Dillon Alegre, Grant Brink & Rachel Ellison, Environmental Assessment

Prepared by: Services, LLC

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

Report No.: 2023 Willamette RST Bi-Weekly Report 10/1-10/15 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	
Big Cliff Dam RST	Operation	03/15/2022	10/15/2022	
Big Cliff Dam RST	Operation	10/15/2022	12/15/2022	656
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

Trap Efficiency Release (541 Fish)	03/10/2023	03/10/2023	1
Trap Efficiency Release (498 Fish)	04/28/2023	04/28/2023	1
Trap Efficiency Release (500 Fish)	05/23/2023	05/23/2023	1
Trap Efficiency Release (500 Fish)	6/21/2023	6/21/2023	1
Trap Efficiency Release (500 Fish)	7/5/2023	7/5/2023	1
Trap Efficiency Release (474 Fish)	8/3/2023	8/3/2023	1
Trap Efficiency Release (424 Fish)	9/19/2023	9/19/2023	1
Trap Efficiency Release (500 Fish)	10/6/2023	10/6/2023	1
Trap Install	03/02/2022	03/02/2022	1
Operation	03/03/2022	05/07/2022	66
Operation	03/14/2023	11/30/2023	261
Trap Efficiency Release (643 Fish)	03/29/2022	03/29/2022	1
Trap Efficiency Release	04/30/2022	04/30/2022	1
Temporary Trap Removal	05/12/2022	05/12/2022	1
Trap Install	03/14/2023	03/14/2023	1
Anchor Install	3/23/2023	3/31/2023	8
Trap Efficiency Release (999 Live Fish)	5/11/2023	5/11/2023	1
Trap Efficiency Release (1,001 Dead Fish)	5/11/2023	5/11/2023	1
Trap Efficiency Release (1,000 Live Fish)	5/25/2023	5/25/2023	1
Trap Efficiency Release (1000 Dead Fish)	6/30/2023	6/30/2023	1
Trap Efficiency Release	6/30/2023	6/30/2023	1
Trap Efficiency Release	7/27/2023	7/27/2023	1
Trap Efficiency Release	8/16/2023	8/16/2023	1
Trap Efficiency Release	8/31/2023	8/31/2023	1
Trap Efficiency Release	10/4/2023	10/4/2023	1
Trap Install	03/16/2022	03/16/2022	1
Operation	03/16/2022	06/30/2022	107
Trap Removal	07/01/2022	07/01/2022	1
Trap Install	09/02/2022	09/02/2022	1
Operation	09/02/2022	11/30/2022	90
	(541 Fish) Trap Efficiency Release (498 Fish) Trap Efficiency Release (500 Fish) Trap Efficiency Release (500 Fish) Trap Efficiency Release (500 Fish) Trap Efficiency Release (474 Fish) Trap Efficiency Release (424 Fish) Trap Efficiency Release (500 Fish) Trap Efficiency Release (500 Fish)  Trap Efficiency Release (500 Fish)  Trap Install  Operation  Operation  Trap Efficiency Release (643 Fish) Trap Efficiency Release (521 Fish) Temporary Trap Removal  Trap Install  Anchor Install  Trap Efficiency Release (999 Live Fish)  Trap Efficiency Release (1,001 Dead Fish)  Trap Efficiency Release (1,000 Live Fish)  Trap Efficiency Release (1000 Dead Fish)  Trap Efficiency Release (1000 Live Fish)  Trap Efficiency Release (1009 Live Fish)  Trap Efficiency Release (1,008 Live Fish)  Trap Efficiency Release (1,008 Live Fish)  Trap Efficiency Release (1,005 Live Fish)  Trap Efficiency Release (1,005 Live Fish)  Trap Install  Operation  Trap Removal  Trap Install	(541 Fish)         03/10/2023           Trap Efficiency Release (498 Fish)         04/28/2023           Trap Efficiency Release (500 Fish)         05/23/2023           Trap Efficiency Release (500 Fish)         6/21/2023           Trap Efficiency Release (500 Fish)         7/5/2023           Trap Efficiency Release (474 Fish)         8/3/2023           Trap Efficiency Release (424 Fish)         9/19/2023           Trap Efficiency Release (500 Fish)         03/02/2022           Operation         03/03/2022           Operation         03/03/2022           Operation         03/14/2023           Trap Efficiency Release (643 Fish)         04/30/2022           Temporary Trap Removal         05/12/2022           Trap Install         03/14/2023           Anchor Install         3/23/2023           Trap Efficiency Release (999 Live Fish)         5/11/2023           Trap Efficiency Release (1,001 Dead Fish)         5/11/2023           Trap Efficiency Release (1000 Live Fish)         6/30/2023           Trap Efficiency Release (1009 Live Fish)         7/27/2023           Trap Efficiency Release (1,008 Live Fish)         7/27/2023           Trap Efficiency Release (1,008 Live Fish)         8/31/2023           Trap Efficiency Release (1,005 Live Fish)         10/4/2023 <td>(541 Fish)         03/10/2023         03/10/2023           Trap Efficiency Release (498 Fish)         04/28/2023         04/28/2023           Trap Efficiency Release (500 Fish)         05/23/2023         05/23/2023           Trap Efficiency Release (500 Fish)         7/5/2023         7/5/2023           Trap Efficiency Release (500 Fish)         8/3/2023         8/3/2023           Trap Efficiency Release (424 Fish)         8/3/2023         9/19/2023           Trap Efficiency Release (500 Fish)         10/6/2023         10/6/2023           Trap Efficiency Release (500 Fish)         10/6/2023         10/6/2023           Trap Efficiency Release (500 Fish)         10/6/2023         10/6/2023           Trap Efficiency Release (500 Fish)         03/02/2022         03/02/2022           Operation         03/03/2022         05/07/2022           Operation         03/14/2023         11/30/2023           Trap Efficiency Release (643 Fish)         04/30/2022         04/30/2022           Trap Efficiency Release (521 Fish)         04/30/2022         05/12/2022           Trap Install         03/14/2023         3/31/2023           Trap Efficiency Release (1001 Live Fish)         5/11/2023         5/11/2023           Trap Efficiency Release (1000 Live Fish)         6/30/2023         6/30/2023</td>	(541 Fish)         03/10/2023         03/10/2023           Trap Efficiency Release (498 Fish)         04/28/2023         04/28/2023           Trap Efficiency Release (500 Fish)         05/23/2023         05/23/2023           Trap Efficiency Release (500 Fish)         7/5/2023         7/5/2023           Trap Efficiency Release (500 Fish)         8/3/2023         8/3/2023           Trap Efficiency Release (424 Fish)         8/3/2023         9/19/2023           Trap Efficiency Release (500 Fish)         10/6/2023         10/6/2023           Trap Efficiency Release (500 Fish)         10/6/2023         10/6/2023           Trap Efficiency Release (500 Fish)         10/6/2023         10/6/2023           Trap Efficiency Release (500 Fish)         03/02/2022         03/02/2022           Operation         03/03/2022         05/07/2022           Operation         03/14/2023         11/30/2023           Trap Efficiency Release (643 Fish)         04/30/2022         04/30/2022           Trap Efficiency Release (521 Fish)         04/30/2022         05/12/2022           Trap Install         03/14/2023         3/31/2023           Trap Efficiency Release (1001 Live Fish)         5/11/2023         5/11/2023           Trap Efficiency Release (1000 Live Fish)         6/30/2023         6/30/2023

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
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1000 fish)	6/29/2023	6/29/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (989 fish)	7/27/2023	7/27/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1,000 fish)	8/31/2023	8/31/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1,000 fish)	9/26/2023	9/26/2023	1
Foster Dam Head of Reservoir- South Santiam River RST	Trapping Efficiency Release (1,016 fish)	10/10/2023	10/10/2023	1
Cougar Dam RST	Operation	11/30/2021	11/30/2022	730
Cougar Dam RST	Operation	11/30/2022	11/30/2023	7 30

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) 3/23/202		3/23/2023	1
Cougar Dam	Trap Efficiency Release (491 Fish, RO route)	Trap Efficiency Release 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	Trap Efficiency Release (510 Fish, PH route)	7/26/2023	7/26/2023	1
Cougar Dam	Trap Efficiency Release (500 Fish, PH route)	9/21/2023	9/21/2023	1
Cougar Dam	Trap Efficiency Release (500 Fish, PH route)	10/11/2023	10/11/2023	1
Cougar Dam	Trap Efficiency Release (518 Fish, RO route)	10/11/2023	10/11/2023	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

Trap Efficiency Release (500 Fish)	05/19/2022	05/19/2022	1
Trap Efficiency Release	06/23/2022	06/23/2022	1
Trap Removal	07/01/2022	07/01/2022	1
Highline Install	09/14/2022	09/14/2022	1
Trap Install	09/16/2022	09/16/2022	1
Operation	09/16/2022	11/30/2022	76
Trap Efficiency Release (551 Fish)	09/22/2022	09/22/2022	1
Trap Efficiency Release (608 Fish)	10/5/2022	10/5/2022	1
(721 Fish)	11/10/2022	11/10/2022	1
(719 Fish)	11/16/2022	11/16/2022	1
(752 Fish)	11/23/2022	11/23/2022	1
Trap Efficiency Release (620 Fish)	11/29/2022	11/29/2022	1
Trap Removal	11/30/2022	11/30/2022	1
Trap Install	1/31/2023	1/31/2023	1
(506 Fish)	4/14/2023	4/14/2023	1
(508 Fish)	05/10/2023	05/10/2023	1
(597 Fish)	05/16/2023	05/16/2023	1
(510 Fish)	6/8/2023	6/8/2023	1
(758 Fish)	7/27/2023	7/27/2023	1
Trap Efficiency Release (745 Fish)	9/21/2023	9/21/2023	1
Highline Install	03/02/2022	03/02/2022	1
Trap Install	03/03/2022	03/03/2022	1
Operation	03/07/2022	12/16/2022	649
Operation	12/16/2022	12/16/2023	048
Trap Efficiency Release (988 Fish)	03/23/2022	03/23/2022	1
Trap Efficiency Release (1000 Fish)	05/04/2022	05/04/2022	1
(1019 Fish)	05/24/2022	05/24/2022	1
Trap Efficiency Release (981 Fish)	07/21/2022	07/21/2022	1
Trap Efficiency Release (1007 Fish)	10/26/2022	10/26/2022	1
Trap Efficiency Release (775 Fish)	11/01/2022	11/01/2022	1
. (991 Fish)	11/17/2022	11/17/2022	1
Trap Efficiency Release (1,010 Fish)	12/06/2022	12/06/2022	1
Trap Efficiency Release (1,025 Fish)	12/15/2022	12/15/2022	1
Trap Efficiency Release (1,200 Fish)	3/16/2023	3/16/2023	1
	(500 Fish) Trap Efficiency Release (515 Fish) Trap Removal Highline Install Operation Trap Efficiency Release (551 Fish) Trap Efficiency Release (608 Fish) Trap Efficiency Release (721 Fish) Trap Efficiency Release (719 Fish) Trap Efficiency Release (752 Fish) Trap Efficiency Release (620 Fish) Trap Efficiency Release (506 Fish) Trap Efficiency Release (506 Fish) Trap Efficiency Release (508 Fish) Trap Efficiency Release (508 Fish) Trap Efficiency Release (508 Fish) Trap Efficiency Release (510 Fish) Trap Efficiency Release (745 Fish) Trap Efficiency Release (745 Fish) Highline Install Trap Install Operation Operation Trap Efficiency Release (988 Fish) Trap Efficiency Release (1000 Fish) Trap Efficiency Release (981 Fish) Trap Efficiency Release (1017 Fish) Trap Efficiency Release (1018 Fish) Trap Efficiency Release (1019 Fish) Trap Efficiency Release (1010 Fish)	(500 Fish)         05/19/2022           Trap Efficiency Release (515 Fish)         06/23/2022           Trap Removal         07/01/2022           Highline Install         09/14/2022           Trap Install         09/16/2022           Operation         09/16/2022           Trap Efficiency Release (551 Fish)         09/22/2022           Trap Efficiency Release (608 Fish)         10/5/2022           Trap Efficiency Release (721 Fish)         11/10/2022           Trap Efficiency Release (752 Fish)         11/29/2022           Trap Efficiency Release (620 Fish)         11/29/2022           Trap Install         1/31/2023           Trap Efficiency Release (506 Fish)         05/10/2023           Trap Efficiency Release (508 Fish)         05/10/2023           Trap Efficiency Release (507 Fish)         05/16/2023           Trap Efficiency Release (510 Fish)         05/16/2023           Trap Efficiency Release (745 Fish)         9/21/2023           Trap Efficiency Release (745 Fish)         03/03/2022           Trap Install         03/03/2022           Trap Efficiency Release (98 Fish)         05/04/2022           Trap Efficiency Release (1000 Fish)         05/04/2022           Trap Efficiency Release (1007 Fish)         05/04/2022           Tr	Trap Efficiency Release (515 Fish)

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
Dexter Dam Tailrace RST	Trap Efficiency Release (4028 Fish)	6/21/2023	6/21/2023	1
Dexter Dam Tailrace RST	Trap Efficiency Release (4000 Fish)	7/6/2023	7/6/2023	1
Dexter Dam Tailrace RST	Trap Efficiency Release (1,505 Fish)	8/2/2023	8/2/2023	1
Dexter Dam Tailrace RST	Trap Efficiency Release (4,012 Fish)	8/23/2023	8/23/2023	1
Dexter Dam Tailrace RST	Trap Efficiency Release (4,037 Fish)	9/6/2023	9/6/2023	1
Dexter Dam Tailrace RST	Trap Efficiency Release (4,001 Fish)	10/4/2023	10/4/2023	1
Lookout Dam Tailrace RSTs	Operation	03/15/2022	07/31/2022	
Lookout Dam Tailrace RSTs	Operation	08/01/2022	10/17/2022	503
Lookout Dam Tailrace RSTs	Operation	10/17/2022	7/31/2023	
	Trap Efficiency Release			
Lookout Dam Powerhouse	(998 Fish)	4/13/2022	4/13/2022	1
Lookout Dam Powerhouse	(3,999 FISN)			
Lookout Dam Powerhouse	Trap Efficiency Release (4,011 Fish)	6/1/2023	6/1/2023	1
Lookout Dam Powerhouse	Trap Efficiency Release (4,010 Fish)	6/14/2023	6/14/2023	1
Lookout Dam Powerhouse	Trap Efficiency Release (4,010 Fish)	6/28/2023	6/28/2023	1
Lookout Dam Powerhouse	Trap Efficiency Release (4,012 Fish)	7/18/2023	7/18/2023	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	031
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

Lookout Point Head of Reservoir RST  Fall Creek Dam Tailrace RST  Operation  Trap Efficiency Release (787 fish)  P/20/2023  9/20/2023  9/20/2023  9/20/2023  P/20/2023  P/20/2023	23 1 23 1 23 1
Lookout Point Head of Reservoir RST  Trap Efficiency Release (751 fish)  Download  9/20/2023  9/20/2023  Fall Creek Dam Tailrace RST  Operation  Og/15/2022  O7/15/20	23 1 23 1
RST         (677 fish)         8/22/2023         8/22/2023           Lookout Point Head of Reservoir RST         Trap Efficiency Release (751 fish)         8/31/2023         8/31/202           Lookout Point Head of Reservoir RST         Trap Efficiency Release (787 fish)         9/20/2023         9/20/202           Fall Creek Dam Tailrace RST         Operation         03/15/2022         07/15/20	23 1
RST         (751 fish)         8/31/2023         8/31/2023         8/31/2023           Lookout Point Head of Reservoir RST         Trap Efficiency Release (787 fish)         9/20/2023         9/20/2023           Fall Creek Dam Tailrace RST         Operation         03/15/2022         07/15/20	
RST (787 fish) 9/20/2023 9/20/202 Fall Creek Dam Tailrace RST Operation 03/15/2022 07/15/20	20 4
	23 1
Fall Creek Dam Tailrace RST Operation 10/15/2022 03/15/20	22 123
	23
Fall Creek Dam Tailrace RST Operation 03/15/2023 07/15/20	275
Fall Creek Dam Tailrace RST Trap Efficiency Release (518 fish) 06/08/2022 06/08/20	22 1
Fall Creek Dam Tailrace RST Trap Efficiency Release (513 fish) 06/30/2022 06/30/20	22 1
Fall Creek Dam Tailrace RST Trap Efficiency Release (500 fish) 07/13/2022 07/13/20	22 1
Fall Creek Dam Tailrace RST Deployment 10/15/2022 10/15/20	22 1
Fall Creek Dam Tailrace RST Trap Efficiency Release (1,000 fish) 05/11/2023 05/11/20	23 1
Fall Creek Dam Tailrace RST Trap Efficiency Release (992 fish) 6/28/2023 6/28/202	23 1
Fall Creek Dam Tailrace RST Trap Efficiency Release (1006 fish) 7/11/2023 7/11/202	23 1
Fall Creek Head of Reservoir RST   Trap and Highline Install   01/11/2022   01/11/20	22 1
Fall Creek Head of Reservoir RST Operation 01/02/2022 05/31/20	22 150
Fall Creek Head of Reservoir RST Removal 06/02/2022 06/02/20	22 1
Fall Creek Head of Reservoir RST Highline Install 1/17/2023 1/17/202	23 1
Fall Creek Head of Reservoir RST Trap Install 1/18/2023 1/18/202	23 1
Fall Creek Head of Reservoir RST Operation 1/18/2023 05/30/20	23 132
Fall Creek Head of Reservoir RST Trap Efficiency Release (756 fish) 05/05/2023 05/05/20	23 1
Fall Creek Head of Reservoir RST Trap Efficiency Release (750 fish) 05/10/2023 05/10/20	23 1
Fall Creek Head of Reservoir RST Trap Efficiency Release (511 fish) 05/18/2023 05/18/20	23 1
Fall Creek Head of Reservoir RST Trap Efficiency Release (760 fish) 05/24/2023 05/24/20	23 1
Hills Creek Dam RO and PWR Deployment 10/12/2021 10/12/20	21 1
Hills Creek Dam RO Operation 10/15/2021 03/01/20	22 138
Hills Creek Dam PWR Operation 10/15/2021 03/01/20	22 138
Hills Creek Dam  Trap Efficiency Release (1,200 fish, 600 per route)  01/6/2022 01/6/202	22 1
Hills Creek Dam  Trap Efficiency Release (1,200 fish, 600 per route)  02/16/2022 02/16/20	22 1
Hills Creek Dam  Trap Efficiency Release (1,200 fish, 600 per route)  02/23/2022 02/23/20	22 1
Hills Creek Dam RSTs Trap Removal 03/01/2022 03/01/20	22 1
Hills Creek Dam RSTs Trap Install 09/14/2022 09/14/20	22 1
Hills Creek Dam RSTs Deployment 9/15/2022 9/15/202	22 1
	23 289

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
Hills Creek Dam	Trap Efficiency Release (507 fish, PWR Route)	6/27/2023	6/27/2023	1
Hills Creek Dam	Removal	6/30/2023	6/30/2023	1

**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	10/1/2023	10/15/2023	15	597
Green Peter Dam	3/14/2023	10/1/2023	10/15/2023	15	205
Foster Dam Head of Reservoir	2/1/2023	10/1/2023	10/15/2023	15	246
Cougar Dam PH	12/1/2021	10/1/2023	10/15/2023	15	564
Cougar Dam RO	12/1/2021	10/1/2023	10/15/2023	15	506
Cougar Dam Head of Reservoir	2/1/2023	10/1/2023	10/15/2023	14	223
Fall Creek Dam Tailrace	3/15/2022	N/A	N/A	N/A	326
Fall Creek Head of Reservoir	1/18/2023	N/A	N/A	N/A	125
Dexter Dam Tailrace	3/7/2022	10/1/2023	10/15/2023	15	573
Lookout Dam Tailrace	3/15/2022	N/A	N/A	N/A	484
Lookout Point Head of Reservoir	3/10/2022	10/1/2023	10/15/2023	10	590
Hills Creek Dam	9/16/2022	N/A	N/A	N/A	144

Table 3. Willamette Valley Rotary Screw Trap Monitoring Catch Summary.

	_			-
Site	Species	Catch (Reporting Period)	Recapture (Reporting Period)	Total Catch
Big Cliff Dam	CHS	99	56	579
Big Cliff Dam	STW	0	0	246
Green Peter Tailrace	CHS	2	0	102
Green Peter Tailrace	STW	1	0	12
Foster Dam Head of Reservoir	CHS	2	55	578
Foster Dam Head of Reservoir	STW	60	0	139
Cougar Dam	CHS	114	97	1069
Cougar Dam Head of Reservoir	CHS	88	0	5773
Fall Creek Dam Tailrace	CHS	N/A	N/A	61
Fall Creek Head of Reservoir	CHS	N/A	N/A	148
Dexter Dam Tailrace	CHS	0	7	24
Lookout Dam Tailrace	CHS	N/A	N/A	49
Lookout Point Head of Reservoir	CHS	2	0	134
Hills Creek Dam	CHS	N/A	N/A	364

# **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 eight locations: Big Cliff Dam, Green Peter Dam Tailrace, Foster Dam Head of Reservoir- South Santiam River, Cougar Dam, Cougar Dam Head of Reservoir, Dexter Dam Tailrace, and Lookout Point Head of Reservoir. The trap at the Fall Creek Head of Reservoir site was removed at the end of monitoring period on May 31st. The trap at Fall Creek Dam was raised to the non-sampling position on July 15th at the end of the monitoring period.

Sampling at Lookout Dam Tailrace concluded on July 31, 2023 and is now being conducted under a separate contract. Lookout Dam Tailrace sampling will be reported in the Willamette Valley Downstream Fish Passage report under contract W9127N19D0009 from August 1st, 2023 on. Sampling duration and total catch for the RST contract are summarized in tables 1-3 above.

As of September 15, 2023, sampling at Hills Creek Dam Tailrace is now being conducted under a separate contract. Hills Creek Dam Tailrace sampling will be reported in the Willamette Valley Downstream Fish Passage report under contract W9127N19D0009 from September 15<sup>th</sup>, 2023 on. Sampling duration and total catch for the RST contract are summarized in tables 1-3 above.

As of September 30, 2023, sampling at Fall Creek Dam Tailrace is now being conducted under a separate contract. Fall Creek Dam Tailrace sampling will be reported in the Willamette Valley Downstream Fish Passage report under contract W9127N19D0009 from September 30<sup>th</sup>, 2023 on. Sampling duration and total catch for the RST contract are summarized in tables 1-3 above.

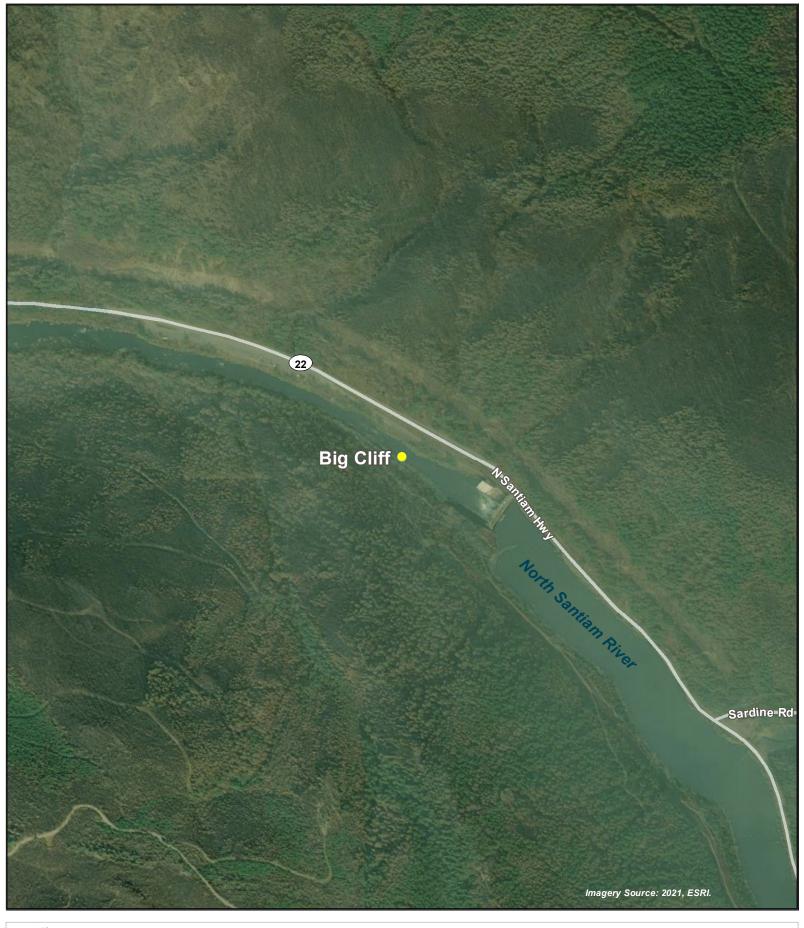
Below Dam sites that include both RO and PWR to monitor passage routes include South Fork McKenzie River below Cougar Dam and on the Middle Fork of the Willamette River in the Lookout Dam Tailrace, and Hills Creek Dam. Below dam sites that include one RST to monitor passage include Big Cliff Dam, Green 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 February 16<sup>th</sup>, 2022 to March 14<sup>th</sup>, 2022. Sampling resumed on March 15<sup>th</sup>, 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 8.





# FIGURE 1 Big Cliff Dam





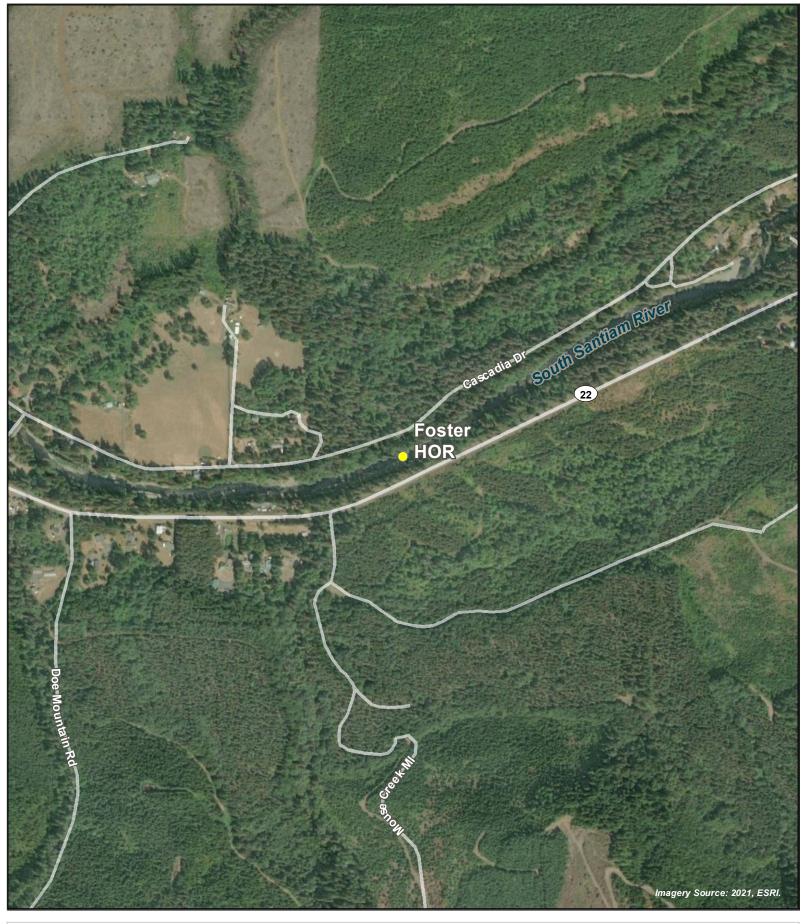




FIGURE 2 Green Peter Tailrace - Middle Santiam River









**FIGURE 3** Foster Dam Head of Reservoir - South Santiam River











**FIGURE 4** Cougar Dam









**FIGURE 5**Cougar Dam Head of Reservoir





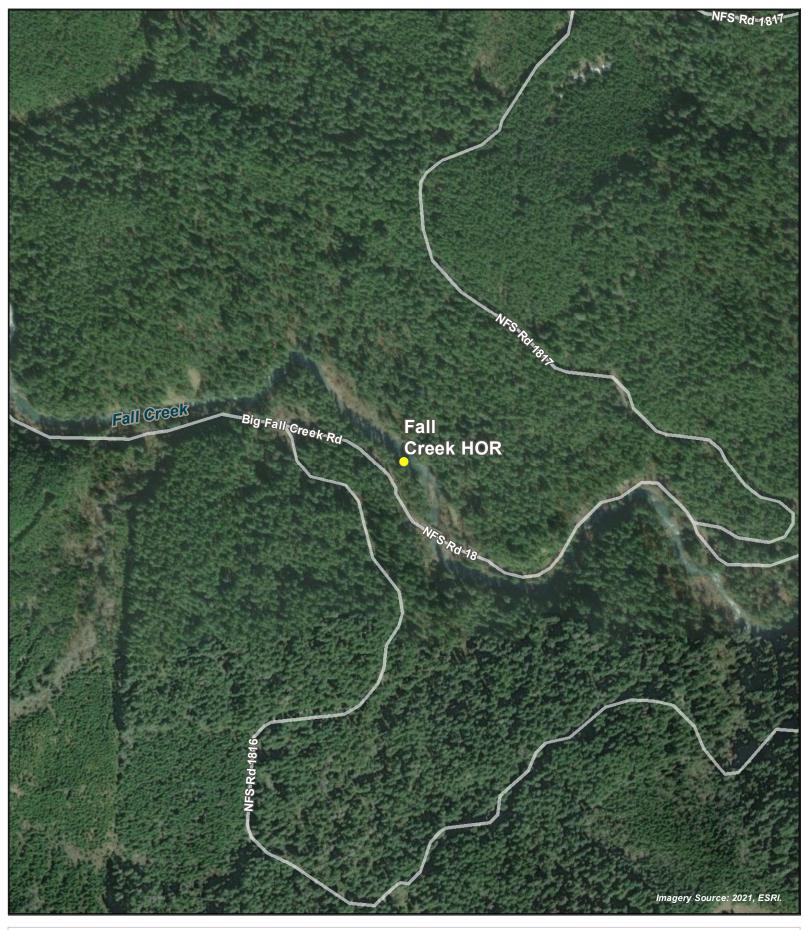




FIGURE 6
Fall Creek Head of Reservoir









# FIGURE 7 Dexter Dam Tailrace





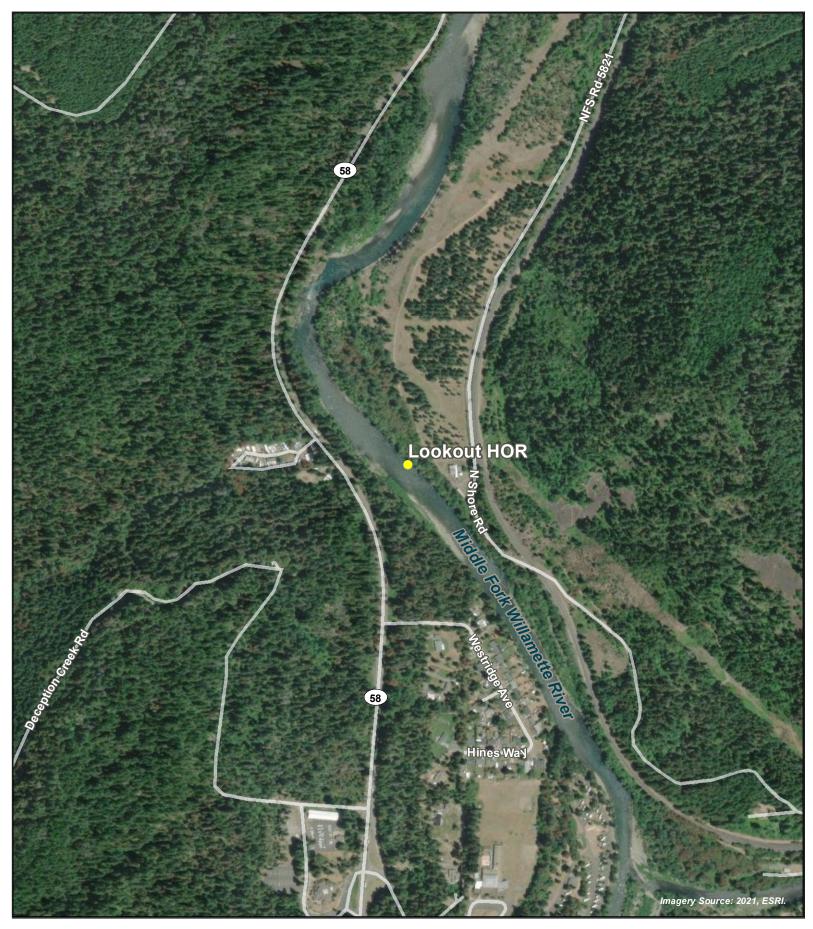




FIGURE 8
Lookout Point Head of Reservoir





# North Santiam - Big Cliff Dam

# **Target Species**

This reporting period began on October 1<sup>st</sup> and ended on October 15<sup>th</sup>. There were a total of 99 Chinook Salmon (CHS) and 0 Winter Steelhead (STW) captured during the 15-day sampling period (Figure 9). Sampling duration was 100% for the RST. Table 4 provides life stage, length, and weight data for all Chinook Salmon and Winter Steelhead that have been caught at the Big Cliff Dam site to-date and for the reporting period. Figure 10 shows length frequency data to-date.

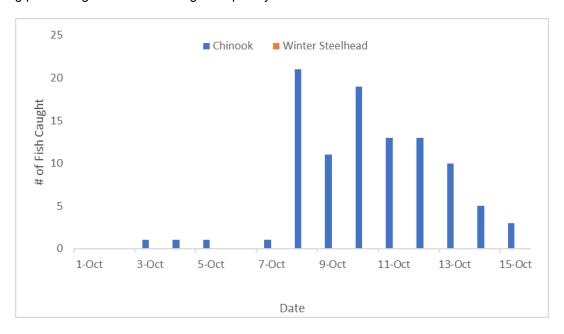
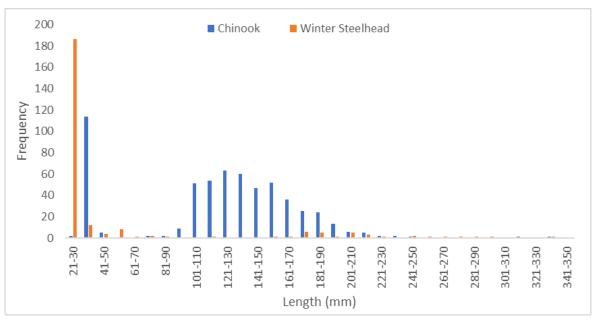


Figure 9. Chinook and Winter Steelhead Captured per day 010/01/2023 to 10/15/2023 (Big Cliff).



\*Figure does not include fish without heads

Figure 10. Length Frequency of Juvenile Chinook and Winter Steelhead Sampled in 2023 (Big Cliff).

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

	To-Date (Since Jan. 1, 2023)										
Site	Route	Life O. II.		Collected		Length (mn	n) <sup>*</sup>		Weight (	g) <sup>*</sup>	
Site	Route	Species	stage	Collected	Min	Max	Mean	Min	Max	Mean	
		CHS	Fry	120	29	47	36.2	N/A	N/A	N/A	
		CHS	Parr	13	49	112	92.5	1.1	15.8	9.4	
Big	PWR	CHS	Smolt	446	85	340	144.6	7.4	328.5	37.0	
Cliff	FVVK	STW	Fry	203	24	56	28.7	N/A	N/A	N/A	
		STW	Parr	13	47	119	65.8	1.3	18.6	4.2	
		STW	Smolt	31	155	335	212.8	21.5	254.4	94.0	

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

	October 1-15, 2023									
Site	Boute	Smanian	Life O. II			Length (mm	)*		Weight (	g) <sup>*</sup>
Site	Route	Species	stage	Collected	Min	Max	Mean	Min	Max	Mean
		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
Big	PWR	CHS	Smolt	99	104	176	139.7	16.3	63.1.1	31.1
Cliff	PVVK	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

<sup>\*</sup>Fish that were missing heads are not included in length and weight calculations.

#### Trapping Efficiency

A total of 500 bismarck brown dyed and adipose clipped juvenile hatchery chinook were released on 10/6/2023 below Big Cliff Dam. 56 fish were recaptured in the 8 ft trap for a trapping efficiency of 11.2%.

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

#### 24-Hour Post Collection Holding Trial

67 Spring Chinook and 0 Winter Steelhead were captured during the current reporting period and held for 24 hours. 19 Chinook (28.4%) and 0 Winter Steelhead (0.0%) died in holding.

#### **Injuries and Copepod Infection**

Partial descaling <20% was observed in 64 of the 99 Chinook captured (64.6%), 34 displayed descaling >20% (4.3%), 87 displayed body injury (87.9%), 8 had eye injury (8.1%), 83 had copepods present in the branchial cavity (83.8%) and 32 had copepods on fins (32.3%). 2 Chinook displayed gas bubble disease (two level 1) (2.0%). There were 18 mortalities (18.2%).

Partial descaling <20% was observed on 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%). 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	Chinook	99	64	34	87	8	83	32	18
Dam	Winter Steelhead	0	0	0	0	0	0	0	0

# **Collected DNA and Scale Samples**

DNA was collected from 99 Spring Chinook and 0 Winter Steelhead for the reporting period. Scales were collected from 97 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**

14 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**

31 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	17	6	26	9
Brown Bullhead	0	0	6	2
Dace	0	0	1	0
Chinook (Adult)	0	0	3	1
Chinook (clipped)	7	0	43	0
Cutthroat Trout	0	0 0		0
Kokanee	7	5	170	27
Kokanee (clipped)	0	0	11	3
O. mykiss (clipped)	0	0	6	2
Pumpkinseed	0	0	53	7
Unknown	0	0	1	1
Mountain Whitefish	0	0	6	1
Sculpin	0	0	0	0
Totals	31	11	320	53

#### **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 1,109.7 to 1,109.8 feet (mean: 1,109.7 feet) during the reporting period. Figure 11 shows instantaneous gauge height.

Total dissolved gas saturation ranged from 101 to 114% during the reporting period (mean: 108.2%). Figure 12 shows total dissolved gas saturation.

Stream temperatures were recorded every 2 hours for the length of the reporting period at the RST (Figure 13). The temperature probe for the trap operated normally throughout this reporting period.

Flows through the Powerhouse and Spill during the reporting period averaged 1,614.4 and 0 cubic feet per second (cfs), respectively (Figure 14). 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.

Description	Chinook	Winter Steelhead
Catch	99	0
Effort (hrs)	360.5	360.5
CPUE (fish/hr)	0.275	0

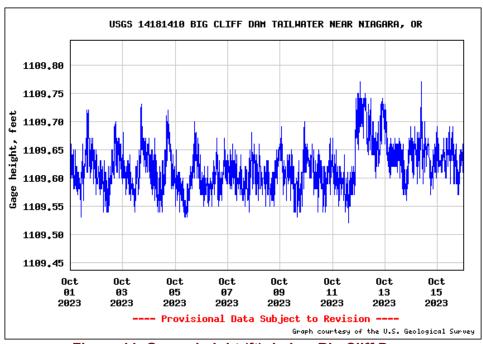


Figure 11. Gauge height (ft); below Big Cliff Dam.

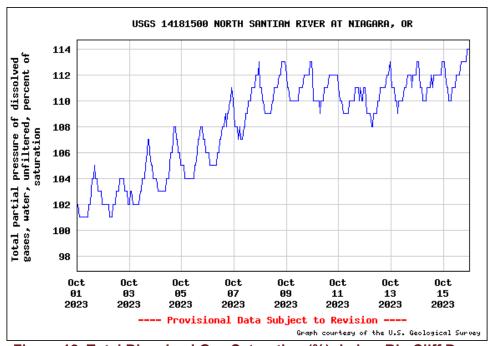


Figure 12. Total Dissolved Gas Saturation (%); below Big Cliff Dam.

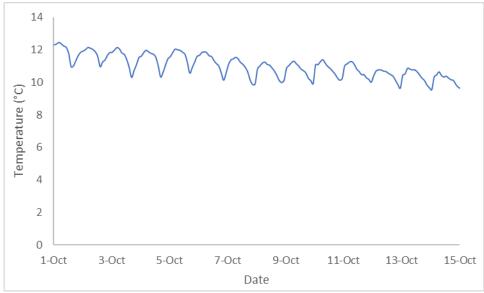


Figure 13. Temperature at RST (Big Cliff Dam).

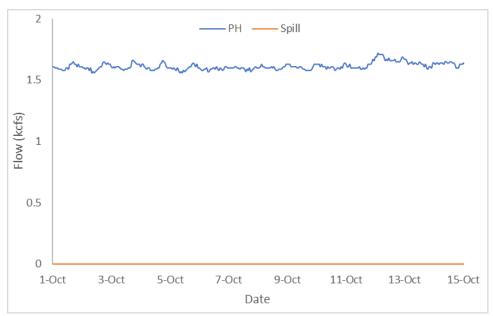
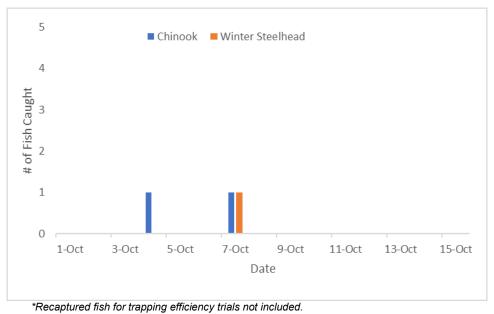


Figure 14. Hourly Flows PWR vs. Spill (Big Cliff Dam).

## Middle Fork Santiam- Green Peter Tailrace

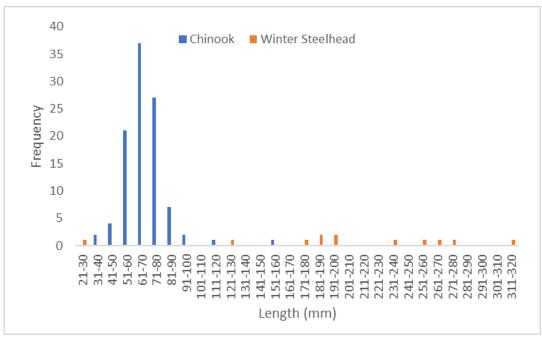
# **Target Species**

This reporting period began on October 1<sup>st</sup> and ended on October 15<sup>th</sup>. 2 Chinook Salmon (CHS) and 1 Winter Steelhead (STW) were captured during the 15-day sampling period. Sampling duration was 100% for the RST. Table 8 provides life stage, length, and weight data for all target species that have been caught at the Green Peter Dam site to-date and for the reporting period. Figure 15 shows the daily capture numbers for Chinook and Winter Steelhead and Figure 16 shows length frequency data to date.



Chinook and Winter Steelhead Cantured Per Day 1

Figure 15. Chinook and Winter Steelhead Captured Per Day 10/01/2023 to 10/15/2023 (Green Peter Tailrace- Middle Santiam).



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

Figure 16. Length Frequency of Juvenile Chinook and Winter Steelhead Sampled in 2023 (Green Peter Tailrace- Middle Santiam River).

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

	To-Date (Since Jan. 1, 2023)												
Site	Route	Species	Life	Collected	Le	ngth (mm	1)*	Weight (g)*					
Site	Route		stage	Collected	Min	Max	Mean	Min	Max	Mean			
	Spill	CHS	Fry	15	33	66	52.8	1.0	4.4	2.5			
		CHS	Parr	83	44	120	69.3	1.1	18.9	4.0			
Green Peter		CHS	Smolt	4	73	155	102.5	3.3	35.3	35.3			
Dam Tailrace		STW	Fry	1	29	29	29	N/A	N/A	N/A			
		STW	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A			
		STW	Smolt	11	125	318	219.2	9.0	340.0	112.0			

	October 1-15, 2023												
Site	Route	Species	Life	Collected	Le	ngth (mm	ı)*	,	Weight (g)*				
Site	Route		stage	Collected	Min	Max	Mean	Min	Max	Mean			
	Spill	CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A			
		CHS	Parr	1	120	120	120	18.9	18.9	18.9			
Green Peter		CHS	Smolt	1	155	155	35.3	35.3	35.3	35.3			
Dam Tailrace		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	1	125	125	125	9.0	9.0	9.0			

<sup>\*</sup>Fish that were missing heads are not included in length and weight calculations.

### **Trapping Efficiency**

A total of 1,005 juvenile hatchery Chinook (parr) were adipose fin clipped, Bismarck brown dyed, and released for fish trapping efficiency on 10/4/2023 below Green Peter Dam. 0 Chinook were recaptured for a trap efficiency of 0.0%.

Green Peter Dam Tailrace	Release #	Recapture #	Capture Efficiency
8 ft Trap	1,005	0	0.0% (0/1005)

### 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. 1 Chinook (50.0%) and 0 Winter Steelhead (0.0%) died in holding.

### **Injuries and Copepod Infection**

Partial descaling <20% was observed in 2 of the 2 Spring Chinook captured (100.0%) and 0 displayed descaling >20% (0.0%), 2 displayed body injury (100.0%), 1 had eye injury (50.0%), 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) (0.0%). There were 0 mortalities (0.0%).

Partial descaling <20% was observed in 1 of the 1 Winter Steelhead captured (100.0%) and 0 displayed descaling >20% (0.0%), 1 displayed body injury (100.0%), 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 was 1 mortality (100.0%).

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	2	2	0	2	1	0	0	0
Tailrace	STW	1	1	0	1	0	0	0	1

<sup>\*</sup>DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

#### **Collected DNA and Scale Samples**

DNA was collected from 2 Spring Chinook and 1 Winter Steelhead for the reporting period. Scales were collected from 2 Spring Chinook and 1 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**

8,964 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
Bass Unknown	1	1	81	81
Bluegill	111	23	240	91
Brown Bullhead	2	1	2	1
Chinook (clipped)	11	1	12	1
Crappie	8	8	108	97
Cutthroat Trout	0	0	1	0
Kokanee	8819	6375	14797	8936
Kokanee (clipped)	1	1	11	3
Largemouth Bass	0	0	1	0
O. mykiss (adults)	5	1	5	1
O. mykiss (clipped)	0	0	27	6
Smallmouth Bass	6	5	11	8
Dace	0	0	1	1
Sculpin	0	0	3	1
Unknown	0	0	1	1
Totals	8964	6416	15301	9228

#### **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 699.2 feet to 701.7 feet (mean: 700.4 feet). Figure 17 shows instantaneous gage height.

Total dissolved gas saturation ranged from 102 to 128% (mean: 118.1%) during the reporting period. Figure 18 shows the total dissolved gas saturation.

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

Flows through the Powerhouse and Spillway during the reporting period averaged 691.7 and 1,881.4 cubic feet per second (cfs) respectively (Figure 20). Catch per unit of effort (CPUE) data are summarized in Table 11. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

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

Description	Chinook	Winter Steelhead
Catch	2	1
Effort (hrs)	363.2	363.2
CPUE (fish/hr)	0.006	0.003

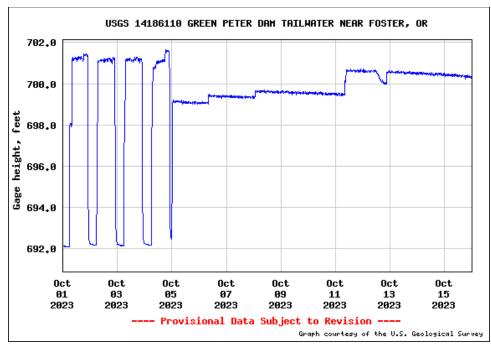


Figure 17. Gage Height (feet); below Green Peter Dam.

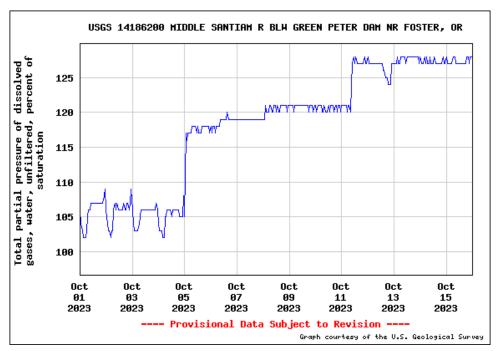


Figure 18. Total Dissolved Gas Saturation (%); below Green Peter Dam.

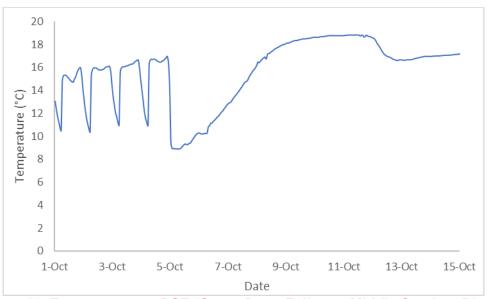


Figure 19. Temperature at RST (Green Peter Tailrace- Middle Santiam River).

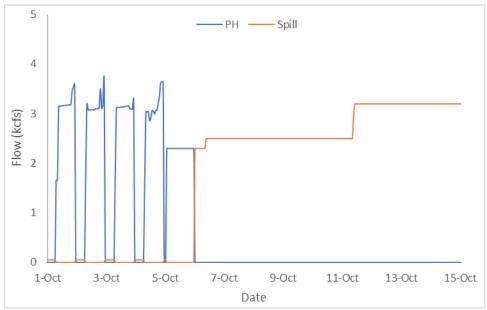


Figure 20. Hourly Flows PWR vs. Spill (Green Peter Dam).

## South Fork Santiam- Foster Dam Head of Reservoir

## **Target Species**

This reporting period began on October 1<sup>st</sup> and ended on October 15<sup>th</sup>. There were 2 Chinook salmon (CHS) and 60 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 21 shows the daily capture numbers for Chinook and Winter Steelhead and Figure 22 shows length frequency data to-date for both species.

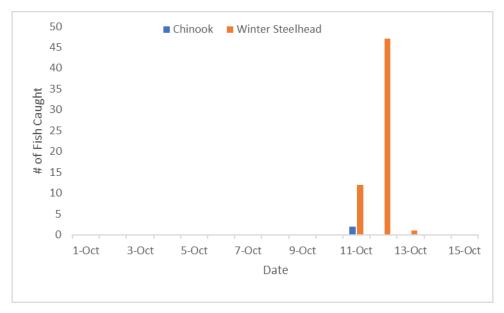


Figure 21. Chinook and Winter Steelhead Captured Per Day 10/01/2023 to 10/15/2023 (Foster Dam Head of Reservoir- South Santiam).



Figure 22. Length Frequency of Juvenile Chinook and Winter Steelhead Sampled in 2023 (Foster Dam Head of Reservoir- South Santiam).

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

	To-Date (Since Jan. 1, 2023)										
Site	Tuon	Cassiss	Life	Callagtad	L	Length (mm)*			Weight (	g) <sup>*</sup>	
Site	Trap	Species	stage	Collected	Min	Max	Mean	Min	Max	Mean	
	5 ft	CHS	Fry	535	30	50	36.1	N/A	N/A	N/A	
		CHS	Parr	25	56	110	84.8	1.4	16.0	8.0	
Foster Dam		CHS	Smolt	18	87	134	108.8	7.4	24.3	14.4	
Head of Reservoir	JIL	STW	Fry	15	22	37	31.5	N/A	N/A	N/A	
		STW	Parr	47	51	122	91.8	1.7	28.0	10.8	
		STW	Smolt	77	87	199	145.3	6.8	91	33.2	

	October 1-15, 2023											
Site	Tron	Species	Life	Collected	L	ength (m	m) <sup>*</sup>	,	Weight (g)*			
Oite 1	Trap		stage	Collected	Min	Max	Mean	Min	Max	Mean		
		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		
Foster Dam		CHS	Smolt	2	97	121	109	9.5	12.7	11.1		
Head of	5 ft	STW	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A		
Reservoir		STW	Parr	18	65	149	84.7	1.4	36.7	9.2		
		STW	Smolt	42	87	160	140.3	6.8	44.4	28.3		

# **Trapping Efficiency**

A total of 1,016 juvenile hatchery Chinook (yearlings) were bismarck brown dyed, adipose clipped and released on 10/10/2023 at Cascadia Park above the Foster Dam Head of Reservoir- South Santiam trap. 55 fish were recaptured in the 5ft trap. Trapping efficiency was 5.4%.

Foster Dam Head of Reservoir	Release #	Recapture #	Capture Efficiency
5 ft Trap	1,016	55	5.4% (55/1,016)

#### **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. This year, 28 Spring Chinook and 56 Winter Steelhead have been marked 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	Release (current reporting period) #	Recapture (current reporting period) #	
Chinook	1	0	
Winter Steelhead	47	1	

# **Injuries and Copepod Infection**

Partial descaling <20% was observed on 1 of the 2 Spring Chinook captured (50.0%). Body injuries were present on 0 Spring Chinook (0.0%) and 0 displayed eye injury (0.0%). 0 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 45 of the 60 Winter Steelhead captured (75.0%). Body injuries were present on 45 Winter Steelhead (75.0%) and 1 displayed eye injury (1.7%). 0 copepods were present in the branchial cavity (0.0%) and 1 fish displayed copepods on the fins (1.7%). There was 1 mortality (1.7%).

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	Chinook	2	1	0	0	0	0	0	0
Reservoir	Winter Steelhead	60	45	0	45	1	0	1	1

#### **Collected DNA and Scale Samples**

DNA was collected from 2 Spring Chinook and 59 Winter Steelhead. Scales were collected from 2 Spring Chinook and 59 Winter Steelhead. The other targets captured did not meet length criteria for DNA sampling or were too descaled/damaged to collect samples.

# **PIT Tags**

2 Spring Chinook and 59 Winter Steelhead were PIT tagged during this reporting period. More information regarding PIT tagged fish can be found in Appendix D.

#### **Non-Target Species**

211 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	Capture	Mortality	Season Total	Season Total Mortality
Brook Lamprey	0	0	0	0
Cutthroat Trout	0	0	2	0
Dace	93	11	208	11
Largescale Sucker	111	19	29	19
Northern Pikeminnow	6	1	74	2
Sculpin	1	0	10	0
Unknown	0	0	4	3
Totals	211	31	327	35

#### **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 38.8 cfs to 869.0 cfs (mean: 200.2 cfs). Figure 23 shows instantaneous discharge.

Stream temperatures were recorded every 2 hours for the duration of the reporting period for the RST (Figure 24). 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.

Description	Chinook	Winter Steelhead
Catch	2	60
Effort (hrs)	356.3	356.3
CPUE (fish/hr)	0.006	0.168

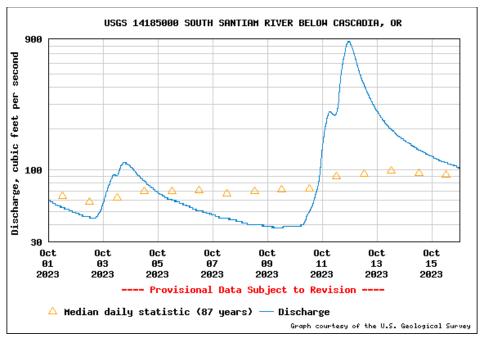


Figure 23. Discharge (cfs); Foster Dam Head of Reservoir – S. Santiam).

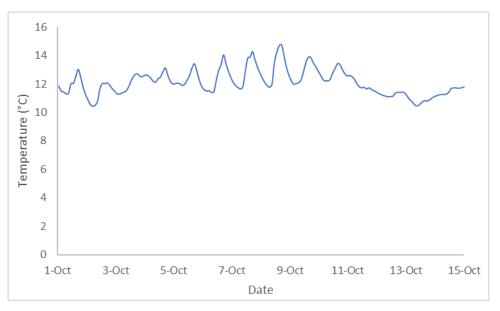


Figure 24. Temperature at RST (Foster Dam Head of Reservoir – S. Santiam).

# **South Fork McKenzie – Cougar Dam**

# **Target Species**

This reporting period began on October 1<sup>st</sup> and ended on October 15<sup>th</sup>. There were a total of 114 Chinook Salmon (CHS) captured during the 15-day sampling period. Sampling duration was 100% for the RO RST and 100% 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 25 shows the daily capture numbers for chinook and Figure 26 shows length frequency data to-date.

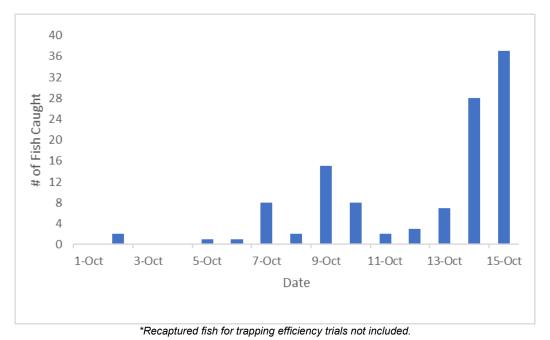
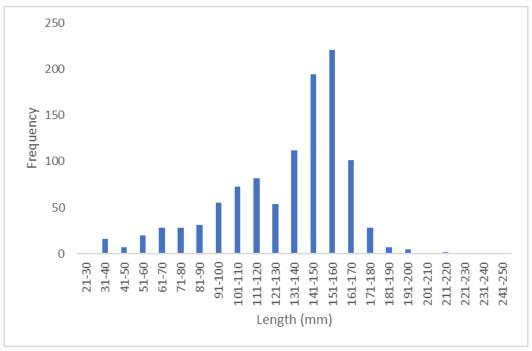


Figure 25. Chinook Captured Per Day 10/01/2023 to 10/15/2023 (Cougar Dam).



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

Figure 26. Length Frequency of Juvenile Chinook Sampled in 2023 (Cougar Dam).

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

	To-Date (Since Jan. 1, 2023)												
Site	Route	c Cnacion	Life	Collected	L	ength (mm	)*	Weight (g)*					
Site	Route	Species	stage	Collected	Min	Max	Mean	Min	Max	Mean			
		CHS	Fry	18	33	52	38.1	N/A	N/A	N/A			
Cougar Dam	Cougar Dam RO	CHS	Parr	59	62	135	100.8	3.0	29.2	12.3			
		CHS	Smolt	794	81	195	145.2	6.3	72.1	34.2			
		CHS	Fry	7	33	55	43.7	N/A	N/A	N/A			
Cougar Dam	PWR	CHS	Parr	96	50	103	73.8	1.1	15.0	5.2			
		CHS	Smolt	95	65	196	118.5	3.4	80.0	21.2			

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

	October 1-15, 2023												
0.4			Life			Length (mm)*			Weight (g)*				
Site	Site Route Spec	Species	ecies stage	Collected	Min	Max	Mean	Min	Max	Mean			
	CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A				
Cougar Dam	RO	CHS	Parr	6	69	112	81	4.3	14.3	6.8			
		CHS	Smolt	74	81	215	125.3	6.3	99.9	24.1			
		CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A			
Cougar Dam	PWR	CHS	Parr	4	84	96	89.8	6.7	9.8	8.4			
		CHS	Smolt	30	91	176	121.4	9.3	54.9	20.8			

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

## **Trapping Efficiency**

A total of 500 juvenile hatchery Chinook (sub-yearlings) were adipose clipped, right vent clipped and released in the PWR channel on 10/11/23. 83 fish were recaptured in the PWR RST for an efficiency of 6.6%.

A total of 518 juvenile hatchery Chinook (sub-yearlings) were adipose clipped, left vent clipped and released in the RO channel on 10/11/23. 14 fish were recaptured in the RO RST for an efficiency of 2.7%.

Cougar Dam	Release #	Recapture #	Capture Efficiency
PWR Route	500	83	16.6% (83/500)
RO Route	518	14	2.7% (14/518)

#### **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.

Run of river trapping efficiency trials will commence next reporting period as catch numbers increase.

Cougar Dam	Release (Current Reporting Period) #	Recapture (Current Reporting Period) #			
PH	0	0			
RO	0	0			

# 24-Hour Post Collection Holding Trial

A total of 98 Chinook captured in the RSTs, 29 fish from the PWR RST and 69 from the RO RST, were held for ~24 hours in holding tanks and then evaluated for survival rates. In total, 23 of the 98 fish (23.5%) held during this period died during holding. 4 of the 29 PWR RST captured fish (13.8%) died during holding and 19 of the 69 RO RST captured fish (27.5%) died during holding.

#### **Injuries and Copepod Infection**

Partial descaling <20% was observed on 27 of the 34 Chinook collected at the PWR RST (79.4%). Descaling >20% was observed on 7 of the Chinook (20.6%). There were 25 fish with bodily injuries (73.5%) and 0 had eye injuries (0.0%). 28 fish had copepods present in the branchial cavity (82.4%) and 25 had copepods present on fins (73.5%). 0 fish displayed Gas Bubble Disease (0.0%). There were 5 chinook mortalities collected in the PWR RST (14.7%).

Partial descaling <20% was observed on 56 of the 80 Chinook collected at the RO RST (70.0%). Descaling >20% was observed on 23 of the Chinook (28.8%). There were 76 fish with bodily injuries (95.0%) and 7 had eye injuries (8.8%). 65 fish had copepods present in the branchial cavity (81.3%) and 65 had copepods present on fins (81.3%). 8 fish displayed Gas Bubble Disease (three level 1, three level 2, and two level 3) (10.0%). There were 11 chinook mortalities collected in the RO RST (13.8%).

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	80	56	23	76	7	65	65	11
Cougar Dam	PWR	34	27	7	25	0	28	25	5

<sup>\*</sup>DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

#### **Collected DNA and Scale Samples**

DNA was collected from 114 Spring Chinook for the reporting period. Scales were collected from 114 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**

77 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	2	0
Bull Trout	0	0	0	0	2	0
Chinook (clipped)	19	3	4	1	64	4
Chinook (Adult)	0	0	0	0	5	1
Cutthroat Trout	0	0	0	0	18	0
Dace	17	1	9	0	1782	2
Largescale Sucker	1	0	0	0	8	0
Mountain Whitefish	0	0	0	0	20	2
Northern Pikeminnow	0	0	0	0	0	0
O. mykiss	1	0	4	0	119	1
Pacific Lamprey	0	0	0	0	1	0
Sculpin	0	0	22	0	271	4
Spotted Bass	0	0	0	0	26	0
Unknown Bass	0	0	0	0	4	0
Totals	38	4	39	1	2322	14

#### **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. 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 gage height ranged from 1,252.0 to 1.253.0 feet (mean: 1,252.7 feet). Figure 27 shows instantaneous discharge.

Total dissolved gas saturation ranged from 100 to 112% (mean: 103.1%). Figure 28 shows total dissolved gas saturation.

Stream temperatures were recorded using a HOBO temperature logger every 2 hours for the length of the reporting period for the PWR and RO RST's (Figure 29 and Figure 30 respectively). Temperature data for the RO RST was corrupted, therefore, temperature data from USGS gage 14159500 (downstream of traps) was used in its place for the reporting period.

Flows through the Powerhouse and RO during the reporting period averaged 425.9 and 231.4 cubic feet per second (cfs) respectively (Figure 31). 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	RO (5ft)	PWR (8ft)		
Catch	34	80		
Effort (hrs)	360.3	719.3		
CPUE (fish/hr)	0.094	0.111		

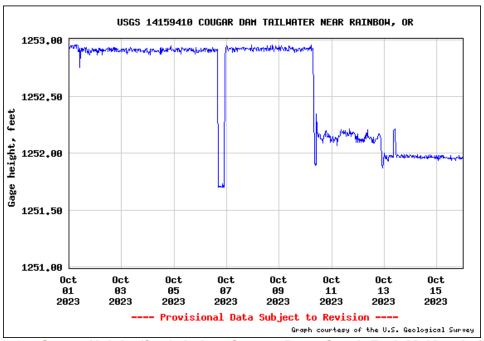


Figure 27. Gauge Height (feet); below Cougar Dam, South Fork McKenzie River.

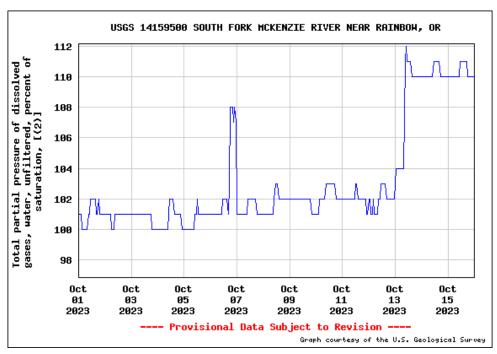


Figure 28. Total Dissolved Gas Saturation (%); below Cougar Dam, South Fork McKenzie River.

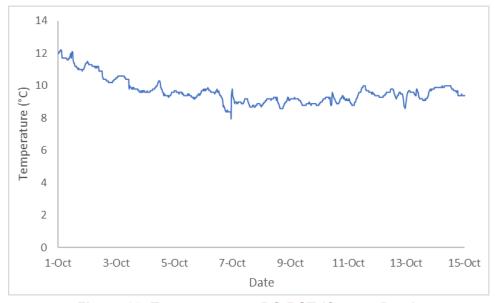


Figure 29. Temperature at RO RST (Cougar Dam).

Note: Data from RO temperature logger was corrupted, therefore, temperature data from USGS gage 14159500 (downstream of traps) was used in its place for the reporting period.

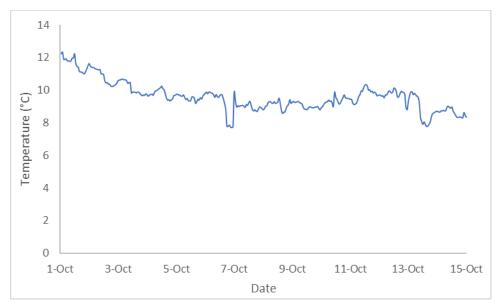


Figure 30. Temperature at PWR RST (Cougar Dam).

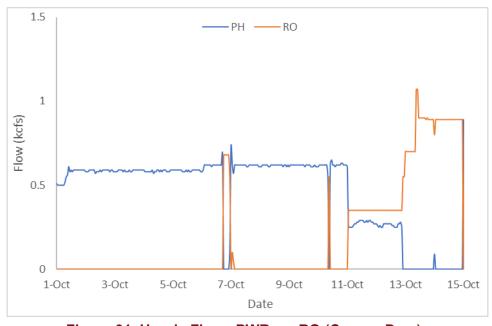


Figure 31. Hourly Flows PWR vs. RO (Cougar Dam).

# South Fork of the McKenzie-Cougar Dam Head of Reservoir

# **Target Species**

The reporting period began October 1<sup>st</sup> and ended on October 15<sup>th</sup>. There were 88 Chinook salmon captured during the 15-day sampling period (Figure 32). A high flow event caused high debris and high fish mortality. The trap was raised to the non-sampling position on October 11<sup>th</sup> and was lowered the next day. The trap was operated 93.3% 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 33 shows length frequency data to-date.

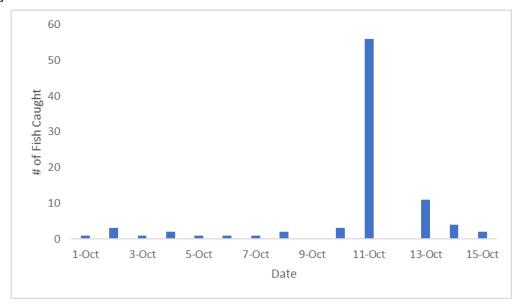


Figure 32. Chinook Captured Per Day 10/01/2023 to 10/15/2023 (Cougar Dam Head of Reservoir).

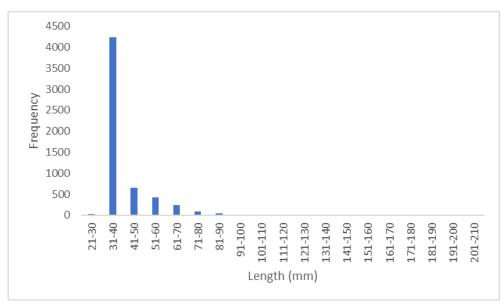


Figure 33. Length Frequency of Juvenile Chinook Sampled in 2023 (Cougar Dam Head of Reservoir).

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 Jan. 1, 2023)											
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g) <sup>*</sup>				
	Route				Min	Max	Mean	Min	Max	Mean		
Cougar Dam Head of Reservoir	5 ft	CHS	Smolt	78	51	100	77.6	1.7	12.3	5.7		
		CHS	Parr	925	40	106	58.4	1.0	13.7	2.6		
		CHS	Fry	4770	25	64	36.6	N/A	N/A	N/A		

	October 1-15, 2023											
Site	Route	Species	Life stage	Collected	Length (mm)*			Weight (g) <sup>*</sup>				
	Route	Species			Min	Max	Mean	Min	Max	Mean		
Cougar Dam Head of	5 ft	CHS	Smolt	50	65	95	79.9	2.9	12.3	6.2		
		CHS	Parr	38	48	88	70.2	1.6	12.4	4.4		
Reservoir		CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A		

<sup>\*</sup>Most fry are too small to collect accurate weights and thus some metrics are not available for them.

# **Trapping Efficiency**

A total of 745 juvenile hatchery Chinook were adipose and vent clipped and released on 9/21/2023 upstream of the Cougar Head of Reservoir trap site. A total of 41 fish were recaptured in the 5 ft trap. Trapping efficiency was 5.5%.

Cougar Dam Head of Reservoir	Release # Recapture #		Capture Efficiency		
Eft tran	745	41	5.5%		
5ft trap	743	41	(41/745)		

#### Run of River Trapping Efficiency

Run of river fish captured in the RST have been caudal clipped, PIT tagged or VIE tagged, 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. This year, 75 Spring Chinook 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.

Run of river trapping efficiency trials have been discontinued at this time due to low catch rates.

Cougar Dam Head of Reservoir	Release (Current Reporting Period) #	Recapture (Current Reporting Period) #		
Chinook	4	1		

## **Injuries and Copepod Infection**

88 Chinook were captured for the reporting period. Of the fish captured, partial descaling <20% was observed on 33 fish (37.5%) and descaling >20% was observed on 21 fish (23.9%). 39 fish had bodily injury (44.3%). 3 fish displayed eye injuries (3.4%). 2 fish had copepods in the branchial cavity (2.3%), 4 had copepods on fins (4.5%). There were 26 mortalities for this reporting period (29.5%). 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	88	33	21	39	3	2	4	26
Reservoir								

<sup>\*</sup>DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

#### **Collected DNA and Scale Samples**

DNA was collected from 88 of the Chinook captured. Scales were collected from 78 of the Chinook captured. The rest of the captured fish were under the minimum fork length threshold or too descaled to retrieve samples.

## **PIT Tags**

53 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, 3,876 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
6/16/2023-6/30/2023	Right Dorsal	Pink	234	0
7/1/2023-7/15/2023	Right Dorsal	Green	207	0
7/16/2023-7/31/2023	Right Dorsal	Green	356	0
8/1/2023-8/15/2023	Right Dorsal	Yellow (2x)	170	0
8/16/2023-8/31/2023	Right Dorsal	Yellow (2x)	63	0
9/1/2023-9/15/2023	Right Dorsal	Red (2x)	31	0
9/16/2023-9/30/2023	Right Dorsal	Red (2x)	11	0
10/1/2023-10/15/2023	Right Dorsal	Blue (2x)	7	0

# **Non-Target Species**

11 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	Capture	Mortality	Season Total	Season Total Mortality
Bull Trout	3	0	11	0
Cutthroat Trout	0	0	5	0
Chinook (Adult)	0	0	1	0
Chinook (clipped)	2	0	9	0
Dace	0	0	4	0
Mountain Whitefish	0	0	4	1
Northern Pikeminnow	0	0	0	0
O. mykiss	6	1	518	1
Sculpin	0	0	16	1
Unknown	0	0	1	1
Totals	11	1	569	4

#### **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 196.0 cfs to 537.0 cfs (mean: 265.5 cfs). Figure 34 shows instantaneous discharge.

Stream temperatures were recorded every 2 hours using a temperature probe at the Cougar Dam Head of Reservoir RST site during this reporting period. The temperature probe operated normally throughout the reporting period, and the data is shown below in Figure 35.

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
Catch	88
Effort (hrs)	336.6
CPUE (fish/hr)	0.261

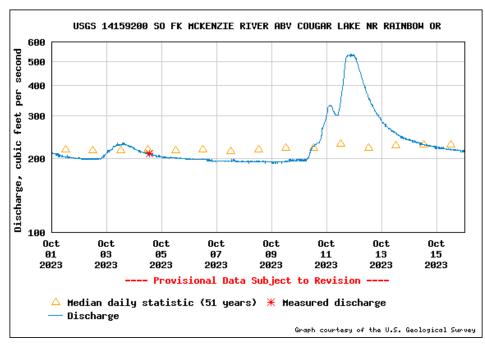


Figure 34. Discharge (cfs); South Fork McKenzie above Cougar Dam.

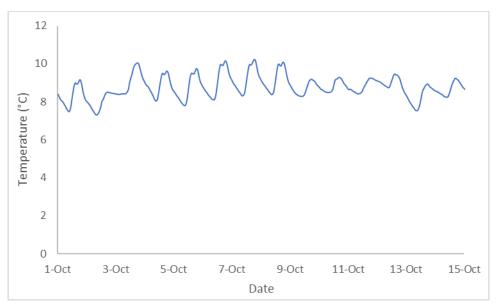


Figure 35. Temperature at RST (Cougar Dam Head of Reservoir).

# Middle Fork Willamette - Fall Creek Head of Reservoir

# **Target Species**

The Fall Creek Head of Reservoir trap was removed on May 31<sup>st</sup>. Table 24 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 36 shows length frequency data to-date.

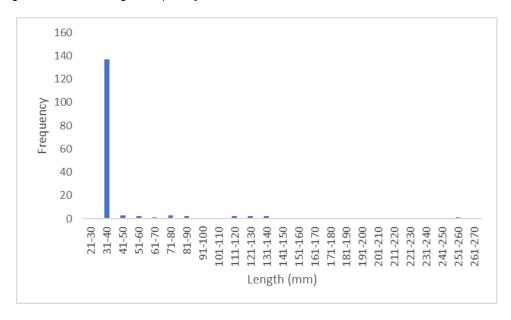


Figure 36. Length Frequency of Juvenile Chinook Sampled in 2023 (Fall Creek Head of Reservoir).

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

	To-Date											
Site	Route	0	Life		Length (mm)*			Weight (g)*				
Site	Route	Species	stage	Collected	Min	Max	Mean	Min	Max	Mean		
Fall		CHS	Smolt	5	127	255	157.2	21.5	108.5	214.3		
Creek Head of	8 ft	CHS	Parr	10	54	120	81.4	1.3	19.8	7.6		
Reservoir		CHS	Fry	140	31	42	34.7	N/A	N/A	N/A		

# **Trapping Efficiency**

Information regarding trapping efficiency trials at Fall Creek Head of Reservoir is available in appendix C.

#### **Collected DNA and Scale Samples**

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

# **PIT Tags**

A total of 4 Spring Chinook were PIT tagged during sampling in 2023. Refer to Appendix D for further information regarding PIT tags.

## **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. A summary of VIE marked fish is shown in Table 25.

Fish still showing an egg sac are not VIE marked.

Table 25. Summary of VIE marked fish at the Fall Creek Head of Reservoir site in 2023.

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**

A total of 788 non-target fish were captured at the Fall Creek Head of Reservoir site during sampling in 2023; the data is summarized below in Table 26.

Table 26. Summary of Non-target Species (Fall Creek Head of Reservoir).

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

# Middle Fork Willamette- Dexter Dam

# **Target Species**

This reporting period began on October 1<sup>st</sup> and ended on October 15<sup>th</sup>. There were 0 Chinook salmon (CHS) captured during the 15-day sampling period. Sampling duration was 100% for the 5 ft RST. Table 27 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 37 shows the daily capture numbers for Chinook and Figure 38 shows length frequency data to-date.

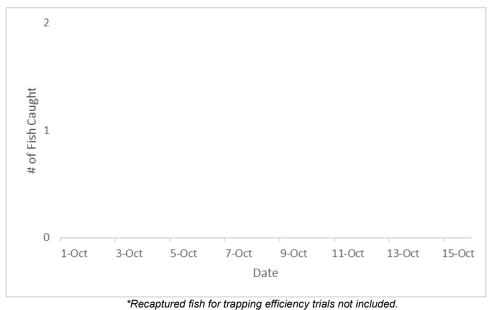
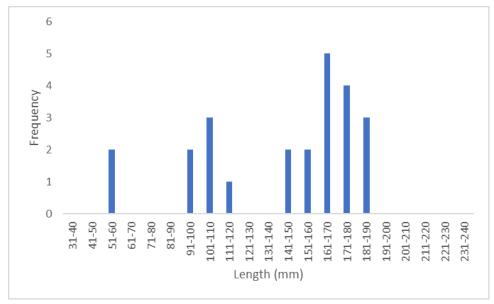


Figure 37. Chinook Captured Per Day 10/01/2023 to 10/15/2023 (Dexter Dam)



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

Figure 38. Length Frequency of Juvenile Chinook Sampled in 2023 (Dexter Dam).

Table 27. Descriptive Statistics of Target Species Captured at the Dexter Dam RST Season To-Date.

	To-Date (Since Jan. 1, 2023)											
Oite Tues		On a sin a	Life	Callantad	Length (mm) <sup>*</sup>			Weight (g) <sup>*</sup>				
Site	Trap	Species	stage	stage Collected	Min	Max	Mean	Min	Max	Mean		
Dexter		CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A		
Dexiei	5 ft	CHS	Parr	4	54	103	77.0	1.5	12.9	6.3		
		CHS	Smolt	20	100	190	154.6	11.0	65.5	45.3		

	October 1-15, 2023												
			Life		• , ,			Weight (	(g) <sup>*</sup>				
Site	Trap	Species	stage	_	_	I Collected	Collected Min	Min	Max	Mean	Min	Max	Mean
<b>D</b> 1		CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A			
Dexter Dam	5 ft	CHS	Parr	0	N/A	N/A	N/A	N/A	N/A	N/A			
Daili		CHS	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.

#### **Trapping Efficiency**

A total of 4,001 juvenile hatchery Chinook (sub-yearlings) adipose clipped, lower caudal clipped, and released on 10/4/2023 below Dexter Dam. Fish were released in small groups into the powerhouse flow to evaluate the traps efficiency capturing fish passing through the powerhouse. 7 fish were recaptured in the 5-foot RST for an efficiency of 0.17%.

Dexter Dam	Release #	Recapture #	Capture Efficiency
Powerhouse	4001	7	0.17% (7/4001)

## 24-Hour Post Collection Holding Trial

0 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**

0 Chinook were captured during this reporting period. Partial descaling <20% was observed in 0 of the 0 Chinook captured (0.0%) and 0 displayed descaling >20% (0.0%). 0 displayed body injury (0.0%) and 0 Chinook had eye injury (0.0%). 0 Chinook had copepods present in the branchial cavity (0.0%) and 0 had copepods on fins (0.0%). 0 displayed gas bubble disease (0.0%). There were 0 mortalities in this reporting period (0.0%). Injuries are displayed in Table 28. To date injury data can be found in Appendix A.

Table 28. 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	0	0	0	0	0	0	0	0

<sup>\*</sup>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.

## **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**

419 non-target fish were captured during the reporting period; the data is summarized below in Table 29. 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 29. Summary of Non-target Species (Dexter Dam).

Species	Capture	Mortality	Season Total	Season Total Mortality
Bass Unknown	0	0	68	3
Bluegill	1	0	56	0
Chinook (adult)	0	0	2	1
Chinook (clipped)	0	0	449	0
Crappie	373	9	1462	38
Cutthroat Throat	0	0	3	0
Dace	0	0	21	2
Largescale Sucker	1	0	4	1
Largemouth Bass	0	0	2	0
Mountain Whitefish	0	0	3	0
O. mykiss	0	0	4	0
O. mykiss (clipped)	1	0	3	0
Northern Pikeminnow	1	0	3	0
Redside Shiner	3	0	22	0
Sculpin	31	1	1287	47
Smallmouth Bass	2	0	9	1
Walleye	6	0	17	0
Unknown	0	0	2	0
Totals	419	10	3261	92

#### **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 637.6 feet to 637.6 feet (mean: 637.6 feet). Figure 39 shows instantaneous gauge height.

Total dissolved gas saturation ranged from 101 to 108% (mean: 103.4%) during the reporting period. Figure 40 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. The temperature probe operated normally throughout the reporting period and can be seen in Figure 41.

Flows through the Powerhouse and Spill during the reporting period averaged 1,688.6 and 4.9 cubic feet per second (cfs) respectively (Figure 42). Catch per unit of effort (CPUE) data are summarized in Table 30. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 30. Summary of salmonid CPUE, Dexter Dam.

Description	Chinook
Catch	0
Effort (hrs)	359.4
CPUE (fish/hr)	0

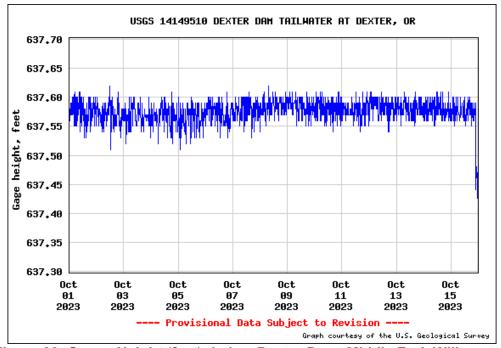


Figure 39. Gauge Height (feet); below Dexter Dam, Middle Fork Willamette.

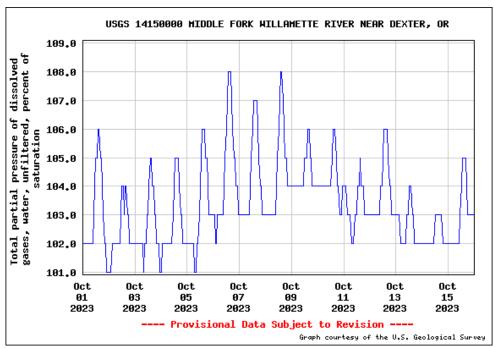


Figure 40. Total Dissolved Gas Saturation (%); Middle Fork Willamette River, Near Dexter, OR.

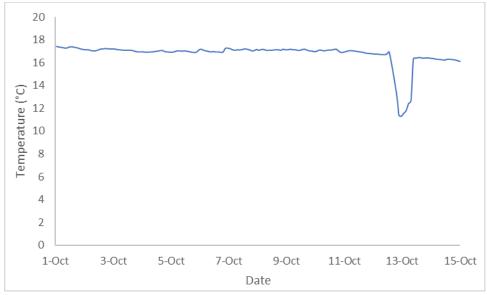


Figure 41. Temperature at RST (Dexter Dam).

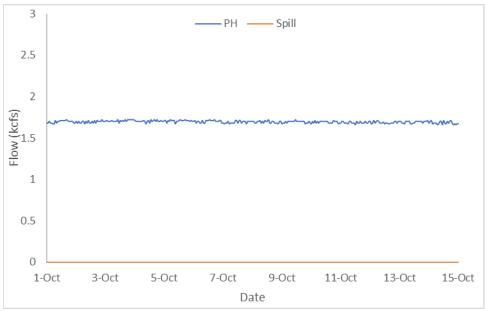


Figure 42. Hourly Flows PWR vs. Spill (Dexter Dam).

# Middle Fork Willamette - Lookout Point Head of Reservoir

# **Target Species**

The reporting period began October 1<sup>st</sup> and ended on October 15<sup>th</sup>. 2 Chinook salmon were captured during the 15-day sampling period (Figure 43). Low flow and high debris caused the trap to be raised to the non-sampling position on October 4<sup>th</sup>. It resumed sampling on October 9<sup>th</sup>.Sampling duration was 66.7% for the 5 ft RST. Table 31 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 44 shows length frequency data to-date.

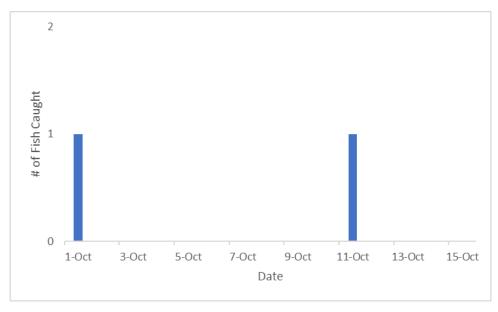


Figure 43. Chinook Captured Per Day 10/01/2023 to 10/15/2023 (Lookout Point Head of Reservoir).

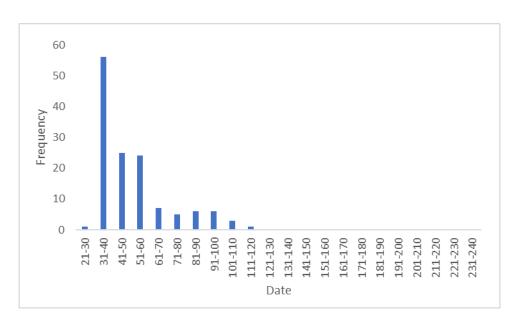


Figure 44. Length Frequency of Juvenile Chinook Sampled in 2023 (Lookout Point Head of Reservoir).

Table 31. Descriptive Statistics of Target Species Captured at Lookout Point Head of Reservoir, Season To-Date and for the Reporting Period.

	To-Date (Since Jan. 1, 2023)													
			To-l	Date (Since Ja	n. 1, 202	3)								
0:4-	Donto	0	Life	O a llia ata al	Le	ength (m	ım)*		Weight	(g) <sup>*</sup>				
Site	Route	Species	stage	Collected	Min	Max	Mean	Min	Max	Mean				
Lookout		CHS	Smolt	7	69	113	94.7	4.1	16.5	10.6				
Point Head of	5 ft	CHS	Parr	40	41	109	66.9	1.0	18.4	4.2				
Reservoir		CHS	Fry	87	30	57	39.6	1.0	4.0	2.0				
				October 1-15,	2023									
Oite.	Douts	Cassias	Life	Callagtad	Le	ength (m	ım)*		Weight	(g) <sup>*</sup>				
Site	Route	Species	Life stage	Collected	Min	Max	Mean	Min	Max	Mean				
Lookout		CHS	Smolt	1	109	109	109	16.5	16.5	16.5				
Point Head of	5 ft	CHS	Parr	1	109	109	109	18.4	18.4	18.4				
Reservoir		CHS	Fry	0	N/A	N/A	N/A	N/A	N/A	N/A				

<sup>\*</sup>Some fry are too small to accurately weigh and are omitted from the above tables.

# **Trapping Efficiency**

A total of 787 juvenile hatchery Chinook (sub-yearlings) were adipose and upper caudal clipped and released on 9/20/2023 above the Lookout Point Head of Reservoir trap. Fish were released in small groups to evaluate the traps' efficiency capturing fish migrating downstream. 1 fish was recaptured in the 5-ft RST for an efficiency of 0.13%.

Lookout Point Head of Reservoir	Release #	Recapture #	Capture Efficiency
5 ft	787	1	0.13% (1/787)

## **Injuries and Copepod Infection**

There were 2 Chinook captured during this reporting period. 0 had partial descaling <20% (0.0%) and 2 had descaling <20% (100.0%). 2 had body injuries (100.0%) and 0 fish displayed eye injuries (0.0%). 0 fish had copepods in the branchial cavity (0.0%). There were 2 mortalities (100.0%). Injury data for the reporting period is shown in Table 32. To date data can be found in Appendix A.

Table 32. 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	2	0	2	2	0	0	0	2

<sup>\*</sup>DSC=Descaled, COP=Copepods, B.C.=Branchial Cavity

## **Collected DNA and Scale Samples**

Scales and DNA were collected from 2 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 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, 68 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. A summary of VIE marked fish at the Lookout Point Head of Reservoir site is available in Table 33

Table 33. Summary of VIE Marked Chinook at the Lookout Point Head of Reservoir site.

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
6/16/2023-6/30/2023	Right Dorsal	Pink	9	0

#### **Non-Target Species**

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

Table 34. Summary of Non-target Species (Lookout Point Head of Reservoir).

Species	5ft Capture	5ft Mortality	Season Total	Season Total Mortality
Chinook (clipped)	1	0	13	0
Crappie	0	0	2	2
Cutthroat Trout	1	0	21	0
Dace	103	10	719	18
Lamprey	0	0	0	0
Largescale Sucker	21	0	107	0
Mountain Whitefish	52	15	61	15
Northern Pikeminnow	36	7	68	7
O. mykiss	2	1	218	3
O. mykiss (clipped)	0	0	0	0
Redside Shiner	0	0	5	0
Sculpin	2	0	41	0
Unknown	0	0	0	0
Totals	218	33	1255	45

#### **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 722.0 cfs to 1,910.0 cfs (mean: 1,009.1 cfs). Figure 45 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 46).

Flows into Lookout Point Reservoir averaged 1,054.5 cfs (Figure 47). Catch per unit of effort (CPUE) data are summarized in Table 35. Discharge and capture data for the duration of monitoring efforts at this location are provided in Appendix B.

Table 35. Summary of Chinook CPUE at Lookout Point Head of Reservoir.

Description	Chinook
Catch	2
Effort (hrs)	236.8
CPUE (fish/hr)	0.008

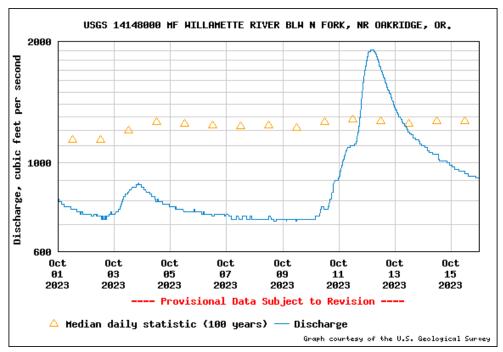


Figure 45. Discharge (cfs); above Lookout Point Reservoir, Below Oakridge, OR.

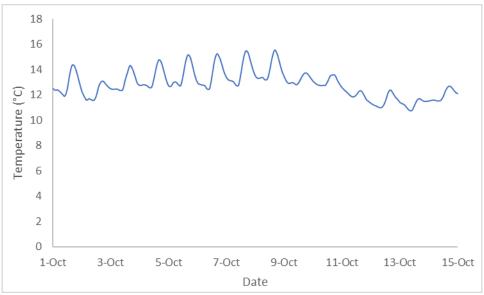


Figure 46. Temperature at RST (Lookout Point Head of Reservoir).

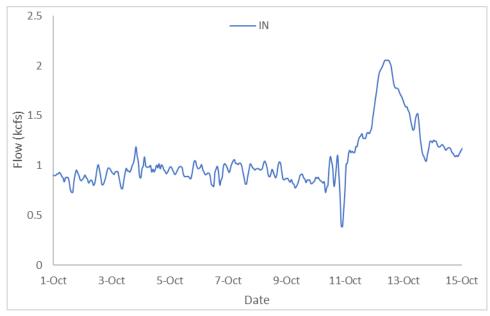


Figure 47. Hourly Flows (Lookout Point Head of Reservoir site).

# **Issues Encountered**

A rainstorm resulted in high flows and significant amounts of debris. Crews performed multiple trap checks per day at sites but still observed some mortalities resulting from high debris loads in traps. This resulted in minor sampling stoppages at some sites while debris flushed and returned to a level that allowed for safe sampling of fish.

# **Upcoming USACE Support Services**

USACE crane support will be needed at Dexter Dam to remove ecology blocks and install a new highline in preparation for construction efforts at Dexter Fish Facility.

# Appendix A

# Chinook (CHS) To Date

						С	hino	ok Inji	uries	to-E	Date												
		Ϋ́	.2													_						ا ،	
Site/Trap/Life Stage	Total Fish	M	DS<2	BLO	EYB	FUN	BKD	COF	DS>2	PRD	윤	HBO	BO	오	BVT	HBP	BRU	TEA	OPD	밀	FVB	POP	GBD
Big Cliff Dam	1830		1112	14	126	17	16	1357	406	7	1011	6	15	5	56	11	132	67	220	107	112	25	78
8 ft	1830		1112	14	126	17	16	1357	406	7	1011	6	15	5	56	11	132	67	220	107	112	25	78
Adult	1		1								1						1	1	1		1		
Parr	40		14	1	4	2		20	5		14					2			1	1		1	
Smolt	1658		1092	13	120	15	15	1337	400	7	993	6	15	3	55	9	128	63	217	103	111	21	76
Unknown	2													2								1	
Fry	129		5		2		1		1		3				1		3	3	1	3		2	2
8 ft	102	3	51	2	15	2		7	28		68				8		9	5	13	14	11	2	31
Parr	83	3	44		9	2		5	21		54				4		6	3	11	10	11	2	25
Smot	4		2	1	1			1	2		4												2
Fry	15		5	1	5			1	5		10				4		3	2	2	4			4
Foster Dam HOR																							
5 ft	713		83		3			3	5		64		1	1	3		5	12	4	15	1	6	
Parr	69		47					3			21				1				1				
Smolt	47		33								23						1			2			
Fry	597		3		3				5		20		1	1	2		4	12	3	13	1	6	
Cougar Dam	4062		2297																				
RO	2672	1	1643	35	338	50	12	2343	804	5	1923	3	3		93	39	184	97	375	111	269	32	816
Parr	257		141	5	40	6	1	158	68		147				9	2	10	6	18	17	7	5	37
Smolt	2376	1	1501	30	295	44	11	2185	735	5	1774	3	3		84	37	173	91	356	92	261	27	779
Fry	39		1		3				1		2						1		1	2	1		
PH	1390	11	654	10	39	8		681	145	2	413		6	2	45	7	42	46	65	27	75	4	7
Parr	361	1	200	3	12	4		137	38	2	105		1		12	3	8	16	17	10	11		1
Smolt	638		450	7	21	4		543	100		302		5		32	4	31	23	44	14	64	1	6
Unknown	2													2									
Fry	389	10	4		6			1	7		6				1		3	7	4	3		3	
Cougar Dam HOR	6531	9	371	7	15	8		41	50	23	319	2	1		9		47	58	66	49	14	30	
5 ft	6531	9	371	7	15	8		41	50	23	319	2	1		9		47	58	66	49	14	30	
Parr	1103		314	7	2	7		35	12	12	221				4		11	29	10	7	4	6	
Smolt	82		32		2			4	17	2	28				3		6	1	5	2		3	
Fry	5346	9	25		11	1		2	21	9	70	2	1		2		30	28	51	40	10	21	
Fall Creek Dam Tail.	62		4		2				1		5				1		2	1	2	3			2
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	155		5					2	4		5						2	3		2			
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	

Chinook (CHS) To Date - Continued

			<u> </u>	OOK (	<u> </u>	<i>)</i> 10	Du		001	16111	uc	u_									
				Chin	ook Iı	njuries	to-d	late	(Cont	.)											
Site/Trap/Life Stage	Total Fish	MIUNK DS<2	ВГО	EYB	ВКD	COP	DS>2	PRD	FID	НВО	ВО	НО	BVT	НВР	BRU	ТЕА	OPD	Z	FVB	POP	GBD
Dexter Dam Tail.																					21
5 ft	123	70		8		19	35		63				2		5	5	9	6	6	1	21
Parr	22	8		3		2	6		9							2	3	2			6
Smolt	98	62		5		17	29		53				2		5	3	6	4	6	1	15
Fry	3								1												
Lookout Point HOR																					
5 ft	243	1 58	1	3		3	5		36						4	3	4		2		
Parr	102	47				1	1		20						1		2				
Smolt	13	9	1			1	2		7										1		
Fry	128	1 2		3		1	2		9						3	3	2		1		

**Chinook (CHS) During Reporting Period** 

		<u></u>	ШС	OK	<u>(С</u> г	10)	Durii	ıg ı	zeb	OI III	ig Pe	1100	<u></u>								
		Chinook I	njuri	es Du	ıring	Rep	orting	Peri	od (1	0-01-	2023 to	10-1	5-20	23)							
Site/Trap/Life Stage	Total Fish	MUNK DS<2	BLO	EYB	FUN	BKD	COP	DS>2	PRD	FID	HBO BO	오	BVT	НВР	BRU	TEA	ОРD	Z	FVB	POP	GBD
Big Cliff Dam	96	64					83	31			2						12				2
8 ft	96	64	2	8	1		83	31	1	79	2		5	1	9	6	12	5	6		2
Smolt	96	64	2	8	1		83	31	1	79	2		5	1	9	6	12	5	6		2
Cougar Dam							108														8
PH 1	25	19					25	6		17	1		1	1	4		1		1		
Parr	3	2					3	1		2			1		1						
Smolt	22	17					22	5		15	1			1	3		1		1		
PH 2	9	8					9	1		6					1	1			1		
Parr	1						1	1		1					1				1		
Smolt	8	8					8			5						1					
RO	80	56	1	7	11		74	23		74			1		12	4	9	4	8	2	8
Parr	6	6		1	3		3			5											
Smolt	74	50	1	6	8		71	23		69			1		12	4	9	4	8	2	8
Cougar Dam HOR	88	33						21		36											
5 ft	88	33		3			6	21	1	36			3		8	2	7	2		3	
Parr	38	15		1			3	4		14					2	1	2				
Smolt	50	18		2			3	17	1	22			3		6	1	5	2		3	
Lookout Point HOR																					
5 ft	2		1					2		2									1		
Parr	1							1		1											
Smolt	1		1					1		1									1		

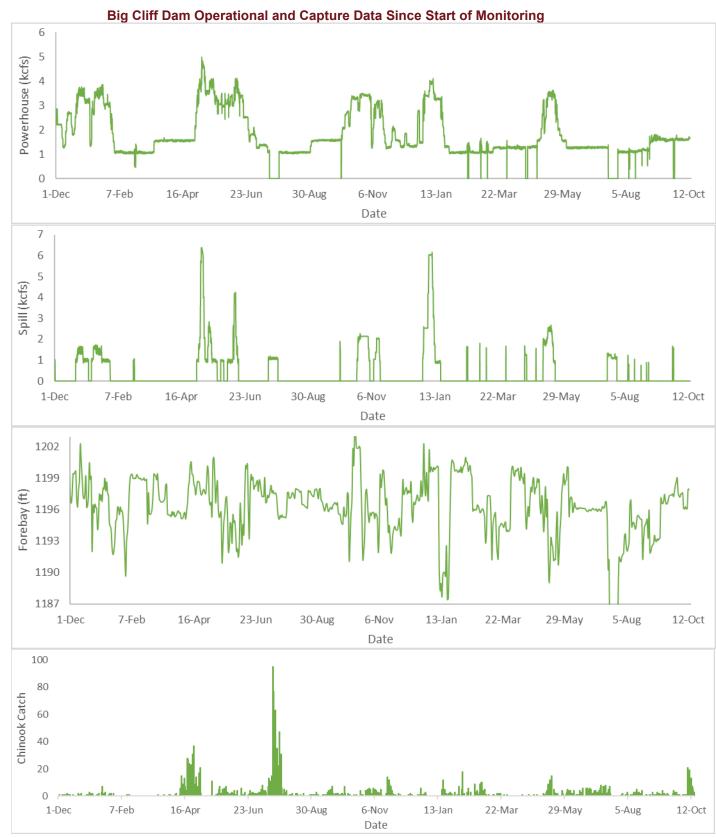
Steelhead (O. mykiss) To Date

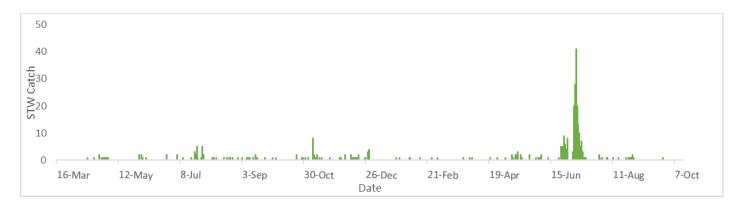
				3	tee	ıne	aa (	<u>O. n</u>	ıyĸ	iss)	10	Dat	<u>e</u>									
						0.	myki	ss Inj	uries	to-D	ate											
Site/Trap/Life Stage	Total Fish	MUNK	DS<2	BLO	EYB	FUN	BKD	COP	DS>2	PRD	FID	НВО	BO	НО ВVТ	HBP	BRU	TEA	OPD	Z I	FVB	POP	GBD
Big Cliff Dam	353		56					51	22							15			16	12		13
8 ft	353	1	56	4	7	4	6	51	22	1	74	1	1	5		15	7	17	16	12	3	13
Adult	1								1		1		1									
Parr	58	1	13	4	1	1	1	1			18					2	1	1	1	1		1
Smolt	64		38		6	3	5	50	21		50	1		5		10	5	15	15	11	3	11
Fry	230		5							1	5					3	1	1				1
Green Peter Tail.	18										14											12
8 ft	18		8		3			4	8		14			1		4		5	3	1	5	12
Adult	1		1								1											1
Smolt	16		7		3			4	8		13			1		4		5	3	1	5	11
Fry	1																					
Foster Dam HOR	325		135								125											
5 ft	325		135		3	5		7		2	125					3	2	3	3	1	3	
Adult	7		1								2											
Parr	143		49		1	3		5			53					3		2		1	1	
Smolt	135		85		2	2		2		2	69						1	1	2		2	
Fry	40										1						1		1			

Steelhead (O. mykiss) During Reporting Period

			· ( ·	1100, 2 41111	3			
	0. m	ykiss Inju	ries During F	Reporting Perio	od (10-01-2023	to 10-15-2023)		
Site/Trap/Life Stage	Total Fish ≥	DS<2 BLO	EYB FUN BKD	COP DS>2	FRD FID HBO	BO HO BVT HBP	BRU TEA OPD	HIN FVB POP GBD
Green Peter Tail.								
8 ft	1	1			1			
Smolt	1	1			1			
Foster Dam HOR	60							
5 ft	60	45	1	1	45			1
Parr	18	11		1	10			
Smolt	42	34	1		35			1

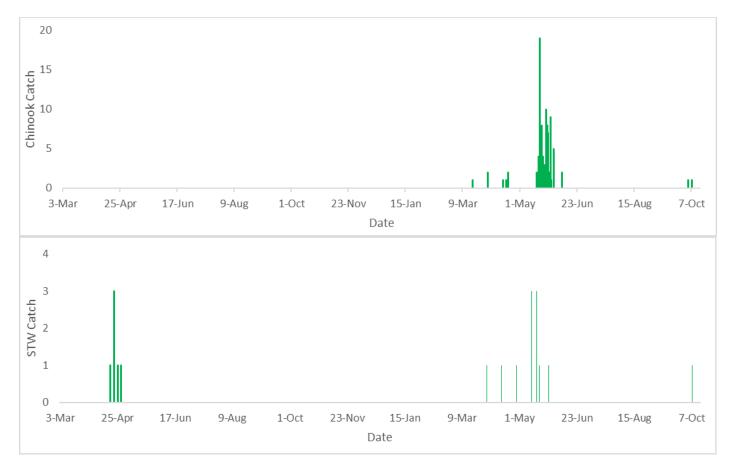
Appendix B



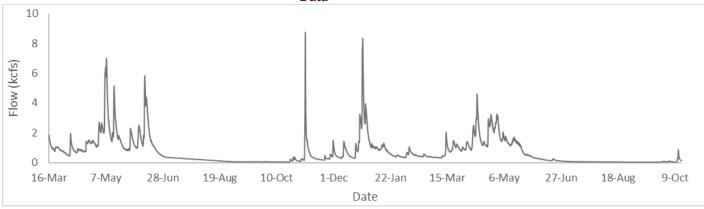


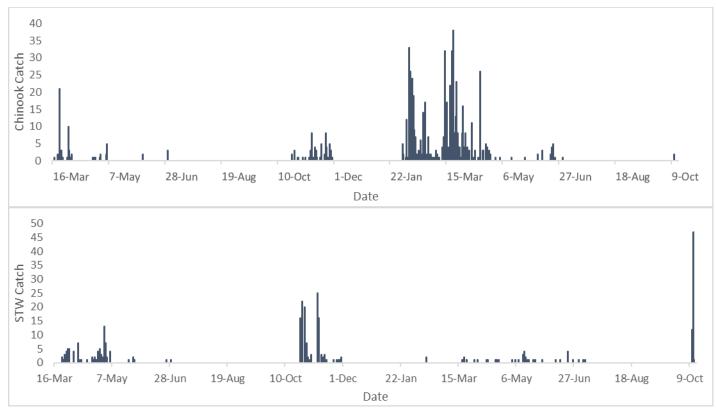
Green Peter Dam Operational and Green Peter Tailrace- Middle Santiam River Capture Data Since

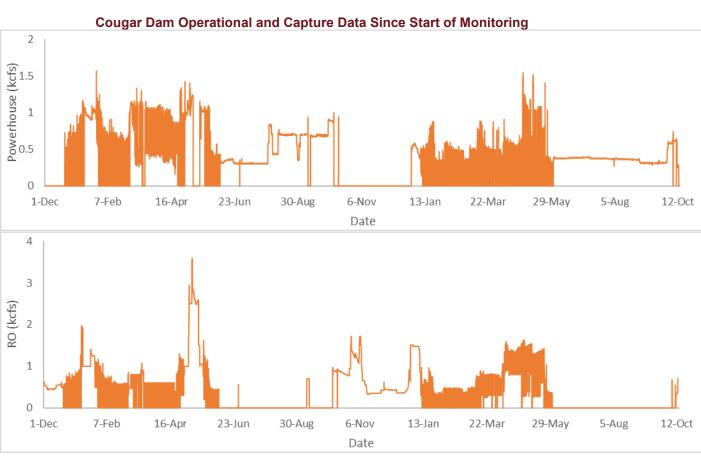


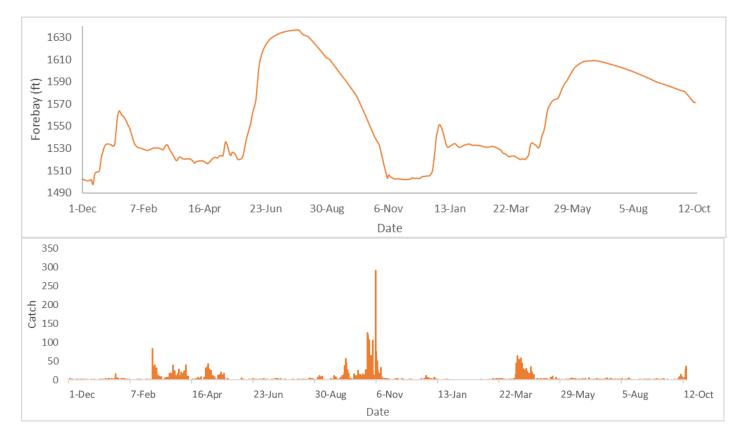


# South Santiam River Above Foster Dam Discharge and Foster Dam Head of Reservoir Capture Data

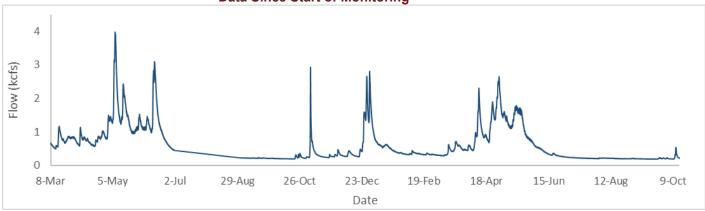




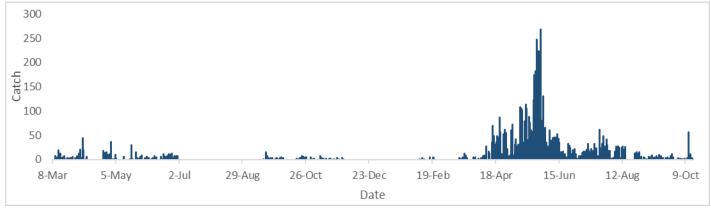


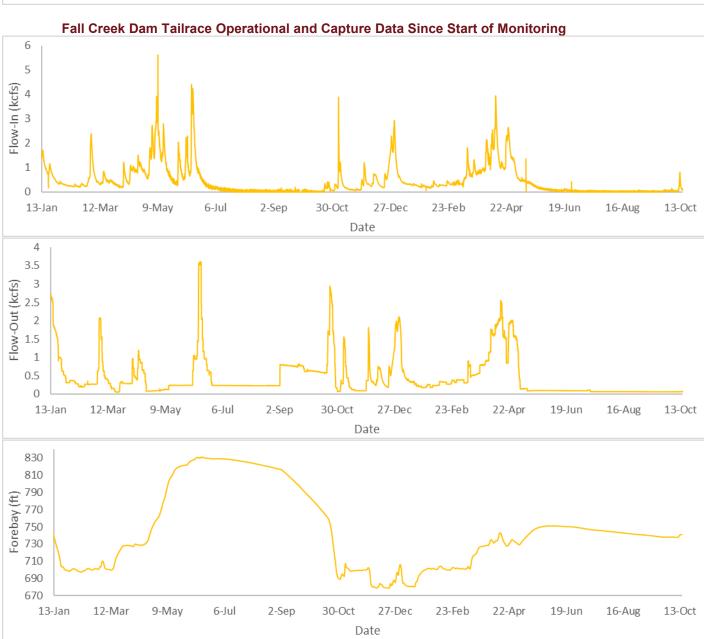




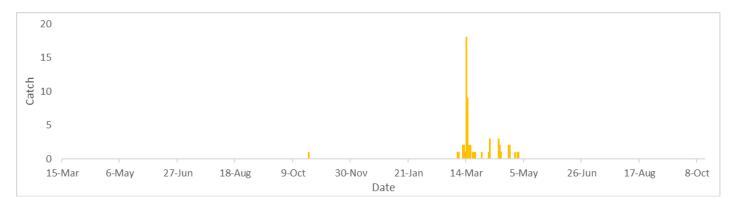


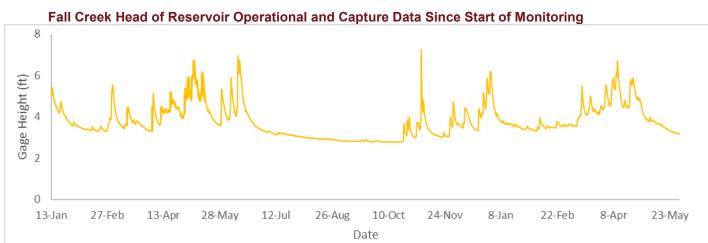
Note: Discharge data was taken from USGS gauge site number 14159200, 250 meters upstream.





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

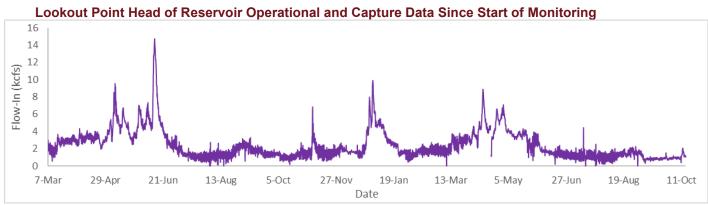


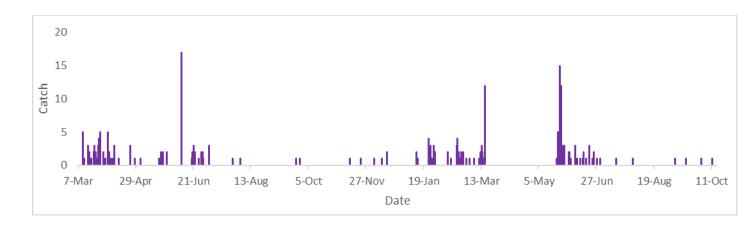




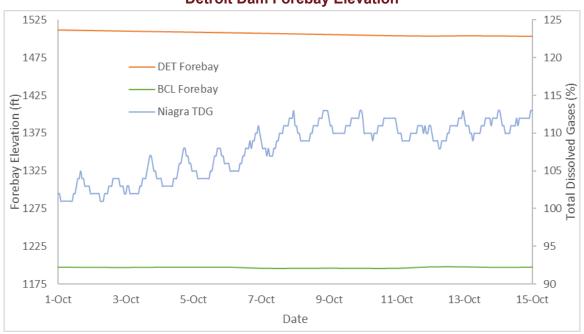








### **Detroit Dam Forebay Elevation**



# Appendix C

Release Location	Date of	# of Fish	# of Fish	%
Neibase Location	Release	Released	Recaptured	Efficiency
Big Cliff Dam Tailrace	12/22/2021	997	39	3.9%
Big Cliff Dam Tailrace	5/25/2022	995	21	2.1%
Big Cliff Dam Tailrace	8/9/2022	1000	92	9.2%
Big Cliff Dam Tailrace	9/30/2022	995	48	4.8%
Big Cliff Dam Tailrace	10/13/2022	500	15	3.0%
Big Cliff Dam Tailrace	10/24/2022	535	25	4.7% 4.2%
Big Cliff Dam Tailrace Big Cliff Dam Tailrace	11/2/2022 11/16/2022	949 509	40 15	
Big Cliff Dam Tailrace	12/14/2022	509	60	2.9% 12.0%
Big Cliff Dam Tailrace	12/19/2022	1010	92	9.1%
Big Cliff Dam Tailrace	12/21/2022	1014	33	3.3%
Big Cliff Dam Tailrace	12/27/2022	704	47	6.7%
Big Cliff Dam Tailrace	12/29/2022	452	22	4.9%
Big Cliff Dam Tailrace	1/25/2023	500	56	11.2%
Big Cliff Dam Tailrace	2/17/2023	499	37	7.4%
Big Cliff Dam Tailrace	3/7/2023	2,968	61	2.1%
Big Cliff Dam Tailrace	3/10/2023	541	112	20.7%
Big Cliff Dam Tailrace	4/28/2023	498	34	6.8%
Big Cliff Dam Tailrace	5/23/2023	500	6	1.2%
Big Cliff Dam Tailrace	6/21/2023	500	8	1.6%
Big Cliff Dam Tailrace	7/5/2023	500	33	6.6%
Big Cliff Dam Tailrace	8/3/2023	474	42	8.9%
Big Cliff Dam Tailrace	9/19/2023	424	64	15.1
Big Cliff Dam Tailrace	10/6/2023	500	56	11.2%
Green Peter Dam Tailrace- Spill	3/29/2022	643	4	0.6%
Green Peter Dam Tailrace- Spill	4/30/2022	518	9	1.7%
Green Peter Dam Tailrace- Spill (Dead Fish)	5/11/2023	1,001	0	0%
Green Peter Dam Tailrace- Spill	5/11/2023	999	9	0.9%
Green Peter Dam Tailrace- PWR	5/25/2023	1,000	10	1.0%
Green Peter Dam Tailrace- PWR	6/23/2023	1000	23	2.3%
Green Peter Dam Tailrace- PWR	7/27/2023	1,009	13	1.3%
Green Peter Dam Tailrace- PWR	8/16/2023	1,008	7	0.7%
Green Peter Dam Tailrace- PWR Green Peter Dam Tailrace- PWR	8/31/2023	1,000 1,005	8	0.8%
Foster Dam Head of Reservoir	10/4/2023 9/29/2022	1,063	0	0%
Foster Dam Head of Reservoir	10/25/2022	821	116	14.1%
Foster Dam Head of Reservoir	11/1/2022	1006	263	26.1%
Foster Dam Head of Reservoir	11/9/2022	1007	68	6.8%
Foster Dam Head of Reservoir	11/15/2022	1007	55	5.5%
Foster Dam Head of Reservoir	11/22/2022	933	163	17.5%
Foster Dam Head of Reservoir	2/27/2023	1,002	21	2.1%
Foster Dam Head of Reservoir	3/9/2023	995	62	6.2%
Foster Dam Head of Reservoir	3/15/2023	1,025	0	0%
Foster Dam Head of Reservoir	5/11/2023	985	20	2.0%
Foster Dam Head of Reservoir	6/2/2023	1,003	79ª	7.9%
Foster Dam Head of Reservoir	6/29/2023	1,000	16	1.6%
Foster Dam Head of Reservoir	7/27/2023	989	0	0.0%
Foster Dam Head of Reservoir	8/31/2023	1,000	0	0.0%
Foster Dam Head of Reservoir	9/27/2023	1,000	6	0.6%
Foster Dam Head of Reservoir	10/10/2023	1,016	55	5.4%
Cougar Dam Powerhouse Channel	1/19/2022	997	37	3.7%
Cougar Dam Regulating Outlet Channel	1/19/2022	995	26	2.6%
Cougar Dam Powerhouse Channel	4/20/2022	1000	67	6.7%
Cougar Dam Regulating Outlet Channel	4/20/2022	995 500	16	1.6%
Cougar Dam Regulating Outlet Channel Cougar Dam Powerhouse Channel	5/15/2022		64	12.8%
Cougar Dam Powerhouse Channel  Cougar Dam Powerhouse Channel	7/19/2022 8/11/2022	535 949	148 29	27.7% 3.1%
Cougar Dam Powerhouse Channel  Cougar Dam Regulating Outlet Channel	10/14/2022	509	49	9.6%
Cougar Dam Regulating Outlet Channel  Cougar Dam Regulating Outlet Channel	12/13/2022	509	49	8.4%
Cougar Dam Regulating Outlet Channel  Cougar Dam Regulating Outlet Channel	12/15/2022	1010	56	5.5%
Cougar Dam Regulating Outlet Channel	12/20/2022	1014	61	6.0%
Jougai Dain Negalating Outlet Orianile	ILILUILULL	1014	U	0.070

Release Location	Date of Release	# of Fish Released	# of Fish Recaptured	% Efficiency
Cougar Dam Regulating Outlet Channel	12/28/2022	704	14	2.0%
Cougar Dam Powerhouse Channel	1/12/2023	843	159	18.9%
Cougar Dam Regulating Outlet Channel	1/30/2023	509	6	1.2%
Cougar Dam Powerhouse Channel	3/23/2023	500	49	9.8%
Cougar Dam Regulating Outlet Channel	3/23/2023	511	4	0.8%
Cougar Dam Powerhouse Channel	3/30/2023	497	12	2.4%
Cougar Dam Regulating Outlet Channel	3/30/2023	491	31	6.3%
Course Dam Powerhouse Channel	4/18/2023 4/18/2023	297 501	14 2	4.7% 0.4%
Cougar Dam Regulating Outlet Channel Cougar Dam Powerhouse Channel	5/10/2023	499	5	1.0%
Cougar Dam Regulating Outlet Channel	5/10/2023	499	0	0%
Cougar Dam Powerhouse Channel	6/6/2023	507	65	12.8%
Cougar Dam Powerhouse Channel	7/26/2023	510	61	12.0%
Cougar Dam Powerhouse Channel	9/21/2023	500	53	10.6%
Cougar Dam Powerhouse Channel	10/11/2023	500	83	16.6%
Cougar Dam Regulating Outlet Channel	10/11/2023	518	14	2.7%
Cougar Dam Head of Reservoir	3/18/2022	806	40	5.0%
Cougar Dam Head of Reservoir	5/19/2022	498	23	4.6%
Cougar Dam Head of Reservoir	6/23/2022	486	7	1.4%
Cougar Dam Head of Reservoir	9/22/2022	551	56	10.2%
Cougar Dam Head of Reservoir	10/5/2022	608	47	7.7%
Cougar Dam Head of Reservoir	11/10/2022	704	33	4.7%
Cougar Dam Head of Reservoir	11/16/2022	719	28	3.9%
Cougar Dam Head of Reservoir Cougar Dam Head of Reservoir	11/23/2022 11/29/2022	752 620	48 48	6.4% 7.7%
Cougar Dam Head of Reservoir	4/14/2023	506	10	2.0%
Cougar Dam Head of Reservoir	5/10/2023	508	7	1.4%
Cougar Dam Head of Reservoir	5/16/2023	497	23	4.6%
Cougar Dam Head of Reservoir	6/8/2023	510	23	4.5%
Cougar Dam Head of Reservoir	7/27/2023	758	27	3.6%
Cougar Dam Head of Reservoir*	8/30/2023	5,151	120	2.3%
Cougar Dam Head of Reservoir	9/21/2023	745	41	5.5%
Fall Creek Dam Regulating Outlet	06/08/2022	517	11	2.1%
Fall Creek Dam Regulating Outlet	06/30/2022	513	0	0%
Fall Creek Dam Regulating Outlet	07/13/2022	498	0	0%
Fall Creek Dam Regulating Outlet	5/11/2023	998	0	0%
Fall Creek Dam Regulating Outlet	6/28/2023	992	0	0%
Fall Creek Head of Reservoir	5/5/2023	756	15	2.0%
Fall Creek Head of Reservoir	5/10/2023	750 511	23 7	3.1% 1.4%
Fall Creek Head of Reservoir Fall Creek Head of Reservoir	5/18/2023 5/24/2023	760	4	0.5%
Dexter Dam Spillway	3/23/2022	988	2	0.5%
Dexter Dam Spillway	5/4/2022	995	43	4.3%
Dexter Dam Spillway	5/24/2022	1018	67	6.6%
Dexter Dam Powerhouse	7/21/2022	976	2	0.2%
Dexter Dam Powerhouse	10/26/2022	1007	1	0.1%
Dexter Dam Powerhouse	11/1/2022	755	1	0.1%
Dexter Dam Powerhouse	11/17/2022	991	4	0.4%
Dexter Dam Powerhouse	12/6/2022	1010	10	1.0%
Dexter Dam Powerhouse	12/15/2022	1025	1	0.1%
Dexter Dam Powerhouse	3/16/2023	1,200	2	0.2%
Dexter Dam Spillway	3/29/2023	1,199	5	0.4%
Dexter Dam Powerhouse	5/25/2023	4,003	14	0.3%
Dexter Dam Powerhouse  Dexter Dam Powerhouse	6/7/2023 6/21/2023	4,010 4,028	4 15	0.1% 0.4%
Dexter Dam Powerhouse  Dexter Dam Powerhouse	7/6/2023	4,028	5	0.4%
Dexter Dam Powerhouse	8/2/2023	1,505	3	0.13%
Dexter Dam Powerhouse	8/23/2023	4,012	14	0.276
Dexter Dam Powerhouse	9/6/2023	4,037	13	0.3%
Dexter Dam Powerhouse	10/4/2023	4,001	7	0.17%
Lookout Dam Powerhouse	4/13/2022	998	0	0%
Lookout Dam Powerhouse	5/23/2023	3,999	32	0.8%
Lookout Dam Powerhouse	6/1/2023	4,011	6	0.1%
Lookout Dam Powerhouse	6/14/2023	4,010	4	0.1%

Release Location	Date of Release	# of Fish Released	# of Fish Recaptured	% Efficiency
Lookout Dam Powerhouse	6/28/2023	4,010	3	0.1%
Lookout Dam Powerhouse	7/18/2023	4,012	1	0.02%
Lookout Point Head of Reservoir	4/5/2022	993	53	5.3%
Lookout Point Head of Reservoir	4/14/2022	987	19	1.9%
Lookout Point Head of Reservoir	5/18/2022	1004	125	12.5%
Lookout Point Head of Reservoir	7/20/2022	1005	9	0.9%
Lookout Point Head of Reservoir	10/27/2022	506	9	1.8%
Lookout Point Head of Reservoir	11/17/2022	510	0	0%
Lookout Point Head of Reservoir	12/12/2022	510	0	0%
Lookout Point Head of Reservoir	1/13/2023	516	10	1.9%
Lookout Point Head of Reservoir	6/2/2023	760	15	2.0%
Lookout Point Head of Reservoir	6/15/2023	765	6	0.7%
Lookout Point Head of Reservoir	6/29/2023	769	2	0.3%
Lookout Point Head of Reservoir	7/19/2023	765	1	0.13%
Lookout Point Head of Reservoir	8/31/2023	751	0	0.0%
Lookout Point Head of Reservoir	9/20/2023	787	1	0.13%
Hills Creek Dam Powerhouse	1/6/2022	596	20	3.4%
Hills Creek Dam Regulating Outlet	1/6/2022	605	13	2.1%
Hills Creek Dam Powerhouse	2/16/2022	600	12	2.0%
Hills Creek Dam Regulating Outlet	2/16/2022	593	19	3.2%
Hills Creek Dam Powerhouse	2/25/2022	604	6	1.0%
Hills Creek Dam Regulating Outlet	2/25/2022	625	6	1.0%
Hills Creek Dam Powerhouse	12/7/2022	514	29	5.6%
Hills Creek Dam Regulating Outlet	12/13/2022	516	1	0.2%
Hills Creek Dam Powerhouse- RO Trial	1/6/2022	596	5	0.8%
Hills Creek Dam Powerhouse- RO Trial	2/16/2022	600	0	0%
Hills Creek Dam Powerhouse- RO Trial	2/25/2022	604	1	0.2%
Hills Creek Dam Powerhouse- RO Trial	12/7/2022	514	3	0.6%
Hills Creek Dam Powerhouse	2/25/2023	519	15	2.9%
Hills Creek Dam Powerhouse- RO Trial	2/25/2023	519	0	0%
Hills Creek Dam Regulating Outlet	2/25/2023	478	0	0%
Hills Creek Dam Powerhouse	4/26/2023	506	62	12.3%
Hills Creek Dam Powerhouse- RO Trial	4/26/2023	506	12	2.4%
Hills Creek Dam Powerhouse	5/17/2023	505	57	11.3%
Hills Creek Dam Powerhouse- RO Trial	5/17/2023	505	2	0.4%
Hills Creek Dam Powerhouse	6/3/2023	508	36	7.1%
Hills Creek Dam Powerhouse- RO Trial	6/3/2023	508	2	0.4%
Hills Creek Dam Regulating Outlet	6/13/2023	760	0	0%
Hills Creek Dam Powerhouse	6/27/2023	507	22	4.3%
Hills Creek Dam Powerhouse- RO Trial	6/27/2023	507	0	0%

<sup>\*</sup>Trapping efficiency release performed by Cramer Fish Sciences

**Appendix D** 

# **Summary of PIT Tagged Fish for Reporting Period**

Site	Trap	# of PIT Tagged Fish
Big Cliff Dam	8 ft	14
Foster Dam Head of Reservoir- South Santiam	5 ft	61
Cougar Dam	PWR	0
Cougar Dam	RO	0
Cougar Dam Head of Reservoir	5 ft	53
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	0

### **Summary of EAS VIE Marked Fish for Reporting Period**

Site	Trap	Species	VIE Mark Code	# VIE
Cougar Dam Head of Reservoir	5 ft	Chinook	RDBB	7
Fall Creek Head of Reservoir	8 ft	Chinook	RDBB	0
Lookout Point Head of Reservoir	5 ft	Chinook	RDBB	0

<sup>\*</sup>RDBB denote location and color (Right Dorsal 2x Blue marks)

### **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

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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 Cougar Dam	RO	3DD.003BEE28C7	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
Dexter Dam Tailrace	5 ft	3D6.1534831764	8/20/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9EB6	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841345	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B947A	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9435	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B99CA	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841717	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9EED	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483ED6C	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9D8A	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9D1C	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9997	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841333	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9FE2	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841340	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9B7E	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9D18	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.15348414F5	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EF53	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F116	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9B08	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EF58	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F149	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9928	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9D9A	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B8DE9	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483ECDC	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B99E1	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E948	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EF0C	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E8E9	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483ED02	8/30/2023	Chinook

Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9FA0	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EF5A	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E8C6	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F146	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841739	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153484157A	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B94F4	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4BA032	8/30/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B957E	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B8E9C	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EC9B	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EDB5	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F1D6	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E970	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F275	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9F0D	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F316	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9756	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F329	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B95A7	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E868	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EF91	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.15348415FA	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841604	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E8BA	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9F6C	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EC6D	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9E29	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F0EC	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.15348415CD	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9127	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9D26	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841700	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EE34	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F2A0	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9499	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841796	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E87F	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153484155B	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B908C	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9163	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841411	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9B27	8/31/2023	Chinook

Cougar Dam Head of Reservoir	5 ft	3D6.1534841232	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E9B94B2	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E9B9D32	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EDAE	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E926	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EC33	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B99DB	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F246	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841757	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.15348415E0	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E439966	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.15348414FE	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9766	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B99BD	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B956E	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9FBB	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F315	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9E15	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EF17	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B933E	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B99EB	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E8E1	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F13B	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F342	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EDC4	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B934C	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841597	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B90FA	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F294	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B8EA5	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E8B5	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EDD8	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841510	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EC3E	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841424	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.15348417A7	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B978F	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9551	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9B66	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B94C3	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B991A	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F113	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EDD0	8/31/2023	Chinook

Cougar Dam Head of Reservoir	5 ft	3D6.1534841610	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F137	8/31/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483E954	9/1/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EA36	9/1/2023	O. mykiss*
Cougar Dam Head of Reservoir	5 ft	3D6.153483EA8A	9/2/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EC27	9/2/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9149	9/2/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483F0ED	9/3/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.15348415BA	9/5/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483EE51	9/5/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B931C	9/6/2023	Bull Trout*
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9F00	9/8/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9B01	9/9/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9764	9/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483ED46	9/12/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153483ECE8	9/12/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.153484177D	9/15/2023	Chinook
Dexter Dam Tailrace	5 ft	3DD.003E561672	9/28/2023	Chinook
Big Cliff Dam	8 ft	3DD.003E4BB068	10/6/2023	Chinook
Big Cliff Dam	8 ft	3DD.003E4B773D	10/11/2023	Chinook
Big Cliff Dam	8 ft	3DD.003E4B894D	10/12/2023	Chinook
Big Cliff Dam	8 ft	3DD.003E4B78FE	10/12/2023	Chinook
Cougar Dam	PH 1	3DD.003E4DDB1D	10/8/2023	Chinook
Cougar Dam	PH 1	3DD.003E50BB0F	10/9/2023	Chinook
Cougar Dam	PH 2	3DD.003E4FA3E7	10/8/2023	Chinook
Cougar Dam	PH 2	3DD.003E4FA1C9	10/9/2023	Chinook
Cougar Dam	RO	3DD.003E4DE900	10/11/2023	Chinook
Cougar Dam	RO	3DD.003E4F9D3E	10/13/2023	Chinook
Cougar Dam	RO	3DD.003E4B99F0	10/13/2023	Chinook
Cougar Dam	RO	3DD.003E56A03B	10/13/2023	Chinook
Cougar Dam	RO	3DD.003E50B840	10/13/2023	Chinook
Cougar Dam	RO	3DD.003E4FAEF1	10/13/2023	Chinook
Cougar Dam	RO	3DD.003E4F9C51	10/13/2023	Chinook
Cougar Dam	RO	3DD.003E4FD761	10/14/2023	Chinook
Cougar Dam	RO	3DD.003E4FA55F	10/14/2023	Chinook
Cougar Dam	RO	3DD.003E4FC469	10/14/2023	Chinook
Cougar Dam	RO	3DD.003E4FA584	10/14/2023	Chinook
Cougar Dam	RO	3DD.003E569943	10/14/2023	Chinook
Cougar Dam	RO	3DD.003E4F9D98	10/14/2023	Chinook
Cougar Dam	RO	3DD.003E50C430	10/14/2023	Chinook
Cougar Dam	RO	3DD.003E4FB615	10/14/2023	Chinook
Cougar Dam	RO	3DD.003E4DDB3C	10/15/2023	Chinook
Cougar Dam	RO	3DD.003E4FB368	10/15/2023	Chinook

Cougar Dam	RO	3DD.003E4FA12D	10/15/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003E4B9E1B	10/1/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3D6.1534841583	10/6/2023	Chinook
Green Peter Tailrace - Middle Santiam River	8 ft	3DD.003E50D416	10/2/2023	Chinook
Green Peter Tailrace - Middle Santiam River	8 ft	3DD.003E56DDDA	10/3/2023	Chinook
Green Peter Tailrace - Middle Santiam River	8 ft	3DD.003E56B029	10/3/2023	Chinook
Green Peter Tailrace - Middle Santiam River	8 ft	3DD.003E568E7A	10/3/2023	Chinook
Green Peter Tailrace - Middle Santiam River	8 ft	3DD.003E567C6E	10/4/2023	Chinook
Green Peter Tailrace - Middle Santiam River	8 ft	3DD.003E56E51F	10/4/2023	Chinook
Green Peter Tailrace - Middle Santiam River	8 ft	3DD.003E4C2AAA	10/9/2023	Chinook
Green Peter Tailrace - Middle Santiam River	8 ft	3DD.003E568A43	10/9/2023	Chinook
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<sup>\*</sup>Confirmed predation on PIT tagged Chinook released by Cramer Fish Sciences

# **List of EAS PIT Tagged Fish for Reporting Period**

Site	Trap	PIT Tag	Date	Species
Big Cliff Dam	8 ft	3DD.003BD22FC7	10/12/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BD22FD7	10/12/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE083D	10/13/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE0871	10/13/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE089E	10/13/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE0848	10/13/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE0872	10/13/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE086C	10/13/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE084B	10/13/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE1338	10/14/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE1367	10/14/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE1355	10/14/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE137B	10/14/2023	Chinook
Big Cliff Dam	8 ft	3DD.003BEE1343	10/14/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10DD	10/1/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1114	10/2/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE110A	10/2/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10D6	10/3/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10DB	10/4/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10D4	10/4/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10DC	10/5/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE104A	10/7/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10EF	10/8/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10EC	10/8/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1109	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10F0	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1122	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10E9	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BD22EFC	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BD22EEB	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1124	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1115	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE110F	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1113	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10E8	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1116	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1112	10/11/2023	Chinook

Cougar Dam Head of Reservoir	5 ft	3DD.003BEE111B	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1108	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE110B	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10FE	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE111D	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE111F	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10F4	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1120	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10ED	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1117	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10FA	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10FF	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10D7	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10E7	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1111	10/11/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE110D	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE112B	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10F8	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10F7	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10F6	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1129	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1101	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10DE	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10DA	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1126	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10DF	10/13/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1130	10/14/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE10EB	10/14/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1105	10/15/2023	Chinook
Cougar Dam Head of Reservoir	5 ft	3DD.003BEE1132	10/15/2023	Chinook
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B6A	10/11/2023	Chinook
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B73	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B8B	10/11/2023	Chinook
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B39	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B6F	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B5C	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B75	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B4E	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B40	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B41	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B5B	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B4C	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B49	10/11/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B60	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B7C	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B64	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B7A	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B7E	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B90	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B65	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B9C	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B47	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B51	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B42	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B50	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B5E	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B3E	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B54	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B3C	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B5F	10/12/2023	O. mykiss

Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B76	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B69	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B43	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B3B	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B3A	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B3F	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B72	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B55	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B48	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B46	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B70	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B4B	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B4D	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B5A	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B7B	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B86	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B4F	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B3D	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B77	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B59	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B9A	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B95	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B52	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B56	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B82	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B6D	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B89	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B63	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B79	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BD22B7F	10/12/2023	O. mykiss
Foster Dam Head of Reservoir- South Santiam River	5 ft	3DD.003BEE105D	10/13/2023	O. mykiss