

WILLAMETTE VALLEY FISH PASSAGE MONITORING – BULK MARKING & RESERVOIR DISTRIBUTION

Bi-Weekly Report: July 16, 2024 – July 31, 2024



Prepared for: United States Army Corps of Engineers

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BULK MARKING SCHEDULE

Table 1. Tentative release schedule for brood years 2022 and 2023. Green rows highlight the release groups that have been tagged and released. Orange rows highlight release groups that have been tagged but have not yet been released. Date estimate is a rough estimate of when fish should be released to meet the intended target.

2023					
MF Willamette					
Date Estimate	Release Location	Target	Lifestage	#	Tag
Spring 2023	Head of Fall Creek Dam reservoir	Prior to reaching target elevation of 728 feet	fry	10000	8 mm
Spring 2023	Head of Lookout Point Dam reservoir	30 day spill operations	fry	10000	8 mm
Spring 2023	Head of Hills Creek Dam reservoir	Observed fry migration and RO operations	fry	10000	8 mm
9/15/2023	Dexter Dam Tailrace	Fall deep drawdown	subyearling	2000	12 mm
9/15/2023	Head of Lookout Point Dam reservoir	Fall deep drawdown	subyearling	5000	12 mm
9/15/2023	Lookout Point Dam Forebay	Fall deep drawdown	subyearling	5000	12 mm
10/15/2023	Fall Creek Dam Head of Reservoir	2-3 weeks prior to drawdown	subyearling	5000	12 mm
10/15/2023	Fall Creek Dam tailrace	2-3 weeks prior to drawdown	subyearling	1000	12 mm
11/15/2023	Fall Creek Dam Head of Reservoir	Midway between start of drawdown and streambed elevation	subyearling	5000	12 mm
11/15/2023	Fall Creek Dam tailrace	Midway between start of drawdown and streambed elevation	subyearling	1000	12 mm
11/16/2023	Hills Creek Dam Head of Reservoir	Prior to start of fall/winter RO operations	subyearling	5000	12 mm
11/16/2023	Hills Creek Dam tailrace	Prior to start of fall/winter RO operations	subyearling	3000	12 mm
11/16/2023	Hills Creek forebay or mid-reservoir	Prior to start of fall/winter RO operations	subyearling	5000	12 mm
North Santiam					
Spring 2023	Breitenbush River	Prior to beginning of spill	fry	7500	8 mm
Spring 2023	North Santiam River	Prior to beginning of spill	fry	7500	8 mm
10/1/2023	Big Cliff Dam Tailrace	Prior to Detroit Reservoir reaching 1520 feet	subyearling	8000	12 mm
10/1/2023	Breitenbush River	Prior to Detroit Reservoir reaching 1520 feet	subyearling	5000	12 mm
10/1/2023	North Santiam River	Prior to Detroit Reservoir reaching 1520 feet	subyearling	5000	12 mm
11/15/2023	Big Cliff Dam Tailrace	When Detroit reaches 1465 feet	subyearling	6000	12 mm

SF McKenzie					
Spring 2023	Cougar Dam Head of Reservoir	Prior to start of spring drawdown	fry	5000	8 mm
Spring 2023	Cougar Dam Head of Reservoir	After start of drawdown but prior to reaching 1520 feet	fry	5000	8 mm
9/15/2023	Cougar Dam Head of Reservoir	Prior to start of drawdown	subyearling	3000	12 mm
10/15/2023	Cougar Dam Forebay	Prior to reaching target elevation of 1505 feet	subyearling	5000	12 mm
10/15/2023	Cougar Dam Tailrace	Prior to reaching target elevation of 1505 feet	subyearling	4000	12 mm
10/15/2023	Cougar Head of Reservoir	Prior to reaching target elevation of 1505 feet	subyearling	4000	12 mm
11/15/2023	Cougar Dam Forebay	At 1532 feet when RO is prioritized for day and night spill	subyearling	5000	12 mm
11/15/2023	Cougar Dam Tailrace	At 1532 feet when RO is prioritized for day and night spill	subyearling	4000	12 mm
11/15/2023	Cougar Head of Reservoir	At 1532 feet when RO is prioritized for day and night spill	subyearling	4000	12 mm
South Santiam					
Spring 2023	Green Peter Head of Reservoir in Middle Santiam River	Spill operation block	fry	5000	8 mm
Spring 2023	Green Peter Head of Reservoir in Quartzville Creek	Spill operation block	fry	5000	8 mm
8/30/2023	South Santiam River - Foster Dam Tailrace	Undefined - Late August	subyearling	1000	12 mm
8/30/2023	South Santiam River above Foster Dam	Undefined - Late August	subyearling	2000	12 mm
9/15/2023	Green Peter Reservoir - Head of Reservoir, Middle Santiam River	Fall Operations at Green Peter Dam	subyearling	2500	12 mm
9/15/2023	Green Peter Reservoir - Head of Reservoir, Quartzville Creek	Fall Operations at Green Peter Dam	subyearling	2500	12 mm
10/15/2023	Green Peter Dam Tailrace	Prior to Green Peter reaching 887 feet.	subyearling	4000	12 mm
10/15/2023	Green Peter Reservoir - Head of Reservoir, Middle Santiam River	Prior to Green Peter reaching 887 feet.	subyearling	2500	12 mm
10/15/2023	Green Peter Reservoir - Head of Reservoir, Quartzville Creek	Prior to Green Peter reaching 887 feet.	subyearling	2500	12 mm
10/15/2023	South Santiam River - Foster Dam Tailrace	Fall operations at Foster Dam	subyearling	4000	12 mm
10/15/2023	South Santiam River above Foster Dam	Fall operations at Foster Dam	subyearling	5000	12 mm

2024

MF Willamette

2/1/2024	Hills Creek Dam Head of Reservoir	Prior to end of fall/winter RO operations	yearling	5000	12 mm
2/1/2024	Hills Creek Dam tailrace	Prior to end of fall/winter RO operations	yearling	3000	12 mm
2/1/2024	Hills Creek forebay or mid-reservoir	Prior to end of fall/winter RO operations	yearling	5000	12 mm
2/28/2024	Fall Creek Dam Head of Reservoir	Prior to beginning of refill	yearling	5000	12 mm
2/28/2024	Fall Creek Dam Tailrace	Prior to beginning of refill	yearling	1000	12 mm
2/28/2024	Head of Lookout Point Dam reservoir	Prior to 30-day spill	yearling	5000	12 mm
2/28/2024	Dexter Dam Tailrace	Prior to 30-day spill	yearling	2000	12 mm
2/28/2024	Lookout Point Dam Forebay	Prior to 30-day spill	yearling	5000	12 mm
3/31/2024	Fall Creek Dam Head of Reservoir	After refill is completed	yearling	5000	12 mm
3/31/2024	Fall Creek Dam Tailrace	After refill is completed	yearling	1000	12 mm
4/1/2024	Head of Lookout Point Dam reservoir	After 30-day spill/beginning of nighttime spill	yearling	5000	12 mm
4/1/2024	Dexter Dam Tailrace	After 30-day spill/beginning of nighttime spill	yearling	2000	12 mm
4/1/2024	Lookout Point Dam Forebay	After 30-day spill/beginning of nighttime spill	yearling	5000	12 mm

North Santiam

2/1/2024	North Santiam River	Prior to start of Detroit refill	fry	3750	8 mm
2/1/2024	Breitenbush River	Prior to start of Detroit refill	fry	3750	8 mm
4/1/2024	Breitenbush River	Prior to start of Detroit spill	fry	3750	8 mm
4/1/2024	North Santiam River	Prior to start of Detroit spill	fry	3750	8 mm
4/1/2024	Big Cliff Dam Tailrace	Prior to Detroit reaching 1541 feet (spillway crest elevation)	yearling	2000	12 mm
4/1/2024	Breitenbush River	Prior to Detroit reaching 1541 feet (spillway crest elevation)	yearling	2000	12 mm
4/1/2024	North Santiam River	Prior to Detroit reaching 1541 feet (spillway crest elevation)	yearling	2000	12 mm
10/1/2024	Big Cliff Dam Tailrace	Prior to Detroit Reservoir reaching 1520 feet	subyearling	8000	12 mm
10/1/2024	Breitenbush River	Prior to Detroit Reservoir reaching 1520 feet	subyearling	5000	12 mm

10/1/2024	North Santiam River	Prior to Detroit Reservoir reaching 1520 feet	subyearling	5000	12 mm
11/15/2024	Big Cliff Dam Tailrace	When Detroit reaches 1465 feet	subyearling	6000	12 mm
SF McKenzie					
2/28/2024	Cougar Dam Forebay	Prior to beginning of spring drawdown	yearling	2000	12 mm
2/28/2024	Cougar Dam Tailrace	Prior to beginning of spring drawdown	yearling	1000	12 mm
2/28/2024	Cougar Head of Reservoir	Prior to beginning of spring drawdown	yearling	2000	12 mm
3/30/2024	Cougar Dam Forebay	After start of drawdown but prior to reaching 1520 feet	yearling	2000	12 mm
3/30/2024	Cougar Dam Tailrace	After start of drawdown but prior to reaching 1520 feet	yearling	1000	12 mm
3/30/2024	Cougar Head of Reservoir	After start of drawdown but prior to reaching 1520 feet	yearling	2000	12 mm
South Santiam					
4/1/2024	Green Peter Head of Reservoir in Middle Santiam River	At the start of the first spring spill block	fry	2500	8 mm
4/1/2024	Green Peter Head of Reservoir in Quartzville Creek	At the start of the first spring spill block	fry	2500	8 mm
4/1/2024	Green Peter Dam Tailrace	At the start of Green Peter spring spill	yearling	1000	12 mm
4/1/2024	Green Peter Reservoir - Forebay	At the start of Green Peter spring spill	yearling	2000	12 mm
4/1/2024	Green Peter Reservoir - Head of Reservoir, Middle Santiam River	At the start of Green Peter spring spill	yearling	1000	12 mm
4/1/2024	Green Peter Reservoir - Head of Reservoir, Quartzville Creek	At the start of Green Peter spring spill	yearling	1000	12 mm
4/1/2024	Green Peter Reservoir - mid reservoir	At the start of Green Peter spring spill	yearling	2000	12 mm
4/1/2024	South Santiam River - Foster Dam Tailrace	Prior to start of Foster refill	yearling	4000	12 mm
4/1/2024	South Santiam River above Foster Dam	Prior to start of Foster refill	yearling	5000	12 mm
4/20/2024	South Santiam River - Foster Dam Tailrace	Post refill operations	yearling	2000	12 mm
4/20/2024	South Santiam River above Foster Dam	Post refill operations	yearling	1000	12 mm
4/15/2024	Green Peter Head of Reservoir in Middle Santiam River	At the start of the second spring spill block	fry	2500	8 mm
4/15/2024	Green Peter Head of Reservoir in Quartzville Creek	At the start of the second spring spill block	fry	2500	8 mm

8/30/2024	South Santiam River - Foster Dam Tailrace	Undefined - Late August	subyearling	1000	12 mm
8/30/2024	South Santiam River above Foster Dam	Undefined - Late August	subyearling	2000	12 mm
9/15/2024	Green Peter Reservoir - Head of Reservoir, Middle Santiam River	Fall Operations at Green Peter Dam	subyearling	2500	12 mm
9/15/2024	Green Peter Reservoir - Head of Reservoir, Quartzville Creek	Fall Operations at Green Peter Dam	subyearling	2500	12 mm
10/15/2024	Green Peter Dam Tailrace	Prior to Green Peter reaching 887 feet.	subyearling	4000	12 mm
10/15/2024	Green Peter Reservoir - Head of Reservoir, Middle Santiam River	Prior to Green Peter reaching 887 feet.	subyearling	2500	12 mm
10/15/2024	Green Peter Reservoir - Head of Reservoir, Quartzville Creek	Prior to Green Peter reaching 887 feet.	subyearling	2500	12 mm
10/15/2024	South Santiam River - Foster Dam Tailrace	Fall operations at Foster Dam	subyearling	4000	12 mm
10/15/2024	South Santiam River above Foster Dam	Fall operations at Foster Dam	subyearling	5000	12 mm

BULK MARKING SUMMARY

All of the brood year 2023 South Santiam stock fish have been tagged and 18,000 (out of a total of 30,000) of the brood year 2023 North Santiam fish have been tagged. We are planning on tagging the remaining North Santiam fish mid-September. The next release is scheduled for late August at the Foster project. The Bulk Marking project is in a holding pattern until the releases commence in the fall.

Recaptures

Zero fish from this project were both detected and uploaded to PTAGIS during the most reporting period. We estimate that a total of 5,027 PIT tags from this project have been detected since we began releasing fish in May of 2023 (Table 4).

Table 2. Bulk marking summary statistics. Total number of fish marked (N), mean fork length (FL), mean weight, start date of marking, end date of marking, total mortalities from start of tagging to release, mortality percentage, total shed tags from start of tagging to release, and shed tag percentage.

Mark Group	N	Mean FL (mm)	Mean Weight (g)	Date Start	Date End	Mort	Mort. %	Sheds	Shed %
Green Peter Head of Reservoir - Middle Santiam	5,071	56.2	NA	5/15/2023	5/16/2023	74	1.46	32	0.63
Green Peter Head of Reservoir - Quartzville Creek	5,203	58.5	NA	5/17/2023	5/18/2023	18	0.35	19	0.37
Lookout Point Head of Reservoir	10,041	63.1	2.9	5/22/2023	5/24/2023	39	0.39	53	0.53
Hills Creek Head of Reservoir	10,117	64.7	2.9	5/30/2023	6/1/2023	22	0.22	9	0.09
Fall Creek Head of Reservoir	10,040	67.4	3.2	6/1/2023	6/7/2023	68	0.68	30	0.3
Detroit Head of Reservoir Breitenbush Arm	7,530	66.9	3.6	6/13/2023	6/14/2023	82	1.09	24	0.32
Detroit Head of Reservoir - North Santiam Arm	7,528	66.9	3.6	6/14/2023	6/15/2023	83	1.10	25	0.32
Cougar Head of Reservoir	5,626	67.7	3.5	6/20/2023	6/20/2023	475	8.40	44	0.78
North Santiam – Fall 23 & Spring 24 Bulk Group	30,680	67.3	3.5	6/26/2023	7/20/2023	3,437	10.6	99	0.32
M.F. Willamette – Fall 23 & Spring 24 Bulk Group	85,233	NA	NA	7/26/2023	12/7/2023	380	0.45	340	0.40
South Santiam – Fall 23 & Spring 2024 Bulk Group	43,407	NA	NA	8/14/2023	12/20/2023	128	0.29	101	0.23
McKenzie– Fall 23 & Spring 24 Bulk Group	45,210	NA	NA	8/30/2023	2/14/2024	987	2.18	60	0.13
M.F. Willamette – Additional 51,000 Group	51,000	145.1	35.9	1/1/2024	1/31/2021	TBD	TBD	TBD	TBD
Green Peter Head of Reservoir	5,006	50.1	1.4	3/1/2024	3/3/2024	TBD	TBD	TBD	TBD
Green Peter Head of Reservoir	5,000	54.9	1.7	3/18/2024	3/19/2024	TBD	TBD	TBD	TBD
Detroit Head of Reservoir North Santiam Arm	7,500	46.7	1.2	5/13/2024	5/15/2024	TBD	TBD	TBD	TBD
Detroit Head of Reservoir Breitenbush Arm	7,500	46.7	1.2	5/15/2024	5/17/2024	TBD	TBD	TBD	TBD
South Santiam – Fall 24 and Spring 25 Bulk Group	45,000	NA	NA	6/26/2024	7/11/2024	TBD	TBD	TBD	TBD

Table 3. Release summary statistics. Date of release, number of marked fish released, transport tank water temperature and the beginning and end of the transport, and water temperature at the release location.

Basin	Release Location	Release Date	N	Mean Length	Mean Weight	Lifestage
MFW	Hills Creek Head of Reservoir	5/18/2023 15:50	509	55.8	1.9	Fry
SST	Green Peter Head of Reservoir - Quartzville Creek Arm	5/22/2023 13:00	5,171	58.5		Fry

Basin	Release Location	Release Date	N	Mean Length	Mean Weight	Lifestage
SST	Green Peter Head of Reservoir - Middle Santiam Arm	5/22/2023 20:30	4,961	56.2		Fry
MFW	LOP Head of Reservoir - Black Canyon	5/30/2023 10:30	9,647	63.1	2.9	Fry
MFW	Hills Creek Head of Reservoir	6/5/2023 10:30	9,784	64.7	2.8	Fry
MFW	Fall Creek Head of Reservoir - Old Boat Ramp	6/12/2023 15:00	9,638	67.4	3.2	Fry
NST	Marion Forks Hatchery Escape	6/16/2023 12:00	1,247	66.5	3.4	Fry
NST	Detroit Head of Reservoir - Breitenbush River	7/13/2023 8:45	7,000	66.8	3.6	Fry
NST	Detroit Head of Reservoir - North Santiam River	7/13/2023 11:35	6,638	67	3.6	Fry
SST	Foster Tailrace - South Santiam Hatchery	8/23/2023 16:30	1,030	115.7	18.2	Subyearling
SST	Foster Reservoir Head of Reservoir - Cascadia Covered Bridge	8/24/2023 10:00	2,059	105.6	14.5	Subyearling
MCK	Cougar Head of Reservoir - Cougar Crossing Bridge	8/29/2023 11:30	5,198	67.9	3.6	Fry
MFW	LOP Head of Reservoir - Black Canyon	9/18/2023 8:15	4,998	122.9	23.8	Subyearling
MFW	LOP Forebay - Signal Point	9/18/2023 17:00	5,002	128.3	25.1	Subyearling
MFW	LOP Tailrace - Pengra	9/19/2023 11:30	2,011	128.4	25.2	Subyearling
SST	Green Peter Head of Reservoir - Quartzville Creek Arm	9/20/2023 14:00	2,518	113.5	19.5	Subyearling
SST	Green Peter Head of Reservoir - Middle Santiam Arm	9/21/2023 13:40	2,508	117.1	20.7	Subyearling
NST	Detroit Head of Reservoir - Breitenbush River	9/26/2023 10:45	5,002	106.5	11.8	Subyearling
NST	Detroit Head of Reservoir - North Santiam River	9/26/2023 16:00	4,997	102.6	10.4	Subyearling
NST	Big Cliff Tailrace - Packsaddle Boat Ramp	9/27/2023 15:30	8,009	106.5	11.9	Subyearling
MFW	Fall Creek Head of Reservoir - Old Boat Ramp	9/28/2023 14:45	5,006	133.5	29.1	Subyearling
MFW	Fall Creek Tailrace	9/28/2023 19:15	1,001	134.8	29.8	Subyearling
MCK	Cougar Head of Reservoir - Cougar Crossing Bridge	10/2/2023 14:20	5,005	117.2	18.9	Subyearling
MCK	Cougar Head of Reservoir - Cougar Crossing Bridge	10/2/2023 19:05	3,006	116.7	19	Subyearling
SST	Green Peter Head of Reservoir - Quartzville Creek Arm	10/3/2023 12:45	2,502	122.8	25.1	Subyearling
SST	Green Peter Head of Reservoir - Middle Santiam Arm	10/4/2023 14:40	2,516	119.6	23.8	Subyearling
SST	Green Peter Tailrace - Sunnyside Boat Ramp	10/9/2023 16:05	4,002	125.9	26.4	Subyearling
SST	Foster Reservoir Head of Reservoir - Cascadia Covered Bridge	10/10/2023 14:20	5,000	125.8	24.5	Subyearling
SST	Foster Tailrace - South Santiam Hatchery	10/11/2023 15:20	4,000	135.2	31.8	Subyearling
MCK	Cougar Head of Reservoir - Cougar Crossing Bridge	10/18/2023 11:50	3,977	118.4	19.8	Subyearling

Basin	Release Location	Release Date	N	Mean Length	Mean Weight	Lifestage
MCK	Cougar Forebay	10/18/2023 18:00	5,010	120.8	21	Subyearling
MCK	Cougar Tailrace - USGS	10/19/2023 12:40	4,000	112.5	16.8	Subyearling
MFW	Fall Creek Head of Reservoir - Old Boat Ramp	11/6/2023 15:40	4,999	139.4	32.2	Subyearling
MFW	Fall Creek Tailrace	11/6/2023 19:00	1,000	134.9	30.2	Subyearling
MFW	Hills Creek Head of Reservoir	11/7/2023 15:45	4,997	135.2	28.6	Subyearling
MFW	Hills Creek Mid Reservoir - Packard Creek Boat Ramp	11/8/2023 15:15	4,998	145.3	36.9	Subyearling
MFW	Hills Creek Dam Tailrace	11/9/2023 14:35	2,969	129.6	27	Subyearling
MCK	Cougar Head of Reservoir - Cougar Crossing Bridge	11/13/2023 13:15	3,999	121.3	23	Subyearling
MCK	Cougar Forebay	11/14/2023 15:15	4,995	124.6	23.8	Subyearling
MCK	Cougar Tailrace - USGS	11/15/2023 11:45	2,411	120.1	21.5	Subyearling
NST	Big Cliff Tailrace - Packsaddle Boat Ramp	11/20/2023 16:50	5,998	112.4	16.6	Subyearling
MFW	LOP Head of Reservoir - Black Canyon	1/3/2024 16:45	4,634	143.3	33.7	Yearling
MFW	LOP Head of Reservoir - Black Canyon	1/4/2024 16:30	4,828	143.3		Yearling
MFW	LOP Head of Reservoir - Black Canyon	1/8/2024 15:40	3,789	143.3		Yearling
MFW	LOP Head of Reservoir - Black Canyon	1/9/2024 16:15	5,115	143.3		Yearling
MFW	LOP Head of Reservoir - Black Canyon	1/25/2024 11:30	7,617	143.6	34.3	Yearling
MFW	Hills Creek Dam Tailrace	1/31/2024 14:05	24,861	141.6	34.7	Yearling
MFW	Hills Creek Head of Reservoir	2/6/2024 11:15	4,963	153.8	40.9	Yearling
MFW	Hills Creek Mid Reservoir - Packard Creek Boat Ramp	2/7/2024 10:10	5,000	155.9	41.7	Yearling
MFW	Hills Creek Dam Tailrace	2/7/2024 15:20	2,998	151.3	42.8	Yearling
MFW	Fall Creek Head of Reservoir - Old Boat Ramp	2/20/2024 12:45	4,993	148.4	38.9	Yearling
MFW	Fall Creek Tailrace	2/20/2024 16:05	1,002	150.5	39.9	Yearling
SST	Green Peter Head of Reservoir - Middle Santiam Arm	2/21/2024 12:00	1,004	164.4	51.6	Yearling
SST	Green Peter Head of Reservoir - Quartzville Creek Arm	2/22/2024 11:45	1,014	150.8	40.2	Yearling
SST	Green Peter Mid Reservoir - Thistle Boat Ramp	2/22/2024 17:45	2,006	153.8	42.9	Yearling
SST	Green Peter Mid Reservoir - Thistle Boat Ramp	2/23/2024 10:40	2,003	159.4	46.5	Yearling
SST	Green Peter Tailrace - Sunnyside Boat Ramp	2/23/2024 14:15	1,014	163.4	50.1	Yearling
MFW	LOP Head of Reservoir - Black Canyon	2/28/2024 11:30	4,994	141.5	34.2	Yearling

Basin	Release Location	Release Date	N	Mean Length	Mean Weight	Lifestage
MFW	LOP Forebay - Signal Point	2/28/2024 16:30	4,988	144.2	35.9	Yearling
MFW	LOP Tailrace - Pengra	2/29/2024 11:00	1,998	149.7	39.2	Yearling
SST	Green Peter Head of Reservoir - Middle Santiam Arm	3/6/2024 15:30	2,506	50.1	1.4	Fry
SST	Green Peter Head of Reservoir - Quartzville Creek Arm	3/6/2024 17:30	2,500	51.3	1.4	Fry
MCK	Cougar Head of Reservoir - Cougar Crossing Bridge	3/8/2024 11:20	4,799	136.9	31	Yearling
MCK	Cougar Forebay	3/11/2024 11:25	4,800	136.5	29.5	Yearling
MCK	Cougar Tailrace - USGS	3/11/2024 15:10	2,081	129.5	25.4	Yearling
NST	Detroit Head of Reservoir - North Santiam River	3/20/2024 14:45	2,000	128.4	25.5	Yearling
NST	Detroit Head of Reservoir - Breitenbush River	3/21/2024 11:15	2,000	124	21.3	Yearling
NST	Big Cliff Tailrace - Packsaddle Boat Ramp	3/21/2024 16:30	1,998	129.4	24.1	Yearling
SST	Foster Reservoir Head of Reservoir - Cascadia Covered Bridge	3/26/2024 13:30	2,997	156.3	44.1	Yearling
SST	Foster Reservoir Head of Reservoir - Cascadia Covered Bridge	3/27/2024 11:00	3,001	145.3	38	Yearling
SST	Foster Tailrace - South Santiam Hatchery	3/28/2024 13:30	3,005	154.6	43.8	Yearling
SST	Foster Tailrace - South Santiam Hatchery	4/1/2024 12:55	2,991	156	44.3	Yearling
MFW	Fall Creek Head of Reservoir - Old Boat Ramp	4/2/2024 11:00	2,500	146	37.1	Yearling
MFW	Fall Creek Head of Reservoir - Old Boat Ramp	4/3/2024 10:55	2,497	154.6	43.2	Yearling
MFW	Fall Creek Tailrace	4/3/2024 14:05	999	159.5	44.5	Yearling
SST	Foster Reservoir Head of Reservoir - Cascadia Covered Bridge	4/4/2024 13:15	1,908	145.4	37.2	Yearling
MFW	LOP Head of Reservoir - Black Canyon	4/9/2024 10:35	2,499	150.9	41.2	Yearling
MFW	LOP Head of Reservoir - Black Canyon	4/9/2024 13:00	2,499	150.9		Yearling
MFW	LOP Forebay - Signal Point	4/10/2024 11:00	2,500	150.7	39.7	Yearling
MFW	LOP Forebay - Signal Point	4/11/2024 11:55	2,500	150.7		Yearling
MFW	LOP Tailrace - Pengra	4/11/2024 15:25	2,000	149	38.9	Yearling
SST	Green Peter Head of Reservoir - Middle Santiam Arm	4/12/2024 11:50	2,350	52.4	1.5	Fry
SST	Green Peter Head of Reservoir - Quartzville Creek Arm	4/12/2024 13:15	2,500	54.9	1.7	Fry
NST	Detroit Head of Reservoir - North Santiam River	5/20/2024 12:00	7,533	47	1.2	Fry
NST	Detroit Head of Reservoir - Breitenbush River	5/20/2024 18:00	7,494	47	1.2	Fry

Table 4. PIT tag recovery summary at established interrogation sites, rotary screw traps (RST), and reservoir sampling locations. Recoveries during screw trap efficiency testing that were recaptured during the test (i.e., within one week of release) are not included in this table.

Observation Location	Capture Method	Total	Reporting Period Total
CGR - Cougar Dam	Screw Trap	1,637	0
CGRTAL - CGR - Release into the Tailrace within 0.5 km downstream of Dam	Screw Trap	587	0
FAL - Fall Creek Dam (USACE), MF Willamette River	Screw Trap	434	0
HCR - Hills Creek Dam, Middle Fork Willamette River	Screw Trap	239	0
FALTAL - FAL - Release into the Tailrace within 0.5 km downstream of Dam	Screw Trap	213	0
TWX - Estuary Towed Array (Exp.)	Passive	208	0
PD6 - Columbia River Estuary rkm 68	Passive	203	2
LOP - Lookout Point Dam (USACE), MF Willamette River	Screw Trap	171	0
PD5 - Columbia River Estuary rkm 62	Passive	140	0
MCKESF - South Fork McKenzie River	Screw Trap	134	0
LD3 - Lebanon Dam Diversion Bypass	Passive	130	1
GPD - Green Peter Dam	Screw Trap	118	0
PD7 - Columbia River Estuary rkm 70	Passive	84	1
LD1 - Lebanon Dam South Ladder	Passive	77	0
BCLTAL - BCL - Release into the Tailrace within 0.5 km downstream of Dam	Screw Trap	69	0
LD2 - Lebanon Dam North Ladder	Passive	66	0
PD8 - Columbia River Estuary rkm 82	Passive	62	0
HCDTAL - HCD - Release into the Tailrace within 0.5 km downstream of Dam	Screw Trap	61	0
LD4 - Lebanon Dam Spillway	Passive	52	0
DEXTAL - DEX - Release into the Tailrace within 0.5km downstream of Dam	Screw Trap	51	0
MSANTR - Middle Santiam River, Oregon	Screw Trap	50	0
DEX - Dexter Dam (USACE), Middle Fork Willamette River	Screw Trap	42	0
WILRMF - Middle Fork Willamette River	Screw Trap	42	0
LOPTAL - LOP - Release into the Tailrace within 0.5 km downstream of Dam	Screw Trap	32	0
SID - Sauvie Island Dairy Creek	Passive	26	0
SSANTR - South Santiam River, Oregon	Screw Trap	26	0

NSANTR - North Santiam River, Oregon	Bypass Sub-Sample	25	0
BCL - Big Cliff Dam - North Santiam River	Screw Trap	9	0
HCRTUR - HCR - Release into the Turbine Channel of the Tailrace within 0.5 km of Dam	Screw Trap	8	0
LOP - Lookout Point Dam (USACE), MF Willamette River	Gillnet Fishery or Research	6	0
MSANTR - Middle Santiam River, Oregon	Fyke Net	5	0
NSANTR - North Santiam River, Oregon	Screw Trap	3	0
WILRMF - Middle Fork Willamette River	Fyke Net	2	0
LOP - Lookout Point Dam (USACE), MF Willamette River	Fyke Net	1	0
ML1 - Lower Mill Creek (MILL4C)	Passive	1	0
MSANTR - Middle Santiam River, Oregon	Gillnet Fishery or Research	1	0
QUARTC - Quartzville Creek, tributary to Middle Santiam River	Fyke Net	1	0

RESERVOIR DISTRIBUTION SUMMARY

Reservoir sampling during the reporting period was conducted in the offshore environment of Lookout Point and Green Peter reservoirs using small mesh (3/8 – 1 inch) gill nets (Table 5). Reservoirs were sampled on alternating weeks through 7/22/2024, after which we began sampling both reservoirs each week using two crews to increase sample size.

Green Peter Reservoir was sampled this reporting period from 7/15/2024 - 7/18/2024, 7/24/2024 – 7/25/2024, and 7/30/2024 – 7/31/2024 (Table 5). Effort during the week of 7/15/2024 consisted of three days of 24-hour net sets, requiring four days on the water. Eight gill nets were set each day spread along the longitudinal axis of the reservoir at fixed sites (Lower: A1, A2; Middle: A3, A4; Upper: A5, A6; Quartzville: Q1). An additional rover net was set at different fixed sites each day to increase sample size, for a total of nine nets per day. Gill nets were set at 6m depth. Over 3 days of sampling (n=27 gill net sets), 1 Chinook salmon, 29 *O. mykiss*, 1 yellow bullhead and 2 smallmouth bass were captured (Tables 7-9). Target species catch one subyearling natural origin Chinook salmon, 26 hatchery adult *O. mykiss*, and 3 yearling natural origin *O. mykiss*.

The following week (week of 7/24/2024) crews did one day of 24-hr sets on Green Peter (n=8 gill net sets) after completing boat trailer repairs and other preparations needed to commence sampling with our 2nd reservoir crew. That week we captured 2 natural origin subyearling Chinook salmon and 20 *O. mykiss* (18 hatchery adults, 1 natural adult and 1 natural yearling). Nets were set at 10m depth to target 15C on the thermal profile (Figure 2). The final week of the reporting period, sampling was protracted due to unhealthy levels of wildfire smoke. On Monday 7/29/24 crews collected limnology profiles but needed to suspend sampling before setting nets due to smoke (Figure 3). Nets were set the following day when air quality improved. On Wednesday, all nets were pulled from the reservoir and not reset due to smoke and forecasted unhealthy smoke levels for the remainder of the week. That week crews captured 21 *O. mykiss* (19 hatchery adults, 1 adult natural and 1 juvenile natural origin) and 2 smallmouth bass from n=9 nets set at 11m depth. Over the last 2 weeks of the reporting period combined, Green Peter received 2 days of net sets (n=17), down a day from our target of 3 days (n=27 sets).

Lookout Point Reservoir was sampled this reporting period from 7/22/2024 – 7/25/2024 and 7/29/2024 – 7/31/2024 (Table 5). The week of 7/22/2024 consisted of three days of 24-hour trap sets, requiring four days on the water. Gill nets were set at stations A1-A6 at a depth of 15m (A1-A3) or as deep as the site would allow for shallow sites (A4-A6). Over three days of sampling (n=24 gill net sets), 8 Chinook salmon, 14 *O. mykiss*, 15 northern pikeminnow, 92 smallmouth bass and 275 white crappie were captured. Chinook salmon catch consisted of 6 subyearling hatchery fish (not recaps), 1 natural origin subyearling and 1 natural origin yearling. *O. mykiss* catch consisted of 6 hatchery adults, 7 natural adults and one natural origin juvenile.

The week of 7/29/2024, our Lookout Point crew dealt with heavy wildfire smoke (Figures 4-6), poor air quality and large non-target catches. Nets were set on Monday 7/29/2024 at stations A1-A5 at a depth of 18m (A1-A3) or as deep as the site would allow for shallow sites (A4-A5). Use of A6 was discontinued effective this week due to shallow depth. All nets were checked and reset on 7/30/2024. On Wednesday 7/31/2024, air quality had declined and crews were only able to pull 3 nets before they needed to suspend sampling (Figure 4). Nets in the upper and middle zone were prioritized for removal on 7/31 as

those had highest non-target catches. The remaining 5 nets were pulled on 8/1/2024 after 48 hr soak but no nets were reset due to continued poor air quality (Figures 5-6). ODFW district biologists were alerted on 7/31 that some nets would be left a day longer than planned due to smoke conditions. Out of n=16 sets, catch consisted of 9 Chinook salmon, 20 *O. mykiss*, 4 northern pikeminnow, 1 brown bullhead, 1 largescale sucker, 227 smallmouth bass, 2 largemouth bass, 296 black crappie, 608 white crappie and 40 walleye. Target species catch consisted of 3 hatchery subyearling Chinook (no pit tag), 1 hatchery yearling Chinook, 3 natural origin subyearling Chinook, 2 natural origin yearling Chinook, 1 hatchery adult *O. mykiss*, and 19 adult natural origin *O. mykiss*. Beginning the week of 8/5/2024, netting will be suspended at stations A4 and A5 due to high non-target catches and shallow/warm waters.

No Chinook recaptures were encountered and no target species were tagged this reporting period as surface temperatures at capture locations exceeded 17C, the upper limit for tagging as directed by our sampling permit.

Table 5. Start and end date by statistical week.

Week	Start	End	Reservoir	Net Type	Effort (# sets)	Effort (hrs)
6	2/5/2024	2/8/2024	Lookout	Box minnow	21	501
6	2/5/2024	2/8/2024	Lookout	Oneida	7	166
7	2/12/2024	2/15/2024	Green	Box minnow	30	710
7	2/12/2024	2/15/2024	Green	Oneida	12	283
8	2/19/2024	2/22/2024	Lookout	Box minnow	27	608
8	2/19/2024	2/22/2024	Lookout	Oneida	9	203
9	2/26/2024	3/4/2024	Green Peter	Box minnow	30	1680
9	2/26/2024	3/4/2024	Green Peter	Oneida	12	670
10	3/5/2024	3/7/2024	Lookout	Box minnow	18	422
10	3/5/2024	3/7/2024	Lookout	Oneida	6	138
11	3/11/2024	3/14/2024	Green Peter	Box minnow	30	715
11	3/11/2024	3/14/2024	Green Peter	Oneida	12	283
12	3/18/2024	3/21/2024	Lookout	Box minnow	27	621
12	3/18/2024	3/21/2024	Lookout	Oneida	9	206
13	3/25/2024	3/28/2024	Green Peter	Box minnow	30	700
13	3/25/2024	3/28/2024	Green Peter	Oneida	12	280
14	4/1/2024	4/4/2024	Lookout	box minnow	27	629
14	4/1/2024	4/4/2024	Lookout	oneida	9	208
15	4/8/2024	4/11/2024	Green Peter	box minnow	30	711
15	4/8/2024	4/11/2024	Green Peter	oneida	12	283
16	4/15/2024	4/18/2024	Lookout	box minnow	27	632
16	4/15/2024	4/18/2024	Lookout	oneida	9	209
17	4/22/2024	4/25/2024	Green Peter	box minnow	30	708
17	4/22/2024	4/25/2024	Green Peter	oneida	12	280
18	4/29/2024	5/2/2024	Lookout	box minnow	27	657
18	4/29/2024	5/2/2024	Lookout	oneida	9	217

Week	Start	End	Reservoir	Net Type	Effort (# sets)	Effort (hrs)
19	5/8/2024	5/10/2024	Green Peter	box minnow	20	465
19	5/8/2024	5/10/2024	Green Peter	oneida	8	188
20	5/13/2024	5/16/2024	Lookout	box minnow	27	636
20	5/13/2024	5/16/2024	Lookout	oneida	9	208
21	5/20/2024	5/23/2024	Green Peter	box minnow	30	707
21	5/20/2024	5/23/2024	Green Peter	oneida	12	283
22	5/27/2024	5/30/2024	Lookout	box minnow	27	558
22	5/27/2024	5/30/2024	Lookout	oneida	9	207
23	6/3/2024	6/6/2024	Green Peter	box minnow	30	689
23	6/3/2024	6/6/2024	Green Peter	oneida	12	277
24	6/10/2024	6/13/2024	Lookout	box minnow	27	619
24	6/10/2024	6/13/2024	Lookout	oneida	9	209
25	6/17/2024	6/20/2024	Green Peter	gill net 80'	26	620
26	6/24/2024	6/27/2024	Lookout	gill net 80'	24	552
27	7/1/2024	7/4/2024	Green Peter	gill net 80'	27	632
28	7/9/2024	7/12/2024	Lookout	gill net 80'	24	547
29	7/15/2024	7/18/2024	Green Peter	gill net 80'	27	648
30	7/22/2024	7/25/2024	Lookout	gill net 80'	24	546
30	7/24/2024	7/25/2024	Green Peter	gill net 80'	8	172
31	7/29/2024	7/31/2024	Lookout	gill net 80'	16	495
31	7/30/2024	7/31/2024	Green Peter	gill net 80'	9	238

Table 6. Mean surface water temperature measure during each trap net deployment.

Week	Reservoir	Mean Water Surface Temperature °C
6	Lookout Point	8.0
7	Green Peter	8.2
8	Lookout Point	8.9
9	Green Peter	8.4
10	Lookout Point	8.3
11	Green Peter	8.5
12	Lookout Point	9.6
13	Green Peter	9.7
14	Lookout Point	10.6
15	Green Peter	12.2
16	Lookout Point	11.7
17	Green Peter	13.6
18	Lookout Point	13.6
19	Green Peter	15.1
20	Lookout Point	16.1

Week	Reservoir	Mean Water Surface Temperature °C
21	Green Peter	16.8
22	Lookout Point	17.4
23	Green Peter	18.1
24	Lookout Point	20.3
25	Green Peter	19.5
26	Lookout Point	21.1
27	Green Peter	21.9
28	Lookout Point	24.9
29	Green Peter	25.3
30	Lookout Point	24.4
30	Green Peter	24
31	Lookout Point	23.9
31	Green Peter	24.3

Table 7. Summary of total catch by reservoir. CHS – Chinook salmon, RBT – *O. mykiss*, CUT - Cutthroat trout, NPM - Northern Pikeminnow, SCU – Sculpin, BLG - Bluegill, LWB – Western Brook Lamprey, BBH- Brown bullhead, YBH – Yellow bullhead, LSS - Large-scale sucker, SMB - Smallmouth Bass, LMB – largemouth bass, BLC – black crappie, WHC – white crappie, WAL – walleye, UNID – unidentified. *Unidentified larval centrarchid.

Week	Reservoir	CHS	RBT	CUT	NPM	SCU	BLG	LWB	BBH	YBH	LSS	SMB	LMB	BLC	WHC	WAL	UNID
6	Lookout Point	4	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0
7	Green Peter	7	6	2	1	0	8	1	0	0	0	0	0	0	0	0	0
8	Lookout Point	6	9	1	1	0	1	0	0	0	0	0	0	0	0	0	0
9	Green Peter	12	3	0	0	0	11	0	0	0	0	0	0	0	0	0	0
10	Lookout Point	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11	Green Peter	19	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0
12	Lookout Point	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
13	Green Peter	1	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0
14	Lookout Point	1	7	0	3	0	0	0	9	0	3	0	0	0	0	0	0
15	Green Peter	9	2	4	0	0	5	0	0	0	0	2	0	0	0	0	0
16	Lookout Point	2	2	2	0	0	0	0	0	0	1	0	0	0	0	0	0
17	Green Peter	0	1	2	3	0	6	0	0	0	0	0	0	0	0	0	0
18	Lookout Point	0	5	0	0	0	0	0	0	0	1	0	0	0	0	0	0
19	Green Peter	1	1	0	3	0	5	0	0	0	0	0	0	0	0	0	0
20	Lookout Point	2	6	0	5	0	2	0	0	0	0	0	0	0	0	0	0
21	Green Peter	2	0	0	17	0	8	0	0	0	0	0	0	0	0	0	0
22	Lookout Point	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0
23	Green Peter	6	0	0	3	0	52	0	0	0	0	1	0	0	0	0	0
24	Lookout Point	0	2	0	0	264	3	0	0	0	0	1	0	0	0	0	116*
25	Green Peter	19	55	0	2	0	0	0	0	0	0	0	0	0	0	0	0
26	Lookout Point	8	2	0	0	0	0	0	0	0	1	2	0	4	0	0	0
27	Green Peter	1	21	0	0	0	0	0	0	0	0	1	0	0	0	0	0
28	Lookout Point	14	8	0	0	0	0	0	0	0	0	2	1	1	2	6	0
29	Green Peter	1	29	0	0	0	0	0	0	1	0	2	0	0	0	0	0

Week	Reservoir	CHS	RBT	CUT	NPM	SCU	BLG	LWB	BBH	YBH	LSS	SMB	LMB	BLC	WHC	WAL	UNID
30	Lookout Point	8	14	0	15	0	0	0	0	0	1	92	0	0	275	0	0
30	Green Peter	2	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Lookout Point	9	20	0	4	0	0	0	1	0	1	227	2	296	608	40	0
31	Green Peter	0	21	0	0	0	0	0	0	0	0	2	0	0	0	0	0

Table 8. Catch summary of target species by reservoir zone. CHS-AD = ad clipped Chinook salmon, CHS-natural = natural origin Chinook salmon, RBT-AD = ad clipped *O. mykiss*, RBT-natural = natural origin *O. mykiss*.

Week	Reservoir	Species	Lifestage	LOWER	MIDDLE	UPPER	QUARTZVILLE
6	Lookout Point	RBT-natural	yearling	1	1	0	0
6	Lookout Point	CHS-AD	yearling	0	1	0	0
6	Lookout Point	CHS-natural	yearling	0	2	1	0
7	Green Peter	CHS-natural	fry	1	5	1	0
7	Green Peter	RBT-natural	adult	1	0	0	0
7	Green Peter	RBT-natural	yearling	1	0	0	1
7	Green Peter	RBT-natural	fry	0	0	3	0
8	Lookout Point	RBT-natural	yearling	2	4	3	0
8	Lookout Point	CHS-AD	yearling	0	1	0	0
8	Lookout Point	CHS-natural	yearling	0	1	4	0
9	Green Peter	CHS-AD	yearling	1	0	0	1
9	Green Peter	CHS-natural	fry	0	2	5	1
9	Green Peter	CHS-natural	yearling	0	1	1	0
9	Green Peter	RBT-natural	fry	0	0	1	1
9	Green Peter	RBT-natural	yearling	0	0	1	0
10	Lookout Point	RBT-natural	yearling	0	1	0	0
10	Lookout Point	CHS-natural	fry	0	0	1	0
10	Lookout Point	RBT-natural	Adult	0	0	1	0
11	Green Peter	CHS-AD	fry	1	3	11	3
11	Green Peter	CHS-natural	fry	0	0	1	0
12	Lookout Point	CHS-natural	fry	0	1	0	0
12	Lookout Point	CHS-natural	yearling	0	1	0	0
12	Lookout Point	RBT-natural	yearling	0	1	1	0
13	Green Peter	RBT-natural	yearling	1	0	0	0
13	Green Peter	CHS-AD	parr	0	0	0	1
14	Lookout Point	RBT-natural	yearling	4	1	2	0
14	Lookout Point	CHS-natural	yearling	0	0	1	0
15	Green Peter	CHS-natural	fry	0	0	0	3
15	Green Peter	CHS-natural	parr	0	1	5	0
15	Green Peter	RBT-AD	adult	0	1	0	0
15	Green Peter	RBT-natural	yearling	0	0	1	0
16	Lookout Point	CHS-AD	yearling	1	0	0	0
16	Lookout Point	CHS-natural	parr	0	1	0	0
16	Lookout Point	RBT-natural	yearling	0	1	1	0
17	Green Peter	RBT-AD	adult	1	0	0	0
18	Lookout Point	RBT-natural	yearling	1	1	3	0
19	Green Peter	CHS-natural	parr	0	0	0	1

Week	Reservoir	Species	Lifestage	LOWER	MIDDLE	UPPER	QUARTZVILLE
19	Green Peter	RBT-natural	yearling	0	0	0	1
20	Lookout Point	CHS-natural	fry	0	0	2	0
20	Lookout Point	RBT-AD	yearling	0	0	1	0
20	Lookout Point	RBT-natural	yearling	0	0	5	0
21	Green Peter	CHS-natural	subyearling	0	1	0	1
21	Green Peter	CHS-AD	subyearling	0	0	1	0
22	Lookout Point	RBT-natural	yearling	0	1	2	0
23	Green Peter	CHS-natural	subyearling	1	0	1	0
23	Green Peter	CHS-natural	yearling	1	0	0	0
23	Green Peter	CHS-AD	subyearling	0	0	3	0
24	Lookout Point	RBT-natural	yearling	1	0	1	0
25	Green Peter	CHS-AD	subyearling	1	0	0	0
25	Green Peter	CHS-natural	subyearling	4	4	7	1
25	Green Peter	CHS-natural	yearling	0	0	2	0
25	Green Peter	RBT-AD	adult	7	11	33	0
25	Green Peter	RBT-natural	yearling	1	0	2	0
25	Green Peter	RBT-natural	adult	0	0	1	0
26	Lookout Point	CHS-AD	subyearling	1	0	0	0
26	Lookout Point	CHS-natural	subyearling	7	0	0	0
26	Lookout Point	RBT-AD	adult	1	0	0	0
26	Lookout Point	RBT-natural	adult	0	0	1	0
27	Green Peter	RBT-AD	adult	7	2	12	0
27	Green Peter	CHS-natural	subyearling	0	0	1	0
28	Lookout Point	CHS-AD	subyearling	4	0	5	0
28	Lookout Point	CHS-natural	subyearling	1	1	2	0
28	Lookout Point	CHS-natural	yearling	1	0	0	0
28	Lookout Point	RBT-AD	adult	1	0	0	0
28	Lookout Point	RBT-natural	adult	4	0	2	0
28	Lookout Point	RBT-natural	yearling	0	0	1	0
29	Green Peter	RBT-AD	adult	7	4	15	0
29	Green Peter	RBT-natural	yearling	1	1	0	1
29	Green Peter	CHS-natural	subyearling	0	0	0	1
30	Lookout Point	CHS-AD	subyearling	6	0	0	0
30	Lookout Point	CHS-natural	subyearling	1	0	0	0
30	Lookout Point	CHS-natural	yearling	1	0	0	0
30	Lookout Point	RBT-AD	adult	4	1	1	0
30	Lookout Point	RBT-natural	adult	5	1	1	0
30	Lookout Point	RBT-natural	yearling	0	0	1	0
30	Green Peter	RBT-AD	adult	3	1	11	3
30	Green Peter	RBT-natural	yearling	1	0	0	0
30	Green Peter	CHS-natural	subyearling	0	2	0	0
30	Green Peter	RBT-natural	adult	0	0	1	0

Week	Reservoir	Species	Lifestage	LOWER	MIDDLE	UPPER	QUARTZVILLE
31	Lookout Point	CHS-AD	subyearling	2	0	1	0
31	Lookout Point	CHS-AD	yearling	1	0	0	0
31	Lookout Point	CHS-natural	subyearling	2	1	0	0
31	Lookout Point	CHS-natural	yearling	2	0	0	0
31	Lookout Point	RBT-AD	adult	1	0	0	0
31	Lookout Point	RBT-natural	adult	18	1	0	0
31	Green Peter	RBT-AD	adult	16	1	2	0
31	Green Peter	RBT-natural	adult	1	0	0	0
31	Green Peter	RBT-natural	yearling	1	0	0	0

Table 9. Summary of target species lengths, tags implanted and recaptures.

Week	Reservoir	Species	Lifestage	Catch	length_min	length_mean	length_max	# VIE tagged	# PIT tagged	# recap
6	Lookout Point	CHS-AD	yearling	1	117	117	117	0	0	1
6	Lookout Point	CHS-natural	yearling	3	80	84	88	0	3	0
6	Lookout Point	RBT-natural	yearling	2	79	88	97	0	1	0
7	Green Peter	CHS-natural	fry	7	37	40.6	46	7	0	0
7	Green Peter	RBT-natural	adult	1	305	305	305	0	1	0
7	Green Peter	RBT-natural	fry	3	35	36.7	38	3	0	0
7	Green Peter	RBT-natural	yearling	2	149	168.5	188	0	2	0
8	Lookout Point	CHS-AD	yearling	1	174	174	174	0	0	1
8	Lookout Point	CHS-natural	yearling	5	73	87.6	101	0	4	0
8	Lookout Point	RBT-natural	yearling	9	103	153.2	206	0	9	0
9	Green Peter	CHS-AD	yearling	2	83	89	95	0	1*	2
9	Green Peter	CHS-natural	fry/parr	8	36	41.6	51	8	0	0
9	Green Peter	CHS-natural	yearling	2	117	118.5	120	0	2	0
9	Green Peter	RBT-natural	fry	2	34	35	36	1	0	0
9	Green Peter	RBT-natural	yearling	1	169	169	169	0	1	0
10	Lookout Point	CHS-natural	fry/parr	1	47	47.0	47	1	0	0
10	Lookout Point	RBT-natural	adult	1	296	296.0	296	0	1	0
10	Lookout Point	RBT-natural	yearling	1	108	108.0	108	0	1	0
11	Green Peter	CHS-AD	fry/parr	1	56	56.0	56	0	0	1
11	Green Peter	CHS-natural	fry/parr	18	34	41.7	58	11	4	0
12	Lookout Point	CHS-natural	fry	1	38	38	38	1	0	0
12	Lookout Point	CHS-natural	yearling	1	97	97	97	0	1	0
12	Lookout Point	RBT-natural	yearling	2**	107	126.5	146	0	0	0
13	Green Peter	CHS-AD	fry/parr	1	58	58	58	0	0	1
13	Green Peter	RBT-natural	yearling	1**	157	157	157	0	0	0
14	Lookout Point	CHS-natural	yearling	1	93	93	93	0	1	0
14	Lookout Point	RBT-natural	yearling	7**	96	148	174	0	0	0

Week	Reservoir	Species	Lifestage	Catch	length_min	length_mean	length_max	# VIE		
								tagged	# PIT tagged	# recap
15	Green Peter	CHS-natural	fry	3	32	37.7	42	2	0	0
15	Green Peter	CHS-natural	parr	6	51	59.8	74	0	6	0
15	Green Peter	RBT-AD	adult	1	229	229	229	0	0	0
15	Green Peter	RBT-natural	yearling	1**	149	149	149	0	0	0
16	Lookout Point	CHS-AD	yearling	1	119	119	119	0	0	1
16	Lookout Point	CHS-natural	parr	1	73	73	73	0	1	0
16	Lookout Point	RBT-natural	yearling	2	145	165.5	186	0	1	0
17	Green Peter	RBT-AD	adult	1	290	290	290	0	0	0
18	Lookout Point	RBT-natural	yearling	5	135	143.8	157	1	5	0
19	Green Peter	CHS-natural	parr	1	50	50	50	0	1	0
19	Green Peter	RBT-natural	yearling	1	116	116	116	0	1	0
20	Lookout Point	CHS-natural	fry	2	43	43.5	44	0	1	0
20	Lookout Point	RBT-AD	yearling	1	169	169	169	0	1	0
20	Lookout Point	RBT-natural	yearling	5	96	120	138	0	4	0
21	Green Peter	CHS-AD	subyear	1	140	140	140	0	0	1
21	Green Peter	CHS-natural	subyear	2	65	84	103	0	0	0
22	Lookout Point	RBT-natural	yearling	3	130	137.3	146	0	0	0
23	Green Peter	CHS-AD	subyear	3	96	104	113	0	0	2
23	Green Peter	CHS-natural	subyear	2	85	86.5	88	0	0	0
23	Green Peter	CHS-natural	yearling	1	169	169	169	0	0	0
24	Lookout Point	RBT-natural	yearling	2	131	136.5	142	0	0	0
25	Green Peter	CHS-AD	subyear	1	134	134	134	0	0	1
25	Green Peter	CHS-natural	subyear	16	84	106.2	135	0	0	0
25	Green Peter	CHS-natural	yearling	2	157	172.5	188	0	0	0
25	Green Peter	RBT-AD	adult	51	213	269.2	320	0	0	0
25	Green Peter	RBT-natural	adult	1	205	205	205	0	0	0
25	Green Peter	RBT-natural	yearling	3	158	176.7	190	0	0	0
26	Lookout Point	CHS-AD	subyear	1	103	103	103	0	0	0
26	Lookout Point	CHS-natural	subyear	7	81	112.4	134	0	0	0
26	Lookout Point	RBT-AD	adult	1	320	320	320	0	0	0
26	Lookout Point	RBT-natural	adult	1	255	255	255	0	0	0
27	Green Peter	CHS-natural	subyear	1	100	100	100	0	0	0
27	Green Peter	RBT-AD	adult	21	224	287.3	315	0	0	0
28	Lookout Point	CHS-AD	subyear	9	86	107.6	141	0	0	0
28	Lookout Point	CHS-natural	subyear	4	102	123.8	149	0	0	0
28	Lookout Point	CHS-natural	yearling	1	249	249	249	0	0	0
28	Lookout Point	RBT-AD	adult	1	304	304	304	0	0	0
28	Lookout Point	RBT-natural	adult	6	203	252.7	312	0	0	0
28	Lookout Point	RBT-natural	yearling	1	169	169	169	0	0	0
29	Green Peter	CHS-natural	subyear	1	98	98	98	0	0	0
29	Green Peter	RBT-AD	adult	26	257	297	329	0	0	0

Week	Reservoir	Species	Lifestage	Catch	length_min	length_mean	length_max	# VIE		
								tagged	# PIT tagged	# recap
29	Green Peter	RBT-natural	yearling	3	166	174.3	187	0	0	0
30	Lookout Point	CHS-AD	subyear	6	116	132.5	153	0	0	0
30	Lookout Point	CHS-natural	subyear	1	141	141	141	0	0	0
30	Lookout Point	CHS-natural	yearling	1	150	150	150	0	0	0
30	Lookout Point	RBT-AD	adult	6	265	325.3	375	0	0	0
30	Lookout Point	RBT-natural	adult	7	211	318.3	485	0	0	0
30	Lookout Point	RBT-natural	yearling	1	158	158	158	0	0	0
30	Green Peter	CHS-natural	subyear	2	146	159	172	0	0	0
30	Green Peter	RBT-AD	adult	18	277	299.2	330	0	0	0
30	Green Peter	RBT-natural	adult	1	264	264	264	0	0	0
30	Green Peter	RBT-natural	yearling	1	197	197	197	0	0	0
31	Lookout Point	CHS-AD	subyear	3	101	123	143	0	0	0
31	Lookout Point	CHS-AD	yearling	1	214	214	214	0	0	0
31	Lookout Point	CHS-natural	subyear	3	125	136	148	0	0	0
31	Lookout Point	CHS-natural	yearling	2	235	252.5	270	0	0	0
31	Lookout Point	RBT-AD	adult	1	374	374	374	0	0	0
31	Lookout Point	RBT-natural	adult	19	207	273.8	370	0	0	0
31	Green Peter	RBT-AD	adult	19	268	301.1	334	0	0	0
31	Green Peter	RBT-natural	adult	1	263	263	263	0	0	0
31	Green Peter	RBT-natural	yearling	1	176	176	176	0	0	0

*One recaptured fish was inadvertently tagged with a 2nd PIT tag. ** Not tagged, awaiting permit modification to allow for tagging RBT (modification has since been granted effective 4/16/2024).

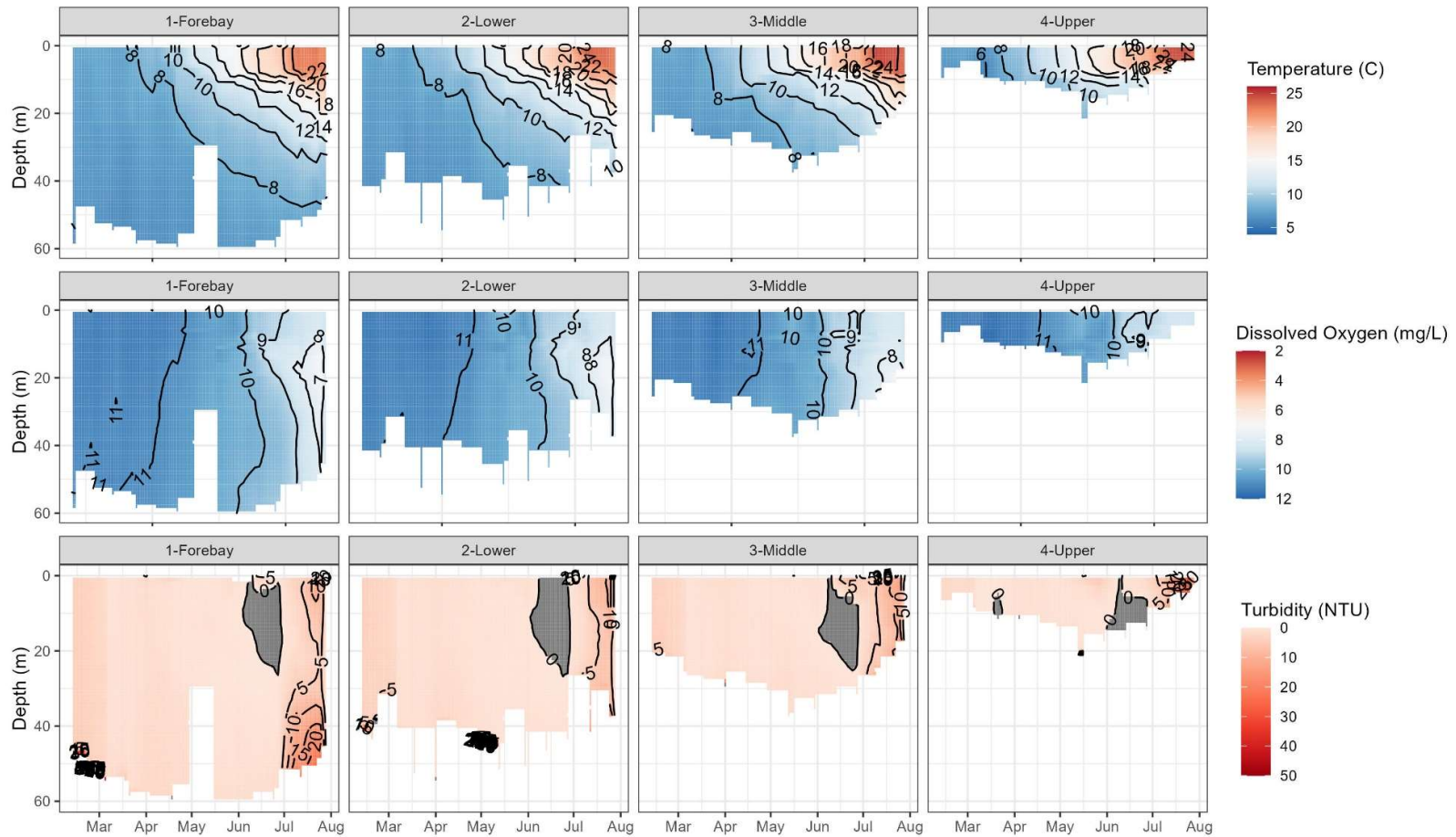


Figure 1. Lookout Point 2024 limnology data. Note that turbidity data in gray are suspect due to a sensor malfunction/calibration issue. Readings in gray were slightly negative (erroneous) but secchi measurements taken concurrently support that turbidity was near zero.

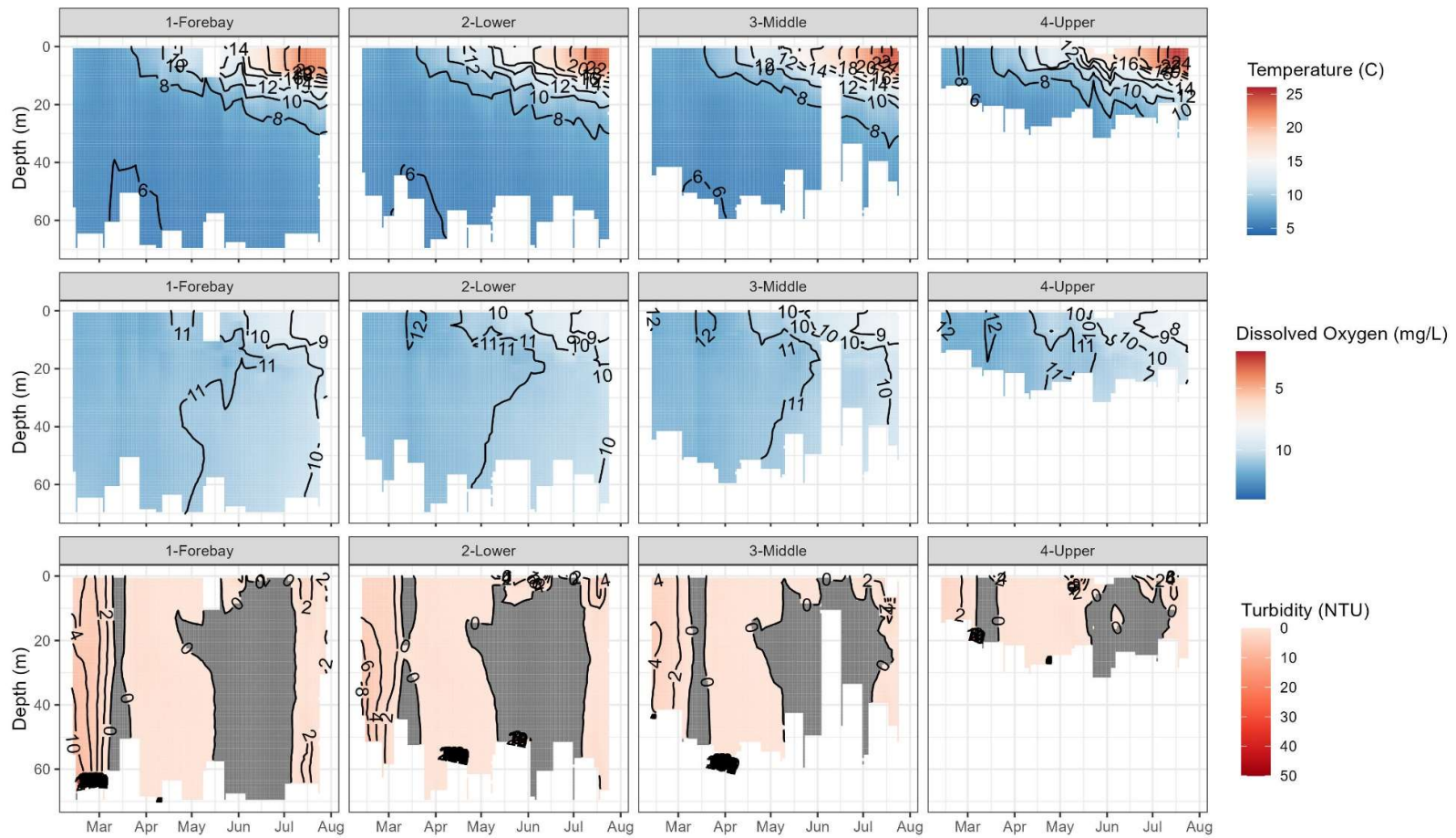


Figure 2. Green Peter 2024 limnology data. Note that turbidity data in gray are suspect due to a sensor malfunction/calibration issue. Readings in gray were slightly negative (erroneous) but secchi measurements taken concurrently support that turbidity was near zero.



Figure 3. Green Peter Reservoir wildfire smoke on 7/29/2024.



Figure 4. Lookout Point wildfire smoke on 7/31/2024.



Figure 5. Lookout Point wildfire smoke on 8/1/2024

Oakridge - Willamette Activity Center
Near: Oakridge, Oregon
PERMANENT PM2.5 MONITOR
A SMOKE OUTLOOK HAS BEEN ISSUED FOR THIS AREA

Recent History

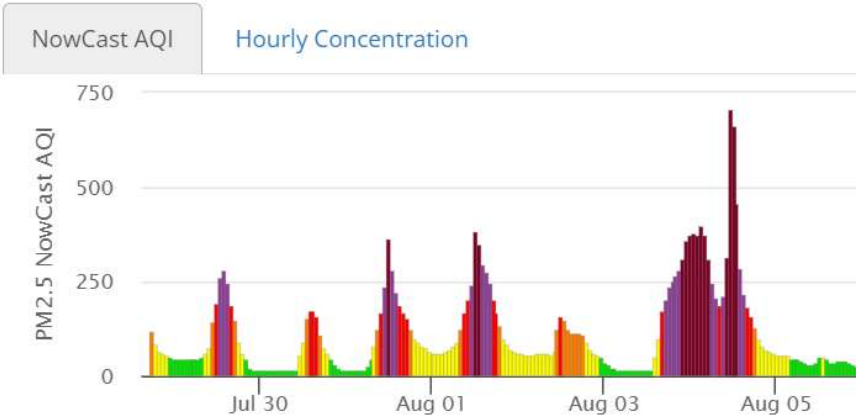


Figure 6. Air quality index (AQI) at Oakridge near Lookout Point Reservoir

Appendix A. Release Site Maps

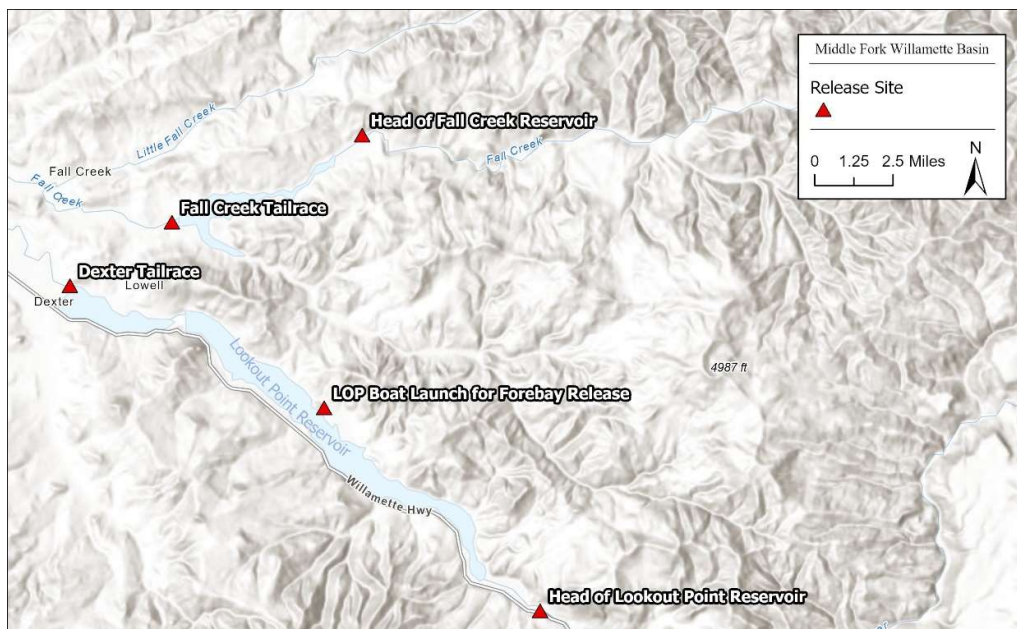


Figure A1. Map of Lookout Point, Dexter tailrace and Fall Creek release locations within the Middle Fork Willamette Basin.

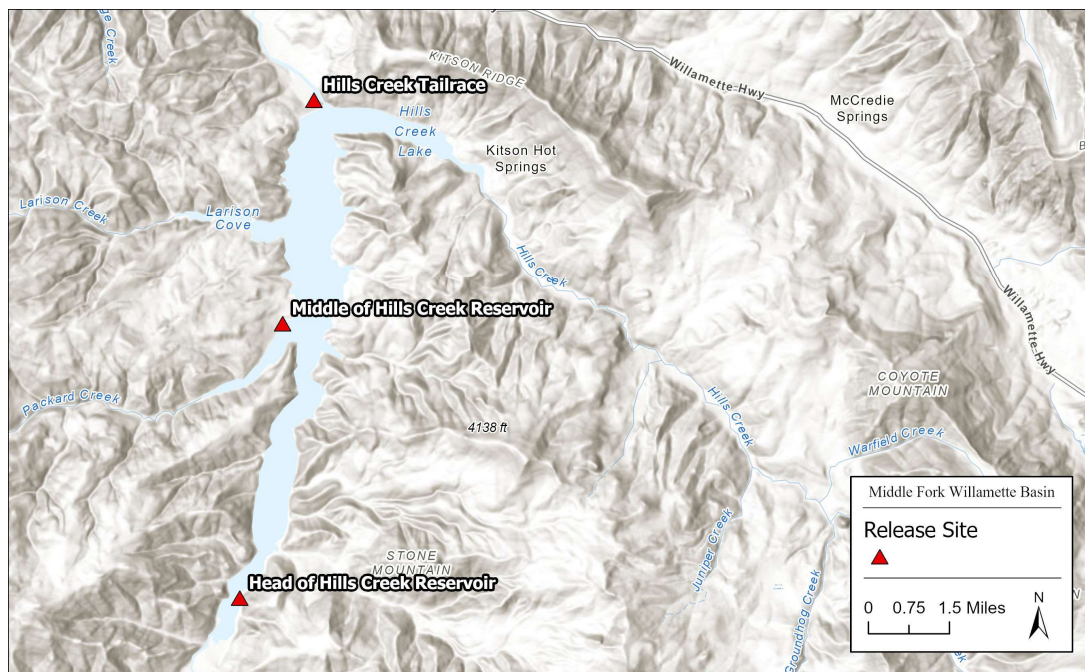


Figure A2. Map of Hills Creek Reservoir release locations within the Middle Fork Willamette Basin.

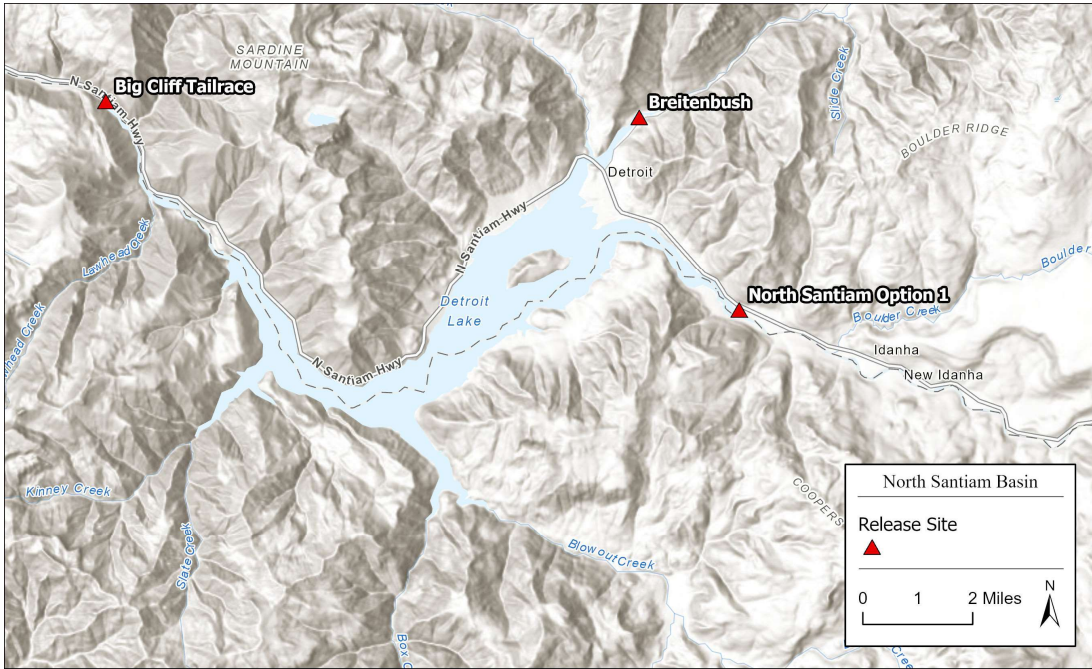


Figure A3. Map of release locations within the North Santiam Basin.

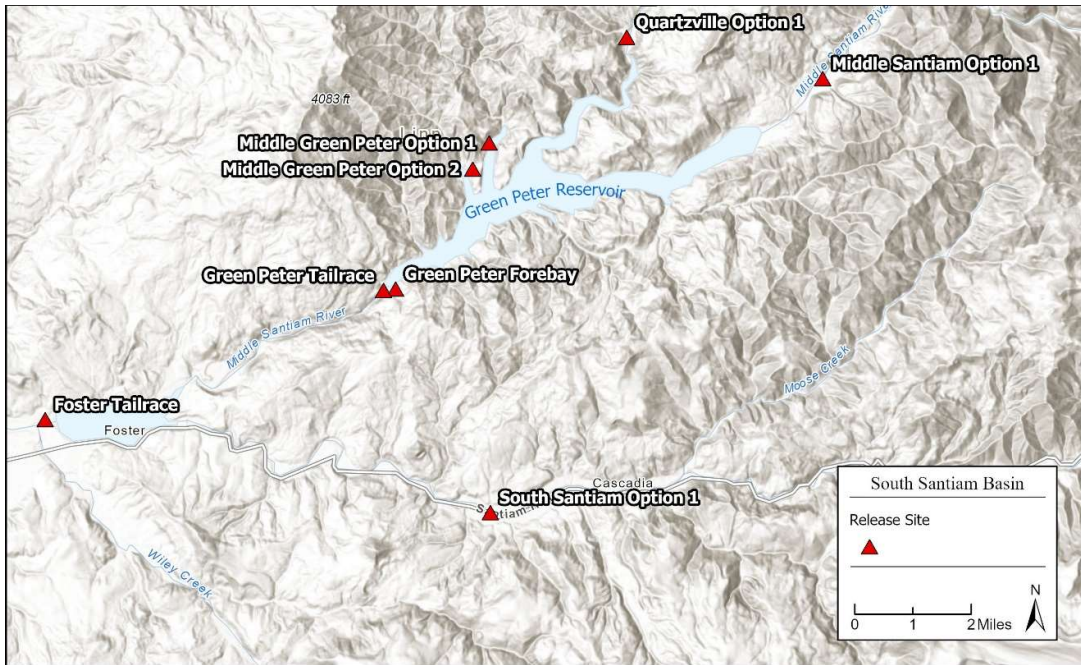


Figure A4. Map of release locations in the Middle/South Santiam basin including Green Peter Reservoir.

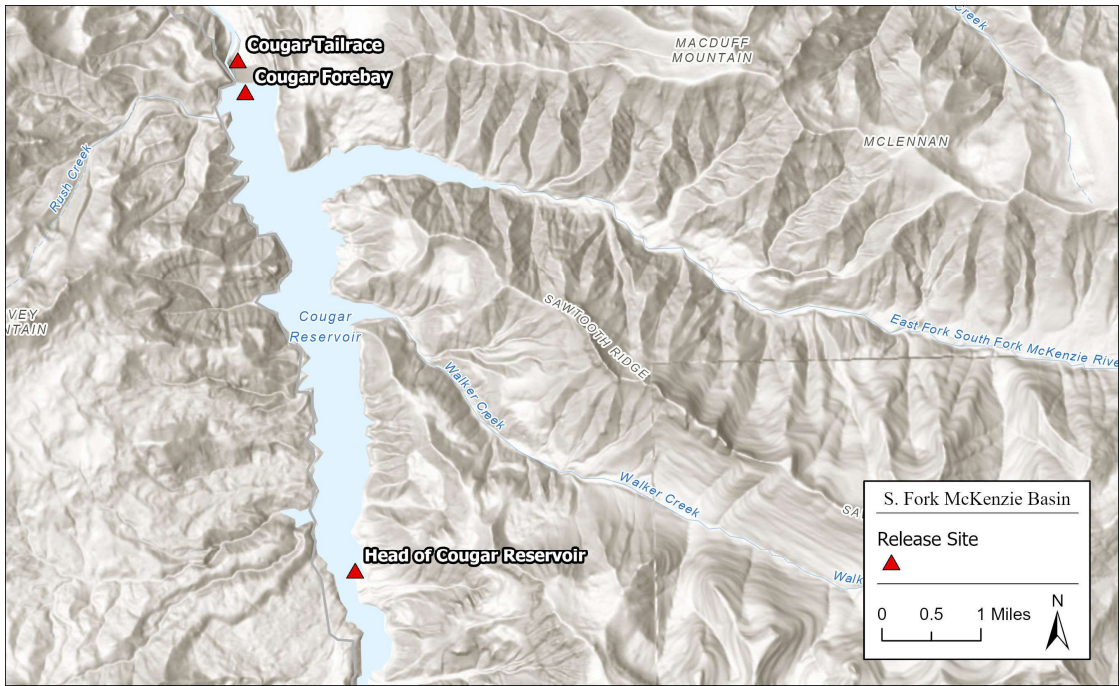


Figure A5. Map of release locations at Cougar Reservoir.

Appendix B. Reservoir Sampling Zones

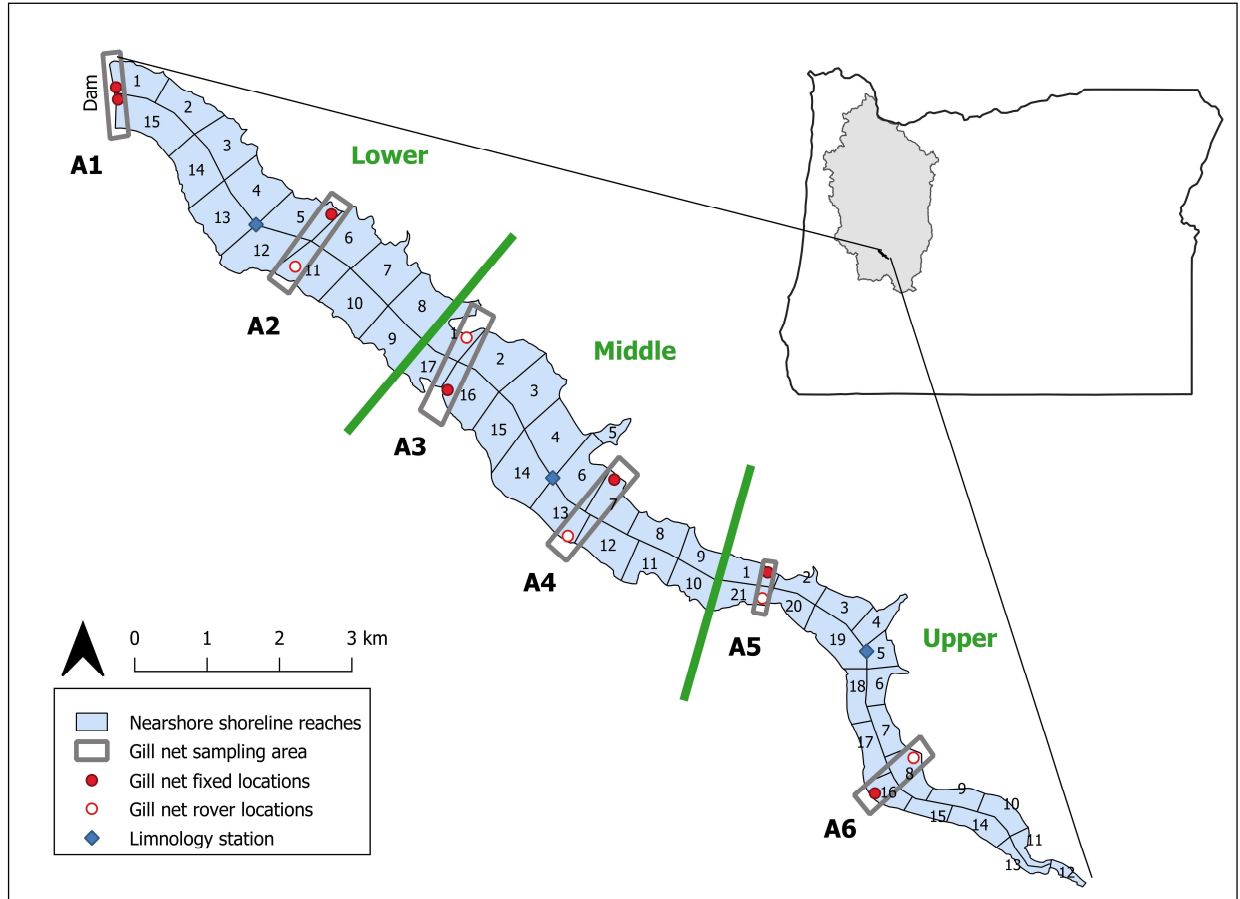


Figure B1. Map of Lookout Point Reservoir nearshore shoreline reaches, reservoir zones (lower, middle and upper), gill netting sampling areas and limnological stations.

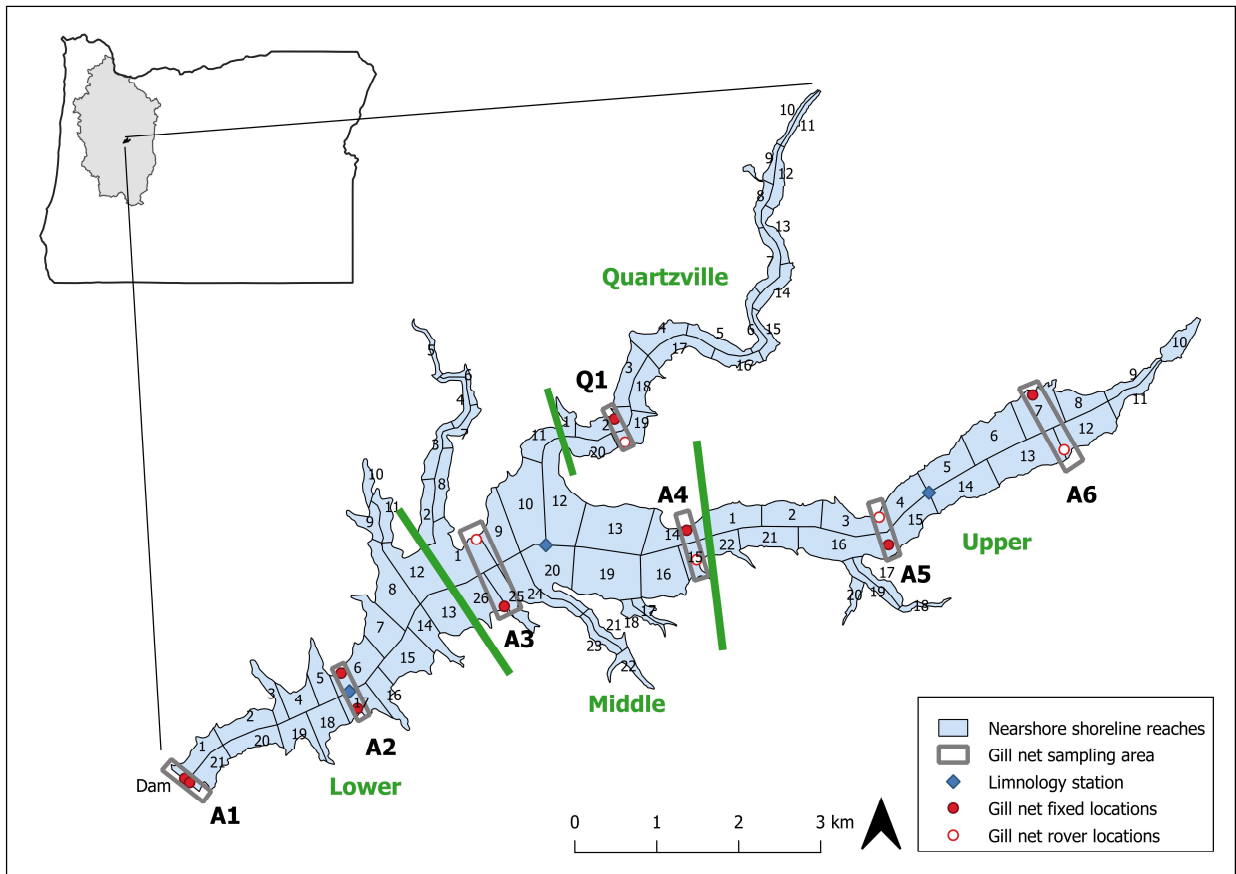


Figure B2. Map of Green Peter Reservoir nearshore shoreline reaches, reservoir zones (lower, middle and upper), gill netting sampling areas and limnological stations.

Appendix C. Hatchery Fish Sourced from ODFW Hatcheries

Table C1. Total brood year 2023 ODFW hatchery fish used for rotary screw trap efficiency tests (EAS) and for the bulk marking project (CFS) through June 2024.

Brood Year 2023 - Juvenile Chinook for RM&E							
Subbasin	Life Stage	Pickup Timing Bulk Releases ¹	Total Allocation ²	Total Used (EAS)	Total Used (CFS)	Total Used	Total Remaining
North Santiam (21H)	Fry	Late February - April 2024	16500		15027	15027	1473
	Subyearling	September - November 2024	47000	4035		4035	42965
	Yearling	February 2025	17000			0	17000
	All	NA	80500	4035	15027	19062	61438
South Santiam (24H)	Fry	Late February - April 2024	11000		9856	9856	1144
	Subyearling	August - October 2024	70000	6,750		6750	63250
	Yearling	February 2025	40000			0	40000
	All	NA	121000	6750	9856	16606	104394
McKenzie (23H)	Fry	February-April 2024	1,900			0	1900
	Subyearling	September-November 2024	4,500	2500		2500	2000
	Yearling	February-March 2025	0			0	0
	All	NA	6400	2500	0	2500	3900
M. Fork Willamette (22H)	Fry	February-May 2024	0			0	0
	Subyearling	August-November 2024	8,000	7250		7250	750
	Yearling	January-February 2025	0			0	0
	All	NA	8000	7250	0	7250	750

1 - Stated pickup timing is for bulk release groups. Fish will be picked up at least once per month year-round for screw trap efficiency trials.

2 - Total numbers includes all fish needed for RM&E purposes per Brood Year (i.e., annual basis) and will come from a combination of 'routine production' and 'additional production for RM&E'. Numbers have been rounded up for general planning purposes as 'extra' fish are needed to account for tagging and holding studies.