	Smolt	1	138	138	138.0	26.3	26.3	26.3

Injuries and Copepod Infection

Partial descaling <20% was observed on 4 of the 5 Spring Chinook captured (80.0%). Body injuries were present on 2 Spring Chinook (40.0%) and 0 displayed eye injury (0.0%). No copepods were present in the branchial cavity (0.0%) and 0 fish displayed copepods on the fins (0.0%). There were 0 mortalities (0.0%).

Partial descaling <20% was observed on 2 of the 2 Winter Steelhead captured (100.0%). Body injuries were present on 2 Winter Steelhead (100.0%) and 0 displayed eye injury (0.0%). 1 fish displayed copepods in the branchial cavity (50.0%) and 0 fish displayed copepods on the fins (0.0%). There were 0 mortalities (0.0%). 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	5	4	0	2	0	0	0	0
	Winter Steelhead	2	2	0	2	0	1	0	0

Collected DNA and Scale Samples

For the reporting period, DNA and scales were collected from 5 Spring Chinook and 2 Winter Steelhead. The other targets captured did not meet length criteria for DNA sampling or were too descaled/damaged to collect samples.

PIT Tags

1 Spring Chinook and 2 Winter Steelhead were PIT tagged during this reporting period. Three Chinook were not tagged this reporting period due to an HPR malfunction. More information regarding PIT tagged fish can be found in Appendix D.

Non-Target Species

90 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	5 ft Capture	5 ft Mortality	Season Total	Season Total Mortality
Brook Lamprey	0	0	0	0
Cutthroat Trout	0	0	1	0
Dace	81	0	103	0
Largescale Sucker	9	0	10	0
Northern Pikeminnow	0	0	0	0
Sculpin	0	0	1	0
Unknown	0	0	1	0
Totals	90	0	119	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 gauge number 14185000. Discharge (cfs) and Gauge height (feet) are available at this gauge. During the reporting period, daily maximum values for instantaneous discharge ranged from 150.0 cfs to 363.0 cfs (mean: 244.2 cfs). Figure 26 shows instantaneous discharge.

Stream temperatures were recorded every 2 hours for the length of the report period for the RST (Figure 27). Temperature probes for the trap 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	5	2
Effort (hrs)	364.4	364.4
CPUE (fish/hr)	0.014	0.005

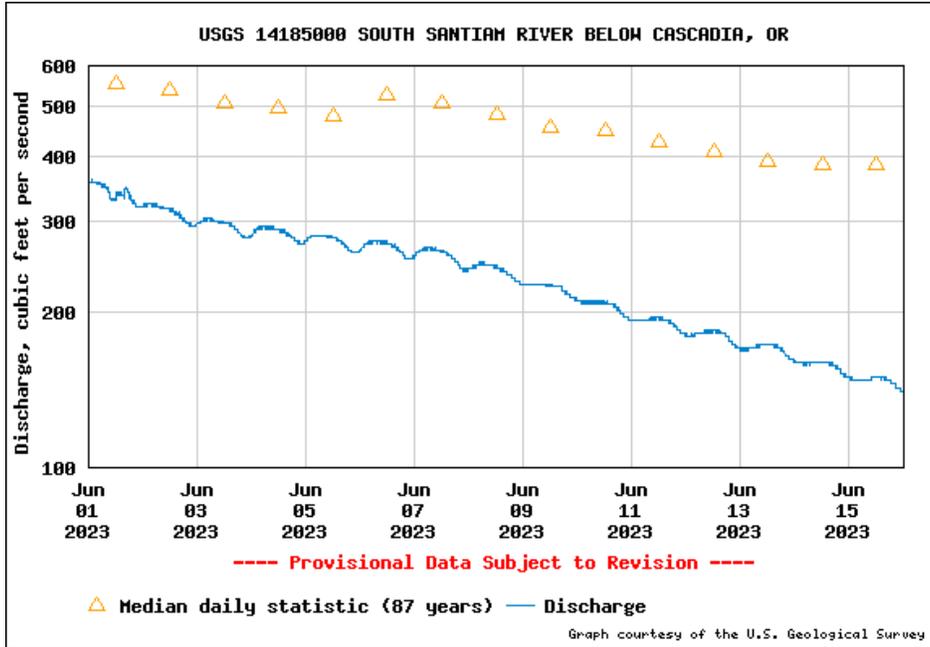


Figure 26. Discharge (cfs); Foster Dam Head of Reservoir – S. Santiam)

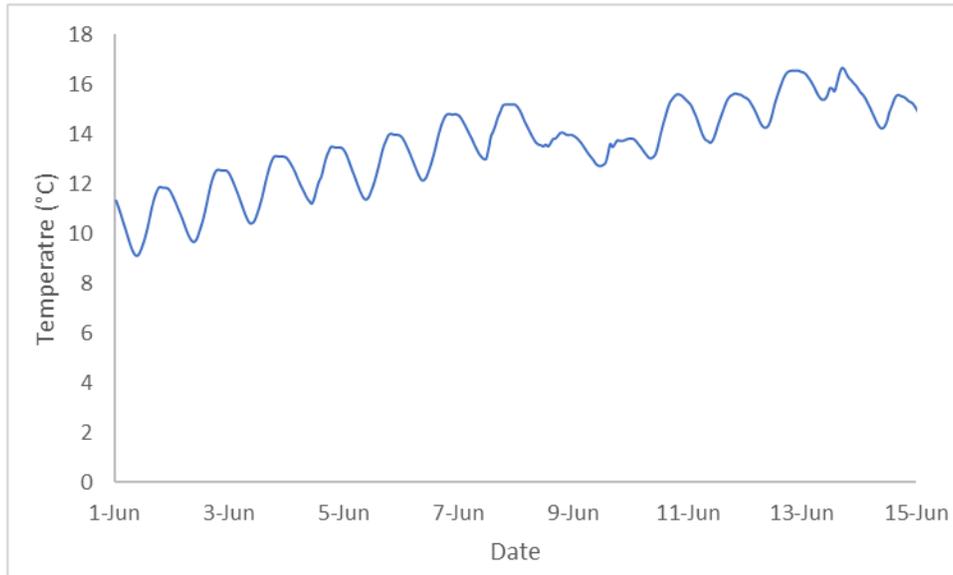
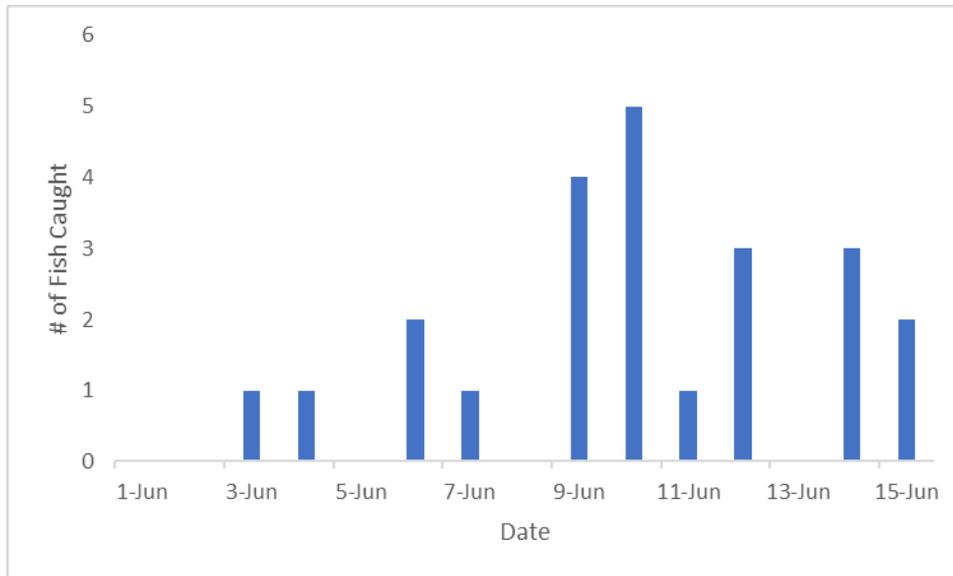


Figure 27. Temperature at RST (Foster Dam Head of Reservoir – S. Santiam)

South Fork McKenzie – Cougar Dam

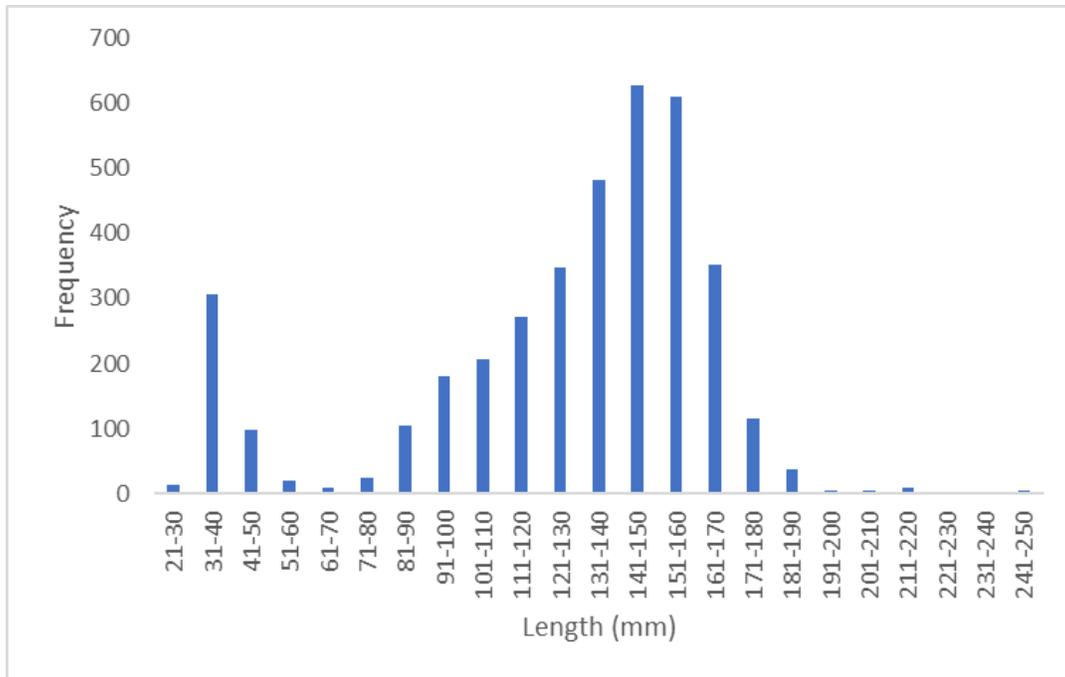
Target Species

This reporting period began on June 1st and ended on June 15th. There were a total of 23 Chinook Salmon (CHS) captured during the 15-day sampling period. The Cougar Dam RO trap was removed on June 8th to allow for resurfacing of the regulating outlet. Sampling duration was 46.7% for the RO RST and 100.0% for the Powerhouse RSTs. 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 28 shows the daily capture numbers for chinook and Figure 29 shows length frequency data to-date.



*Recaptured fish for trapping efficiency trials not included.

Figure 28. Chinook Captured Per Day 06/01/2023 to 06/15/2023 (Cougar Dam)



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

Figure 29. Length Frequency of Juvenile Chinook Sampled Season To-Date (Cougar Dam)

Trapping Efficiency

A total of 510 juvenile hatchery Chinook (sub-yearlings) were adipose clipped, right vent clipped and released in the PWR channel on 6/6/23. 67 fish were recaptured in the PWR RST for an efficiency of 13.1%.

Cougar Dam (06/6/2023)	Release #	Recapture #	Capture Efficiency
PWR Route	510	67	13.1% (67/510)

Run of River Trapping Efficiency

Run of river fish were captured, caudal clipped or PIT tagged and released for the purpose of conducting run of river trapping efficiency trials at Cougar Dam. Numbers of fish released and recaptured by route for the reporting period are listed below.

Cougar Dam	Release #	Recapture #
PH	0	0
RO	0	0

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

To-Date (Since Dec. 01, 2021)										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Cougar Dam	RO	CHS	Fry	39	33	52	39.5	N/A	N/A	N/A
		CHS	Parr	251	56	164	106.6	1.2	41.1	14.2
		CHS	Smolt	2302	90	247	145.9	4.7	142.4	34.9
Cougar Dam	PWR	CHS	Fry	386	25	55	38.0	1.0	1.8	1.2
		CHS	Parr	289	50	165	97.1	1.1	41.0	10.2
		CHS	Smolt	567	76	223	138.8	4.2	113.5	30.0

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

June 1-15, 2023										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Cougar Dam	RO	CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Smolt	0	N/A	N/A	N/A	N/A	N/A	N/A
Cougar Dam	PWR	CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	18	50	96	67.8	1.1	8.3	4.1
		CHS	Smolt	5	90	182	153.6	8.3	74.4	43.3

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

24-Hour Post Collection Holding Trial

A total of 19 Chinook captured in the RSTs, 19 fish from the PWR RST and 0 from the RO RST, were held for ~24 hours in holding tanks and then evaluated for survival rates. In total, 1 of the 19 fish (5.3%) held during this period died during holding. 1 of the 19 PWR RST captured fish (5.3%) died during holding and 0 of the 0 RO RST captured fish (0.0%) died during holding.

Injuries and Copepod Infection

Partial descaling <20% was observed on 12 of the 23 Chinook collected at the PWR RST (52.2%). Descaling >20% was observed on 3 of the Chinook (13.0%). There were 12 fish with bodily injuries (52.2%) and 1 had eye injuries (4.3%). 4 fish had copepods present in the branchial cavity (17.4%) and 3 had copepods present on fins (13.0%). 0 fish displayed Gas Bubble Disease (0.0%). There were 4 chinook mortalities collected in the PWR RST (17.4%).

Partial descaling <20% was observed on 0 of the 0 Chinook collected at the RO RST (0.0%). Descaling >20% was observed on 0 of the Chinook (0.0%). There were 0 fish with bodily injuries (0.0%) and 0 had eye injuries (0.0%). 0 fish had copepods present in the branchial cavity (0.0%) and 0 had copepods present on fins (0.0%). 0 fish displayed Gas Bubble Disease (0.0%). There were 0 chinook mortalities collected in the RO RST (0.0%).

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 Dam	RO	0	0	0	0	0	0	0	0
Cougar Dam	PWR	23	12	3	12	1	4	3	4

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

Collected DNA and Scale Samples

For the reporting period, scales and DNA were collected from 23 Spring Chinook. The other targets captured did not meet length criteria for DNA sampling or were too damaged to remove scales.

PIT Tags

0 Spring Chinook were PIT tagged during this reporting period. The first 60 target fish per week are prioritized for the 24-Hour Post Collection Holding Study. These fish are not tagged to not bias the results of the holding study. More information regarding PIT tagged fish can be found in Appendix D.

VIE Marking

No VIE marked Spring Chinook have been detected at this site to date.

Non-Target Species

23 non-target 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
Brook Lamprey	0	0	0	0	0	0
Bluegill	0	0	0	0	0	0
Bull Trout	0	0	1	0	2	0
Chinook (clipped)	0	0	2	0	28	1
Chinook (Adult)	0	0	0	0	0	0
Crappie	0	0	0	0	0	0
Cutthroat Trout	0	0	4	0	4	0
Dace	2	0	496	0	507	1
Largescale Sucker	0	0	4	0	6	0
Mountain Whitefish	0	0	1	0	10	2
Northern Pikeminnow	0	0	0	0	0	0
<i>O. mykiss</i>	0	0	25	0	38	0
Sculpin	0	0	22	1	30	2
Smallmouth Bass	0	0	0	0	0	0
Spotted Bass	0	0	0	0	0	0
Unknown	0	0	0	0	0	0
Totals	2	0	555	1	584	6

Stream Statistics

Basic stream statistics at the Cougar Dam site were calculated from data downloaded from U.S. Geological Survey stream gauge numbers 14159410 and 14181500. Gauge height (feet) is the only metric provided at gauge 14159410. Total dissolved gas saturation data was received from gauge 14181500, 500 meters downstream of the trap. During the reporting period, daily maximum values for instantaneous gauge height ranged from 1,252.7 to 1,252.8 feet (mean: 1,252.7 feet). Figure 30 shows instantaneous gauge height.

Total dissolved gas saturation ranged from 101 to 113% (mean: 103.9%). Figure 31 shows total dissolved gas saturation.

Stream temperatures were recorded every 2 hours for the length of the report period for the RO and PWR RST's (Figure 32 and Figure 33 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 375.8 and 0 cubic feet per second (cfs) respectively (Figure 34). 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	0	23
Effort (hrs)	167.3	717.4
CPUE (fish/hr)	0	0.032

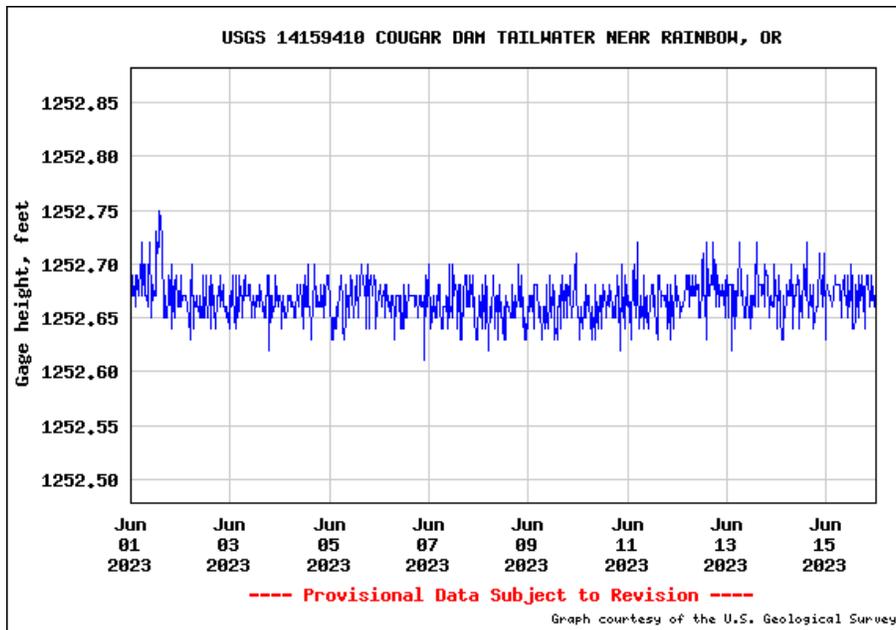


Figure 30. Gauge Height (feet); below Cougar Dam, South Fork McKenzie River

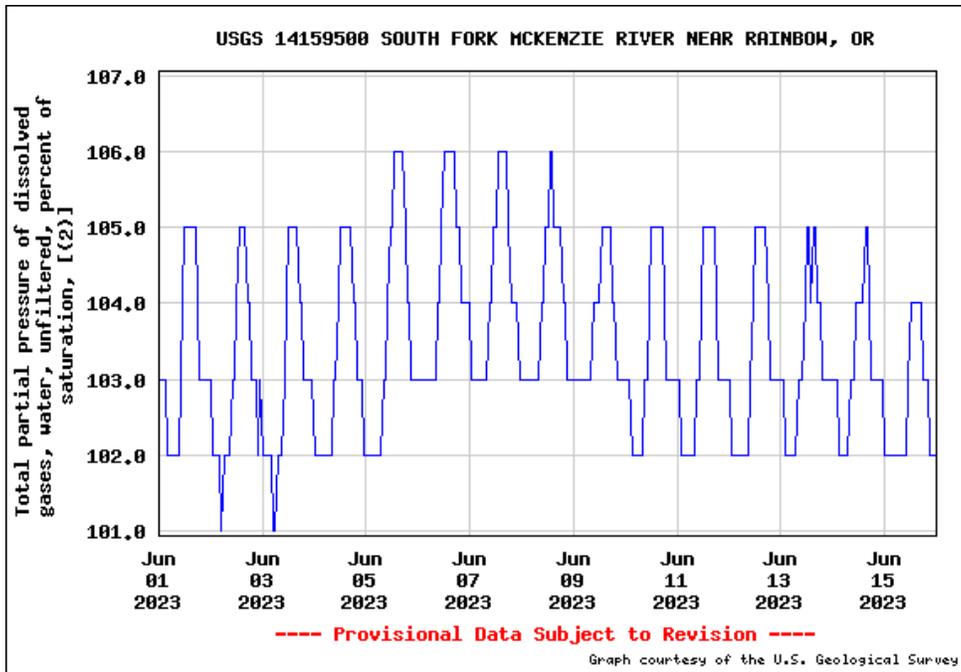


Figure 31. Total Dissolved Gas Saturation (%); below Cougar Dam, South Fork McKenzie River

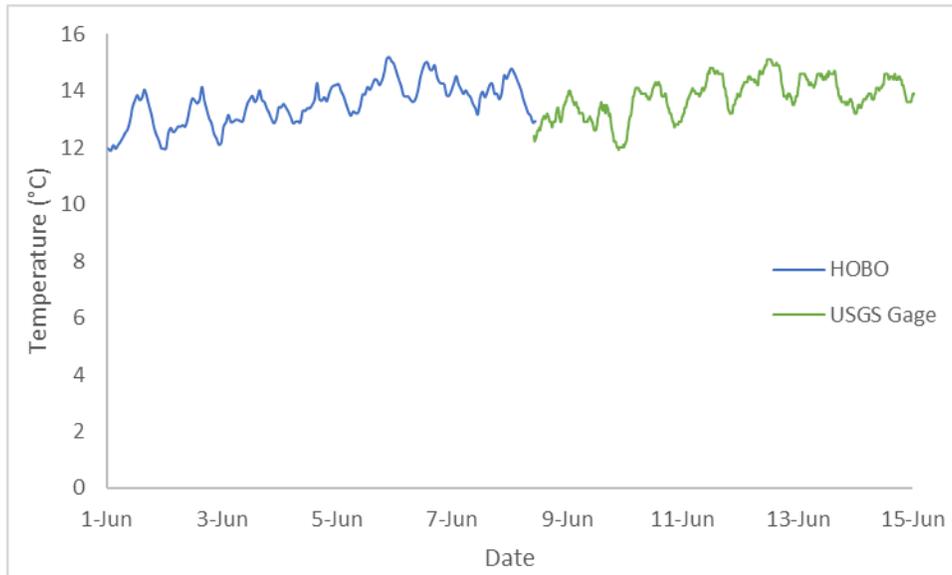


Figure 32. Temperature at RO RST (Cougar Dam)

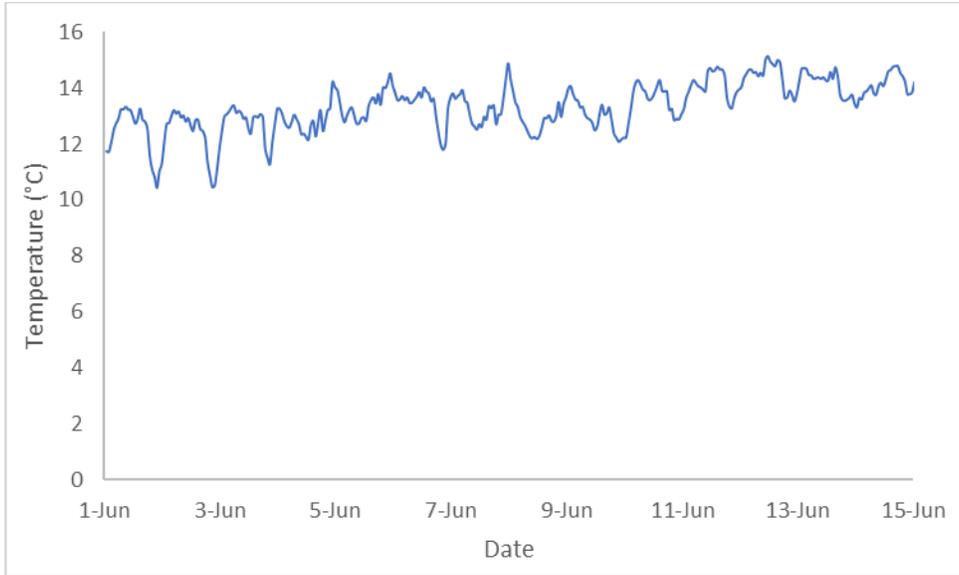


Figure 33. Temperature at PWR RST (Cougar Dam)

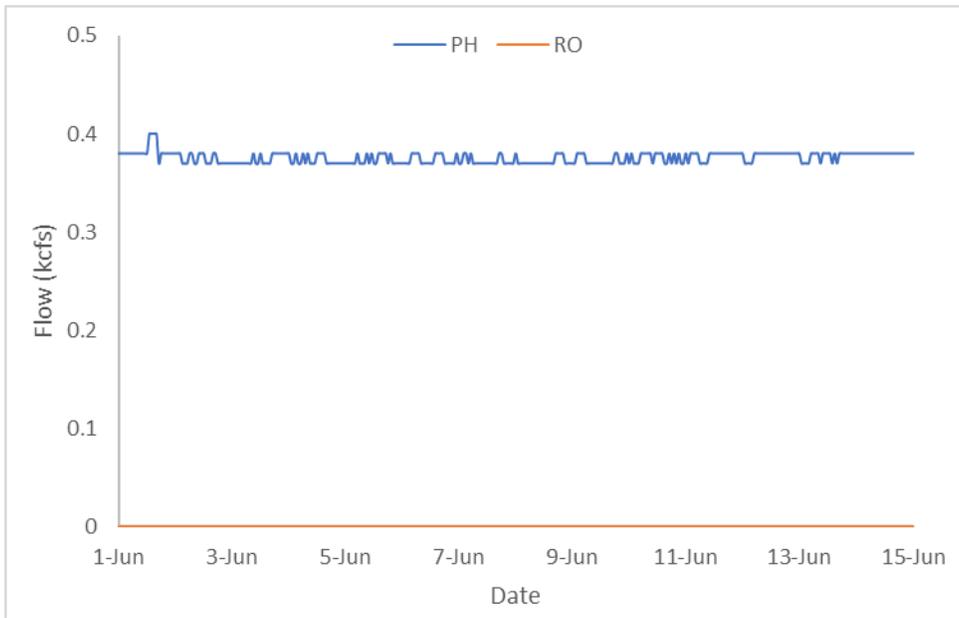


Figure 34. Hourly Flows PWR vs. RO (Cougar Dam)

South Fork of the McKenzie–Cougar Dam Head of Reservoir

Target Species

The reporting period began June 1st and ended on June 15th. There were 604 Chinook salmon captured during the 15-day sampling period (Figure 35). The trap was operated 100% 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 36 shows length frequency data to-date.

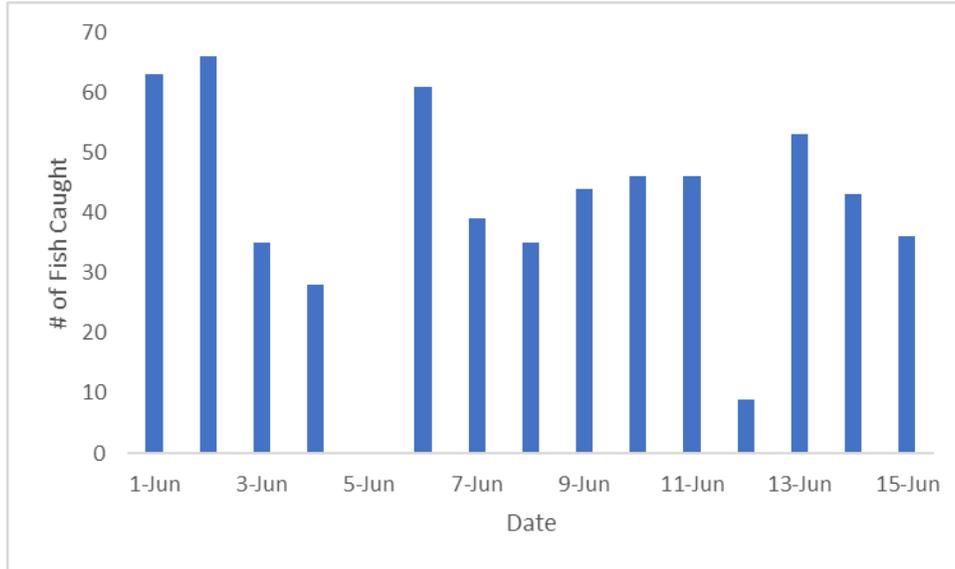


Figure 35. Chinook Captured Per Day 06/01/2023 to 06/15/2023 (Cougar Dam Head of Reservoir)

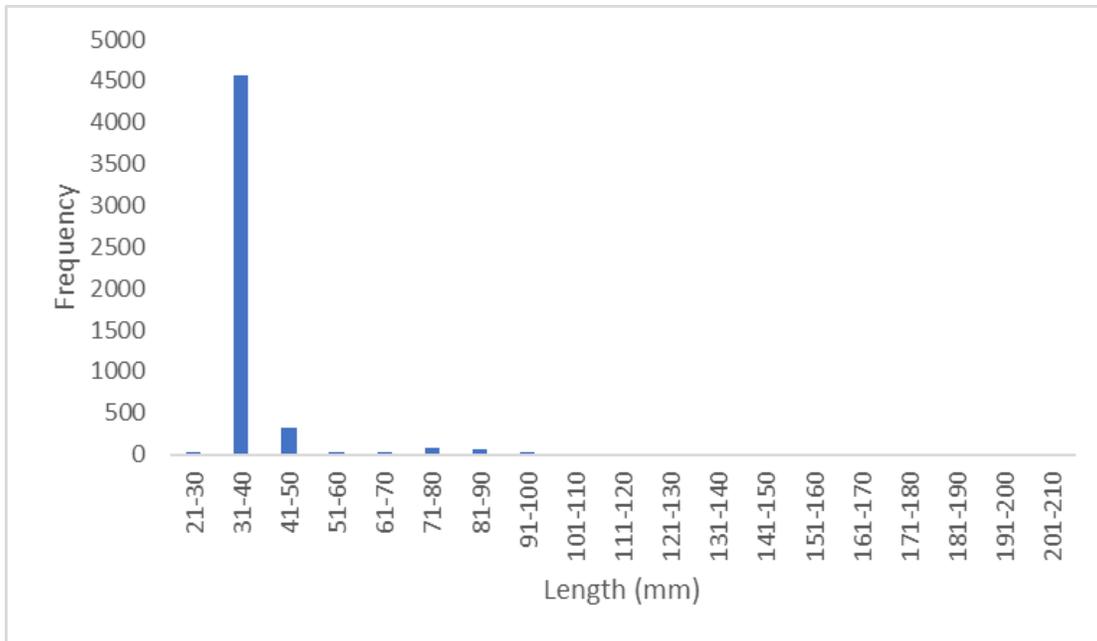


Figure 36. Length Frequency of Juvenile Chinook Sampled Season To-Date (Cougar Dam Head of Reservoir)

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

To-Date (Since March 07, 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	8	70	100	87.6	3.3	10.4	7.1
		CHS	Parr	217	40	150	78.3	1.0	13.7	5.6
		CHS	Fry	4919	25	63	36.1	0.6	2.8	1.3

June 1-15, 2023										
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	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	11	40	47	42.6	1.0	1.4	1.2
		CHS	Fry	593	25	54	38.0	1.0	4.2	1.4

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

Trapping Efficiency

A total of 510 juvenile hatchery Chinook were adipose clipped and released on 6/8/2023 upstream of the Cougar Head of Reservoir trap site. A total of 23 fish were recaptured in the 5 ft trap. Trapping efficiency was 4.5%.

Cougar Dam Head of Reservoir (6/8/2023)	Release #	Recapture #	Capture Efficiency
5ft trap	510	23	4.5% (23/510)

Injuries and Copepod Infection

604 Chinook were captured for the reporting period. Of the fish captured, partial descaling <20% was observed on 3 fish (0.5%) and descaling >20% was observed on 0 fish (0.0%). 16 fish had bodily injury (2.6%). 1 fish displayed eye injuries (0.2%). 0 fish had copepods in the branchial cavity (0.0%), 0 had copepods on fins (0.0%). There was 1 mortality for this reporting period (0.2%). 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	604	3	0	16	1	0	0	1

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

Collected DNA and Scale Samples

Scales were collected from 35 of the Chinook captured. 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).

PIT Tags

0 Spring Chinook were PIT tagged during this reporting period. More information regarding PIT tagged fish can be found in Appendix D.

VIE Marking

Visual Implant Elastomer (VIE) trials commenced at the Cougar Dam Head of Reservoir site on 6/25/2022. VIE tag color and locations are changed every month to distinctly mark groups of fish by capture date. Since then, 2,797 Chinook have been VIE marked with fluorescent elastomer. No fish with VIE marks have been detected at downstream RST sites to date. Fish still showing an egg sac are not VIE marked.

Date Tagged	Tag Location	VIE Color	# Tagged	# Recaptured to Date
6/25/2022-7/15/2022	Left Dorsal	Yellow	30	0
9/15/2022-9/30/2022	Left Dorsal	Orange	1	0
10/1/2022-10/15/2022	Left Dorsal	Pink	1	0
11/1/2022-11/15/2022	Left Dorsal	Green	1	0
2/16/2023-2/28/2023	Right Dorsal	Yellow	1	0
3/1/2023-3/15/2023	Right Dorsal	Red	1	0
3/16/2023-3/31/2023	Right Dorsal	Red	9	0
4/1/2023-4/15/2023	Right Dorsal	Blue	85	0

4/16/2023-4/30/2023	Right Dorsal	Blue	288	0
5/1/2023-5/15/2023	Right Dorsal	Orange	496	0
5/16/2023-5/31/2023	Right Dorsal	Orange	1397	0
6/1/2023-6/15/2023	Right Dorsal	Pink	487	0

Non-Target Species

18 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
Bull Trout	1	0	3	0
Cutthroat Trout	0	0	3	0
Dace	1	0	1	0
Mountain Whitefish	1	1	2	1
Northern Pikeminnow	0	0	0	0
<i>O. mykiss</i>	12	0	139	0
Sculpin	3	0	4	0
Unknown	0	0	1	1
Totals	18	1	153	2

Stream Statistics

Basic stream statistics at the site were calculated from data downloaded from the U.S. Geological Survey stream gauge number 14159200. During the reporting period, daily maximum values for instantaneous discharge ranged from 346.0 cfs to 664.0 cfs (mean: 488.4 cfs). Figure 37 shows instantaneous discharge.

Stream temperatures were recorded every two hours using a temperature probe at the Cougar Dam Head of Reservoir RST site during this reporting period. The temperature probe operated normally, and the data is shown below in figure 38.

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.

Description	Chinook
	5 ft
Catch	604
Effort (hrs)	363.0
CPUE (fish/hr)	1.664

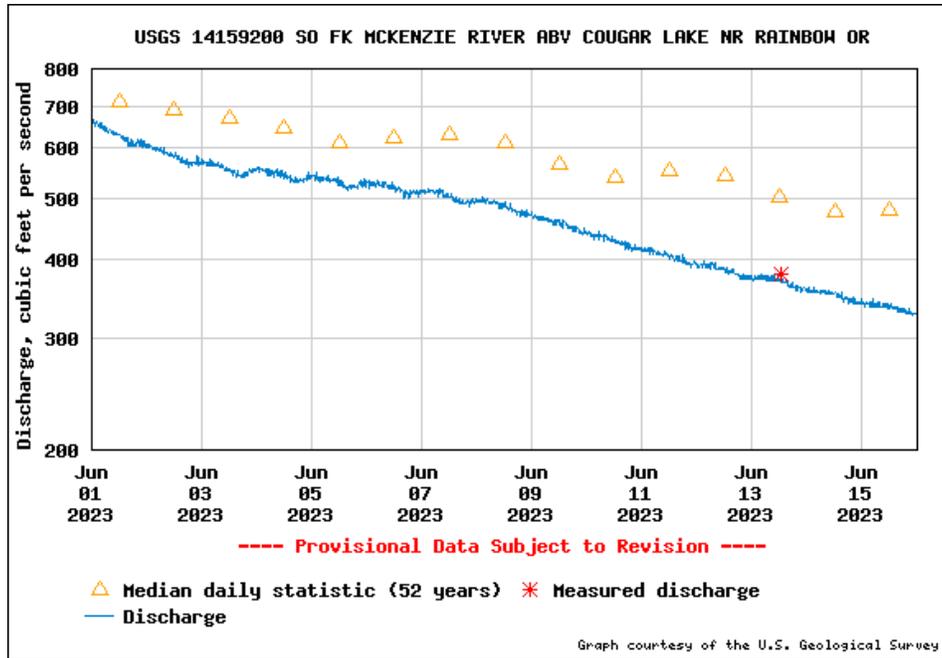


Figure 37. Discharge (cfs); South Fork McKenzie above Cougar Dam

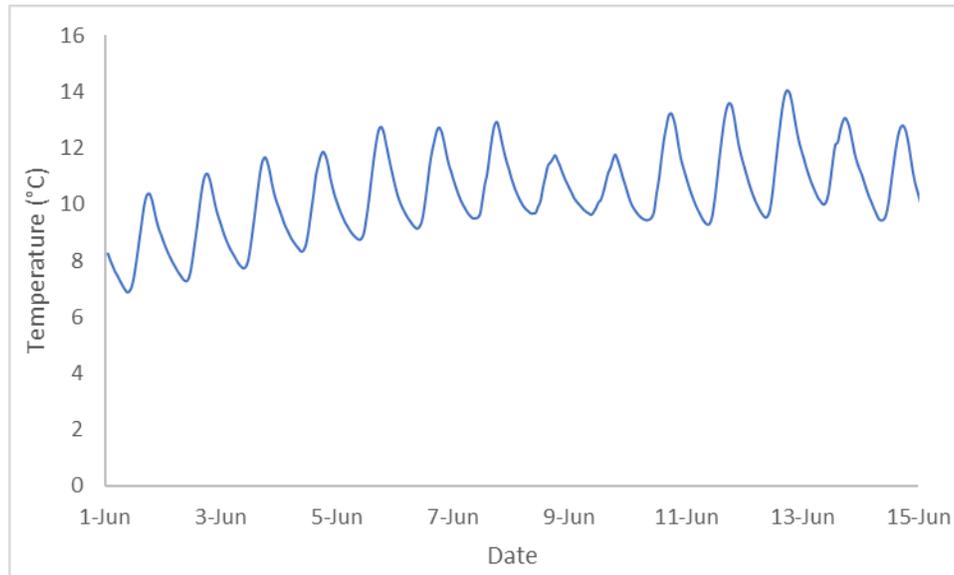


Figure 38. Temperature at RST (Cougar Dam Head of Reservoir)

Fall Creek Dam Tailrace

The reporting period began June 1st and ended June 15th. 0 Chinook salmon were captured during the 15-day sampling period (Figure 39). The trap sampled 100.0% of the days during this 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 40 shows length frequency data to-date.

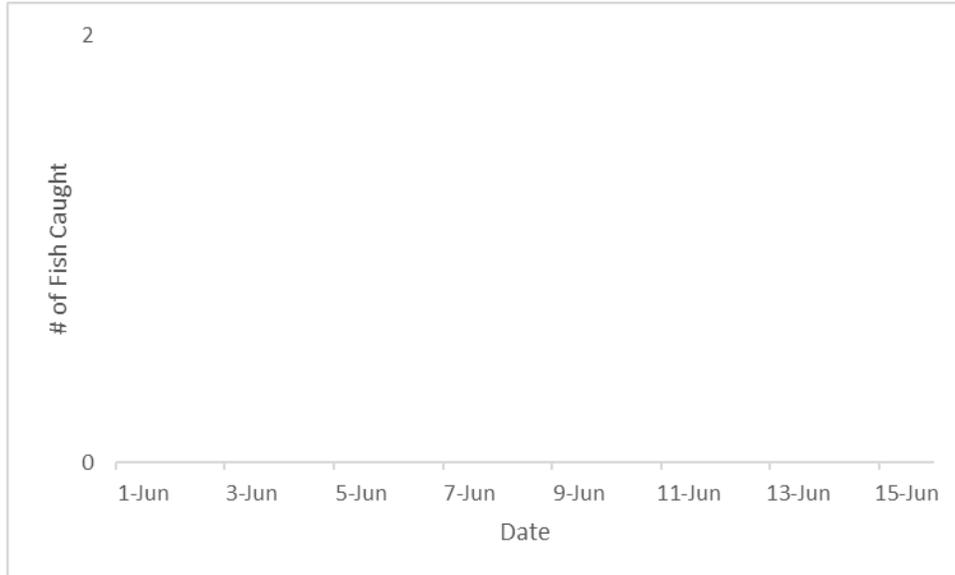


Figure 39. Chinook Captured Per Day 06/01/2023 to 06/15/2023 (Fall Creek Dam Tailrace)

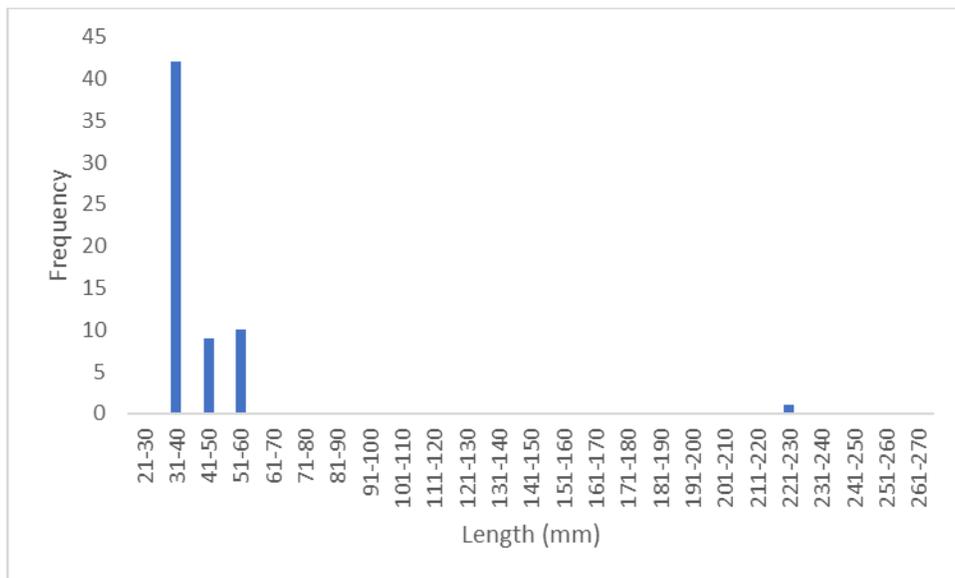


Figure 40. Length Frequency of Juvenile Chinook Sampled Season To-Date (Fall Creek Dam Tailrace)

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	1	230	230	230.0	141.1	141.1	141.1
		CHS	Parr	7	40	60	53.9	2.1	4.5	3.3
		CHS	Fry	54	33	55	39.2	1.3	3.2	1.9
June 1-15, 2023										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Fall Creek Dam	RO	CHS	Smolt	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A

24-Hour Post Collection Holding Trial

0 Spring Chinook was captured during the current reporting period and held for 24 hours. 0 Chinook (0.0%) died in holding.

Injuries and Copepod Infection

0 Chinook were captured during this reporting period. 0 fish displayed descaling >20% (0.0%) and 0 fish had bodily injuries (0%). 0 fish displayed eye injuries (0.0%). 0 fish had copepods in the branchial cavity (0.0%). There were 0 mortalities (0.0%). 0 fish displayed Gas Bubble Disease (0%). 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

Collected DNA and Scale Samples

No Chinook were captured during this reporting period.

PIT Tags

No Spring Chinook were PIT tagged during this reporting period. The first 60 target fish per week are prioritized for the 24-Hour Post Collection Holding Study. These fish are not tagged to not bias the results of the holding study. More information regarding PIT tagged fish can be found in Appendix D.

VIE Marking

No VIE marked Spring Chinook have been detected at this site to date.

Trapping Efficiency

A total of 998 juvenile hatchery Chinook (sub yearlings) were adipose clipped, upper caudal clipped, and released on 05/11/2023 upstream of the Fall Creek Dam Tailrace RO channel trap site. A total of 0 fish were recaptured in the 8 ft trap. Trapping efficiency was 0%.

Fall Creek Dam	Release #	Recapture #	Capture Efficiency
RO	998	0	0% (0/998)

Non-Target Species

0 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
Brook Lamprey	0	0	15	0
Brown Bullhead	0	0	33	11
Cutthroat Trout	0	0	26	0
Dace	0	0	138	5
Largescale Sucker	0	0	11	3
Mosquitofish	0	0	0	0
Northern Pikeminnow	0	0	1	0
<i>O. mykiss</i>	0	0	66	3
<i>O. mykiss</i> (clipped)	0	0	16	3
Pacific Lamprey	0	0	1	0
Sculpin	0	0	6	0
Totals	0	0	313	25

Stream Statistics

Basic stream statistics at the site were calculated from data downloaded from U.S. Geological Survey stream gage numbers 14151000 and 1415000. Instantaneous discharge (cfs) data was collected from gage 1415100. Dissolved oxygen (mg/L) concentration data was received from gage 1415000, 1.2 rkms downstream of the trap. During the reporting period, daily maximum values for instantaneous discharge ranged from 90.7 cfs to 94.7 cfs (mean: 91.9 cfs). Figure 41 shows instantaneous discharge.

Dissolved oxygen concentrations were not available for the duration of the reporting period. No data has been recorded from the stream gage after October 19, 2022 at 12:00.

Stream temperatures were recorded every 2 hours using temperature probes for the Fall Creek Dam Tailrace RST site during this reporting period. The temperature probe operated normally during this period (Figure 42).

Flows In and Out of reservoir during the reporting period averaged 80.2 cfs and 91.5 cfs respectively (Figure 43).

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)	352.4
CPUE (fish/hr)	0

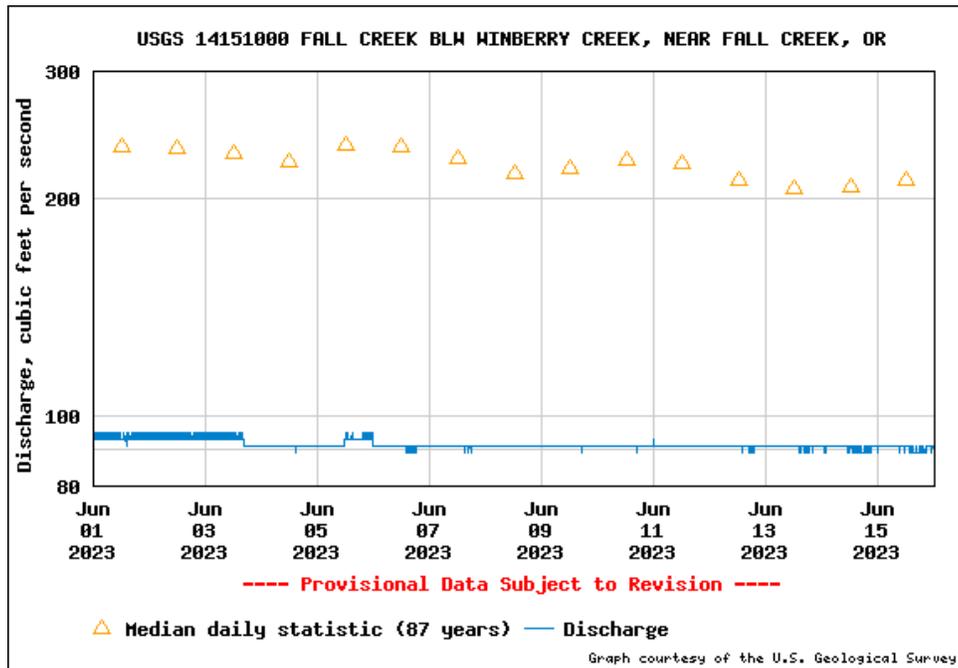


Figure 41. Discharge (cfs); Fall Creek Below Winberry Creek, Near Fall Creek, OR

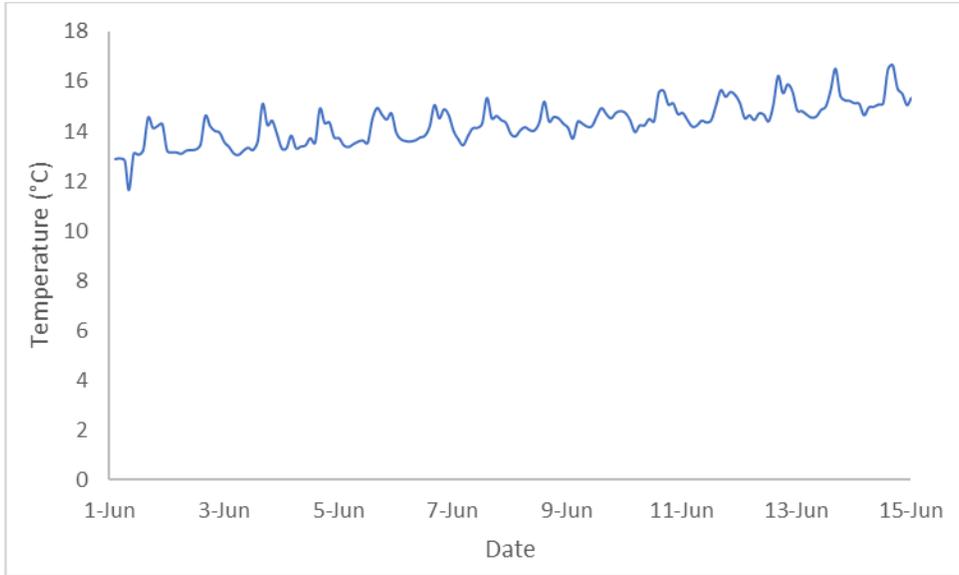


Figure 42. Temperature at RST (Fall Creek Dam Tailrace)

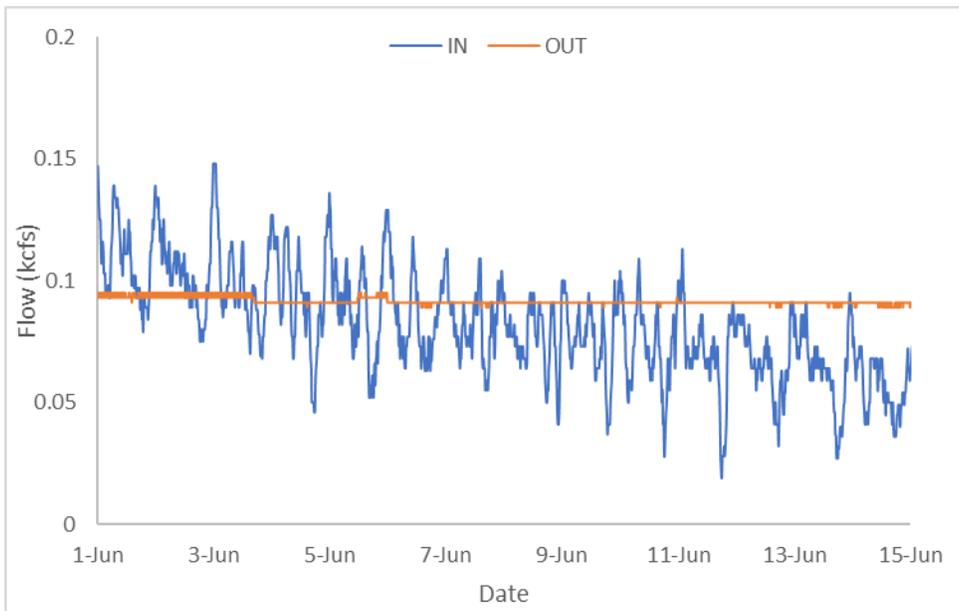


Figure 43. Hourly Flows Inflow vs. Outflow (RO) (Fall Creek Tailrace)

Middle Fork Willamette – Fall Creek Head of Reservoir

Target Species

The Fall Creek Head of Reservoir trap was removed on May 31st. 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 44 shows length frequency data to-date.

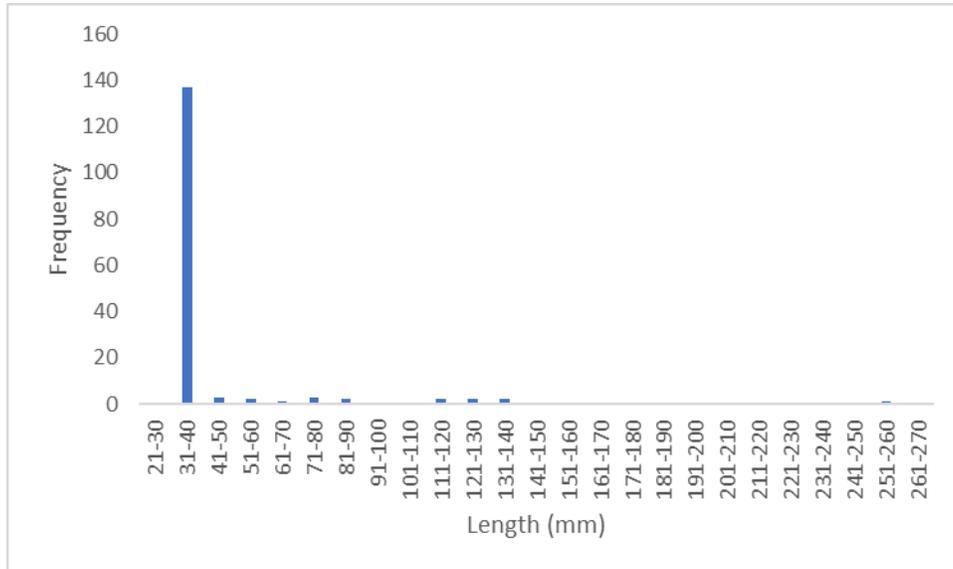


Figure 44. Length Frequency of Juvenile Chinook Sampled Season To-Date (Fall Creek Head of Reservoir)

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	10	54	120	81.4	1.3	19.8	7.6
		CHS	Fry	140	31	42	34.7	N/A	N/A	N/A

Trapping Efficiency

A total of 756 juvenile hatchery Chinook (sub yearlings) were adipose clipped, Bismarck Brown Y dyed, and released on 05/05/2023 upstream of the Fall Creek Head of Reservoir trap site. A total of 15 fish were recaptured in the 8 ft trap. Trapping efficiency was 1.98%.

Fall Creek Head of Reservoir (5/5/2023)	Release #	Recapture #	Capture Efficiency
RO	756	15	1.98% (15/756)

A total of 750 juvenile hatchery Chinook (sub yearlings) were adipose clipped and released on 05/10/2023 upstream of the Fall Creek Head of Reservoir trap site. A total of 23 fish were recaptured in the 8 ft trap. Trapping efficiency was 3.07%.

Fall Creek Head of Reservoir (5/10/2023)	Release #	Recapture #	Capture Efficiency
RO	750	23	3.07% (23/750)

Collected DNA and Scale Samples

Scales and DNA were collected from 0 Chinook captured for the reporting period.

PIT Tags

0 Spring Chinook were PIT tagged during this reporting period. Refer to Appendix D for further information regarding PIT tags during this reporting period.

VIE Marking

Visual Implant Elastomer (VIE) trials commenced at Fall Creek Head of Reservoir site on 1/18/2023. VIE tag color and locations are changed every month to distinctly mark groups of fish by capture date. Since then, 48 Chinook have been VIE marked with fluorescent elastomer. 1 fish with VIE marks has been recaptured at the head of reservoir trap site to date. This was a VIE marked fish released above the trap for trapping efficiency trials.

Fish still showing an egg sac are not VIE marked.

Date Tagged	Tag Location	VIE Color	# Tagged	# Recaptured to Date
1/16/2023-1/31/2023	Left Dorsal	Blue	9	0
2/1/2023-2/15/2023	Right Dorsal	Yellow	2	0
2/16/2023-2/28/2023	Right Dorsal	Yellow	1	0
3/1/2023-3/15/2023	Right Dorsal	Red	33	1
5/1/2023-5/15/2023	Right Dorsal	Orange	2	0
5/16/2023-5/31/2023	Right Dorsal	Orange	1	0

Non-Target Species

0 non-target fish were captured at the Fall Creek Head of Reservoir site during the reporting period; the data is summarized below in table 29.

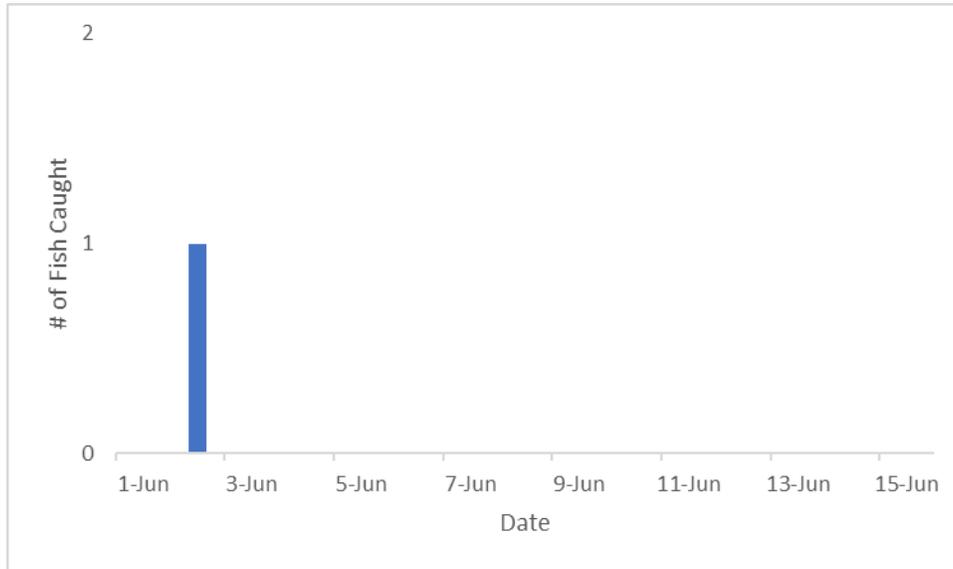
Table 29. Summary of Non-target Species (Fall Creek Head of Reservoir).

Species	8ft Capture	8ft Mortality	Season Total	Season Total Mortality
Brook Lamprey	0	0	44	1
Brown Bullhead	0	0	0	0
Cutthroat Trout	0	0	67	0
Dace	0	0	116	1
Largescale Sucker	0	0	9	0
<i>O. mykiss</i>	0	0	436	0
<i>O. mykiss (clipped)</i>	0	0	47	0
Pacific Lamprey	0	0	11	0
Redside Shiner	0	0	0	0
Sculpin	0	0	1	1
Unknown Lamprey	0	0	57	0
Totals	0	0	788	3

Middle Fork Willamette– Dexter Dam

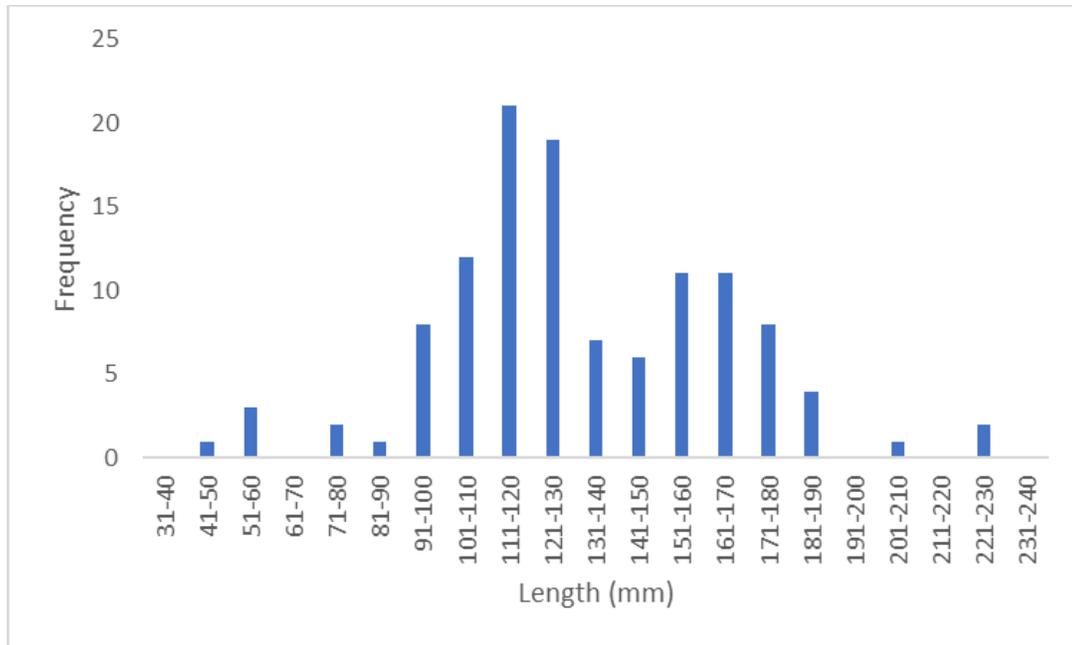
Target Species

This reporting period began on June 1st and ended on June 15th. There was 1 Chinook salmon (CHS) captured during the 15-day sampling period. Sampling duration was 100% for the 5 ft RST. Table 30 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 45 shows the daily capture numbers for Chinook and Figure 46 shows length frequency data to-date.



*Recaptured fish for trapping efficiency trials not included.

Figure 45. Chinook Captured Per Day 06/01/2023 to 06/15/2023 (Dexter Dam)



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

Figure 46. Length Frequency of Juvenile Chinook Sampled Season To-Date (Dexter Dam)

Table 30. Descriptive Statistics of Target Species Captured at the Dexter Dam RST Season To-Date.

To-Date (Since March 07, 2022)										
Site	Trap	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Dexter Dam	5 ft	CHS	Fry	3	46	55	51.3	1.4	1.4	1.4
		CHS	Parr	19	51	159	101.4	2.1	48.3	12.8
		CHS	Smolt	95	95	226	140.8	9.3	162.3	31.6

June 1-15, 2023										
Site	Trap	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Dexter Dam	5 ft	CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Smolt	1	104	104	104.0	12.0	12.0	12.0

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

Trapping Efficiency

A total of 4,010 juvenile hatchery Chinook (sub-yearlings) adipose clipped, upper caudal clipped, and released on 06/7/23 below Dexter Dam. Fish were released in small groups into the powerhouse flow to

evaluate the traps efficiency capturing fish passing through the powerhouse. 4 fish were recaptured in the 5-foot RST for an efficiency of 0.1%.

Dexter Dam (6/7/2023)	Release #	Recapture #	Capture Efficiency
Spill	N/A	N/A	N/A
Powerhouse	4010	4	0.1% (4/4010)

24-Hour Post Collection Holding Trial

1 Spring Chinook were captured during the current reporting period and held for 24 hours. 0 Chinook (0.0%) died in holding.

Injuries and Copepod Infection

1 Chinook was captured during this reporting period. Partial descaling <20% was observed in 1 of the 1 Chinook captured (100.0%) and 0 displayed descaling >20% (0.0%). 1 displayed body injury (100.0%) and 0 Chinook had eye injury (0.0%). 1 Chinook had copepods present in the branchial cavity (100.0%) and 0 had copepods on fins (0.0%). 0 displayed gas bubble disease (0.0%). There were 0 mortalities this reporting period (0.0%). Injuries are displayed in Table 31. To date injury data can be found in Appendix A.

Table 31. 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	1	0	1	0	0

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

Collected DNA and Scale Samples

For the reporting period, scales and DNA were collected from 1 Spring Chinook. The other targets captured did not meet length criteria for DNA sampling.

PIT Tags

No Spring Chinook were PIT tagged during this reporting period. The first 60 target fish per week are prioritized for the 24-Hour Post Collection Holding Study. These fish are not tagged to not bias the results of the holding study. More information regarding PIT tagged fish can be found in Appendix D.

VIE Marking

No VIE marked Spring Chinook have been detected at this site to date.

Non-Target Species

128 non-target fish were captured during the reporting period; the data is summarized below in Table 32. 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.

Table 32. Summary of Non-target Species (Dexter Dam).

Species	Capture	Mortality	Season Total	Season Total Mortality
Bass	0	0	0	0
Bluegill	0	0	2	0
Chinook (adult)	0	0	0	0
Chinook (clipped)	107	0	127	0
Crappie	4	0	312	22
Cutthroat Throat	0	0	1	0
Dace	0	0	10	2
Largescale Sucker	0	0	3	1
<i>O. mykiss</i>	0	0	3	0
<i>O. mykiss</i> (clipped)	0	0	1	0
Pikeminnow	0	0	0	0
Redside Shiner	0	0	1	0
Sculpin	16	0	222	7
Smallmouth Bass	0	0	1	1
Totals	128	0	686	33

Stream Statistics

Basic stream statistics at the Dexter Dam site were calculated from data downloaded from the U.S. Geological Survey stream gauge numbers 14149510 and 14150000. Gauge height (feet) is the only metric provided at gauge 14149510. Total dissolved gas saturation data was received from gauge 14150000, 4.75 rkms downstream of the trap. During the reporting period, daily maximum values for instantaneous gauge height ranged from 638.4 feet to 638.6 feet (mean: 638.5 feet). Figure 47 shows instantaneous gauge height.

Total dissolved gas saturation ranged from 101 to 113% (mean: 103.9%) during the reporting period. Figure 48 shows total dissolved gas saturation.

Stream temperatures were recorded every 2 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 49.

Flows through the Powerhouse and Spill during the reporting period averaged 2,961.8 and 282.1 cubic feet per second (cfs) respectively (Figure 50). Catch per unit of effort (CPUE) data are summarized in Table 33. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 33. Summary of salmonid CPUE, Dexter Dam.

	Chinook
Description	8 ft
Catch	1
Effort (hrs)	354.0
CPUE (fish/hr)	0.003

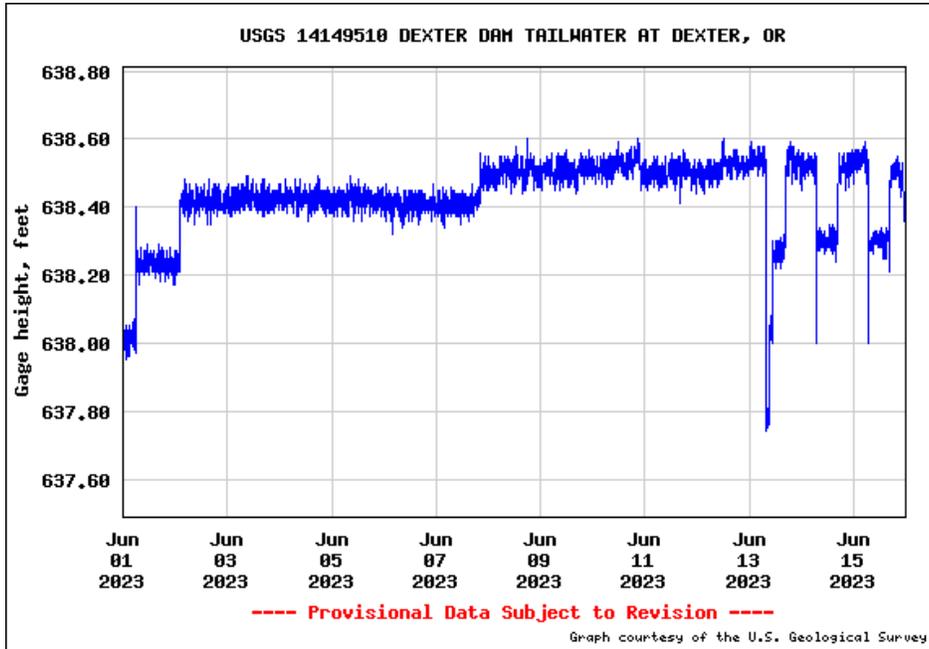


Figure 47. Gauge Height (feet); below Dexter Dam, Middle Fork Willamette

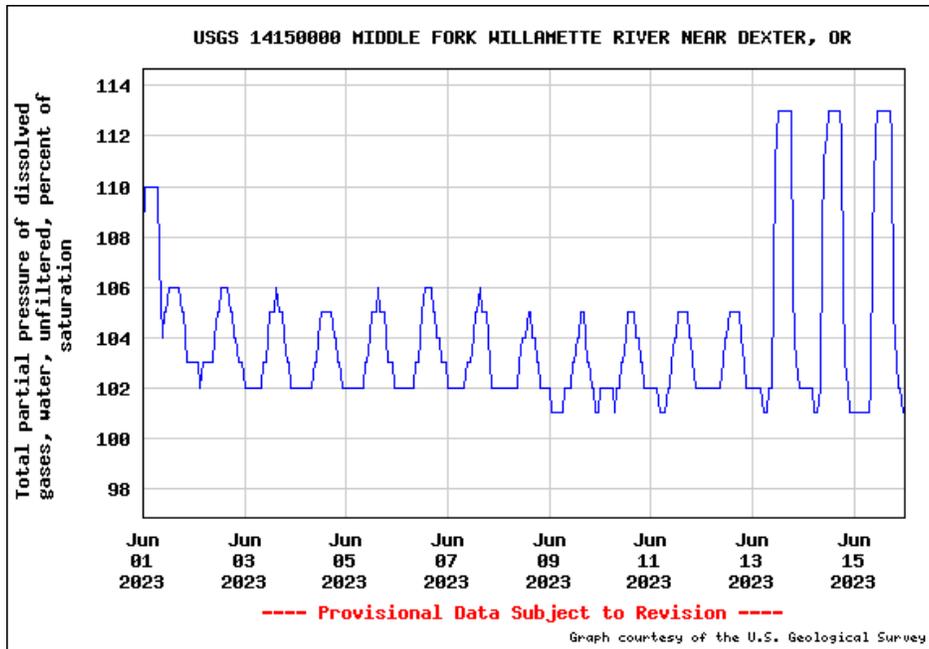


Figure 48. Total Dissolved Gas Saturation (%); Middle Fork Willamette River, Near Dexter, OR

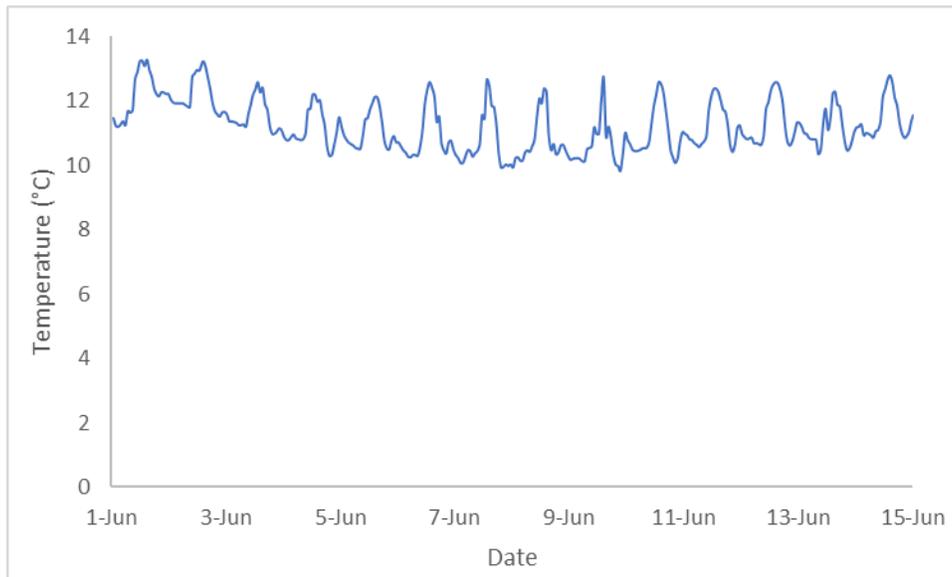


Figure 49. Temperature at RST (Dexter Dam)

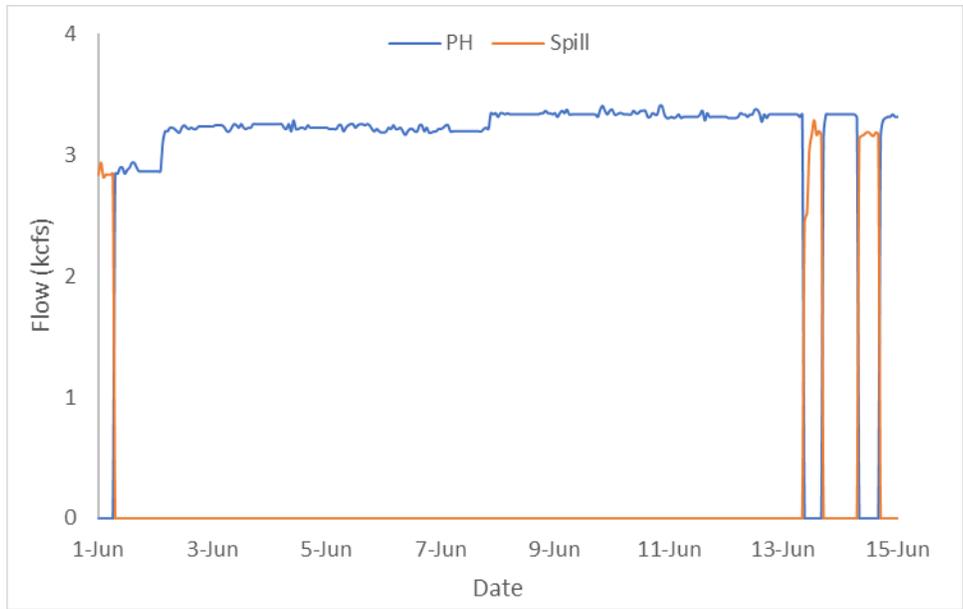


Figure 50. Hourly Flows PWR vs. Spill (Dexter Dam)

Middle Fork Willamette – Lookout Dam Tailrace

Target Species

The reporting period began June 1st and ended on June 15th. 2 Chinook salmon were captured during the 15-day sampling period (Figure 51). The traps were operated 100% of the reporting period. Table 34 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 52 shows length frequency data to-date.

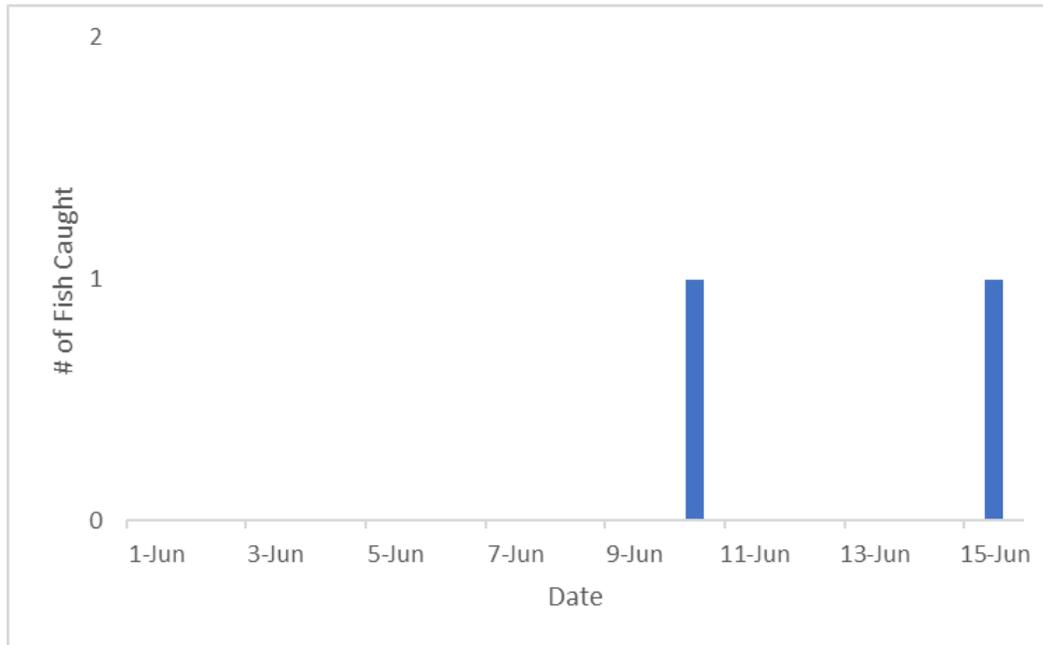


Figure 51. Chinook Captured Per Day 06/01/2023 to 06/15/2023 (Lookout Point Dam Tailrace)

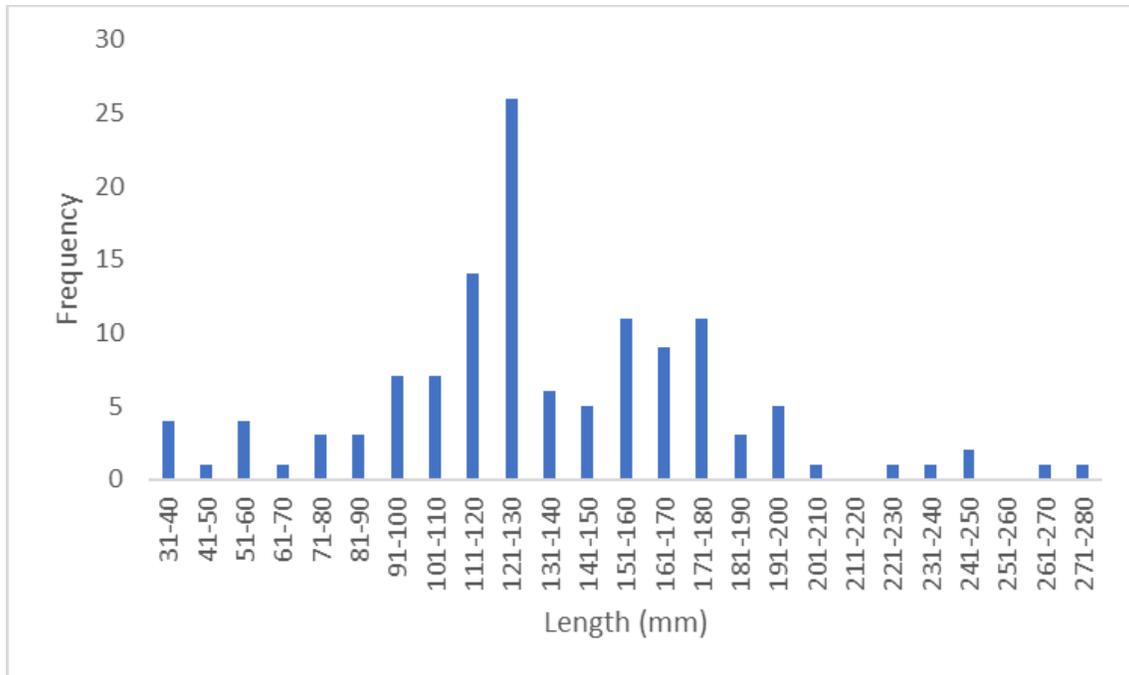


Figure 52. Length Frequency of Juvenile Chinook Sampled Season To-Date (Lookout Point Dam Tailrace)

Table 34. Descriptive Statistics of Target Species Captured at Lookout Point Dam Tailrace, Season To-Date and for the Reporting Period.

To-Date (Since March 15, 2022)										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Lookout Point Dam	PH 1	CHS	Smolt	38	112	275	156.2	15.0	269.0	50.0
		CHS	Parr	4	84	107	94.8	3.8	10.5	7.3
		CHS	Fry	1	52	52	52.0	3.0	3.0	3.0
	PH 2	CHS	Smolt	13	95	250	134.3	8.4	194.6	35.2
		CHS	Parr	7	57	108	77.4	1.4	13.4	5.7
		CHS	Fry	4	33	37	34.8	N/A	N/A	N/A
	Spill	CHS	Smolt	51	94	247	148.1	5.3	161.4	40.4
		CHS	Parr	7	77	126	100.6	5.4	26.1	12.9
		CHS	Fry	2	44	55	49.5	1.6	1.6	1.6
June 1-15, 2023										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Lookout Point Dam	PH 1	CHS	Smolt	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
	PH 2	CHS	Smolt	1	113	113	113.0	16.5	16.5	16.5
		CHS	Parr	1	71	71	71.0	4.3	4.3	4.3
		CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
	Spill	CHS	Smolt	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A

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

24-Hour Post Collection Holding Trial

2 Spring Chinook were captured during the current reporting period and held for 24 hours. 2 fish were held from the PWR RST and 0 fish were held from the Spill RST. 1 hold fish died from the PWR RSTs (50.0%). 0 of the fish from Spill RST died during holding (0.0%).

Trapping Efficiency

A total of 4,011 juvenile hatchery Chinook (parr) were adipose clipped and released on 06/1/2023 below Lookout Point Dam. Fish were released in small groups directly into powerhouse flow. A total of 6 fish were recaptured in the traps for an efficiency of 0.1%. Trap specific efficiencies are as follows: 0

recaptured at the PH 1 RST for an efficiency of 0%, 6 recaptured at PH 2 for an efficiency of 0.1%, and 0 recaptured at the Spill RST for an efficiency of 0%.

Lookout Dam (5/23/2023)	Release #	Recapture #	Capture Efficiency
Powerhouse	4,011	6	0.1% (6/4,011)

Injuries and Copepod Infection

There were 0 Chinook captured in the Spill Channel RST. Partial descaling <20% was observed on 0 of 0 Chinook collected at the Spill RST (0.0%), and descaling >20% was observed on 0 of the Chinook collected (0.0%). 0 displayed body injuries (0.0%) and 0 had eye injuries (0.0%). 0 of the Spill RST Chinook had copepods present in the branchial cavity (0.0%) and 0 had copepods present on fins (0.0%). 0 of the fish captured in the Spill RST displayed Gas Bubble Disease (0.0%).

There were 2 Chinook captured in the Powerhouse channel RSTs. Partial descaling <20% was observed on 1 of the 2 Chinook collected at the PWR RSTs (50.0%). Descaling >20% was observed on 1 of the Chinook collected (50.0%). 2 PWR RST fish had bodily injury (100.0%) and 0 had eye injuries (0.0%). 0 of the fish had copepods present in the branchial cavity (0.0%) and 0 had copepods present on fins (0.0%). 0 fish displayed Gas Bubble Disease (0.0%).

There was 0 chinook mortality collected in the Spill RST (0.0%) and 0 in the PWR RSTs (0.0%). Injuries are displayed in Table 35. To date injury data can be found in Appendix A.

Table 35. 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	2	1	1	2	0	0	0	0
	Spill	0	0	0	0	0	0	0	0

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

Collected DNA and Scale Samples

For the reporting period, scales and DNA were collected from 2 Spring Chinook. The other targets captured did not meet length criteria for DNA sampling.

PIT Tags

No Spring Chinook were PIT tagged during this reporting period. The first 60 target fish per week are prioritized for the 24-Hour Post Collection Holding Study. These fish are not tagged to not bias the results of the holding study. More information regarding PIT tagged fish can be found in Appendix D.

VIE Marking

No VIE marked Spring Chinook have been detected at this site to date.

Non-Target Species

1 non-target species were captured during the reporting period; the data is summarized below in Table 36.

Table 36. Summary of Non-target Species (Lookout Point Dam Tailrace).

Species	PWR Capture	PWR Mortality	Spill Capture	Spill Mortality	Season Total	Season Total Mortality
Bass Unknown	0	0	0	0	0	0
Bluegill	1	0	0	0	58	11
Brown Bullhead	0	0	0	0	2	1
Chinook (clipped)	0	0	0	0	14	2
Crappie	0	0	0	0	153602	109201
Cutthroat Trout	0	0	0	0	0	0
Dace	0	0	0	0	0	0
Largemouth Bass	0	0	0	0	0	0
Largescale Sucker	0	0	0	0	6	4
Northern Pikeminnow	0	0	0	0	3	2
<i>O. mykiss</i>	0	0	0	0	6	0
<i>O. mykiss</i> (clipped)	0	0	0	0	1	1
Pumpkinseed	0	0	0	0	1	0
Redside Shiner	0	0	0	0	0	0
Sculpin	0	0	0	0	98	6
Smallmouth Bass	0	0	0	0	77	70
Spotted Bass	0	0	0	0	1	0
Unknown	0	0	0	0	7	0
Walleye	0	0	0	0	27	6
Totals	1	0	0	0	153903	109304

Stream Statistics

Basic stream statistics at Lookout Dam Tailrace site were calculated from data downloaded from the U.S. Geological Survey stream gauge number 14149010. Total dissolved gas saturation or dissolved oxygen concentration measurements are not available at this stream gauge site, or any nearby stream gauges. Gauge height (feet) is the only metric provided at this gauge. During the reporting period, daily maximum

values for instantaneous gauge height ranged from 693.0 feet to 693.6 feet (mean: 693.3 feet). Figure 53 shows instantaneous gauge height.

Stream temperatures were recorded every 2 hours using temperature probes at the PWR and Spill Lookout Dam RST's during this reporting period. Temperature probes operated normally, and the data is shown below in (Figure 54 and Figure Figure 55).

Flows through the Powerhouse and Spill during the reporting period averaged 3,030.4 and 58.3 cubic feet per second (cfs) respectively (Figure 56). Catch per unit of effort (CPUE) data are summarized in Table 37. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 37. Summary of Chinook CPUE at Lookout Point Dam Tailrace.

Description	Chinook		
	PH 1	PH 2	Spill
Catch	0	2	0
Effort (hrs)	361.2	360.8	362.6
CPUE (fish/hr)	0	0.006	0

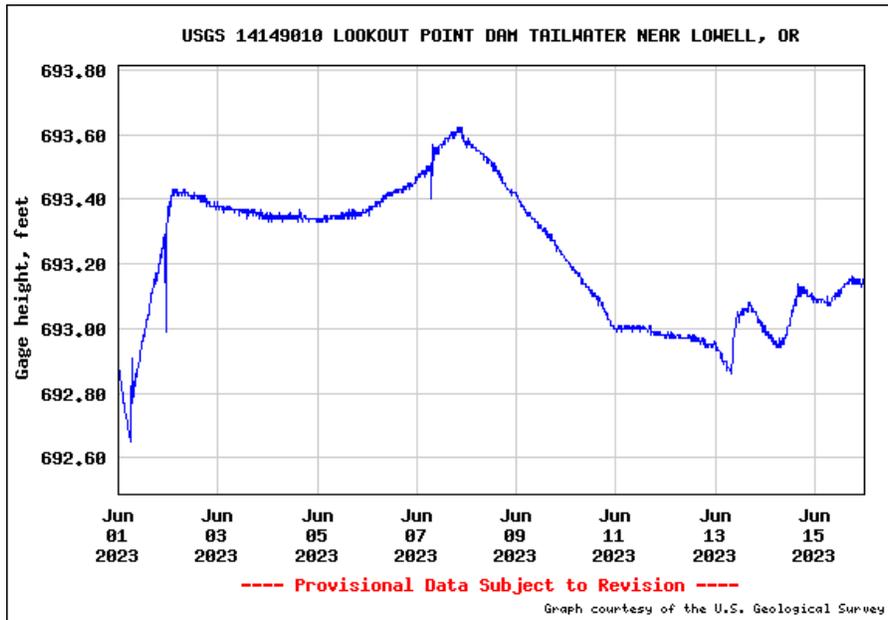


Figure 53. Gauge Height (feet); below Lookout Dam

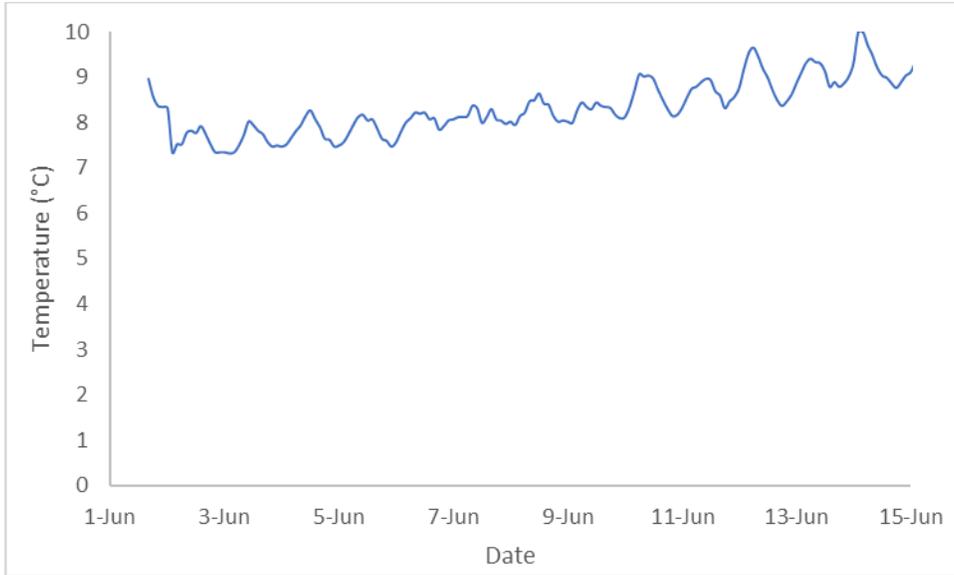


Figure 54. Temperature at RST (Lookout Dam PWR)

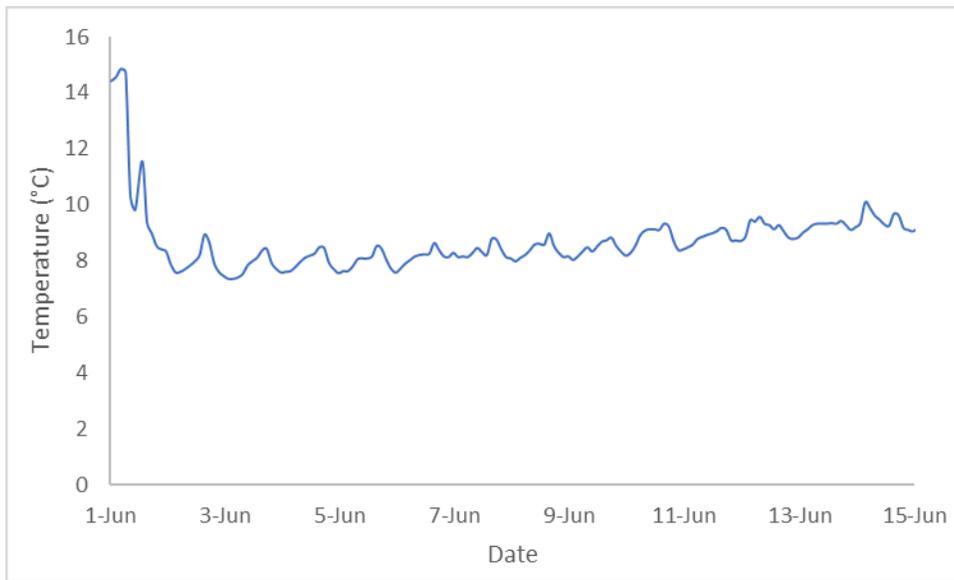


Figure 55. Temperature at RST (Lookout Dam Spill)

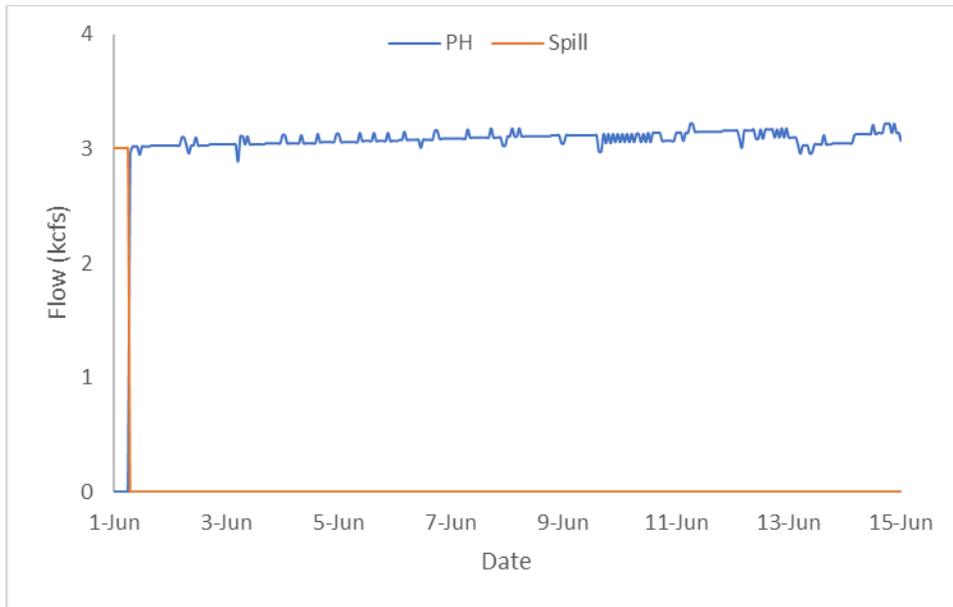


Figure 56. Hourly Flows PWR vs. Spill (Lookout Dam Tailrace)

Middle Fork Willamette – Lookout Point Head of Reservoir

Target Species

The reporting period began June 1st and ended on June 15th. 14 Chinook salmon were captured during the 15-day sampling period (Figure 57). The trap was operated 100.0% of the reporting period. Table 38 provides life stage, length, and weight data for all Chinook salmon that have been caught at the Middle Fork Willamette - Lookout Point Head of Reservoir site to-date and Figure 58 shows length frequency data to-date.

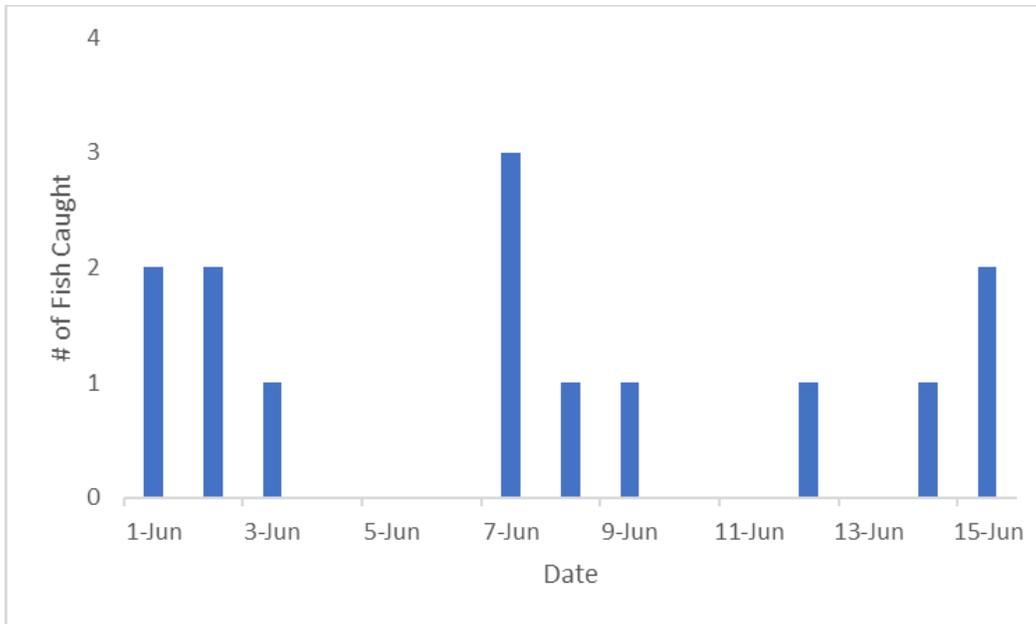


Figure 57. Chinook Captured Per Day 06/01/2023 to 06/15/2023 (Lookout Point Head of Reservoir)

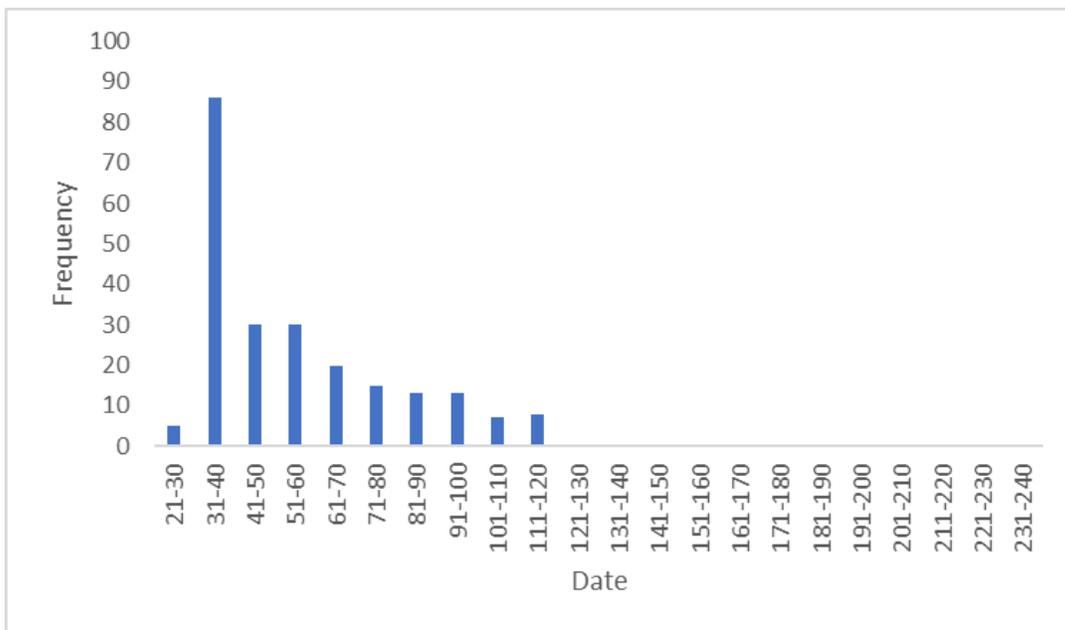


Figure 58. Length Frequency of Juvenile Chinook Sampled Season To-Date (Lookout Point Head of Reservoir)

Table 38. 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	10	69	118	101.7	4.1	18.2	12.7
		CHS	Parr	90	41	119	75.0	1.0	19.8	5.4
		CHS	Fry	128	28	69	38.9	N/A	N/A	N/A
June 1-15, 2023										
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	1	69	69	69.0	4.1	4.1	4.1
		CHS	Parr	10	41	83	60.5	1.3	6.2	3.0
		CHS	Fry	3	44	49	45.7	<1	1.5	1.5

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

Trapping Efficiency

A total of 760 juvenile hatchery Chinook (sub-yearlings) were adipose and upper caudal clipped and released on 06/02/2023 above the Lookout Point Head of Reservoir trap. Fish were released in small groups to evaluate the traps' efficiency capturing fish migrating downstream. 13 fish were recaptured in the 5-ft RST for an efficiency of 1.7%.

Lookout Point Head of Reservoir	Release #	Recapture #	Capture Efficiency
06/02/2023	760	13	1.7% (13/760)

Injuries and Copepod Infection

There were 14 Chinook captured during this reporting period. 5 had partial descaling <20% (35.7%) and 1 had descaling <20% (7.1%). 5 had body injuries (35.7%) and 0 fish displayed eye injuries (0.0%). 1 fish had copepods in the branchial cavity (7.1%). There were 0 mortalities (0.0%). Injury data for the reporting period is shown in Table 39. To date data can be found in Appendix A.

Table 39. 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	14	5	1	5	0	1	0	0

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

Collected DNA and Scale Samples

Scales and/or DNA were collected from 11 Chinook captured for the reporting period. The other targets were below the sampling threshold.

PIT Tags

5 Spring Chinook was PIT tagged during this reporting period. Refer to Appendix D for further information regarding PIT tags during this reporting period.

VIE Marking

Visual Implant Elastomer (VIE) trials commenced at the Lookout Point Head of Reservoir site on 6/25/2022. VIE tag color and locations are changed every month to distinctly mark groups of fish by capture date. Since then, 59 Chinook have been VIE marked with fluorescent elastomer. No fish with VIE marks have been detected at downstream RST sites to date. Fish still showing an egg sac are not VIE marked.

Date Tagged	Tag Location	VIE Color	# Tagged	# Recaptured to Date
6/25/2022-7/15/2022	Left Dorsal	Yellow	3	0
7/16/2022-7/31/2022	Left Dorsal	Red	1	0
1/1/2023-1/31/2023	Left Dorsal	Blue	7	0
2/1/2023-2/15/2023	Right Dorsal	Yellow	2	0
2/16/2023-2/28/2023	Right Dorsal	Yellow	1	0
3/1/2023-3/15/2023	Right Dorsal	Red	3	0
5/16/2023-5/31/2023	Right Dorsal	Orange	33	0
6/1/2023-6/15/2023	Right Dorsal	Pink	9	0

Non-Target Species

34 non-target species were captured during the reporting period; the data is summarized below in Table 40.

Table 40. Summary of Non-target Species (Lookout Point Head of Reservoir).

Species	5ft Capture	5ft Mortality	Season Total	Season Total Mortality
Bass Unknown	0	0	0	0
Bluegill	0	0	0	0
Chinook (clipped)	3	0	4	0
Crappie	0	0	2	2
Cutthroat Trout	0	0	4	0
Dace	20	0	31	0
Lamprey	0	0	0	0
Largescale Sucker	2	0	5	0
Mountain Whitefish	0	0	0	0
Northern Pikeminnow	4	0	4	0
<i>O. mykiss</i>	4	0	15	1
<i>O. mykiss</i> (clipped)	0	0	0	0
Peamouth	0	0	0	0
Pumpkinseed	0	0	0	0
Redside Shiner	1	0	2	0
Sculpin	0	0	4	0
Spotted Bass	0	0	0	0
Smallmouth Bass	0	0	0	0
Unknown	0	0	0	0
Totals	34	0	70	3

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 gauge number 14148000. During the reporting period, daily maximum values for instantaneous discharge ranged from 1,550.0 cfs to 2,940.0 cfs (mean: 1,909.3 cfs). Figure 59 shows instantaneous discharge.

Stream temperatures were recorded every 2 hours using a temperature probe at the Lookout Point Head of Reservoir RST site during this reporting period. Temperature probe at the RST operated normally throughout the reporting period (Figure 60).

Flows into Lookout Point Reservoir averaged 1,780.1 cfs (Figure 61). Catch per unit of effort (CPUE) data are summarized in Table 41. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 41. Summary of Chinook CPUE at Lookout Point Head of Reservoir.

	Chinook
Description	5 ft
Catch	14
Effort (hrs)	357.2
CPUE (fish/hr)	0.039

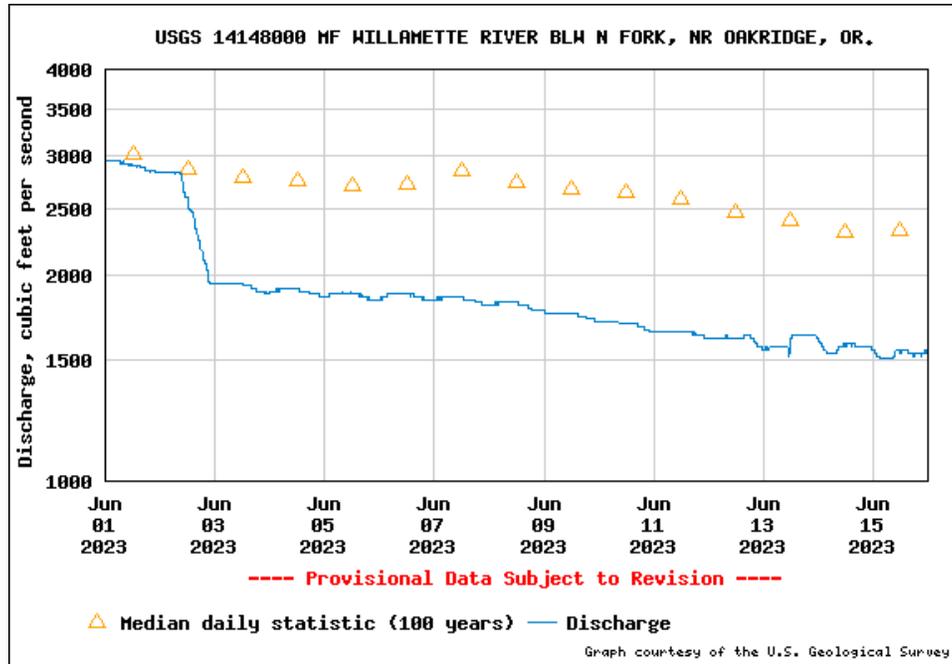


Figure 59. Discharge (cfs); above Lookout Point Reservoir, Below Oakridge, OR

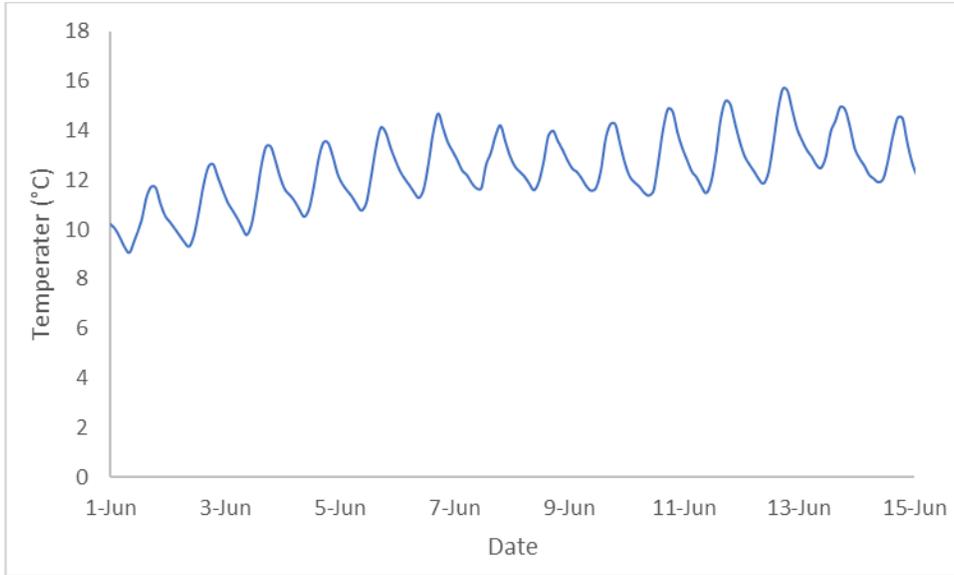


Figure 60. Temperature at RST (Lookout Point Head of Reservoir)

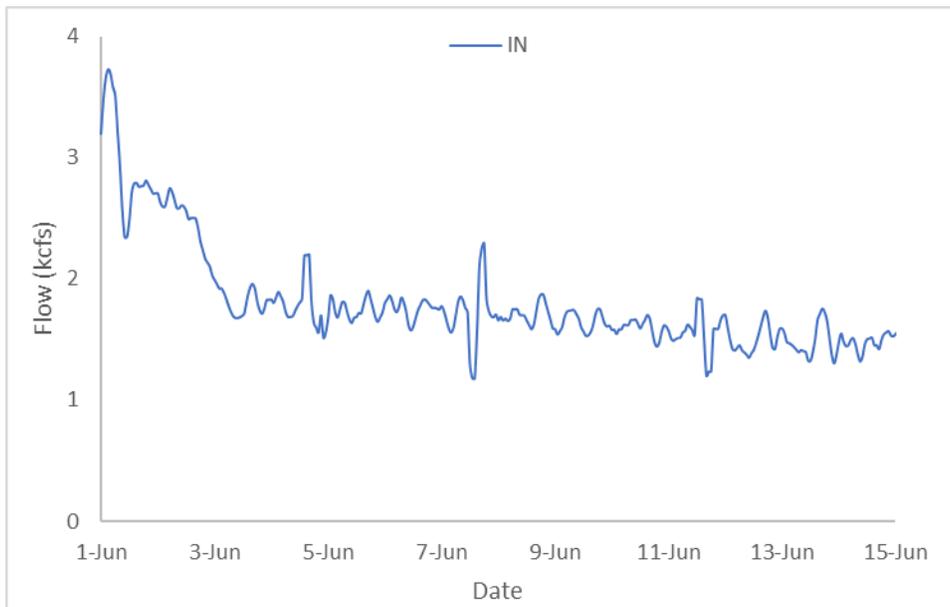


Figure 61. Hourly Flows (Lookout Point Head of Reservoir site)

Middle Fork Willamette – Hills Creek Dam

Target Species

This reporting period began on June 1st and ended on June 15th. There was 1 Chinook salmon (CHS) captured during the 15-day sampling period (Figure 62). Sampling durations were 100% for both the RO RST and Powerhouse RST. Table 42 provides life stage, length, and weight data for all Chinook salmon that have been caught at the Hills Creek Dam site to-date and Figure 63 shows length frequency data to-date.

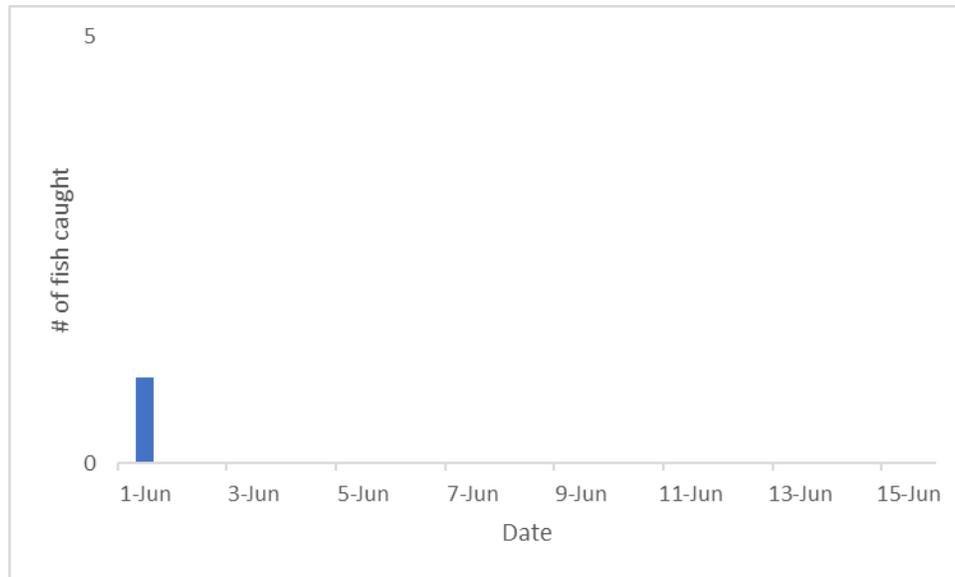
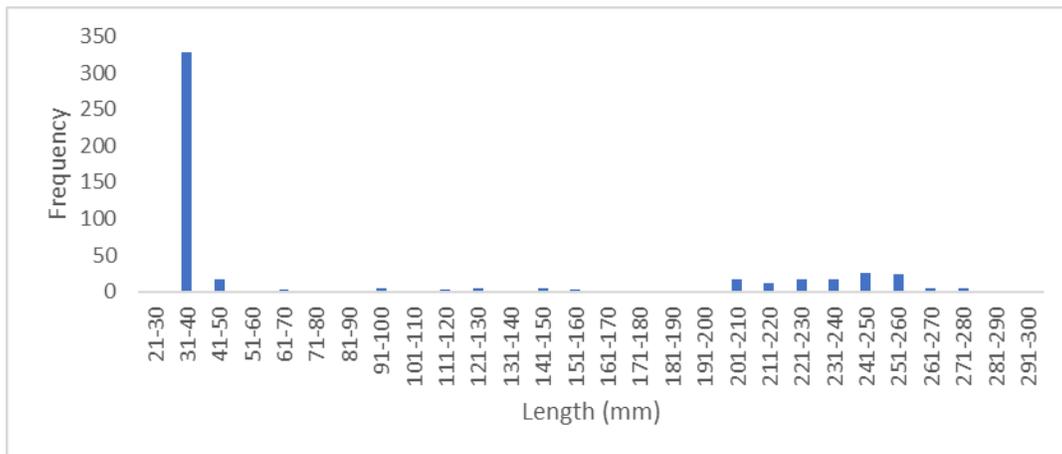


Figure 62. Chinook Captured Per Day 06/01/2023 to 06/15/2023 (Hills Creek Dam)



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

Figure 63. Length Frequency of Juvenile Chinook Sampled Season To-Date (Hills Creek Dam)

Trapping Efficiency

A total of 508 juvenile Chinook (parr) were adipose clipped, left vent clipped and released on 6/3/23 below Hills Creek PWR to evaluate the efficiency of the screw trap. A total of 38 fish were recaptured in

the traps for an efficiency of 7.5%. 36 fish were recaptured at the 8 ft PWR trap for a trapping efficiency of 7.1% and 2 were captured in the RO trap for an efficiency of 0.4%.

Hills Creek Dam (05/17/2023)	Release #	Recapture #	Capture Efficiency
PWR Trap	508	36	7.1 % (36/508)
RO Trap	508 (PWR Release)	2	0.4% (2/508)

Table 42. Descriptive Statistics of Target Species Captured at Hills Creek Dam 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
Hills Creek	RO	CHS	Fry	126	31	55	35.6	N/A	N/A	N/A
		CHS	Parr	7	61	141	103.6	2.5	23.4	11.7
		CHS	Smolt	86	137.0	275.0	233.9	27.4	196.3	145.2
Hills Creek	PWR	CHS	Fry	220	31	48	36.1	N/A	N/A	N/A
		CHS	Parr	7	69.0	127.0	98.1	3.7	24.5	11.2
		CHS	Smolt	56	122.0	285.0	225.9	19.6	245.5	136.3

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

June 1-15, 2023										
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g)*		
					Min	Max	Mean	Min	Max	Mean
Hills Creek	RO	CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	1	61	61	61.0	2.5	2.5	2.5
		CHS	Smolt	0	N/A	N/A	N/A	N/A	N/A	N/A
Hills Creek	PWR	CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A
		CHS	Smolt	0	N/A	N/A	N/A	N/A	N/A	N/A

24-Hour Post Collection Holding Trial

1 Chinook captured in the RSTs were held during this reporting period. 0 fish were held from the PWR RST and 1 fish were held from the RO RST. 0 hold fish died from the PWR RST (0.0%). 0 of the fish from RO RST died during holding (0.0%).

Injuries and Copepod Infection

There was 1 Chinook captured in the RO RST. Partial descaling <20% was observed on 1 of 1 Chinook collected at the RO RST (100.0%), and descaling >20% was observed on 0 of the Chinook collected (0.0%). 0 displayed body injuries (0.0%) and 0 had eye injuries (0.0%). 0 of the RO RST Chinook had copepods present in the branchial cavity (0.0%) and 0 had copepods present on fins (0.0%). There were 0 mortalities (0.0%). 0 of the fish captured in the RO RST displayed Gas Bubble Disease (0.0%).

There were 0 Chinook captured in the Powerhouse channel RST. Partial descaling <20% was observed on 0 of the 0 Chinook collected at the PWR RSTs (0.0%). Descaling >20% was observed on 0 of the Chinook collected (0.0%). 0 PWR RST fish had bodily injury (0.0%) and 0 had eye injuries (0.0%). 0 of the fish had copepods present in the branchial cavity (0.0%) and 0 had copepods present on fins (0.0%). 0 fish displayed Gas Bubble Disease (0.0%). There were 0 chinook mortalities collected in the PWR RST (0.0%).

Injuries are displayed in Table 43. To date injury data can be found in Appendix A.

Table 43. Number of Descaled, Bodily/Eye Injured, Copepod Infected and Dead Chinook Salmon for Sampling Period. (Hills Creek 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
Hills Creek	RO	1	1	0	0	0	0	0	0
Hills Creek	PWR	0	0	0	0	0	0	0	0

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

Collected DNA and Scale Samples

For the reporting period, scales and DNA were collected from 0 Spring Chinook. The other targets captured did not meet length criteria for DNA sampling or did not have a body.

PIT Tags

0 Spring Chinook were PIT tagged during this reporting period. The first 60 target fish per week are prioritized for the 24-Hour Post Collection Holding Study. These fish are not tagged to not bias the results of the holding study. More information regarding PIT tagged fish can be found in Appendix D.

VIE Marking

VIE tag color and locations are changed every month to distinctly mark groups of fish by capture date. The first 60 target fish per week are prioritized for the 24-Hour Post Collection Holding Study. These fish are not tagged to not bias the results of the holding study. 39 Chinook have been VIE marked with fluorescent elastomer. More information regarding VIE marked fish can be found in Appendix D.

Fish still showing an egg sac are not VIE marked.

Date Tagged	Tag Location	VIE Color	# Tagged	# Recaptured to Date
3/16/2023-3/31/2023	Head	Red	39	0

Non-Target Species

96 non-target fish were captured at Hills Creek during the reporting period; the data is summarized below in Table 44.

Table 44. Summary of Non-target Species (Hills Creek Dam).

Species	RO Capture	RO Mortality	PWR Capture	PWR Mortality	Season Total	Season Total Mortality
Bass Unknown	0	0	0	0	5	1
Bluegill	0	0	0	0	142	58
Brook Lamprey	0	0	0	0	0	0
Brown Bullhead	1	0	0	0	6	0
Crappie	0	0	1	0	371	213
Dace	0	0	11	0	36	2
Redside Shiner	0	0	0	0	1	1
Sculpin	11	0	72	0	232	0
Largemouth Bass	0	0	0	0	7	23
Northern Pike minnow	0	0	0	0	1	0
Spotted Bass	0	0	0	0	92	46
Smallmouth Bass	0	0	0	0	2	2
Largescale Sucker	0	0	0	0	35	4
<i>O. mykiss</i>	0	0	0	0	57	20
<i>O. mykiss (clipped)</i>	0	0	0	0	12	45
Unknown	0	0	0	0	1	1
Totals	12	0	84	0	1199	432

Stream Statistics

Basic stream statistics at the Hills Creek site were calculated from data downloaded from the U.S. Geological Survey stream gauge numbers 14145110 and 14145500. Gauge height (feet) is the only metric provided at this gauge. Total dissolved gas saturation data was received from gauge 14145500, 1.4 rkms downstream of the trap. During the reporting period, daily maximum values for instantaneous gauge height ranged from 1,224.5 feet to 1,225.7 feet (mean: 1,224.9 feet). Figure 64 shows instantaneous gauge height.

Total dissolved gas saturation ranged from 100 to 105% (mean: 102.5%) during the reporting period. Figure 65 shows total dissolved gas saturation.

Stream temperatures were recorded every two hours using temperature probes at the Hills Creek Dam RST's during this reporting period (Figure 66 and 67).

Flows through the PWR and RO during the reporting period averaged 692.9 and 101.8 cfs respectively (Figure 68). Catch per unit of effort (CPUE) data are summarized in Table 45. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 45. Summary of Chinook CPUE, Hills Creek Dam.

Description	Chinook	
	RO (5ft)	PWR (8ft)
Catch	1	0
Effort (hrs)	361.3	361.1
CPUE (fish/hr)	0.003	0

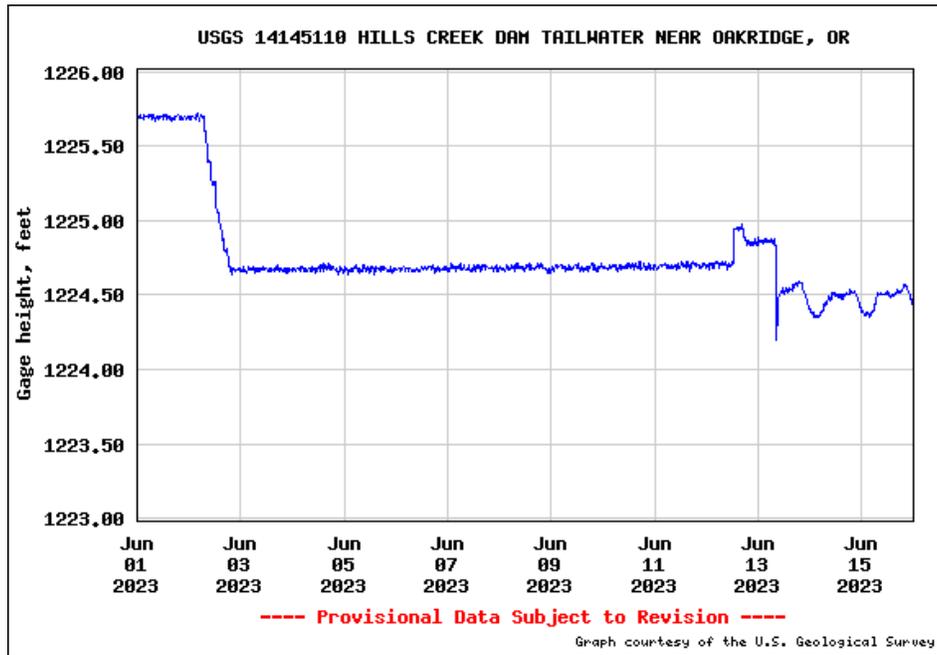


Figure 64. Gauge Height (feet); below Hills Creek Dam PWR - Middle Fork Willamette River

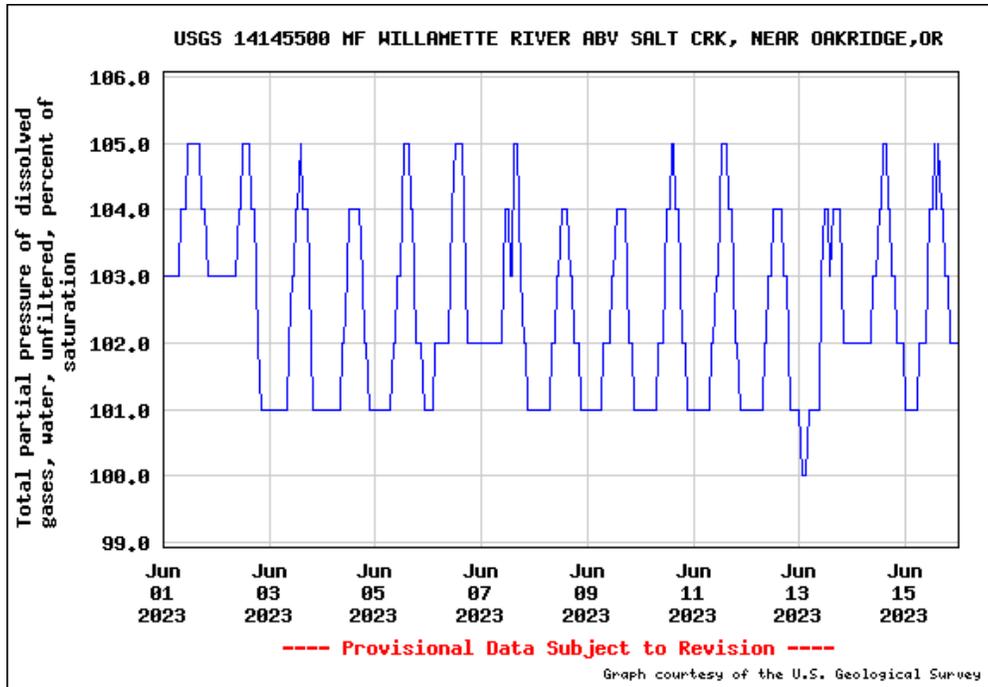


Figure 65. Total Dissolved Gas Saturation (%); below Hills Creek Dam – Middle Fork Willamette River

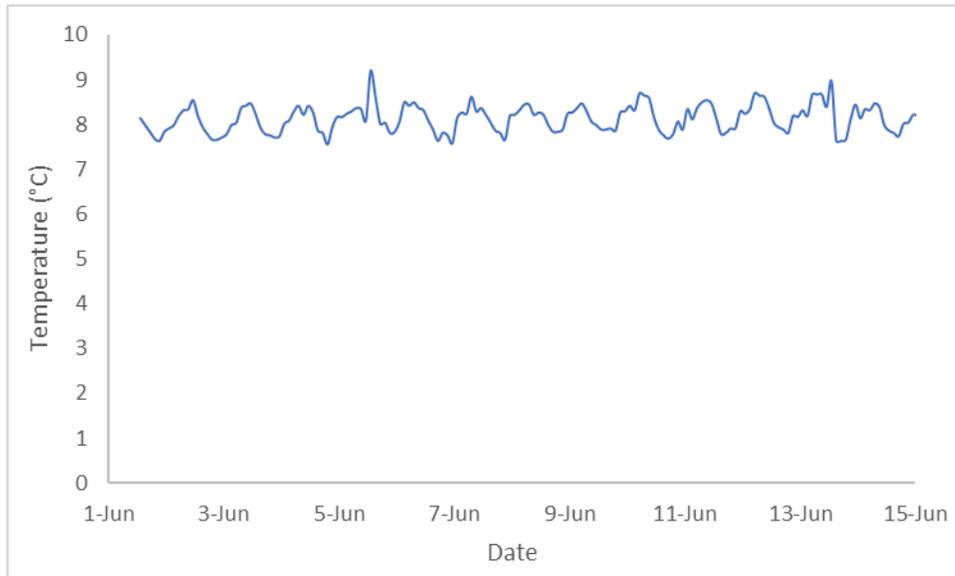


Figure 66. Temperature at Hills Creek RST PWR (Hills Creek Dam)

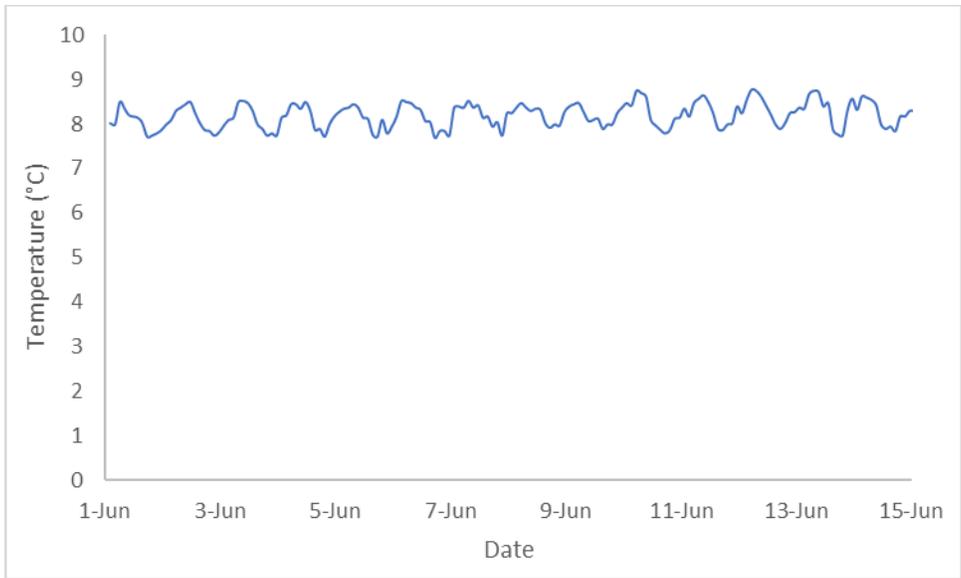


Figure 67. Temperature at Hills Creek RO RST (Hills Creek Dam)

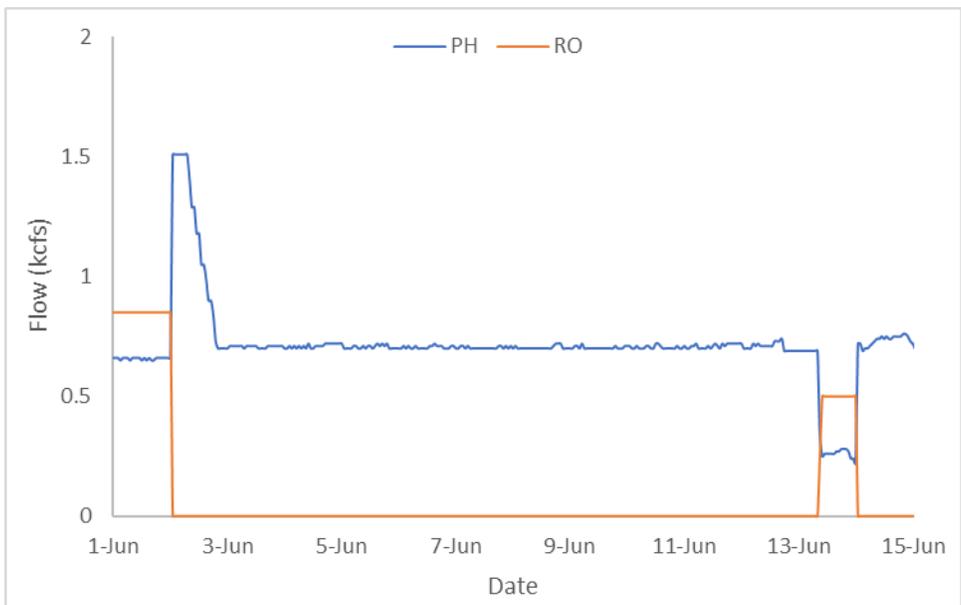


Figure 68. Hourly Flows PWR vs. RO (Hills Creek Dam)

Issues Encountered

South Santiam and Leaburg hatchery fish are in poor condition and currently are not suitable for use in trapping efficiency trials. This may delay future trials in the respective basins until fish condition improve.

Upcoming USACE Support Services

USACE Crane support will be required in July when Big Cliff Dam Debris Passage occurs.

Appendix A

Chinook (CHS) To Date

Chinook Injuries to-date																							
p/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 ft	1526		898	12	114	10	16	1106	332	4	798	6	13	5	49	9	99	50	196	93	100	24	73
Adult	1		1								1						1	1	1		1		
Parr	35		12	1	4	2		19	3		11					2			1			1	
Smolt	1363		880	11	108	8	15	1087	328	4	783	6	13	3	48	7	95	47	193	90	99	20	71
Unknown	2													2								1	
Fry	125		5		2		1		1		3				1		3	2	1	3		2	2
Green Peter Tail.																							
8 ft	100	3	49	1	14	2		7	28		66				8		9	5	13	14	11	2	30
Parr	82	3	43		9	2		5	21		53				4		6	3	11	10	11	2	25
Smolt	3		1					1	2		3												1
Fry	15		5	1	5			1	5		10				4		3	2	2	4			4
Foster Dam HOR																							
5 ft	698		72		3			2	5		58		1	1	3		5	12	4	15	1		6
Parr	57		37					2			16				1				1				
Smolt	44		32								22						1				2		
Fry	597		3		3				5		20		1	1	2		4	12	3	13	1		6
Cougar Dam																							
RO	2592	1	1587	34	331	39	12	2269	781	5	1849	3	3		92	39	172	93	366	107	261	30	808
Parr	251		135	5	39	3	1	155	68		142				9	2	10	6	18	17	7	5	37
Smolt	2302	1	1451	29	289	36	11	2114	712	5	1705	3	3		83	37	161	87	347	88	253	25	771
Fry	39		1		3				1		2						1		1	2	1		
PH	1243	10	549	8	38	4		598	128		334		5	2	39	4	34	34	59	23	69	4	6
Parr	288		159	1	11	1		108	27		76		1		7	1	3	8	12	6	7		
Smolt	567		388	7	21	3		490	94		253		4		31	3	28	19	43	14	62	1	6
Unknown	2														2								
Fry	386	10	2		6				7		5				1		3	7	4	3		3	
Cougar Dam HOR																							
5 ft	5144	7	129		10	1		14	26	9	108	2	1		2		26	29	50	39	11		21
Parr	217		108			1		14	6	2	56						1	6	1	1	1		
Smolt	8		3								2												
Fry	4919	7	18		10				20	7	50	2	1		2		25	23	49	38	10	21	
Fall Creek Dam Tail.																							
8 ft	62		4		2				1		5				1		2	1	2	3			2
Parr	7		1		1						1				1				1	1	1		2
Smolt	1								1		1						1						
Fry	54		3		1						3						1		1	2			
Fall Creek HOR																							
8 ft	155		5	1				2	4		5	1					2	3		2		1	
Parr	10		3					1	2		3						1						
Smolt	5		1					1															
Fry	140		1	1					2		2	1					1	3		2		1	
Dexter Dam Tail.																							
5 ft	117		69		7			19	32		60				1		4	4	6	6	6	1	21
Parr	19		7		3			2	6		9							2	3	2			6
Smolt	95		62		4			17	26		50				1		4	2	3	4	6	1	15
Fry	3										1												

Chinook (CHS) To Date - Continued

Chinook Injuries to-date (Cont.)																								
p/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	
Lookout Dam Tail.		127		61	1	21	2	5	32	48		83				5	2	13	8	20	19	21	3	16
PH 1		43		18	1	8	1	1	14	19		31				4	2	8	3	9	7	4		5
Parr		4		1		1				2		2					1	1		1				
Smolt		38		17	1	7	1	1	14	17		29				4	1	7	3	8	7	4		5
Fry		1																						
PH 2		24		13		6		1	3	7		16				1		2	3	2	5	3		
Parr		7		5		4				2		6						1	1	1	3			
Smolt		13		8		2		1	3	4		10				1		1	1	1	1	2		
Fry		4								1								2			1	1		
Spill		60		30		7	1	3	15	22		36						3	2	9	7	14	3	11
Parr		7		2						3		2												
Smolt		51		27		6	1	3	15	19		33						3	2	9	7	14	3	11
Fry		2		1		1						1												
Lookout Point HOR		228	1	48		3			3	3		27						4	3	3			1	
5 ft		228	1	48		3			3	3		27						4	3	3			1	
Parr		90		39					1			13						1		1				
Smolt		10		7					1	1		5												
Fry		128	1	2		3			1	2		9						3	3	2			1	
Hills Creek Dam		502	2	81	1	26			128	68		81	1	12	3	53	8	26	11	30	16	16	7	20
RO		219	2	49		9			77	37		43		7		29	6	12	2	18	9	7	4	8
Parr		7		2					1									1						
Smolt		86	1	45		8			76	37		41		7		29	6	8	2	16	6	6	2	8
Fry		126	1	2		1						2						3		2	3	1	2	
PH		283		32	1	17			51	31		38	1	5	3	24	2	14	9	12	7	9	3	12
Parr		7		4					1	1											1			
Smolt		56		23	1	13			50	30		33	1	5	3	19	1	8	4	8	4	9		12
Fry		220		5		4						5				5		6	5	4	2		3	

Chinook (CHS) During Reporting Period

Chinook Injuries During Reporting Period (06-01-2023 to 06-15-2023)																							
p/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	31		22		4	1		26	9		26	1	1		4		6		4	3	7	1	5
8 ft	31		22		4	1		26	9		26	1	1		4		6		4	3	7	1	5
Parr	1		1					1															
Smolt	30		21		4	1		25	9		26	1	1		4		6		4	3	7	1	5
Green Peter Tail.	7	2	2						1		3								2	1			1
8 ft	7	2	2						1		3								2	1			1
Parr	7	2	2						1		3								2	1			1
Foster Dam HOR	5		4								2												
5 ft	5		4								2												
Parr	4		3								2												
Smolt	1		1																				
Cougar Dam	23		12	1	1			5	3		9				3	2	1	2	2	1	3		
PH	23		12	1	1			5	3		9				3	2	1	2	2	1	3		
Parr	18		8	1				1	2		5				2	1		2	1		2		
Smolt	5		4		1			4	1		4				1	1	1		1	1	1		
Cougar Dam HOR	604		3		1					4	6				1		2	3	3				
5 ft	604		3		1					4	6				1		2	3	3				
Fry	593		3		1					4	6				1		2	3	3				
Parr	11																						
Dexter Dam Tail.	1		1					1			1												
5 ft	1		1					1			1												
Smolt	1		1					1			1												
Lookout Dam Tail.	2		1						1		2				1								
PH 1	2		1						1		2				1								
Parr	1		1								1												
Smolt	1								1		1				1								
Lookout Point HOR	14		5					1	1		4											1	
5 ft	14		5					1	1		4											1	
Fry	3							1			1											1	
Parr	10		5								3												
Smolt	1								1														
Hills Creek Dam	1		1																				
RO	1		1																				
Parr	1		1																				

Steelhead (O. mykiss) To Date

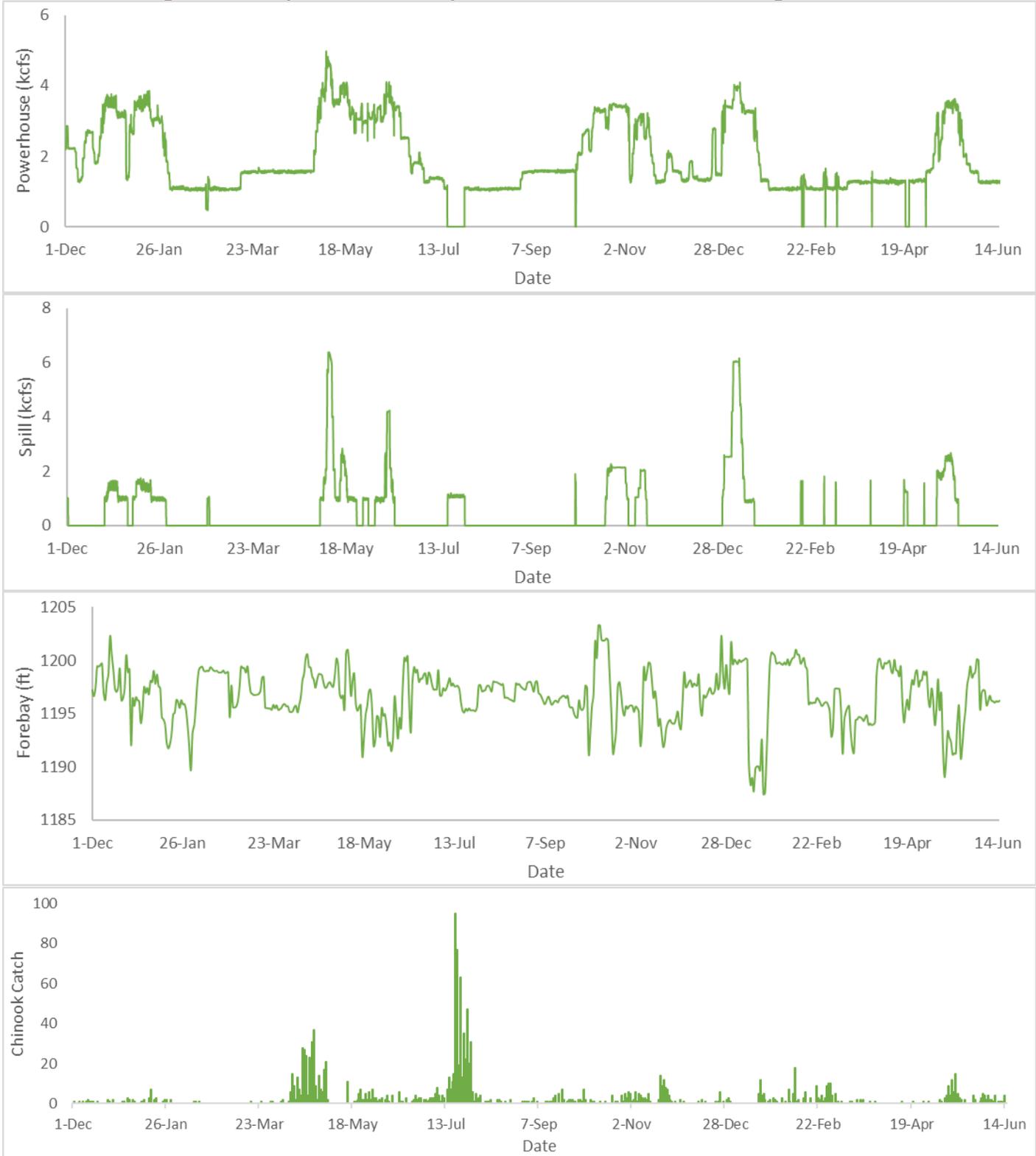
		O. mykiss Injuries to-Date																					
p/Life Stage	Total Fish	MUNK	DS<2	BLO	EVB	FUN	BKD	COP	DS>2	PRD	FID	HBO	BO	HO	BVT	HBP	BRU	TEA	OPD	HIN	FVB	POP	GBD
Big Cliff Dam	142	1	54	4	7	4	6	50	21		68		1		4		14	6	15	15	12	3	13
8 ft	142	1	54	4	7	4	6	50	21		68		1		4		14	6	15	15	12	3	13
Adult	1								1		1		1										
Parr	47	1	12	4	1	1	1				16						2	1	1	1	1		1
Smolt	63		38		6	3	5	50	20		49				4		10	4	14	14	11	3	11
Fry	31		4								2						2	1					1
Green Peter Tail.	17		7		3			4	8		13				1		4		5	3	1	5	12
8 ft	17		7		3			4	8		13				1		4		5	3	1	5	12
Adult	1		1								1												1
Smolt	15		6		3			4	8		12				1		4		5	3	1	5	11
Fry	1																						
Foster Dam HOR	257		85		2	5		6	2	78							3	2	3	3	1	2	
5 ft	257		85		2	5		6	2	78							3	2	3	3	1	2	
Adult	7		1								2												
Parr	125		38		1	3		4			43						3		2		1	1	
Smolt	88		46		1	2		2		2	32							1	1	2		1	
Fry	37										1							1		1			

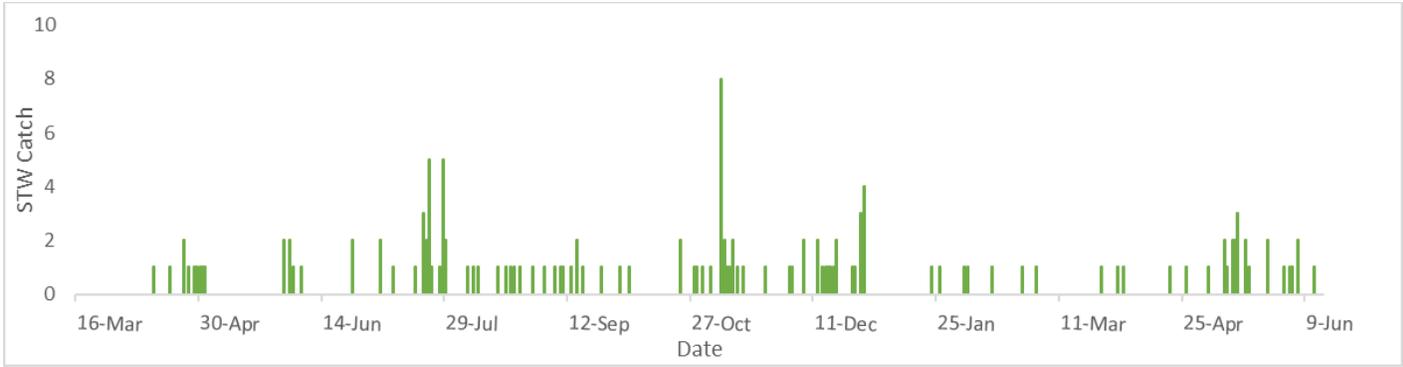
Steelhead (O. mykiss) During Reporting Period

		O. mykiss Injuries During Reporting Period (06-01-2023 to 6-15-2023)																					
p/Life Stage	Total Fish	MUNK	DS<2	BLO	EVB	FUN	BKD	COP	DS>2	PRD	FID	HBO	BO	HO	BVT	HBP	BRU	TEA	OPD	HIN	FVB	POP	GBD
Big Cliff Dam	6		2		1			5	4		5	1			2		2			3	1		2
8 ft	6		2		1			5	4		5	1			2		2			3	1		2
Smolt	6		2		1			5	4		5	1			2		2			3	1		2
Foster Dam HOR	2		2					1			2												
5 ft	2		2					1			2												
Parr	1		1					1			1												
Smolt	1		1								1												

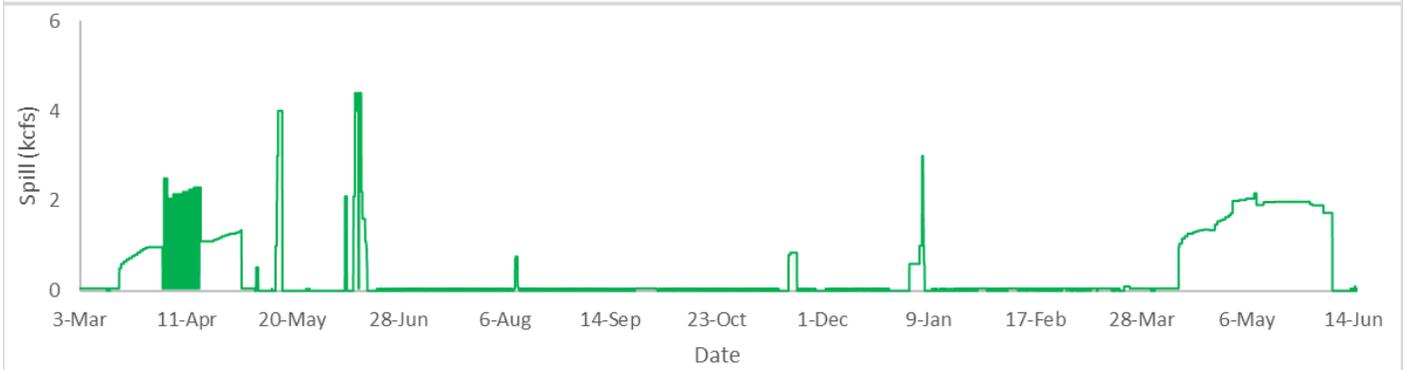
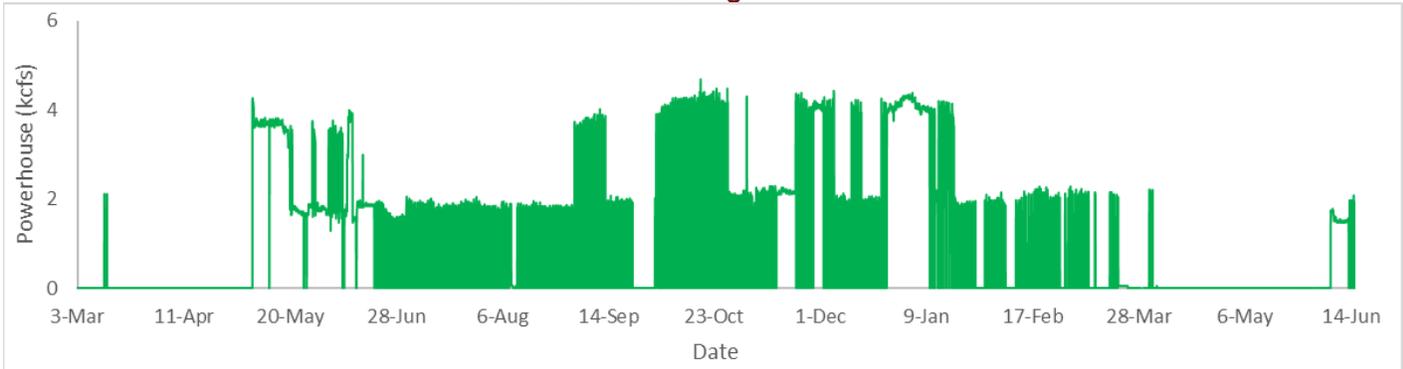
Appendix B

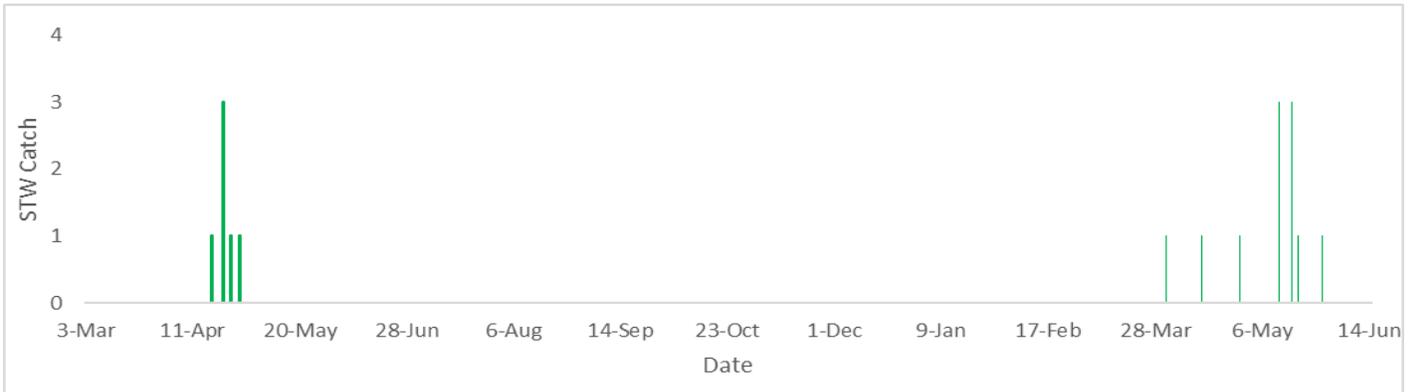
Big Cliff Dam Operational and Capture Data Since Start of Monitoring



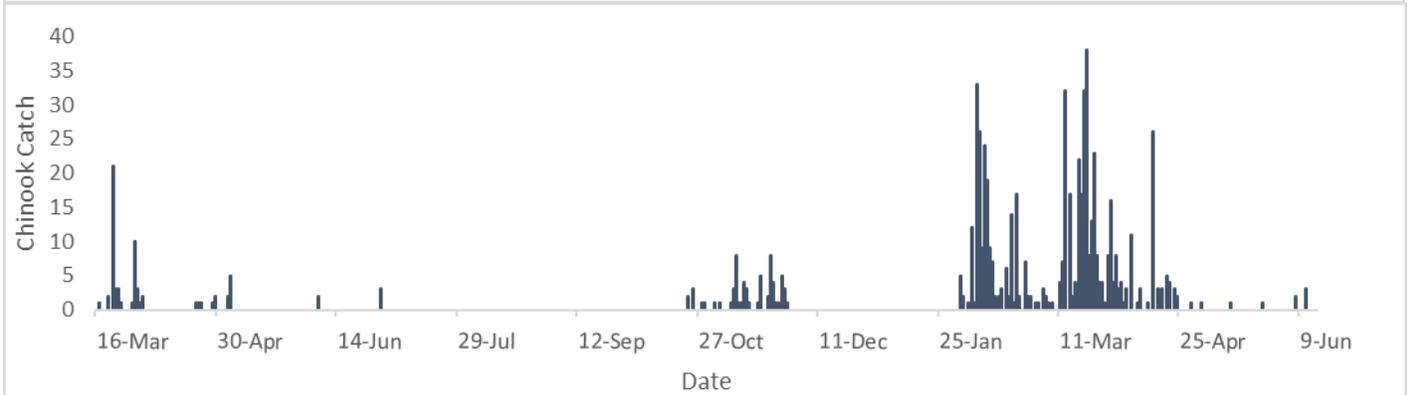
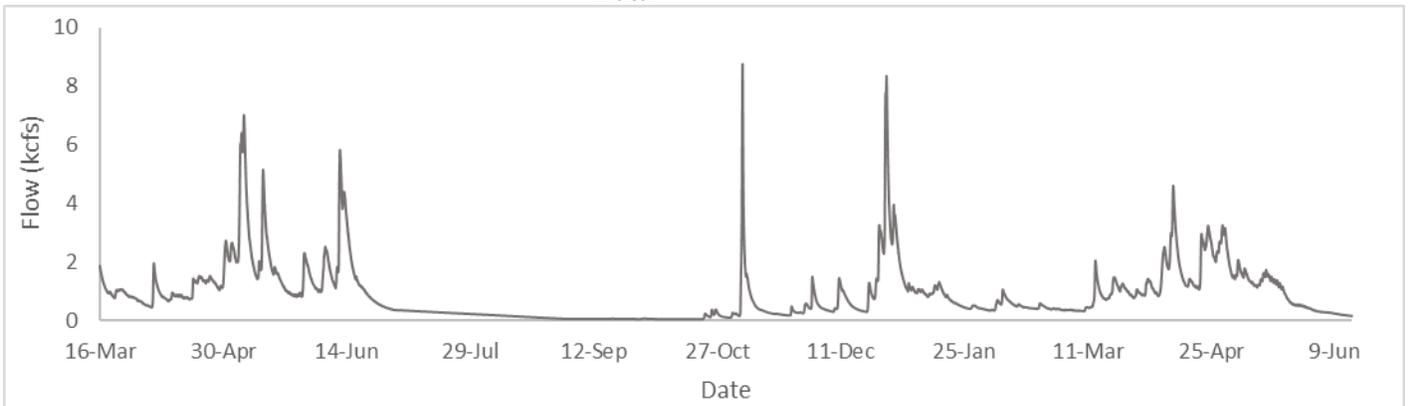


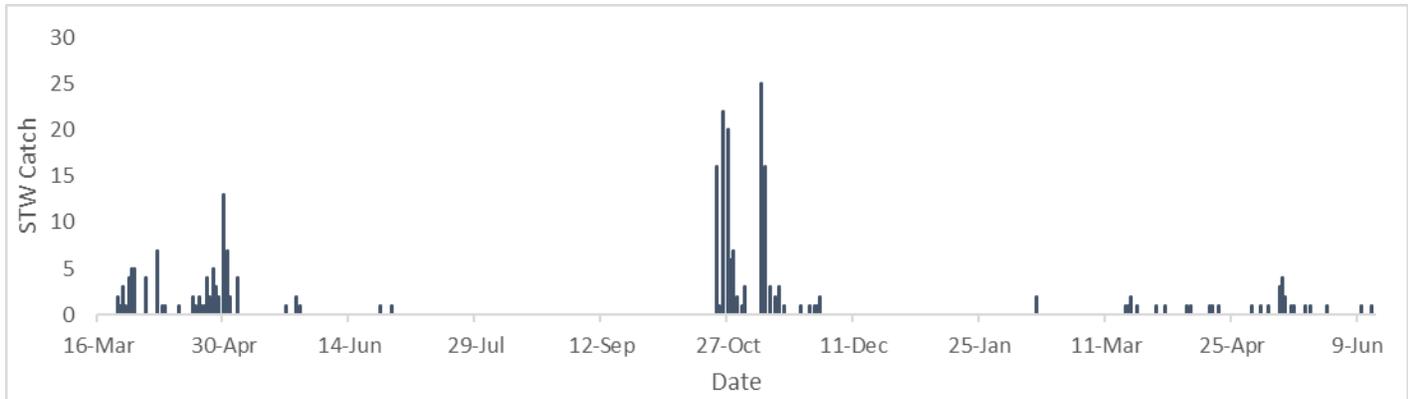
Green Peter Dam Operational and Green Peter Tailrace- Middle Santiam River Capture Data Since Start of Monitoring



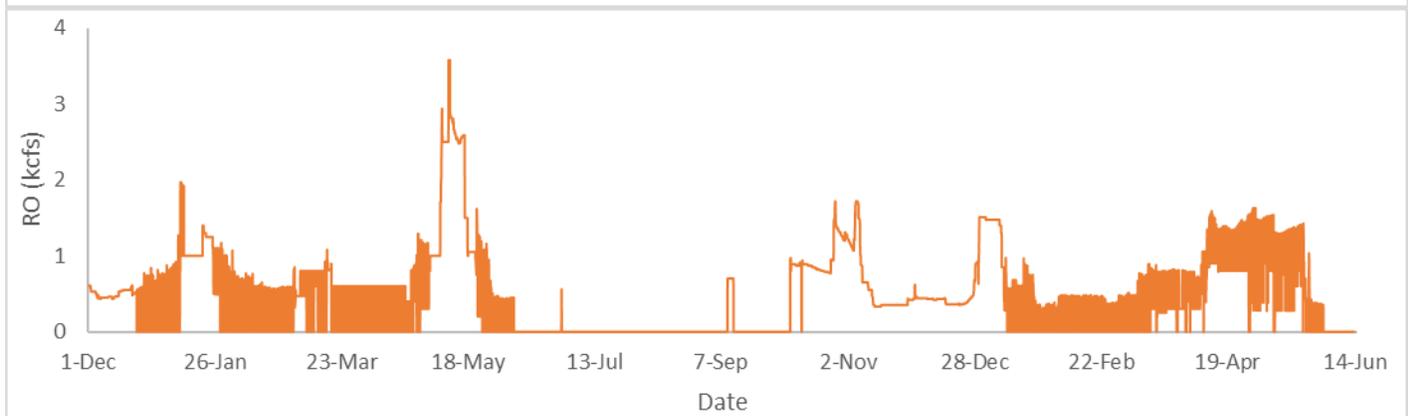
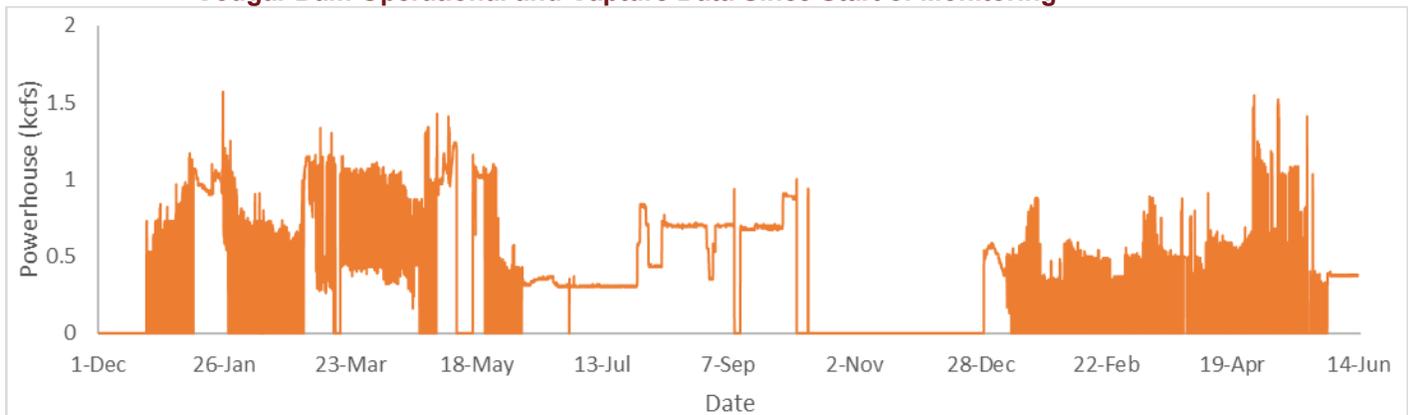


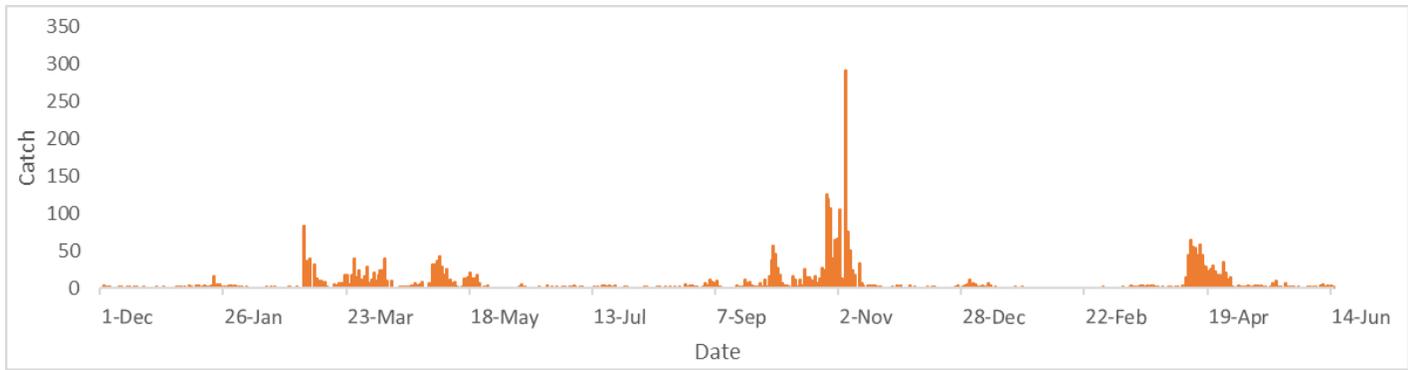
South Santiam River Above Foster Dam Discharge and Foster Dam Head of Reservoir Capture Data



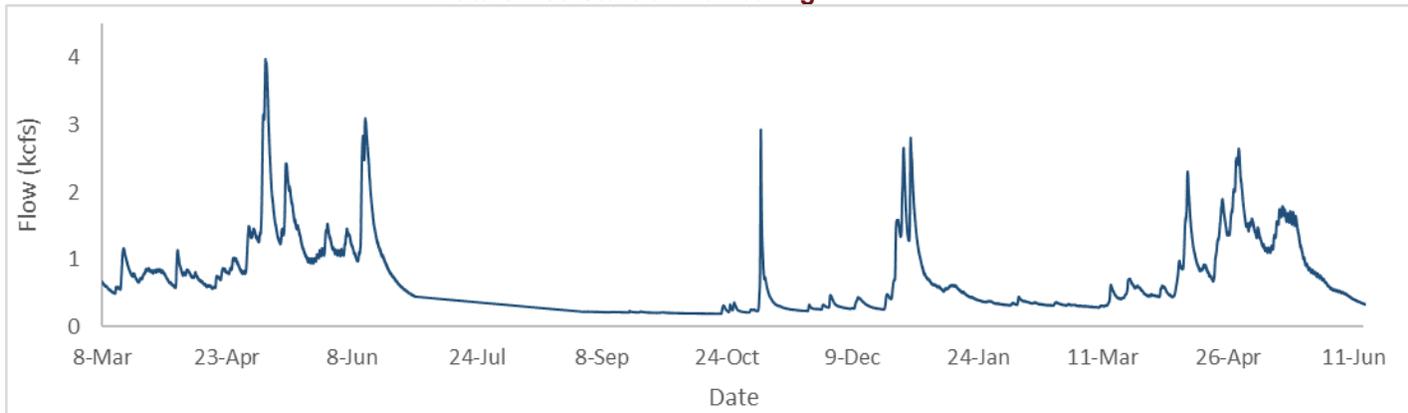


Cougar Dam Operational and Capture Data Since Start of Monitoring

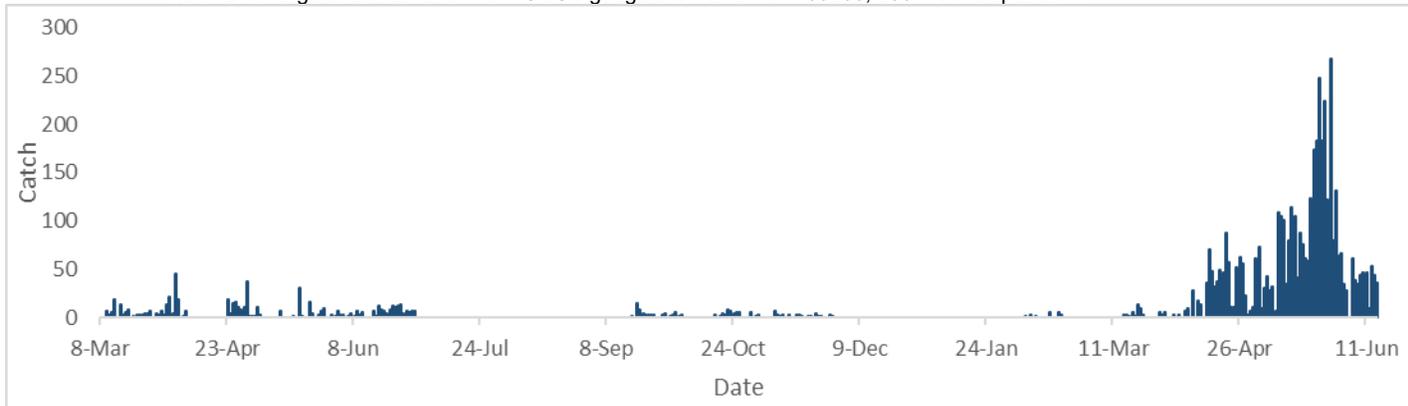




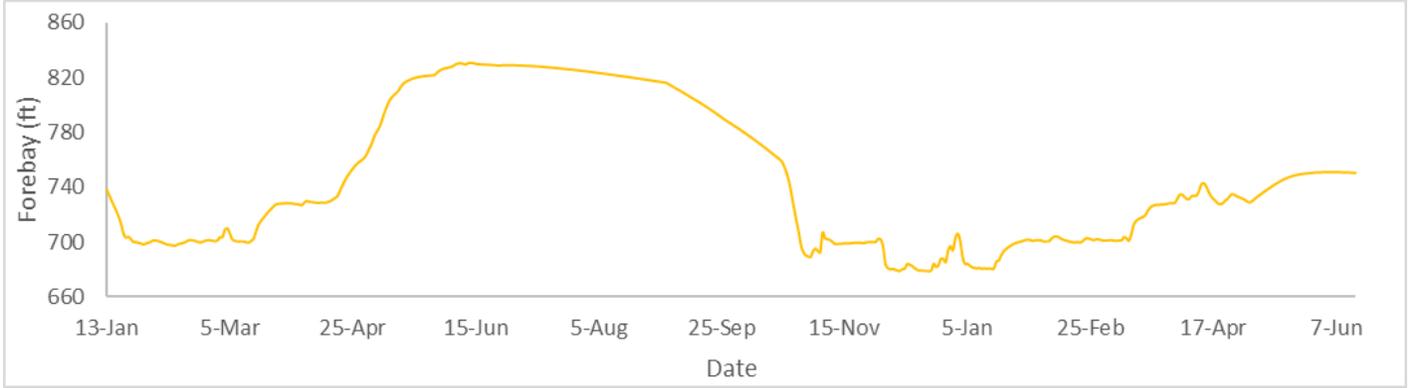
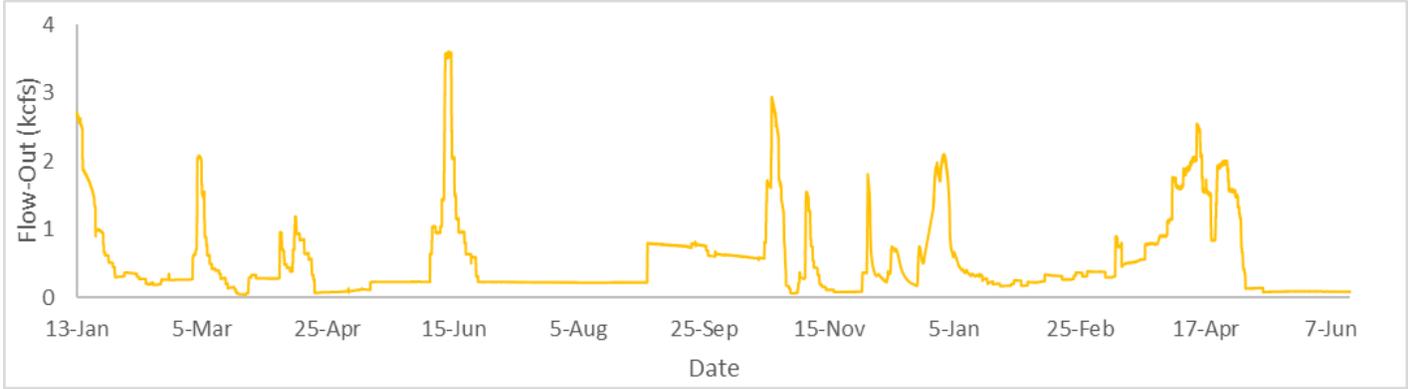
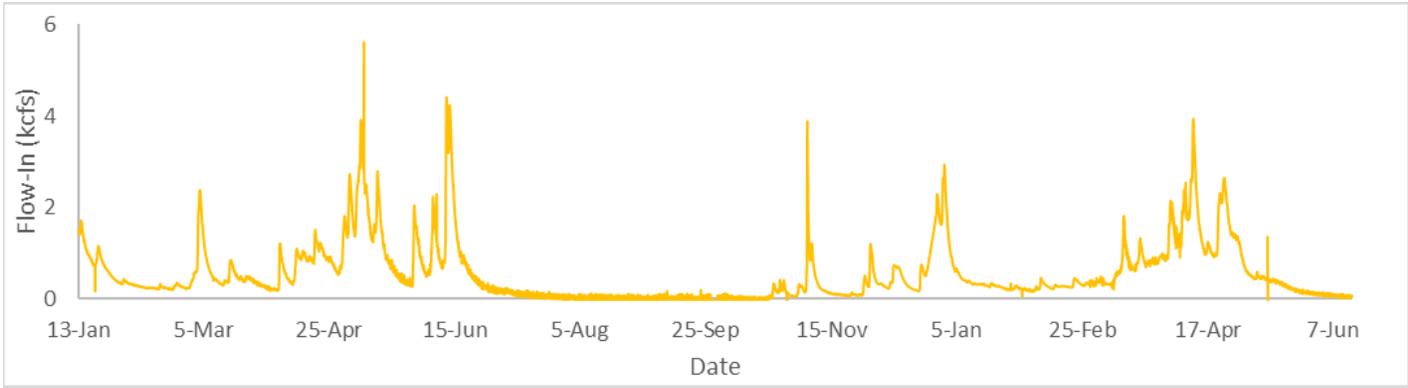
South Fork McKenzie above Cougar Dam Discharge and Cougar Dam Head of Reservoir Capture Data Since Start of Monitoring



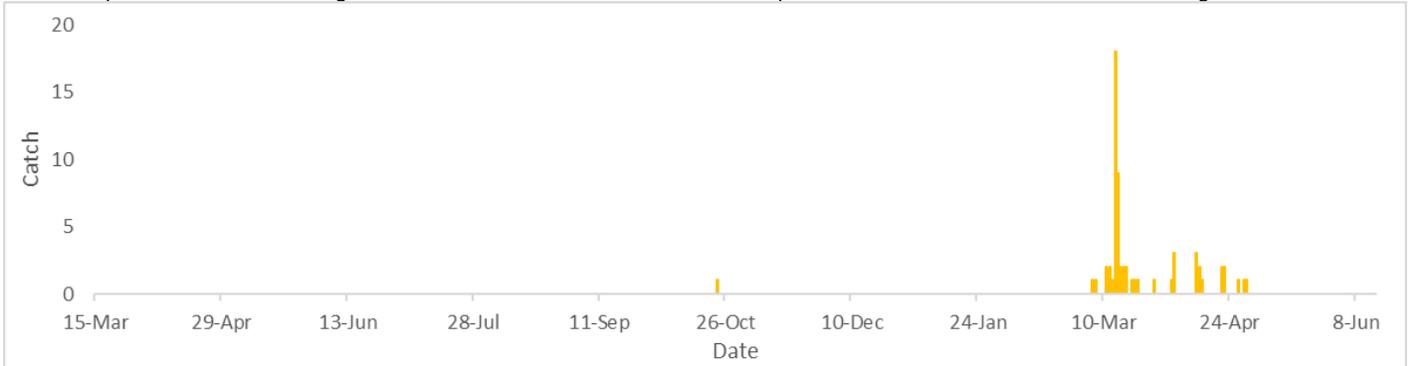
Note: Discharge data was taken from USGS gauge site number 14159200, 250 meters upstream.



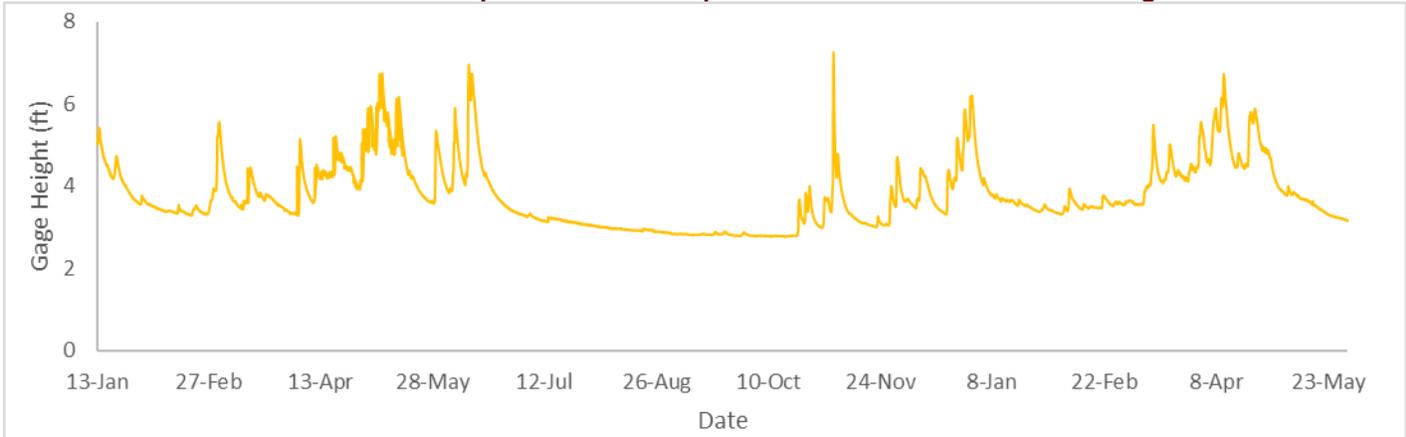
Fall Creek Dam Tailrace Operational and Capture Data Since Start of Monitoring



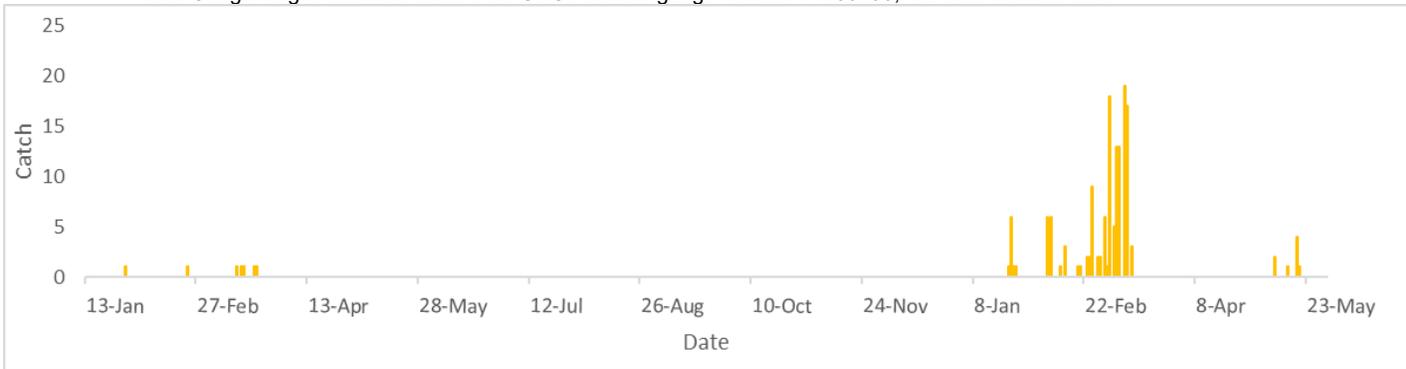
Note: Operational data was being tracked for Fall Creek Head of Reservoir site prior to initiation of Fall Creek Dam monitoring.



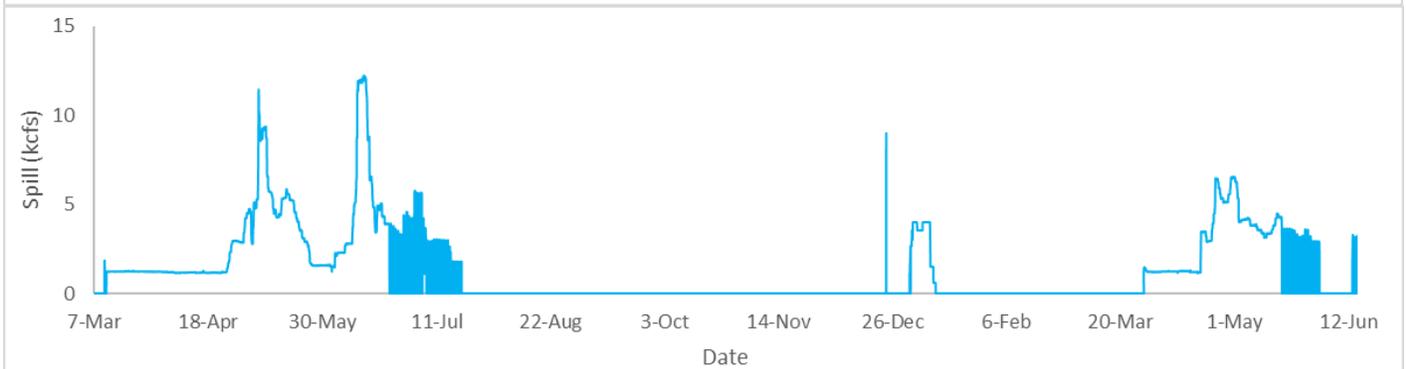
Fall Creek Head of Reservoir Operational and Capture Data Since Start of Monitoring

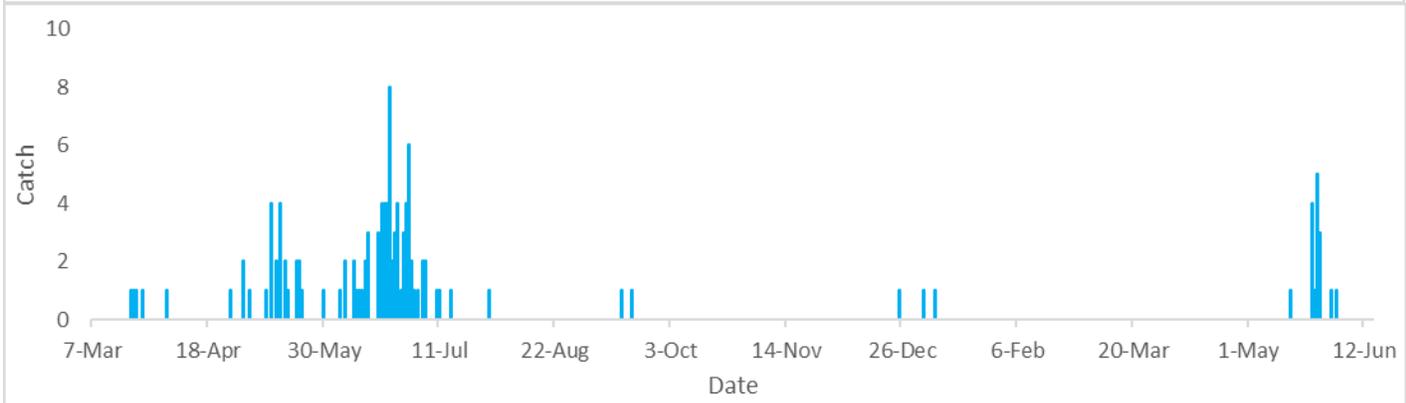
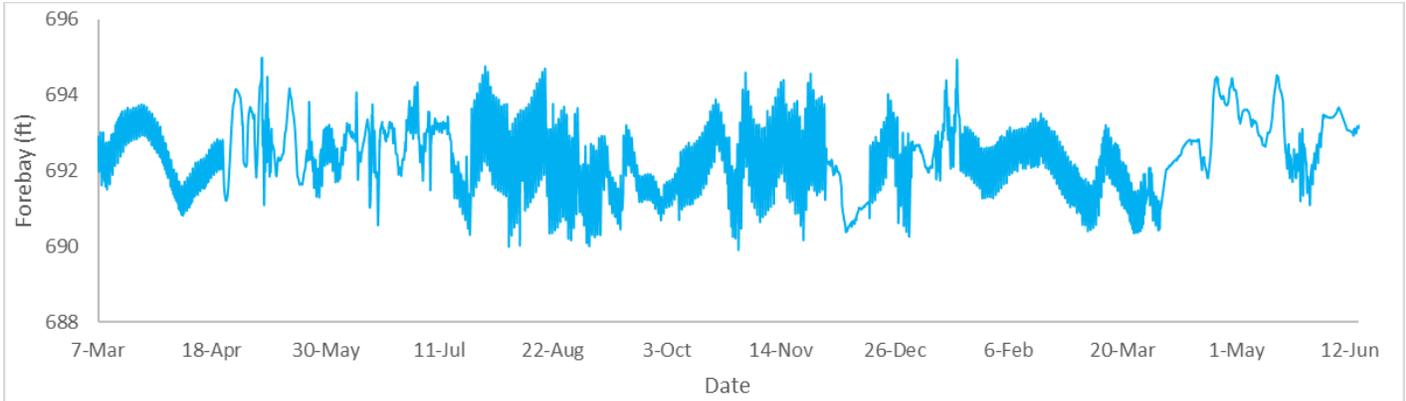


Note: Gauge height data was taken from USGS stream gauge number 14150290, 1.2 rkms downstream.

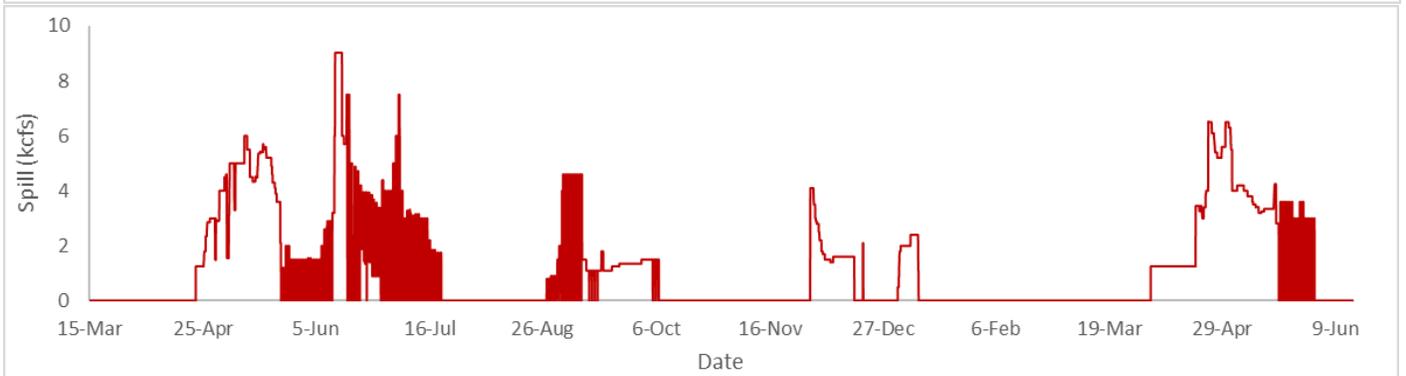
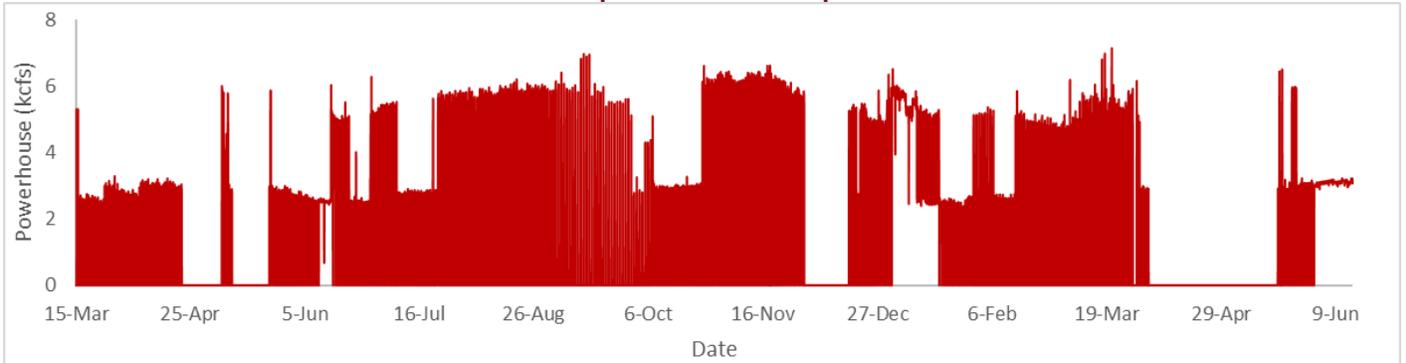


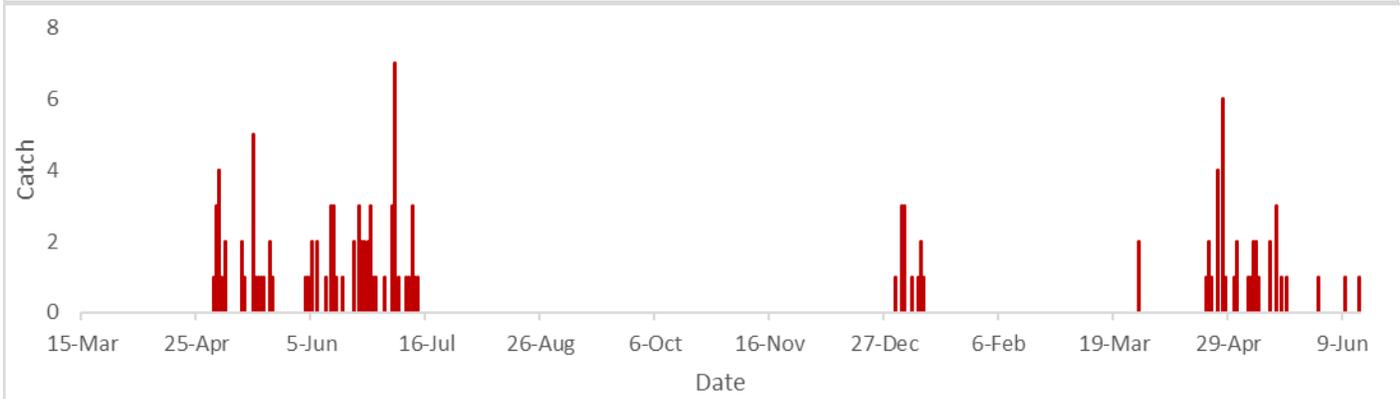
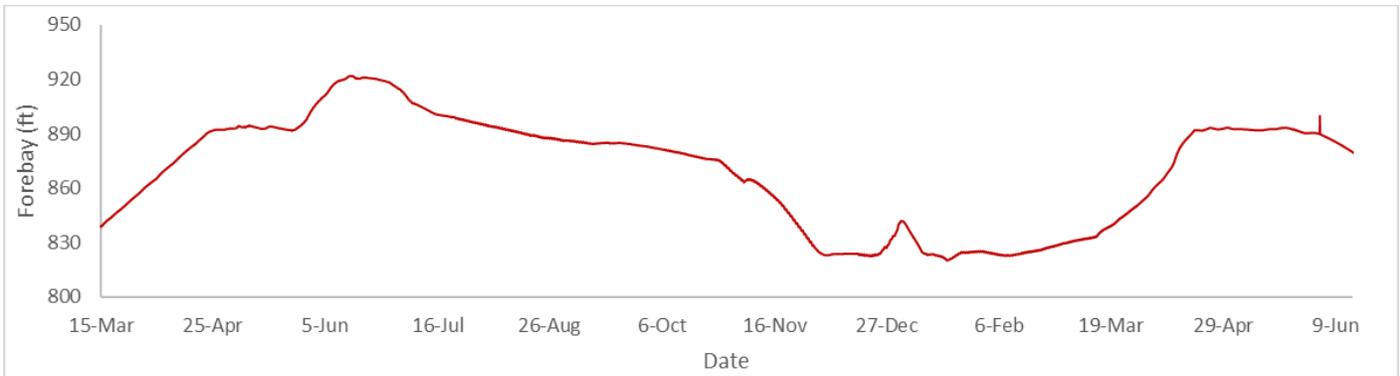
Dexter Dam Operational and Capture Data Since Start of Monitoring



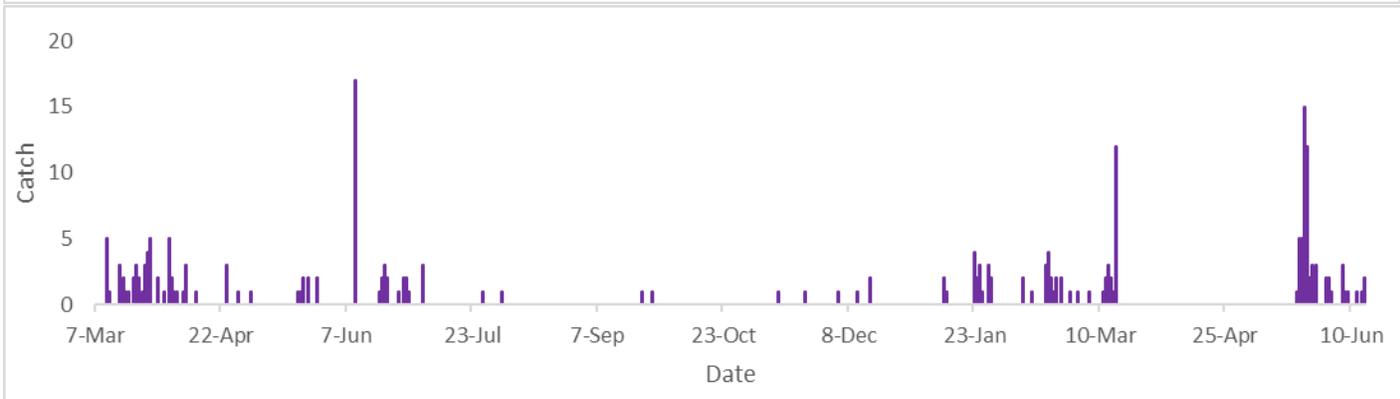
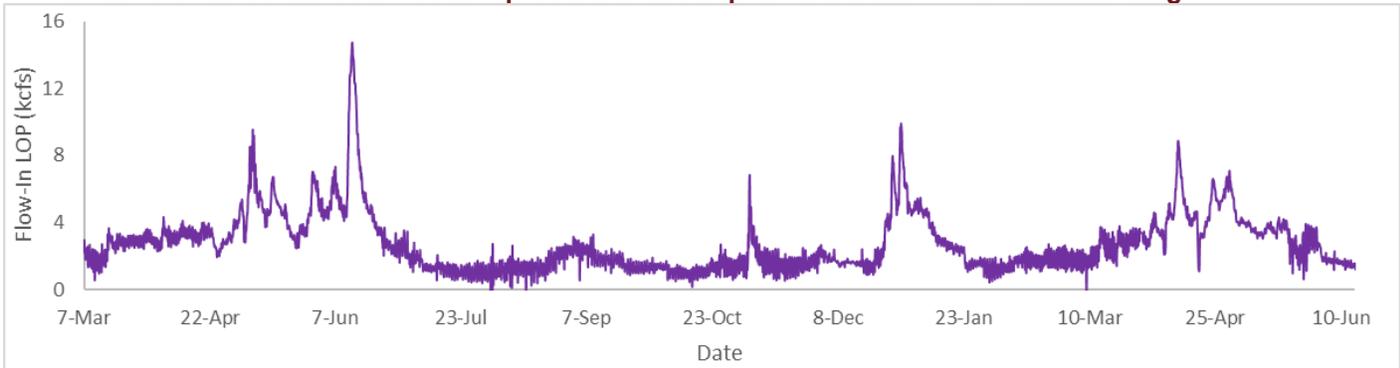


Lookout Dam Tailrace Operational and Capture Data

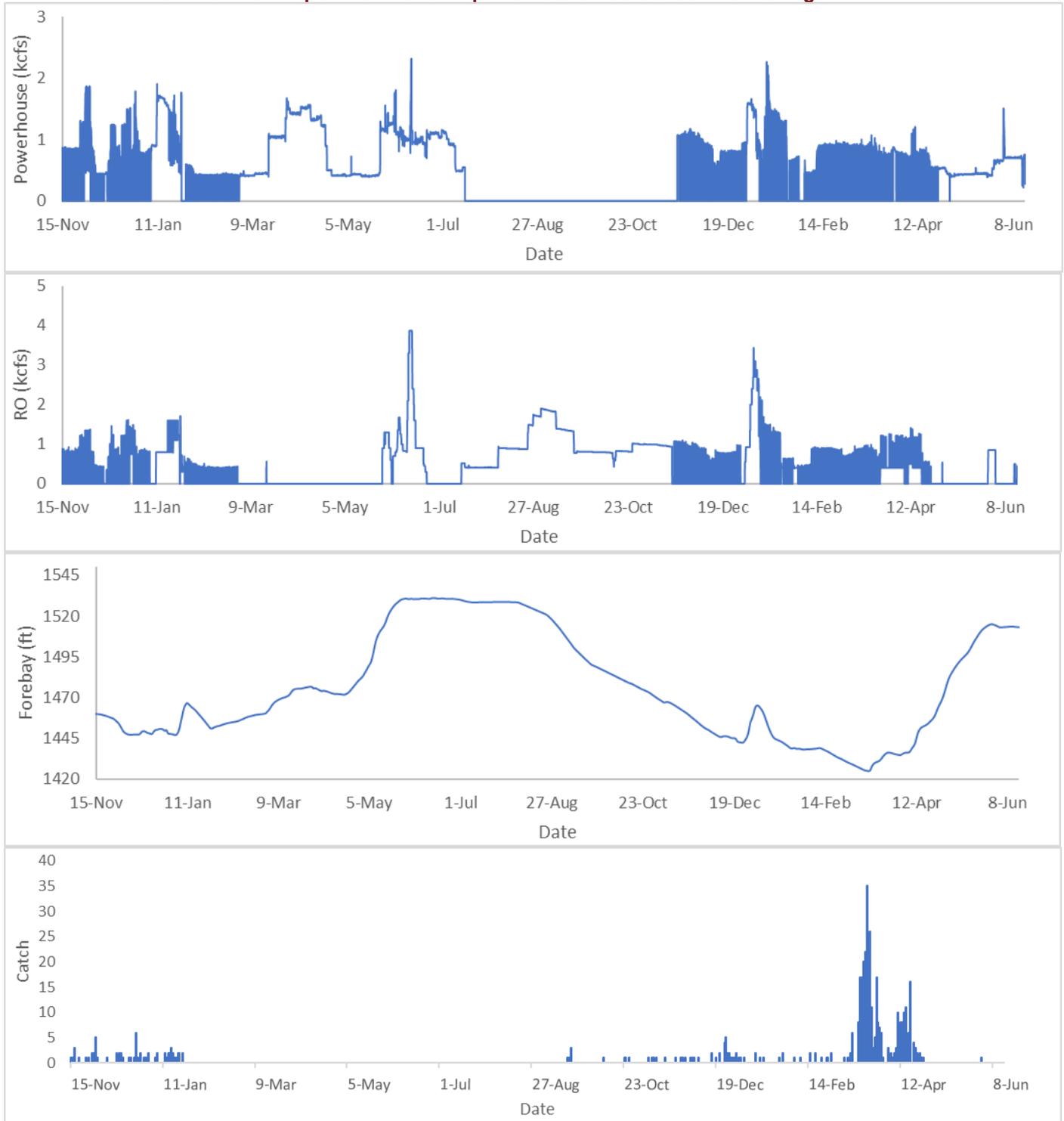




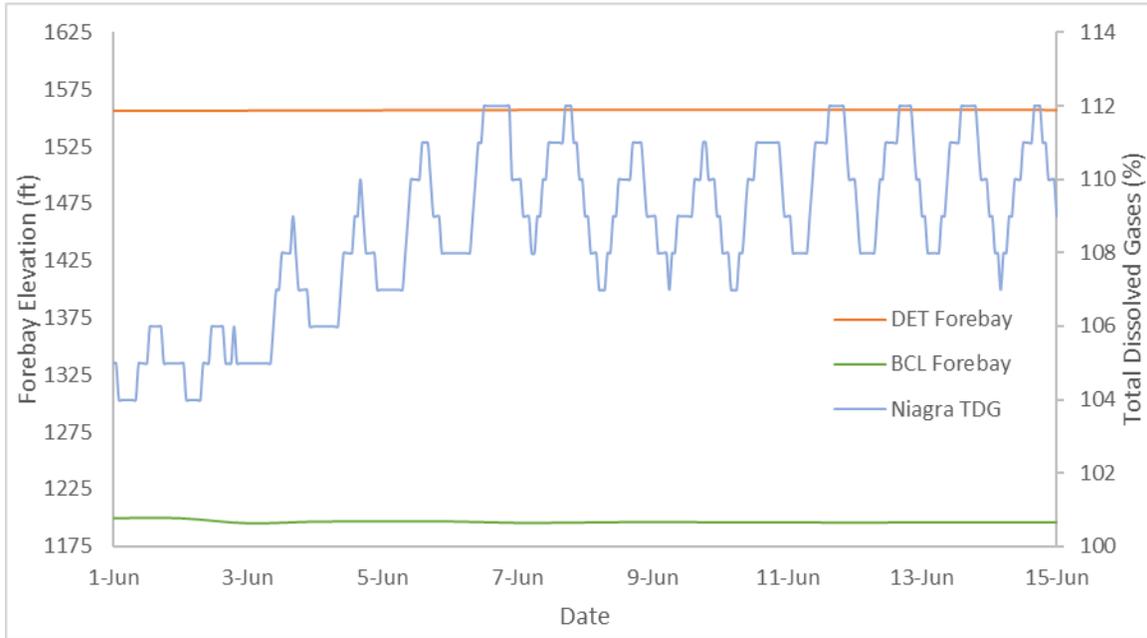
Lookout Point Head of Reservoir Operational and Capture Data Since Start of Monitoring



Hills Creek Dam Operational and Capture Data Since Start of Monitoring



Detroit Dam Forebay Elevation



Appendix C

Fall Creek Dam	Release #	Recapture #	Capture Efficiency
RO	500	0	0% (0/500)

Cougar Dam Head of Reservoir (4/14/2023)	Release #	Recapture #	Capture Efficiency
5ft trap	506	8	1.6% (8/506)
Cougar Dam (04/18/2023)	Release #	Recapture #	Capture Efficiency
RO Route	500	2	0.4% (2/500)
PWR Route	197	14	7.1% (14/197)

Foster Dam Head of Reservoir- South Santiam	Release #	Recapture #	Capture Efficiency
5 ft Trap	995	62	6.23% (62/995)

Green Peter Dam Tailrace- Middle Santiam	Release #	Recapture #	Capture Efficiency
8ft Trap	518	9	1.74% (9/518)

Cougar Dam (01/30/2023)	Release #	Recapture #	Capture Efficiency
RO Route	500	6	1.2% (6/500)

Dexter Dam (12/15/23)	Release #	Recapture #	Capture Efficiency
Spill	N/A	N/A	N/A
Powerhouse	1010	10	1.0% (10/1010)

Big Cliff Dam 12/14/2022	Release #	Recapture #	Capture Efficiency
8ft Trap	502	54	10.8% (54/502)

Cougar Dam (12/13/2022)	Release #	Recapture #	Capture Efficiency
RO Route	506	42	8.3% (42/506)

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)

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

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

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

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

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

Cougar Dam Head of Reservoir	Release #	Recapture #	Capture Efficiency
5ft trap	515	7	1.4% (7/515)

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

Dexter Dam	Release #	Recapture #	Capture Efficiency
Spill	1000	43	4.3% (43/1000)
Powerhouse	N/A	N/A	N/A

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)

Fall Creek Dam	Release #	Recapture #	Capture Efficiency
RO	518	11	2.1% (11/518)

Fall Creek Dam	Release #	Recapture #	Capture Efficiency
RO	513	0	0% (0/513)

Cougar Dam	Release #	Recapture #	Capture Efficiency
RO Route	993	63	6.34% (63/993)

Dexter Dam	Release #	Recapture #	Capture Efficiency
Spill	1019	67	6.6% (67/1,019)
Powerhouse	N/A	N/A	N/A

Lookout Point Head of Reservoir	Release #	Recapture #	Capture Efficiency
05/24/2022	1007	125	12.4% (125/1007)

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	1000	21	2.1% (21/1000)

Cougar Dam	Release #	Recapture #	Capture Efficiency
PH Route	500	148	29.6% (148/500)

Cougar Dam Head of Reservoir	Release #	Recapture #	Capture Efficiency
5ft trap	551	56	10.2% (56/551)

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	1000	92	9.2% (92/1000)

Cougar Dam	Release #	Recapture #	Capture Efficiency
PH Route	501	31	6.2% (31/501)

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8 ft Trap	500	14	2.8% (14/500)

Foster Dam Head of Reservoir- South Santiam	Release #	Recapture #	Capture Efficiency
5 ft Trap	1063	0	0% (0/1063)

Dexter Dam	Release #	Recapture #	Capture Efficiency
Spill	N/A	N/A	N/A
Powerhouse	981	1	0.1% (1/981)

Lookout Point Head of Reservoir	Release #	Recapture #	Capture Efficiency
07/20/2022	1005	9	0.9% (9/1005)

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	549	40	7.3% (40/549)

Foster Dam Head of Reservoir- South Santiam	Release #	Recapture #	Capture Efficiency
5 ft Trap	1006	263	26.1% (263/1006)

Foster Dam Head of Reservoir- South Santiam	Release #	Recapture #	Capture Efficiency
5 ft Trap	1007	68	6.8% (68/1007)

Cougar Dam Head of Reservoir	Release #	Recapture #	Capture Efficiency
5ft trap	721	33	4.6% (33/721)

Dexter Dam	Release #	Recapture #	Capture Efficiency
Spill	N/A	N/A	N/A
Powerhouse	775	1	0.1% (1/775)

Lookout Point Head of Reservoir	Release #	Recapture #	Capture Efficiency
10/27/2022	506	9	1.8% (9/506)

Cougar Dam (10/14/2022)	Release #	Recapture #	Capture Efficiency
RO Route	442	48	10.9% (48/442)

Big Cliff Dam (11/16/2022)	Release #	Recapture #	Capture Efficiency
8ft Trap	509	15	2.9% (15/509)

Foster Dam Head of Reservoir- South Santiam (11/15/2022)	Release #	Recapture #	Capture Efficiency
5 ft Trap	1009	55	5.5% (55/1009)

Foster Dam Head of Reservoir- South Santiam (11/22/2022)	Release #	Recapture #	Capture Efficiency
5 ft Trap	933	163	17.5% (163/933)

Cougar Dam Head of Reservoir (11/16/2022)	Release #	Recapture #	Capture Efficiency
5ft trap	719	29	4.0% (29/719)

Cougar Dam Head of Reservoir 11/23/2022	Release #	Recapture #	Capture Efficiency
5ft trap	752	51	6.8% (51/752)

Cougar Dam Head of Reservoir (11/29/2022)	Release #	Recapture #	Capture Efficiency
5ft trap	620	48	7.7% (48/620)

Cougar Dam (11/22/2022)	Release #	Recapture #	Capture Efficiency
RO Route	504	24	4.8% (24/504)

Dexter Dam (11/17/2022)	Release #	Recapture #	Capture Efficiency
Spill	N/A	N/A	N/A
Powerhouse	991	4	0.4% (4/991)

Lookout Point Head of Reservoir	Release #	Recapture #	Capture Efficiency
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11/17/2022	510	0	0.0% (0/510)
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Hills Creek Dam (2/16/2022)	Release #	Recapture #	Capture Efficiency
PWR Route	600	12	2.0% (12/600)
RO Trap	593	19	3.2% (19/593)

*Live fish captured at the PWR trap are released just downstream of the PWR 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 PWR trap are excluded from the RO trap capture efficiency estimate as they are not alive at time of re-release.

Hills Creek Dam (2/25/2022)	Release #	Recapture #	Capture Efficiency
PWR Route	604	6	0.99% (6/604)
RO Trap	625	7	1.12% (7/625)

*Live fish captured at the PWR trap are released just downstream of the PWR 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 PWR trap are excluded from the RO trap capture efficiency estimate as they are not alive at time of re-release.

Cougar Dam (12/15/2022)	Release #	Recapture #	Capture Efficiency
RO Route	1015	56	5.5% (56/1015)

Cougar Dam (12/20/2022)	Release #	Recapture #	Capture Efficiency
RO Route	500	65	13.0% (65/500)

Cougar Dam (12/28/2022)	Release #	Recapture #	Capture Efficiency
RO Route	445	15	3.4% (15/445)

Lookout Point Head of Reservoir	Release #	Recapture #	Capture Efficiency
12/12/2022	510	0	0.0% (0/510)

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	1,010	92	9.1% (92/1,010)

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	1,014	32	3.2% (32/1,014)

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	704	47	6.68% (47/704)

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	452	22	4.87% (22/452)

Big Cliff Dam (3/10/2023)	Release #	Recapture #	Capture Efficiency
8ft Trap	541	112	20.7% (112/541)

Cougar Dam (01/12/2023)	Release #	Recapture #	Capture Efficiency
PH Route	843	159	18.9% (159/843)

Big Cliff Dam	Release #	Recapture #	Capture Efficiency
8ft Trap	500	56	11.2% (56/500)

Foster Dam Head of Reservoir- South Santiam	Release #	Recapture #	Capture Efficiency
5 ft Trap	1009	55	5.5% (55/1009)

Foster Dam Head of Reservoir- South Santiam	Release #	Recapture #	Capture Efficiency
5 ft Trap	933	163	17.5% (163/933)

Hills Creek Dam (12/07/2022)	Release #	Recapture #	Capture Efficiency
PWR Route	514	29	5.6% (29/514)
RO Trap	514 in PWR	3	0.6% (3/514)

Hills Creek Dam (12/13/2022)	Release #	Recapture #	Capture Efficiency
RO Route	516	1	0.2% (1/516)

Cougar Dam Head of Reservoir	Release #	Recapture #	Capture Efficiency
5ft trap	719	29	4.0% (29/719)

Cougar Dam Head of Reservoir	Release #	Recapture #	Capture Efficiency
5ft trap	752	51	6.8% (51/752)

Cougar Dam Head of Reservoir	Release #	Recapture #	Capture Efficiency
5ft trap	620	48	7.7% (48/620)

Cougar Dam (03/23/2023)	Release #	Recapture #	Capture Efficiency
RO Route	511	3	0.6% (3/511)
PWR Route	500	49	9.8% (49/500)

Hills Creek Dam (02/25/2023)	Release #	Recapture #	Capture Efficiency
PWR Route	528	15	2.8% (15/528)
RO Trap	528 in PWR	0	0.0% (0/528)

*Live fish captured at the PWR trap are released just downstream of the PWR 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 PWR trap are excluded from the RO trap capture efficiency estimate as they are not alive at time of re-release.

Hills Creek Dam (02/25/2023)	Release #	Recapture #	Capture Efficiency
RO Trap	482	4	0.83% (4/482)

Cougar Dam (03/30/2023)	Release #	Recapture #	Capture Efficiency
RO Route	491	30	6.1% (30/491)
PWR Route	497	83	16.7% (83/497)

Big Cliff Dam (4/28/2023)	Release #	Recapture #	Capture Efficiency
8ft Trap	498	34	6.8% (34/498)

Cougar Dam Head of Reservoir (5/10/2023)	Release #	Recapture #	Capture Efficiency
5ft trap	508	7	1.38% (7/508)

Dexter Dam (3/29/2023)	Release #	Recapture #	Capture Efficiency
Spill	1,199	5	0.4% (5/1,199)
Powerhouse	N/A	N/A	N/A

Lookout Dam (4/13/2022)	Release #	Recapture #	Capture Efficiency
Powerhouse	1,013	2	0.2% (2/1,013)

Hills Creek Dam (04/26/2023)	Release #	Recapture #	Capture Efficiency
PWR Trap	506	74	14.6 % (74/506)

Foster Dam Head of Reservoir- South Santiam (5/11/2023)	Release #	Recapture #	Capture Efficiency
5 ft Trap	985	20	2.03% (20/985)

Cougar Dam (05/10/2023)	Release #	Recapture #	Capture Efficiency
RO Route	499	0	0% (0/499)
PWR Route	499	5	1.0% (5/499)
Dexter Dam (5/25/2023)	Release #	Recapture #	Capture Efficiency
Spill	N/A	N/A	N/A
Powerhouse	4006	12	0.3% (12/4006)

Cougar Dam Head of Reservoir (5/10/2023)	Release #	Recapture #	Capture Efficiency
5ft trap	497	23	4.6% (23/497)

Lookout Dam (5/23/2023)	Release #	Recapture #	Capture Efficiency
Powerhouse	4,003	32	0.8% (32/4,003)

Lookout Point Head of Reservoir	Release #	Recapture #	Capture Efficiency
01/13/2022	513	10	1.9% (10/513)

Hills Creek Dam (05/17/2023)	Release #	Recapture #	Capture Efficiency
PWR Trap	505	57	11.3 % (57/505)
RO Trap	505 (PWR Release)	2	0.4% (2/505)

Appendix D

Summary of PIT Tagged Fish for Reporting Period

Site	Trap	# of PIT Tagged Fish
Big Cliff Dam	8 ft	0
Foster Dam Head of Reservoir- South Santiam	5 ft	3
Cougar Dam	PWR	0
Cougar Dam	RO	0
Cougar Dam Head of Reservoir	5 ft	0
Fall Creek Head of Reservoir	8 ft	0
Green Peter Tailrace- Middle Santiam	8 ft	0
Dexter Dam Tailrace	5 ft	0
Lookout Point Head of Reservoir	5 ft	5
Lookout Dam Tailrace	Spill	0
Lookout Dam Tailrace	PWR	0
Hills Creek Dam Tailrace	PWR	0
Hills Creek Dam Tailrace	RO	0

List of Captured Fish Containing PIT Tags This Season

Site	Trap	PIT Tag #	Date	Species
Cougar Dam	RO	3DD.003BEE14EC	1/1/2023	Chinook
Cougar Dam	RO	3DD.003BEE1565	1/2/2023	Chinook
Cougar Dam	RO	3DD.003BEE0B3B	1/4/2023	Chinook
Cougar Dam	RO	3DD.003BEE0F24	1/5/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B78	1/14/2023	Chinook
Cougar Dam	PH	3DD.003BEE19BF	1/14/2023	Chinook
Cougar Dam	PH	3DD.003BEE29B1	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE23CE	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE23AF	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE19C3	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE19A0	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE17CA	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE17A5	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1C21	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2748	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1C16	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B5C	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BC9	1/13/2023	Chinook

Cougar Dam	PH	3DD.003BEE19AE	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BE3	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BA3	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BF3	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE27B4	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D74	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2DB5	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B8C	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B8B	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D68	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B92	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D86	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE27A5	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B1B	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1C26	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE27A3	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE19B9	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE17BA	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B75	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B42	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D88	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2DAF	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1C28	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2DAD	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D6B	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE25BA	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2DAG	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1C0E	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE177C	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BAB	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE279D	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BA4	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE23BC	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B84	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE27BF	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B91	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE19C7	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BCA	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BE1	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE25C1	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE272B	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B23	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE25A7	1/13/2023	Chinook

Cougar Dam	PH	3DD.003BEE25B1	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE27CD	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE29C5	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE19BD	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE19C2	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BA7	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE23A1	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE199A	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE17C7	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2997	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE25B3	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2991	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE17C3	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BA6	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE27CB	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B6C	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2755	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B90	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE25DC	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BD2	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE299F	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BB1	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE29AA	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE27BC	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2766	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE27BD	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1C06	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B8B	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE271E	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B92	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1C22	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE29C1	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B85	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2753	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE25CB	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1794	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D76	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D6C	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE17AD	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE17A2	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE179E	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BAA	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BC0	1/13/2023	Chinook

Cougar Dam	PH	3DD.003BEE1C1D	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B24	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1986	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE23FA	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B55	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE271C	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE19BD	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE275B	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1995	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE29C1	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE17D6	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BC7	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE29D4	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1C0C	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D7C	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE277A	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B8A	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE179A	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BA9	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B4C	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE277F	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE274D	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1778	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B51	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE23A8	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B08	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2725	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B86	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D8F	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D8E	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2975	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2D93	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BA5	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE23A7	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B82	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BF6	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE19BF	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE23C8	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE23E6	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2BB6	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE197B	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B8D	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1B78	1/13/2023	Chinook

Cougar Dam	PH	3DD.003BEE179B	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE259A	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE278E	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BF0	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2758	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B1A	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1972	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE1BE2	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2590	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE27D9	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B59	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2730	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B62	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE2B36	1/13/2023	Chinook
Cougar Dam	PH	3DD.003BEE274C	1/13/2023	Chinook
Cougar Dam	RO	3DD.003BEE2C16	1/22/2023	Chinook
Cougar Dam	RO	3DD.003BEE0966	1/20/2023	Chinook
Cougar Dam	RO	3DD.003BEE2345	1/21/2023	Chinook
Cougar Dam	PH	3DD.003BEE23A2	3/14/2023	Chinook
Cougar Dam	RO	3DD.003BEE16B9	3/17/2023	Chinook
Cougar Dam	RO	3DD.0077CF7449	3/20/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BD2275C	3/22/2023	Chinook
Cougar Dam	RO	3DD.003BEE1B2D	4/10/2023	Chinook
Cougar Dam	RO	3DD.003BD22B12	4/12/2023	Chinook
Cougar Dam	RO	3DD.003BD22CE0	4/13/2023	Chinook
Cougar Dam	RO	3DD.003B332C11	4/13/2023	Chinook
Cougar Dam	RO	3DD.003BD22B0D	4/13/2023	Chinook
Cougar Dam	RO	3DD.003BD227D4	4/13/2023	Chinook
Cougar Dam	RO	3DD.003BD22B30	4/14/2023	Chinook
Cougar Dam	RO	3DD.003BEE2CE7	4/15/2023	Chinook
Cougar Dam	RO	3DD.003BEE1D22	4/15/2023	Chinook
Cougar Dam	RO	3DD.003BEE1B0A	4/29/2023	Chinook
Cougar Dam	RO	3DD.003BEE1B14	4/27/2023	Chinook
Cougar Dam	RO	3DD.003BEE1B3A	4/26/2023	Chinook
Cougar Dam	RO	3DD.003BEE1D8D	4/26/2023	Chinook
Cougar Dam	RO	3DD.003BEE2286	4/25/2023	Chinook
Cougar Dam	RO	3DD.003BEE2562	4/19/2023	Chinook
Cougar Dam	RO	3DD.003BEE2581	4/26/2023	Chinook
Cougar Dam	RO	3DD.003BEE28AC	4/18/2023	Chinook
Cougar Dam	RO	3DD.003BEE28C7	4/27/2023	Chinook
Cougar Dam	RO	3DD.003BEE28D9	4/27/2023	Chinook
Cougar Dam	RO	3DD.003BEE2923	4/18/2023	Chinook
Cougar Dam	RO	3DD.003BEE2C03	4/23/2023	Chinook

Cougar Dam	RO	3DD.003BEE2D54	4/23/2023	Chinook
Cougar Dam	RO	3DD.003BEE24F8	5/9/2023	Chinook
Cougar Dam	RO	3DD.003BEE2C02	5/9/2023	Chinook
Cougar Dam	RO	3DD.003BEE2CF1	5/19/2023	Chinook
Cougar Dam	RO	3DD.003BEE2385	5/18/2023	Chinook
Green Peter Tailrace - Middle Santiam River	8 ft	3D6.15348025F1	5/28/2023	Chinook
Cougar Dam	RO	3DD.003BEE2910	5/25/2023	Chinook
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BEE164D	5/27/2023	O. mykiss
Cougar Dam	PH 1	3DD.003BD21883	6/7/2023	O. mykiss

List of EAS PIT Tagged Fish for Reporting Period

Site	Trap	PIT Tag	Date	Species
Lookout Point Head of Reservoir	5 ft	3DD.003BD226FD	6/2/2023	Chinook
Lookout Point Head of Reservoir	5 ft	3DD.003BD22709	6/3/2023	Chinook
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.00EBEE1ACC	6/7/2023	Chinook
Lookout Point Head of Reservoir	5 ft	3DD.003BD3982E	6/7/2023	Chinook
Lookout Point Head of Reservoir	5 ft	3DD.003BD22724	6/9/2023	Chinook
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD3963D	6/10/2023	O. mykiss

Summary of EAS VIE Marked Fish for Reporting Period

Site	Trap	Species	VIE Mark Code	# VIE
Cougar Dam Head of Reservoir	5 ft	Chinook	RDP	487
Fall Creek Head of Reservoir	8 ft	Chinook	RDP	0
Lookout Point Head of Reservoir	5 ft	Chinook	RDP	9

*RDO denote location and color (Right Dorsal Pink)