

WILLAMETTE VALLEY FISH PASSAGE MONITORING –RESERVOIR DISTRIBUTION & RIVERINE SAMPLING

Bi-Weekly Report: March 16 – March 31, 2025



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RESERVOIR DISTRIBUTION SUMMARY

Reservoir sampling during the reporting period was conducted in the nearshore areas of Lookout Point and Green Peter reservoirs using Oneida lake traps and box minnow traps (Table 1). Each reservoir was sampled every other week.

On Lookout Point Reservoir, traps were deployed on 03/17/2025 and pulled for the week on 03/20/2025. During the sampling week, average surface temperatures were 7.4 C (Table 2; Figure 1). Traps were set at the surface in each reservoir zone (Lower, Middle, and Upper). One Oneida trap and three box minnow traps were set in each reservoir longitudinal zone per sampling day, with the exception that on Wednesday 3/19/2025, our crew shifted efforts to removing the CFS dock from the log boom after the boom unexpectedly broke free. Consequently, the crew was unable to check and reset traps that day and our traps were left out for an extra day (48 hr total soak). While the sampling hours were consistent with effort during prior weeks, the number of unique sets was reduced. Over the course of the sampling week (n=6 Oneida sets, n=18 box minnow sets), one subyearling natural origin Chinook salmon, three cutthroat trout, and one white crappie were captured (Tables 1, 3-5). The Chinook salmon was 54 mm fork length and was captured in the Lower reservoir zone. This fish was presumably naturally produced from adfluvial Chinook salmon or potentially escaped from the hatchery prior to being adipose clipped (no adult spawners outplanted upstream during 2023). Our crew implanted the specimen with a PIT tag.

Green Peter Reservoir was sampled from 3/24/2025 – 3/27/2025. Over the sampling week, average surface temperatures were 11.4 C (Table 2; Figure 2). Traps were set at the surface in each reservoir zone (Lower, Middle, Upper, and Quartzville). On Wednesday 03/26/2025, severe thunderstorms were forecast to hit the Green Peter Reservoir area in the afternoon. Our crew suspended sampling midday for safety reasons and were only able to check a subset of traps in the morning with the remainder left out for an additional day (48 hr total soak). All remaining traps were checked and pulled the following day (3/27/2025). Over the sampling period (n=8 Oneida sets, n=20 box minnow sets), 13 Chinook salmon (one hatchery subyearling and 12 natural origin subyearlings), three cutthroat trout, one northern pikeminnow, six bluegill and one white crappie were captured (Tables 1, 3-5). The hatchery Chinook salmon was a PIT tagged recapture from the bulk marking project and was captured in the middle reservoir zone. Natural origin Chinook salmon (fry/parr) were captured in the middle (n=5), upper (n=6) and Quartzville zones (n=1). Our crew implanted PIT tags into two of the natural origin parr (all others were under the size threshold for tagging).

Table 1. Start and end date by statistical week for 2025 reservoir sampling.

Week	Start	End	Reservoir	Net Type	Effort (# sets)	Effort (hrs)
6	2/3/2025	2/4/2025	Lookout Point	box minnow	5	118
6	2/3/2025	2/4/2025	Lookout Point	oneida	2	47
7	2/10/2025	2/12/2025	Green Peter	box minnow	18	414
7	2/10/2025	2/12/2025	Green Peter	oneida	8	187
8	2/17/2025	2/20/2025	Lookout Point	box minnow	21	485
8	2/17/2025	2/20/2025	Lookout Point	oneida	9	208
9	2/24/2025	2/27/2025	Green Peter	box minnow	26	615
9	2/24/2025	2/27/2025	Green Peter	oneida	11	261
10	3/3/2025	3/6/2025	Lookout Point	box minnow	27	646
10	3/3/2025	3/6/2025	Lookout Point	oneida	9	214
11	3/10/2025	3/14/2025	Green Peter	box minnow	30	841
11	3/10/2025	3/14/2025	Green Peter	oneida	12	301

Week	Start	End	Reservoir	Net Type	Effort (# sets)	Effort (hrs)
12	3/17/2025	3/20/2025	Lookout Point	box minnow	18	655
12	3/17/2025	3/20/2025	Lookout Point	oneida	6	218
13	3/24/2025	3/27/2025	Green Peter	box minnow	20	591
13	3/24/2025	3/27/2025	Green Peter	oneida	8	252

Table 2. Mean surface water temperature measured during each trap net deployment.

Week	Reservoir	Mean Water Surface Temperature °C
6	Lookout Point	4.3
7	Green Peter	4.8
8	Lookout Point	4.8
9	Green Peter	6.2
10	Lookout Point	6.8
11	Green Peter	7.8
12	Lookout Point	7.4
13	Green Peter	11.4

Table 3. Summary of total catch by reservoir. CHS – Chinook salmon, RBT – *O. mykiss*, CUT - Cutthroat trout, KOK – Kokanee, DAC – Speckled Dace, NPM - Northern Pikeminnow, RSS – Redside Shiner, 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	KOK	DAC	NPM	RSS	SCU	BLG	LWB	BBH	YBH	LSS	SMB	LMB	BLC	WHC	WAL	UNID
6	Lookout Point	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Green Peter	11	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8	Lookout Point	1	2	2	0	1	1	0	0	1	0	0	0	0	2	0	0	0	0	0
9	Green Peter	28	1	4	0	0	3	0	0	15	0	0	0	0	0	0	0	0	0	0
10	Lookout Point	0	3	7	0	1	3	2	0	4	0	0	0	0	1	0	0	1	0	0
11	Green Peter	38	0	1	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0
12	Lookout Point	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
13	Green Peter	13	0	3	0	0	1	0	0	6	0	0	0	0	0	0	0	1	0	0

Table 4. Catch summary of Chinook salmon and *O. mykiss* 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	Adult	0	0	1	0
7	Green Peter	CHS-AD	Yearling	0	1	0	0
7	Green Peter	CHS-natural	Fry	0	0	10	0
7	Green Peter	RBT-AD	Adult	0	1	0	0
8	Lookout Point	CHS-AD	Yearling	1	0	0	0
8	Lookout Point	RBT-natural	Adult	0	1	0	0
8	Lookout Point	RBT-natural	Juvenile	0	1	0	0
9	Green Peter	CHS-natural	Fry	0	8	11	1
9	Green Peter	CHS-natural	Sub-Yearling	0	4	4	0
9	Green Peter	RBT-natural	Juvenile	0	0	0	1
10	Lookout Point	RBT-natural	Juvenile	0	0	3	0
11	Green Peter	CHS-natural	Fry	1	2	21	2
11	Green Peter	CHS-natural	Sub-Yearling	0	3	7	2
12	Lookout Point	CHS-natural	Sub-Yearling	1	0	0	0
13	Green Peter	CHS-AD	Sub-Yearling	0	1	0	0

Week	Reservoir	Species	Lifestage	LOWER	MIDDLE	UPPER	QUARTZVILLE
13	Green Peter	CHS-natural	Fry	0	5	4	1
13	Green Peter	CHS-natural	Sub-Yearling	0	0	2	0

Table 5. Summary of Chinook salmon and *O. mykiss* lengths, tags implanted, recaptures and sampling mortalities. LOP – Lookout Point Reservoir, GPR – Green Peter Reservoir. FL = fork length. *One fish was captured that had no PIT tag, but had a PIT tag scar and evidence of prior fin clip (likely tag shed).

Week	Reservoir	Species	Lifestage	Catch	Min FL (mm)	Mean FL (mm)	Max FL (mm)	# VIE tagged	# PIT tagged	# Recap	mortalities
6	Lookout Point	RBT-natural	Adult	1	235	235	235	0	0	0	0
7	Green Peter	CHS-AD	Yearling	1	95	95	95	0	0	0	1
7	Green Peter	CHS-natural	Fry	10	39	42.4	45	0	0	0	1
7	Green Peter	RBT-AD	Adult	1	334	334	334	0	0	0	0
8	Lookout Point	CHS-AD	Yearling	1	120	120	120	0	1	0	0
8	Lookout Point	RBT-natural	Adult	1	359	359	359	0	0	0	0
8	Lookout Point	RBT-natural	Juvenile	1	80	80	80	0	1	0	0
9	Green Peter	CHS-natural	Fry	20	34	39	44	0	0	0	2
9	Green Peter	CHS-natural	Sub-Yearling	8	46	49.9	53	0	6	0	3
9	Green Peter	RBT-natural	Juvenile	1	182	182	182	0	1	0	0
10	Lookout Point	RBT-natural	Juvenile	3	116	117	118	0	3	0	0
11	Green Peter	CHS-natural	Fry	26	34	39.8	44	0	0	0	0
11	Green Peter	CHS-natural	Sub-Yearling	12	46	52	58	0	12	1*	0
12	Lookout Point	CHS-natural	Sub-Yearling	1	54	54	54	0	1	0	0
13	Green Peter	CHS-AD	Sub-Yearling	1	52	52	52	0	0	1	0
13	Green Peter	CHS-natural	Fry	10	38	41.7	44	0	0	0	0
13	Green Peter	CHS-natural	Sub-Yearling	2	45	45.5	46	0	2	0	0

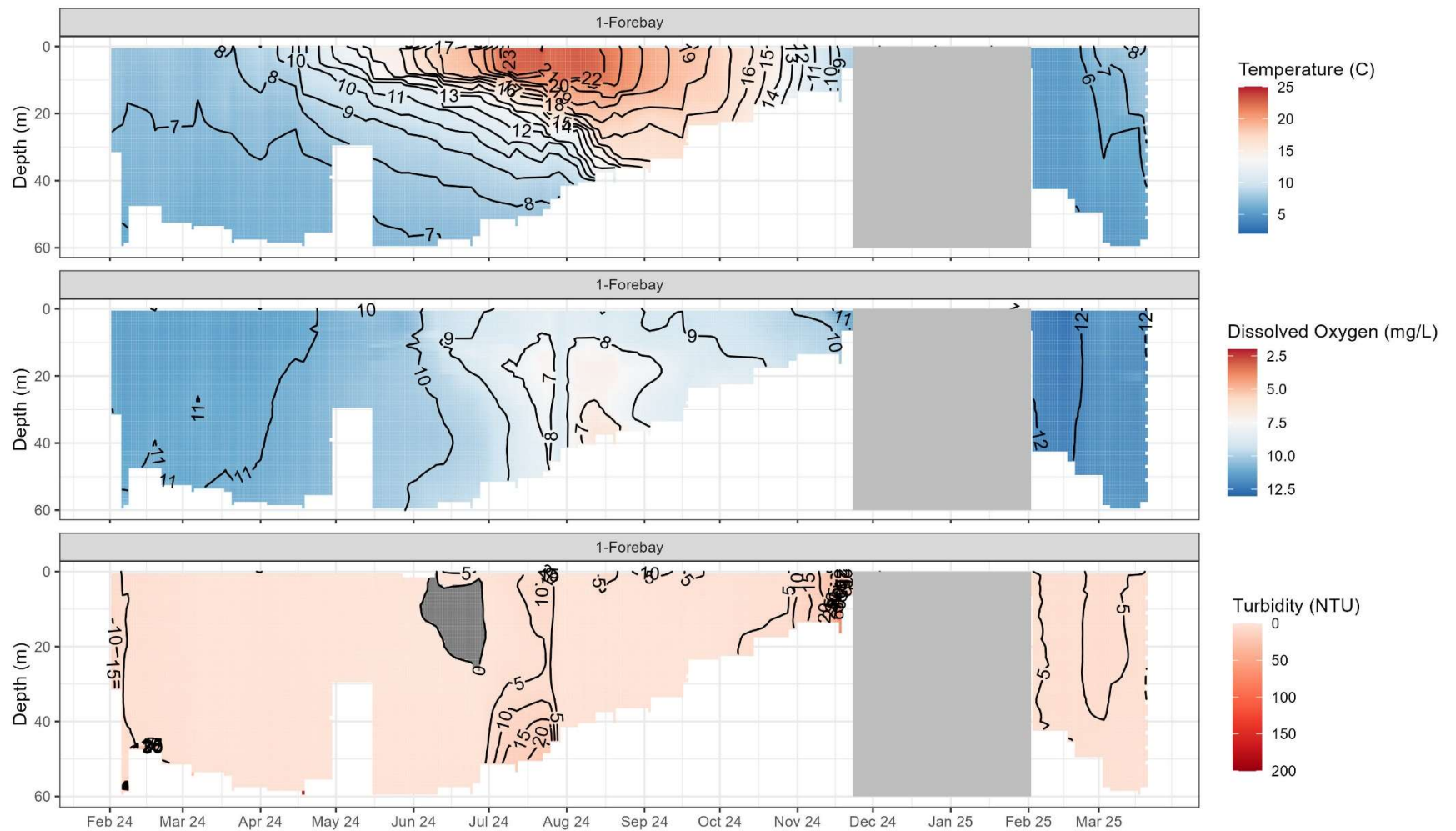


Figure 1. Lookout Point limnology data. Light gray indicates no sampling. Turbidity data in dark gray have been removed due to a sensor malfunction/calibration issue.

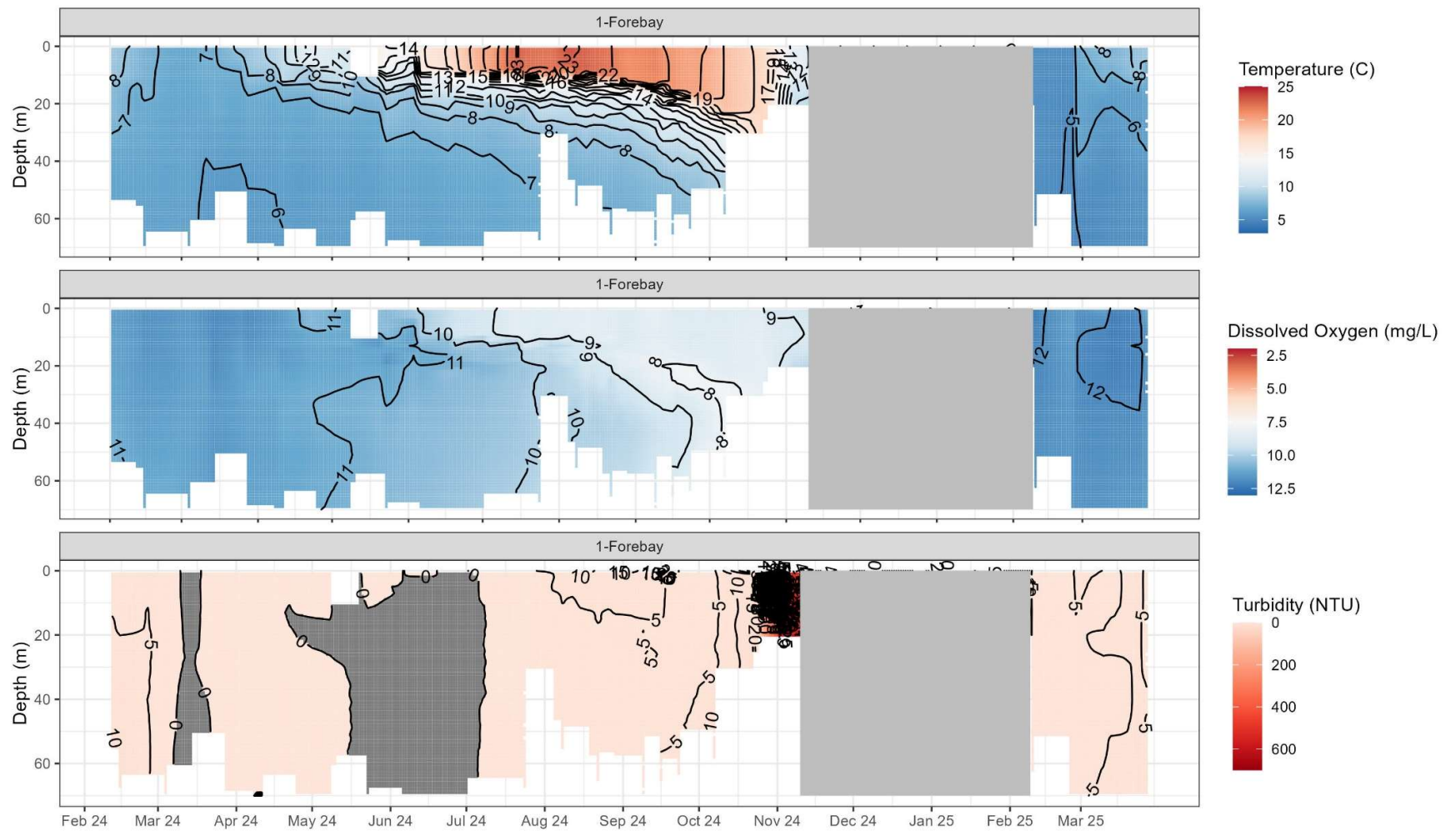


Figure 2. Green Peter limnology data. Light gray indicates no sampling. Turbidity data in dark gray have been removed due to a sensor malfunction/calibration issue.

RIVERINE SAMPLING SUMMARY

Riverine sampling was conducted on a weekly basis during the reporting period for both the Middle Santiam River and Quartzville Creek using a 20 m river seine and 9.1 m pole seine.

Quartzville Creek was sampled this reporting period on 3/18, 3/19, and 3/21/2025 (Week 12) and 3/24/2025- 3/28/2025 (Week 13) (Table 6). Week 12 effort consisted of 23 seine hauls over 3 days (Table 6). The water temperature averaged 6.16 C for Week 12 (Table 7). Over three days of sampling (n=14 pole seine hauls, n=9 river seine hauls), three Chinook salmon fry and 21 dace were captured (Table 8). Of the Chinook salmon fry, one was hatchery origin and two were natural origin (Table 9 and 10). Week 13 consisted of three days of seining effort 3/24/2025 - 3/26/2025 and two nights 3/27/2025 - 3/28/2025. Week 13 daytime effort consisted of 21 seine hauls (Table 6). The water temperature averaged 6.5 C for Week 13 (Table 7). Over three days of sampling (n=15 pole seine hauls, n=6 river seine hauls), three dace were captured but no target species (Table 8). Week 13 nighttime effort consisted of 11 seine hauls (Table 6). Over the two nights of sampling (n = 7 pole seine hauls, n = 4 river seine hauls), four *O. mykiss*, seven dace and two sculpin were captured (Table 8). All the *O. mykiss* were natural-origin juveniles (<200mm). The *O. mykiss* were PIT tagged and released downstream of the seining location.

The Middle Santiam River was sampled this reporting period from 3/20/2025 – 3/22/2025 (daytime) during Week 12. For Week 13, the Middle Santiam was sampled 3/24/2025 - 3/25/2025 (nighttime) and 3/27/2025 - 3/29/2025 (daytime) (Table 6). Week 12 effort consisted of 10 hauls over three days. The water temperature for the week averaged 5.38 C (Table 7). Over the sampling week (n=8 pole seine hauls, n=2 river seine hauls), no fish were captured. Week 13 on the Middle Santiam consisted of two nights of seining effort and three days. The water temperature for the week averaged 6.27 C (Table 7). Week 13 nighttime effort consisted of four river seine hauls in which one Chinook salmon, four *O. mykiss*, one dace and five sculpin were captured (Tables 8-10). The Chinook salmon captured was a natural origin fry and was not large enough to tag. All *O. mykiss* were natural origin juveniles (<200mm). Three *O. mykiss* were implanted with PIT tags after capture and one was a PIT tagged recapture. The recaptured fish was from the previous night's sample event. Week 13 daytime effort consisted of seven pole seine hauls over three days. During daytime sampling, only one dace was captured.

Week 13 effort on both the Middle Santiam and Quartzville Creek was reduced from the intended effort due to high flows associated with a storm event.

Table 6. Start and end date by statistical week for riverine sampling.

Week	Start	End	River	Day/ Night	Seine Type	Effort (# Hauls)
4	1/23/2025	1/24/2025	Middle Santiam	Day	Pole	17
4	1/23/2025	1/24/2025	Middle Santiam	Day	River	0
5	1/29/2025	1/31/2025	Middle Santiam	Day	Pole	18
5	1/29/2025	1/31/2025	Middle Santiam	Day	River	0
6	2/3/2025	2/4/2025	Quartzville Creek	Day	Pole	11

Week	Start	End	River	Day/ Night	Seine Type	Effort (# Hauls)
6	2/3/2025	2/4/2025	Quartzville Creek	Day	River	7
6	2/5/2025	2/7/2025	Middle Santiam	Day	Pole	17
6	2/5/2025	2/7/2025	Middle Santiam	Day	River	4
7	2/11/2025	2/14/2025	Middle Santiam	Day	Pole	17
7	2/11/2025	2/14/2025	Middle Santiam	Day	River	1
8	2/19/2025	2/20/2025	Quartzville Creek	Day	Pole	11
8	2/19/2025	2/20/2025	Quartzville Creek	Day	River	1
8	2/17/2025	2/21/2025	Middle Santiam	Day	Pole	15
8	2/17/2025	2/21/2025	Middle Santiam	Day	River	0
9	2/27/2025	3/1/2025	Quartzville Creek	Day	Pole	18
9	2/27/2025	3/1/2025	Quartzville Creek	Day	River	6
9	2/28/2025	3/1/2025	Middle Santiam	Day	Pole	9
9	2/28/2025	3/1/2025	Middle Santiam	Day	River	0
10	3/4/2025	3/6/2025	Quartzville Creek	Day	Pole	14
10	3/4/2025	3/6/2025	Quartzville Creek	Day	River	10
10	3/6/2025	3/8/2025	Middle Santiam	Day	Pole	23
10	3/6/2025	3/8/2025	Middle Santiam	Day	River	2
11	3/10/2025	3/12/2025	Quartzville Creek	Day	Pole	16
11	3/10/2025	3/12/2025	Quartzville Creek	Day	River	9
11	3/13/2025	3/14/2025	Quartzville Creek	Night	Pole	4
11	3/13/2025	3/14/2025	Quartzville Creek	Night	River	8
11	3/10/2025	3/11/2025	Middle Santiam	Night	Pole	9
11	3/10/2025	3/11/2025	Middle Santiam	Night	River	2
11	3/13/2025	3/15/2025	Middle Santiam	Day	Pole	18
11	3/13/2025	3/15/2025	Middle Santiam	Day	River	6
12	3/18/2025	3/21/2025	Quartzville Creek	Day	Pole	14
12	3/18/2025	3/21/2025	Quartzville Creek	Day	River	9
12	3/20/2025	3/22/2025	Middle Santiam	Day	Pole	8
12	3/20/2025	3/22/2025	Middle Santiam	Day	River	2
13	3/24/2025	3/26/2025	Quartzville Creek	Day	Pole	15
13	3/24/2025	3/26/2025	Quartzville Creek	Day	River	6
13	3/27/2025	3/28/2025	Quartzville Creek	Night	Pole	7
13	3/27/2025	3/28/2025	Quartzville Creek	Night	River	4
13	3/24/2025	3/25/2025	Middle Santiam	Night	Pole	0
13	3/24/2025	3/25/2025	Middle Santiam	Night	River	4
13	3/27/2025	3/29/2025	Middle Santiam	Day	Pole	7
13	3/27/2025	3/29/2025	Middle Santiam	Day	River	0

Table 7. Mean water temperature per sample week for riverine sampling.

Week	River	Mean Water Temperature °C
4	Middle Santiam	4.45
5	Middle Santiam	3.01
5	Quartzville Creek	2.68
6	Middle Santiam	3.75
6	Quartzville Creek	3.65
7	Middle Santiam	2.76
7	Quartzville Creek	2.60
8	Middle Santiam	5.14
8	Quartzville Creek	5.46
9	Middle Santiam	5.88
9	Quartzville Creek	6.32
10	Middle Santiam	5.77
10	Quartzville Creek	6.06
11	Middle Santiam	5.94
11	Quartzville Creek	5.74
12	Middle Santiam	5.38
12	Quartzville Creek	6.16
13	Middle Santiam	6.27
13	Quartzville Creek	6.50

Table 8. Summary of total catch by river. CHS – Chinook salmon, RBT – *O. mykiss*, DACE – Unidentified Dace, SCU – Unidentified Sculpin, Sucker - *Sucker spp*, Lamprey - *Lamprey spp*.

Week	River	Day/ Night	CHS	RBT	DACE	SCU	Sucker	Lamprey
4	Middle Santiam	Day	4	0	1	0	0	0
5	Middle Santiam	Day	1	0	1	0	0	0
6	Quartzville Creek	Day	0	0	3	1	0	0
6	Middle Santiam	Day	6	0	1	0	0	0
7	Middle Santiam	Day	2	0	0	0	0	0
8	Quartzville Creek	Day	3	0	11	1	0	0
8	Middle Santiam	Day	6	0	0	0	0	0
9	Quartzville Creek	Day	1	0	26	4	0	0
9	Middle Santiam	Day	0	0	1	0	0	0
10	Quartzville Creek	Day	0	0	27	0	0	0
10	Middle Santiam	Day	0	0	2	0	0	0
11	Quartzville Creek	Day	0	0	55	0	0	0
11	Quartzville Creek	Night	10	5	29	41	1	1
11	Middle Santiam	Night	2	4	4	1	1	2
11	Middle Santiam	Day	3	0	1	0	0	0
12	Quartzville Creek	Day	3	0	21	0	0	0
12	Middle Santiam	Day	0	0	0	0	0	0

Week	River	Day/ Night	CHS	RBT	DACE	SCU	Sucker	Lamprey
13	Quartzville Creek	Day	0	0	3	0	0	0
13	Quartzville Creek	Night	0	4	7	2	0	0
13	Middle Santiam	Night	1	4	1	5	0	0
13	Middle Santiam	Day	0	0	1	0	0	0

Table 9. Catch summary of target species by habitat unit type for riverine sampling. 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	River	Species	Lifestage	Riffle	Run	Pool	Pooltail	Total
4	Middle Santiam	CHS-natural	fry	0	0	4	0	4
5	Middle Santiam	CHS-natural	fry	0	0	1	0	1
6	Quartzville Creek	No Catch	-	0	0	0	0	0
6	Middle Santiam	CHS-natural	fry	0	0	6	0	6
7	Middle Santiam	CHS-natural	fry	0	0	2	0	2
8	Quartzville Creek	CHS-natural	fry	0	0	3	0	3
8	Middle Santiam	CHS-natural	fry	0	0	7	0	7
9	Quartzville Creek	CHS-natural	fry	0	0	1	0	1
9	Middle Santiam	No Catch	-	0	0	0	0	0
10	Quartzville Creek	No Catch	-	0	0	0	0	0
10	Middle Santiam	No Catch	-	0	0	0	0	0
11	Quartzville Creek	CHS-natural	fry	0	0	5	0	5
11	Quartzville Creek	CHS-natural	smolt	0	0	2	0	2
11	Quartzville Creek	CHS- hatchery	fry	0	0	3	0	3
11	Quartzville Creek	RBT- natural	juvenile	0	0	4	0	4
11	Quartzville Creek	RBT-natural	adult	0	0	1	0	1
11	Middle Santiam	CHS-natural	fry	0	1	2	0	3
11	Middle Santiam	CHS-hatchery	fry	0	0	1	0	1
11	Middle Santiam	CHS- hatchery	smolt	0	0	1	0	1
11	Middle Santiam	RBT- natural	juvenile	0	0	4	0	4
12	Quartzville Creek	CHS-natural	fry	0	0	2	0	2
12	Quartzville Creek	CHS-hatchery	fry	1	0	0	0	1
12	Middle Santiam	No Catch	-	0	0	0	0	0
13	Quartzville Creek	RBT-natural	juvenile	2	0	2	0	4
13	Middle Santiam	CHS-natural	fry	0	1	0	0	1
13	Middle Santiam	RBT-natural	juvenile	0	1	2	0	3

Table 10. Summary of target species lengths, tags implanted and recaptures from riverine sampling. MS = Middle Santiam.

Week	River	Species	Lifestage	Catch	Min FL	Mean FL	Max FL	# PIT tagged	# recap
4	MS	CHS-natural	fry	4	32	35.2	40	0	0
5	MS	CHS-natural	fry	1	39	39	39	0	1
6	QTZ	No Catch	-	0	-	-	-	0	0

Week	River	Species	Lifestage	Catch	Min FL	Mean FL	Max FL	# PIT tagged	# recap
6	MS	CHS-natural	fry	6	37	39.4	45	2	0
7	MS	CHS-natural	fry	2	35	35.5	36	0	0
8	QTZ	CHS-natural	fry	3	31	34	37	0	0
8	MS	CHS-natural	fry	7	34	35.9	42	0	0
9	QTZ	CHS-natural	fry	1	29	29	29	0	0
9	MS	No Catch	-	0	-	-	-	0	0
10	QTZ	No Catch	-	0	-	-	-	0	0
10	MS	No Catch	-	0	-	-	-	0	0
11	QTZ	CHS-natural	fry	5	33	40.2	46	1	0
11	QTZ	CHS-natural	smolt	2	109	116.5	124	2	0
11	QTZ	CHS- hatchery	fry	3	44	46	47	0	3
11	QTZ	RBT- natural	juvenile	4	92	94.75	99	0	0
11	QTZ	RBT-natural	adult	1	205	205	205	0	0
11	MS	CHS-natural	fry	3	33	36.67	39	0	0
11	MS	CHS- hatchery	fry	1	47	47	47	0	1
11	MS	CHS- hatchery	smolt	1	135	135	135	1	1
11	MS	RBT- natural	juvenile	4	121	157.75	187	0	0
12	QTZ	CHS-hatchery	fry	1	35	35	35	0	0
12	QTZ	CHS-natural	fry	2	38	41	44	0	0
12	MS	No Catch	-	0	-	-	-	0	0
13	QTZ	RBT-natural	juvenile	4	125	140.5	160	4	0
13	MS	CHS-natural	fry	1	43	43	43	0	0
13	MS	RBT-natural	juvenile	4	115	129.5	150	3	1

APPENDIX A. RESERVOIR SAMPLING ZONES

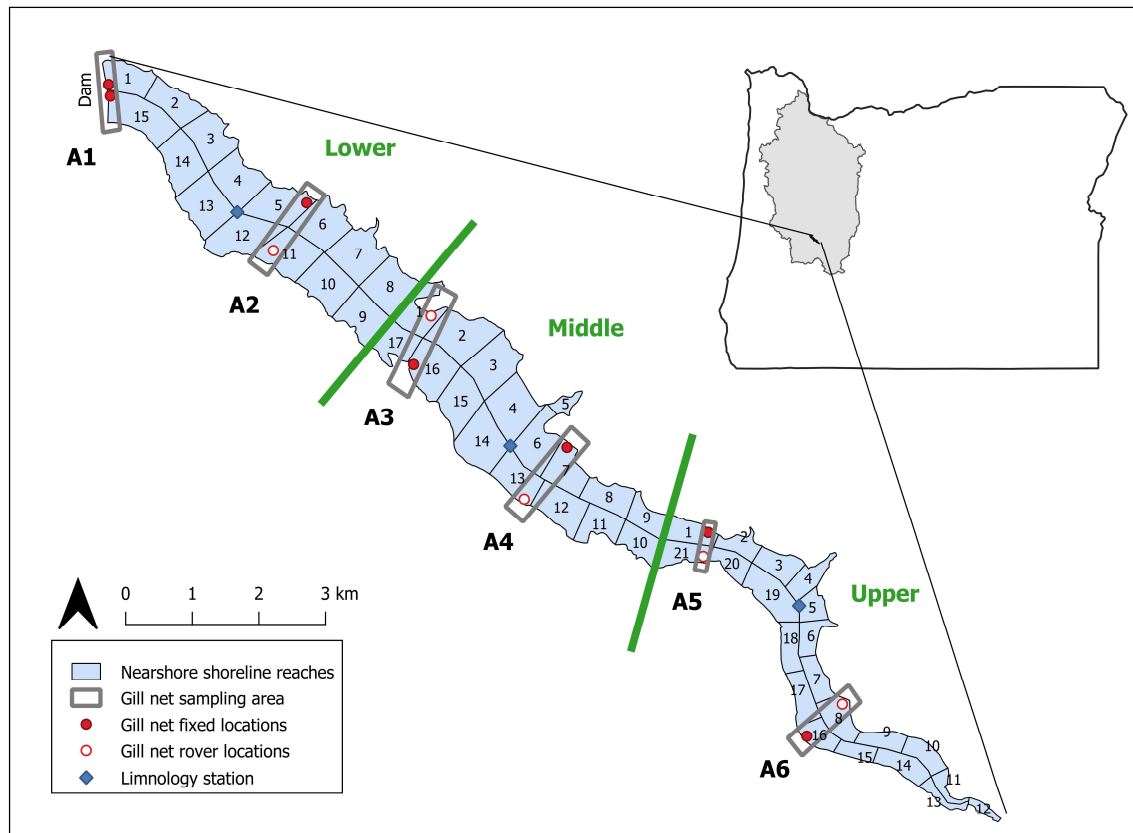


Figure A1. Map of LOP Reservoir nearshore shoreline reaches, reservoir zones (lower, middle and upper), gill netting sampling areas and limnological stations.

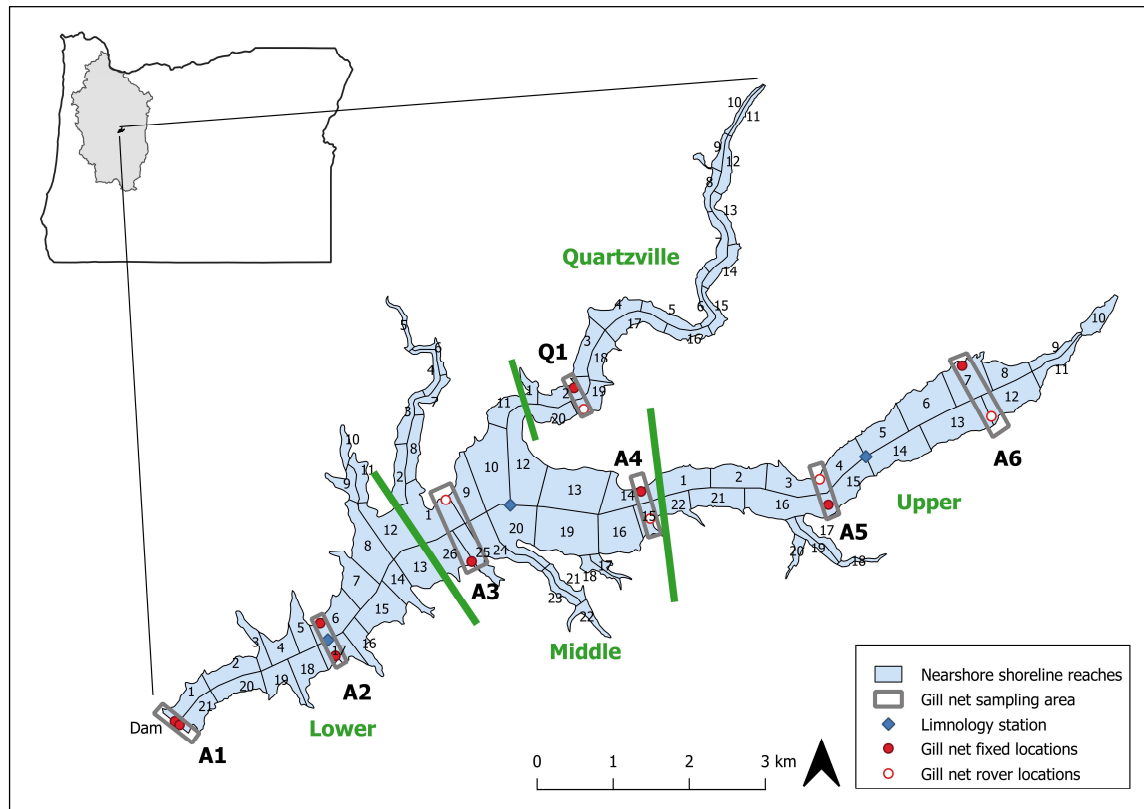


Figure A2. Map of Green Peter Reservoir nearshore shoreline reaches, reservoir zones (lower, middle and upper), gill netting sampling areas and limnological stations.