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WILLAMETTE VALLEY FISH PASSAGE MONITORING –RESERVOIR DISTRIBUTION & RIVERINE SAMPLING

Bi-Weekly Report: April 16 – April 30, 2025

Prepared for: United States Army Corps of Engineers

Prepared by: Cramer Fish Sciences

May 7, 2025

RESERVOIR DISTRIBUTION SUMMARY

Reservoir sampling during the reporting period was conducted in the nearshore areas of Lookout Point Reservoir using Oneida lake traps and box minnow traps (Table 1). Lookout Point was sampled for three consecutive weeks as we worked on permit modifications for sampling on Green Peter Reservoir.

On Lookout Point Reservoir, traps were deployed on three consecutive weeks; 4/14/2025 through 4/17/2025, 4/21/2025 through 4/24/2025, and 4/28/2025 through 05/01/2025. During the sampling weeks, average surface temperatures were 10.8, 12.6, and 12.9 °C respectively (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. Over the course of the sampling weeks (Week of 4/14: n=9 Oneida sets, n=31 box minnow sets; weeks of 4/21 and 4/28: n= 9 Oneida sets, n= 27 box minnow sets), one subyearling natural origin Chinook salmon, nine natural origin *O. mykiss*, five cutthroat trout, one northern pikeminnow, one speckled dace, one bluegill, one yellow bullhead catfish, three smallmouth bass, and twenty-one white crappie were captured (Tables 1, 3-5). The Chinook salmon had a fork length of 87 mm and was captured in the Middle reservoir zone. The *O. mykiss* were 160.92 mm on average; one was captured in the Middle reservoir zone and eight were captured in the Upper reservoir zone. All the captured salmonids were of natural origin and were implanted with PIT tags by our crew.

Green Peter Reservoir was not sampled during this reporting period. This was due to exceeding our permitted incidental mortality take during the previous reporting period. A permit modification was issued on 5/1/2025, and sampling on Green Peter has resumed as of 5/05/2025 (week 19). Week 19 data will be included in the next biweekly reporting period.

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
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
14	4/1/2025	4/4/2025	Lookout Point	box minnow	31	734
14	4/1/2025	4/4/2025	Lookout Point	oneida	9	234
15	4/7/2025	4/10/2025	Green Peter	box minnow	24	792
15	4/7/2025	4/10/2025	Green Peter	oneida	9	262
16	4/14/2025	4/17/2025	Lookout Point	box minnow	31	734
16	4/14/2025	4/17/2025	Lookout Point	oneida	9	210
17	4/21/2025	4/24/2025	Lookout Point	box minnow	27	627

Week	Start	End	Reservoir	Net Type	Effort (# sets)	Effort (hrs)
17	4/21/2025	4/24/2025	Lookout Point	oneida	9	208
18	4/28/2025	5/1/2025	Lookout Point	box minnow	27	631
18	4/28/2025	5/1/2025	Lookout Point	oneida	9	209

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
14	Lookout Point	8.5
15	Green Peter	10.4
16	Lookout Point	10.8
17	Lookout Point	12.6
18	Lookout Point	12.9

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 - Largescale sucker, SMB - Smallmouth Bass, LMB – largemouth bass, BLC – black crappie, WHC – white crappie, WAL – walleye, UNID – unidentified.

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
14	Lookout Point	2	4	6	0	0	1	0	1	0	0	0	0	0	0	0	0	7	0	0
15	Green Peter	82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Lookout Point	1	7	4	0	0	0	0	0	1	0	0	1	0	1	0	0	15	0	0
17	Lookout Point	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	3	0	0
18	Lookout Point	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3	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-natural	Fry	0	0	10	0
7	Green Peter	RBT-AD	Adult	0	1	0	0
7	Green Peter	RBT-natural	Juvenile	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

Week	Reservoir	Species	Lifestage	LOWER	MIDDLE	UPPER	QUARTZVILLE
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
13	Green Peter	CHS-natural	Fry	0	5	4	1
13	Green Peter	CHS-natural	Sub-Yearling	0	0	2	0
14	Lookout Point	CHS-natural	Sub-Yearling	1	1	0	0
14	Lookout Point	RBT-natural	Juvenile	0	2	2	0
15	Green Peter	CHS-AD	Sub-Yearling	0	0	0	43
15	Green Peter	CHS-natural	Fry	0	0	1	19
15	Green Peter	CHS-natural	Sub-Yearling	0	0	1	18
16	Lookout Point	CHS-natural	Sub-Yearling	0	1	0	0
16	Lookout Point	RBT-natural	Adult	0	1	0	0
16	Lookout Point	RBT-natural	Juvenile	0	0	6	0
17	Lookout Point	RBT-natural	Juvenile	0	0	1	0
18	Lookout Point	RBT-natural	Adult	0	0	1	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-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
7	Green Peter	RBT-natural	Juvenile	1	95	95	95	0	0	0	1
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

Week	Reservoir	Species	Lifestage	Catch	Min FL (mm)	Mean FL (mm)	Max FL (mm)	# VIE tagged	# PIT tagged	# Recap	Mortalities
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
14	Lookout Point	CHS-natural	Sub-Yearling	2	57	67.5	78	0	2	0	0
14	Lookout Point	RBT-natural	Juvenile	4	66	104.5	126	0	4	0	0
15	Green Peter	CHS-AD	Sub-Yearling	43	48	56.5	64	0	0	42	9
15	Green Peter	CHS-natural	Fry	20	36	39.9	44	0	0	0	6
15	Green Peter	CHS-natural	Sub-Yearling	19	45	55.8	78	0	16	0	3
16	Lookout Point	CHS-natural	Sub-Yearling	1	87	87	87	0	1	0	0
16	Lookout Point	RBT-natural	Adult	1	215	215	215	0	1	0	0
16	Lookout Point	RBT-natural	Juvenile	6	91	107.7	116	0	6	0	0
17	Lookout Point	RBT-natural	Juvenile	1	118	118	118	0	1	0	0
18	Lookout Point	RBT-natural	Adult	1	203	203	203	0	1	0	0

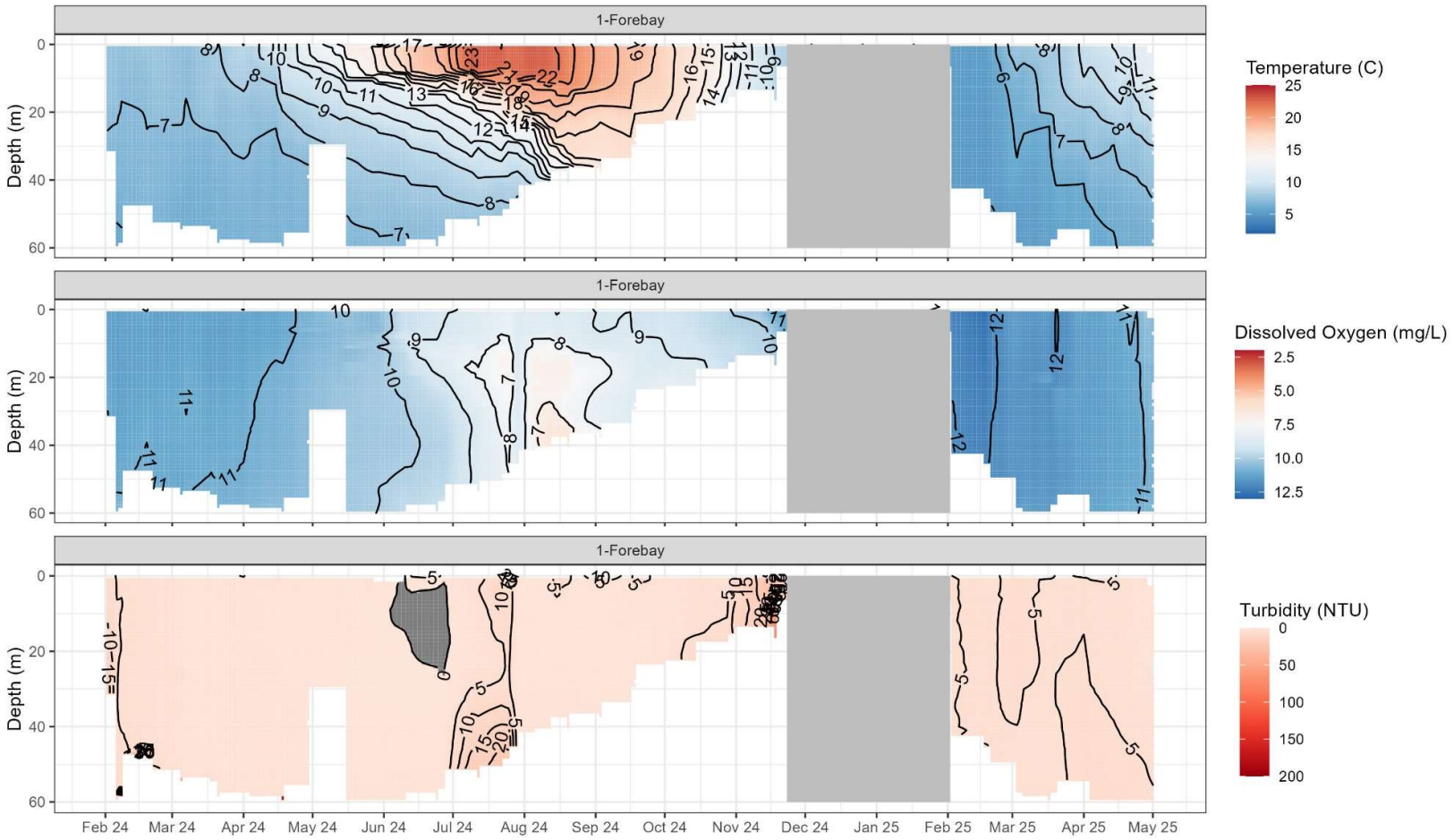

Figure 1. Lookout Point limnology data. Light gray indicates no sampling. Turbidity data in dark gray have been removed due to a sensor malfunction/calibration issue.

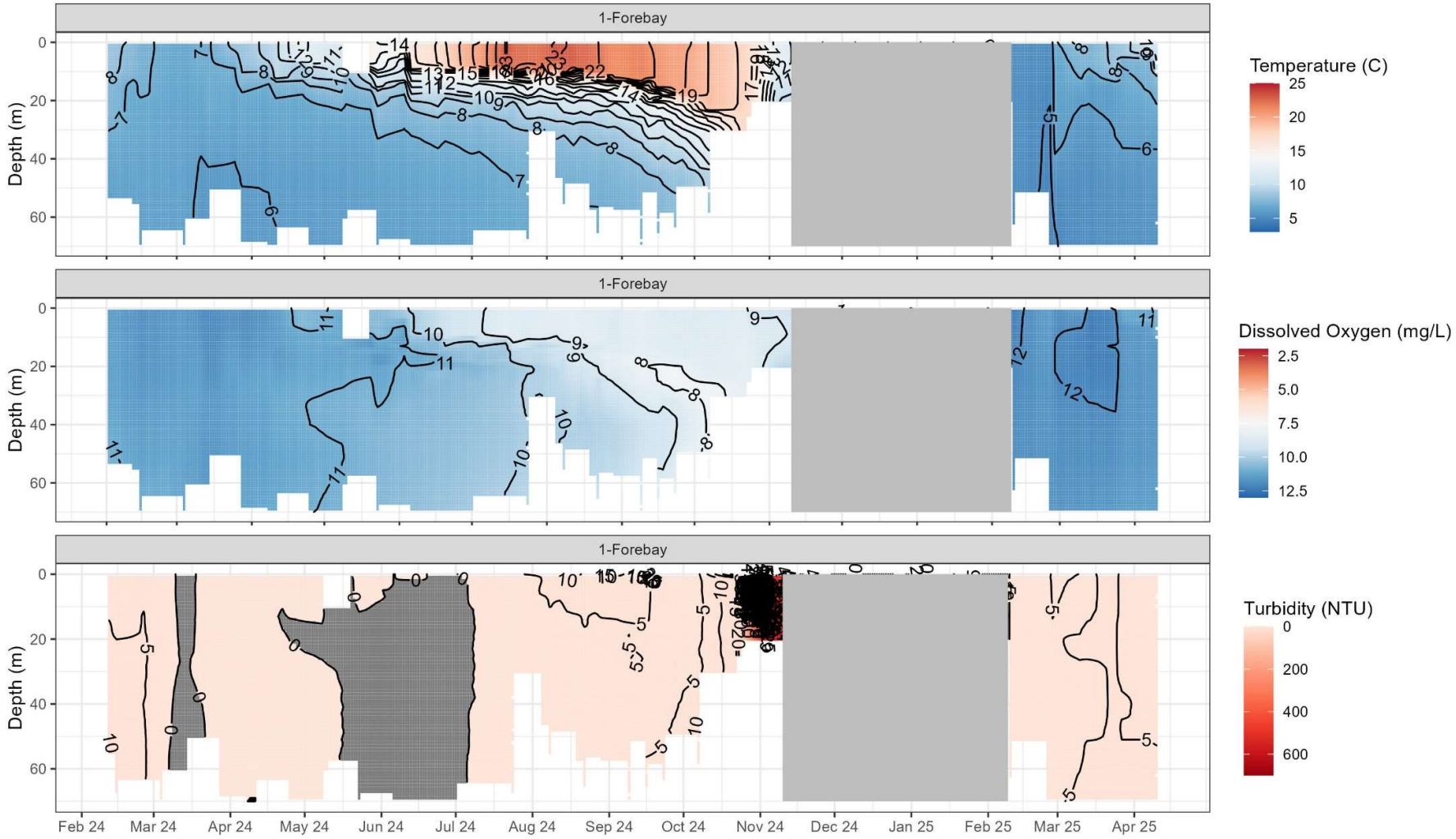

Figure 2. Green Peter limnology data. Light gray indicates no sampling. Turbidity data in dark gray have been removed due to a sensor malfunction/calibration issue.

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. During this reporting period, the Middle Santiam and Quartzville Creek average water temperatures increased 1.59 C and 1.78 C respectively (Table 7). In both systems, sculpins were the dominant species captured in seine hauls.

Quartzville Creek

Quartzville Creek was sampled during this reporting period on 4/14 - 4/16 (Week 16), from 4/21/2025 - 4/25/2025 (Week 17), and from 4/28/2025 – 4/30/2025 (Week 18) (Table 6).

Week 16

Week 16 consisted of three days (4/14-16) of sampling effort on Quartzville Creek. The water temperature averaged 7.94 C for the week (Table 7). Over three days of sampling (n = 12 pole seine hauls, n = 12 river seine hauls), 24 dace were captured (Tables 6, 8-10).

Week 17

Week 17 consisted of three days of seining effort from 4/21/2025 – 4/23/2025 and two nights from 4/24/2025 - 4/25/2025. Week 17 daytime effort consisted of 24 seine hauls (Table 6). The water temperature averaged 8.53 C for Week 17 (Table 7). Over three days of daytime sampling (n= 12 pole seine hauls, n = 12 river seine hauls), one natural-origin juvenile Chinook salmon, 21 dace, and two sculpin were captured (Table 8-10). The one natural-origin Chinook salmon captured during daytime effort was too small to PIT tag.

Week 17 nighttime effort consisted of two nights of sampling (n = 8 pole seine hauls, n = 7 river seine hauls) (Table 6). Captured species included: two natural-origin fry, two natural-origin parr Chinook salmon, three natural-origin *O. mykiss*, two cutthroat trout hybrids, 123 dace and 16 sculpin (Tables 8-10). One of the fry natural-origin Chinook salmon was a recapture and one was too small to PIT tag. Neither parr natural-origin Chinook salmon were tagged due to size and condition concerns.

Week 18

Week 18 included three days of effort 4/28/2025 – 4/30/2025, for a total of 24 seine hauls (n = 12 pole seine hauls, n = 12 river seine hauls). Two natural-origin fry Chinook salmon and 20 dace were captured (Tables 8-10). Mean water temperature was 9.72 degrees during week 18 (Table 7). The natural-origin Chinook salmon were below the minimum size threshold to PIT tag.

Middle Santiam River

The Middle Santiam River was sampled this reporting period from 4/17/2025 – 4/19/2025 (Week 16), from 4/21/2025 - 4/22/2025, and 4/24/2025- 4/26/2025 (Week 17). No Sampling efforts were conducted through Week 18 (4/28/2025-4/30/2025) (Table 6).

Week 16

Sampling effort during week 16 consisted of 24 hauls over three days (Table 6). Mean water temperature during week 16 was 7.76 C (Table 7). Over the sampling week (n = 20 pole seine hauls, n = 4 river seine hauls), two natural-origin fry and one parr Chinook salmon were

captured (Tables 8-10). All Chinook captured were under 45mm and therefore, too small to PIT tag.

Week 17

Week 17 on the Middle Santiam consisted of two nights and three days of seining effort. The water temperature for the week averaged 8.31 C (Table 7). Week 17 nighttime effort consisted of four river seine hauls and 12 pole seine hauls (Table 6) that captured four natural-origin fry Chinook salmon, one smolt natural origin *O. mykiss,* and 18 dace (Tables 8-10). Two of the natural-origin Chinook fry were greater than 45mm and received a PIT tag. The natural-origin *O. mykiss* was a recapture.

Week 17 daytime effort consisted of 18 pole seine and six river seine hauls over three days. No fish were captured during week 17 daytime sampling.

Week 18

The Middle Santiam was sampled from 5/1/2025 – 5/3/2025 during week 18. Results for week 18 on the Middle Santiam will be included in the next biweekly report.

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
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

Week	Start	End	River	Day/ Night	Seine Type	Effort (# Hauls)
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
14	2025/04/01	2025/04/03	Quartzville Creek	Day	Pole	12
14	2025/04/01	2025/04/03	Quartzville Creek	Day	River	11
14	2025/04/03	2025/04/05	Middle Santiam	Day	Pole	14
14	2025/04/03	2025/04/05	Middle Santiam	Day	River	6
15	2025/04/07	2025/04/08	Middle Santiam	Night	Pole	8
15	2025/04/07	2025/04/08	Middle Santiam	Night	River	4
15	2025/04/07	2025/04/09	Quartzville Creek	Day	Pole	13
15	2025/04/07	2025/04/09	Quartzville Creek	Day	River	10
15	2025/04/10	2025/04/11	Quartzville Creek	Night	Pole	8
15	2025/04/10	2025/04/11	Quartzville Creek	Night	River	7
15	2025/04/10	2025/04/12	Middle Santiam	Day	Pole	14
15	2025/04/10	2025/04/12	Middle Santiam	Day	River	6
16	2025/04/14	2025/04/16	Quartzville Creek	Day	Pole	12
16	2025/04/14	2025/04/16	Quartzville Creek	Day	River	12
16	2025/04/17	2025/04/19	Middle Santiam	Day	Pole	20
16	2025/04/18	2025/04/19	Middle Santiam	Day	River	4
17	2025/04/21	2025/04/23	Quartzville Creek	Day	Pole	12
17	2025/04/21	2025/04/23	Quartzville Creek	Day	River	12
17	2025/04/24	2025/04/25	Quartzville Creek	Night	Pole	7
17	2025/04/24	2025/04/25	Quartzville Creek	Night	River	8
17	2025/04/21	2025/04/22	Middle Santiam	Night	River	4
17	2025/04/21	2025/04/22	Middle Santiam	Night	Pole	12
17	2025/04/24	2025/04/26	Middle Santiam	Day	Pole	18
17	2025/04/24	2025/04/26	Middle Santiam	Day	River	6
18	2025/04/28	2025/04/300	Quartzville Creek	Day	Pole	12

Week	Start	End	River	Day/ Night	Seine Type	Effort (# Hauls)
18	2025/04/28	2025/04/30	Quartzville Creek	Day	River	12

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
14	Middle Santiam	6.10
14	Quartzville Creek	6.30
15	Middle Santiam	6.96
15	Quartzville Creek	7.13
16	Middle Santiam	7.76
16	Quartzville Creek	7.94
17	Middle Santiam	8.31
17	Quartzville Creek	8.53
18	Middle Santiam	9.35
18	Quartzville Creek	9.72

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

Week	River	Day/ Night	CHS	RBT	CUT	DACE	SCU	Sucker	Lamprey
4	Middle Santiam	Day	4	0	0	1	0	0	0
5	Middle Santiam	Day	1	0	0	1	0	0	0
6	Quartzville Creek	Day	0	0	0	3	1	0	0
6	Middle Santiam	Day	6	0	0	1	0	0	0
7	Middle Santiam	Day	2	0	0	0	0	0	0

Week	River	Day/ Night	CHS	RBT	CUT	DACE	SCU	Sucker	Lamprey
8	Quartzville Creek	Day	3	0	0	11	1	0	0
8	Middle Santiam	Day	6	0	0	0	0	0	0
9	Quartzville Creek	Day	1	0	0	26	4	0	0
9	Middle Santiam	Day	0	0	0	1	0	0	0
10	Quartzville Creek	Day	0	0	0	27	0	0	0
10	Middle Santiam	Day	0	0	0	2	0	0	0
11	Quartzville Creek	Day	0	0	0	55	0	0	0
11	Quartzville Creek	Night	10	5	0	29	41	1	1
11	Middle Santiam	Night	2	4	0	4	1	1	2
11	Middle Santiam	Day	3	0	0	1	0	0	0
12	Quartzville Creek	Day	3	0	0	21	0	0	0
12	Middle Santiam	Day	0	0	0	0	0	0	0
13	Quartzville Creek	Day	0	0	0	3	0	0	0
13	Quartzville Creek	Night	0	4	0	7	2	0	0
13	Middle Santiam	Night	1	4	0	1	5	0	0
13	Middle Santiam	Day	0	0	0	1	0	0	0
14	Middle Santiam	Day	13	0	0	9	0	0	0
14	Quartzville Creek	Day	0	0	0	31	1	0	0
15	Middle Santiam	Day	19	0	0	0	2	0	0
15	Middle Santiam	Night	9	1	0	4	3	0	0
15	Quartzville Creek	Day	1	0	0	6	0	0	0
15	Quartzville Creek	Night	1	0	0	44	5	0	0
16	Middle Santiam	Day	3	0	0	0	0	0	0
16	Quartzville Creek	Day	0	0	0	24	0	0	0
17	Middle Santiam	Day	0	0	0	0	0	0	0
17	Middle Santiam	Night	4	1	0	18	0	0	0
17	Quartzville Creek	Day	1	0	0	21	2	0	0
17	Quartzville Creek	Night	4	3	2	123	16	0	0
18	Quartzville Creek	Day	2	0	0	20	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

Week	River	Species	Lifestage	Riffle	Run	Pool	Pooltail	Total
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
14	Middle Santiam	CHS - Hatchery	Fry	0	2	0	0	2
14	Middle Santiam	CHS - Hatchery	Parr	0	2	0	0	2
14	Middle Santiam	CHS - Natural	Fry	0	5	1	0	6
14	Middle Santiam	CHS - Natural	Parr	0	3	0	0	3
15	Middle Santiam	CHS - Hatchery	Parr	0	3	0	0	3
15	Middle Santiam	CHS - Hatchery	Smolt	0	1	2	0	3
15	Middle Santiam	CHS - Natural	Fry	0	10	4	0	14
15	Middle Santiam	CHS - Natural	Parr	0	5	3	0	8
15	Middle Santiam	RBT - Natural	Smolt	0	1	0	0	1
15	Quartzville Creek	CHS - Hatchery	Parr	0	0	1	0	1
15	Quartzville Creek	CHS - Natural	Juvenile	0	0	1	0	1
16	Middle Santiam	CHS - Natural	Fry	0	0	2	0	2
16	Middle Santiam	CHS - Natural	Parr	0	1	0	0	1
16	Quartzville Creek	No Catch	-	0	0	0	0	0
17	Middle Santiam	CHS - Natural	Fry	0	0	4	0	4
17	Middle Santiam	RBT – Natural	Smolt	0	0	1	0	1
17	Quartzville Creek	CHS - Natural	Fry	0	0	3	0	3
17	Quartzville Creek	CHS - Natural	Parr	0	0	2	0	2
17	Quartzville Creek	RBT - Natural	Smolt	0	2	1	0	3
18	Quartzville Creek	CHS - Natural	Fry	0	1	1	0	2

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

Week	River	Species	Life Stage	catch	Min FL	Mean FL	Max FL	# Recaps	#PIT tagged
4	MS	CHS - Natural	Fry	3	32	35.33	40	0	0
5	MS	CHS - Natural	Fry	1	39	39.00	39	1	0
6	QTZ	No Catch	-	0	-	-	-	0	0
6	MS	CHS - Natural	Fry	6	37	40.33	45	0	2

Week	River	Species	Life Stage	catch	Min FL	Mean FL	Max FL	# Recaps	#PIT tagged
7	MS	CHS - Natural	Fry	2	35	35.50	36	0	0
8	MS	CHS - Natural	Fry	7	34	37.29	42	0	0
8	QTZ	CHS - Natural	Fry	3	31	34.00	37	0	0
9	QTZ	CHS - Natural	Fry	1	29	29.00	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	MS	CHS - Hatchery	Fry	1	47	47.00	47	1	0
11	MS	CHS - Hatchery	Smolt	1	135	135.00	135	0	1
11	MS	CHS - Natural	Fry	3	33	36.67	39	0	0
11	MS	RBT - Natural	Juvenile	4	121	157.75	187	0	0
11	QTZ	CHS - Hatchery	Fry	3	44	46.00	47	3	3
11	QTZ	CHS - Natural	Fry	5	33	40.20	46	0	1
11	QTZ	CHS - Natural	Smolt	2	109	116.50	124	0	2
11	QTZ	RBT - Natural	Adult	1	205	205.00	205	0	0
11	QTZ	RBT - Natural	Juvenile	4	92	94.75	99	0	0
12	QTZ	CHS - Hatchery	Fry	1	35	35.00	35	0	0
12	QTZ	CHS - Natural	Fry	2	38	41.00	44	0	0
12	MS	No Catch	-	0	-	-	-	0	0
13	MS	CHS - Natural	Fry	1	43	43.00	43	0	0
13	MS	RBT - Natural	Juvenile	4	115	129.50	150	1	3
13	QTZ	RBT - Natural	Juvenile	4	125	140.50	160	0	4
14	MS	CHS - Hatchery	Fry	2	43	45.00	47	0	0
14	MS	CHS - Natural	Fry	1	37	37.00	37	0	0
14	MS	CHS - Hatchery	Parr	2	53	54.00	55	1	0
14	MS	CHS - Natural	Fry	5	39	40.60	42	1	0
14	MS	CHS - Natural	Parr	3	41	46.00	54	1	1
15	MS	CHS - Hatchery	Parr	3	52	55.00	58	3	0
15	MS	CHS - Hatchery	Smolt	3	173	184.67	197	3	0
15	MS	CHS - Natural	Fry	14	36	40.86	45	0	1
15	MS	CHS - Natural	Parr	8	44	47.12	55	2	5
15	MS	RBT - Natural	Smolt	1	183	183.00	183	0	1
15	QTZ	CHS - Hatchery	Parr	1	49	49.00	49	1	0
15	QTZ	CHS - Natural	Juvenile	1	30	30.00	30	0	0
16	MS	CHS - Natural	Fry	2	39	40.00	41	0	0
16	MS	CHS - Natural	Parr	1	42	42.00	42	0	0
16	QTZ	No Catch	-	0	-	-	-	-	-
17	MS	RBT-Natural	Smolt	1	131	131	131	1	0
17	MS	CHS - Natural	Fry	4	39	44.50	51	0	2
17	QTZ	CHS - Natural	Fry	3	38	45.33	60	1	0
17	QTZ	CHS - Natural	Parr	2	45	45.50	46	0	0
17	QTZ	RBT - Natural	Smolt	3	106	109.67	113	0	0

Week	River	Species	Life Stage	catch	Min FL	Mean FL	Max FL	# Recaps	#PIT tagged
17	QTZ	RBT/CUT-Natural	Smolt	2	106	127.00	148	0	0
18	QTZ	CHS - Natural	Fry	2	39	39.00	39	0	0

APPENDIX A. RESERVOIR SAMPLING ZONES

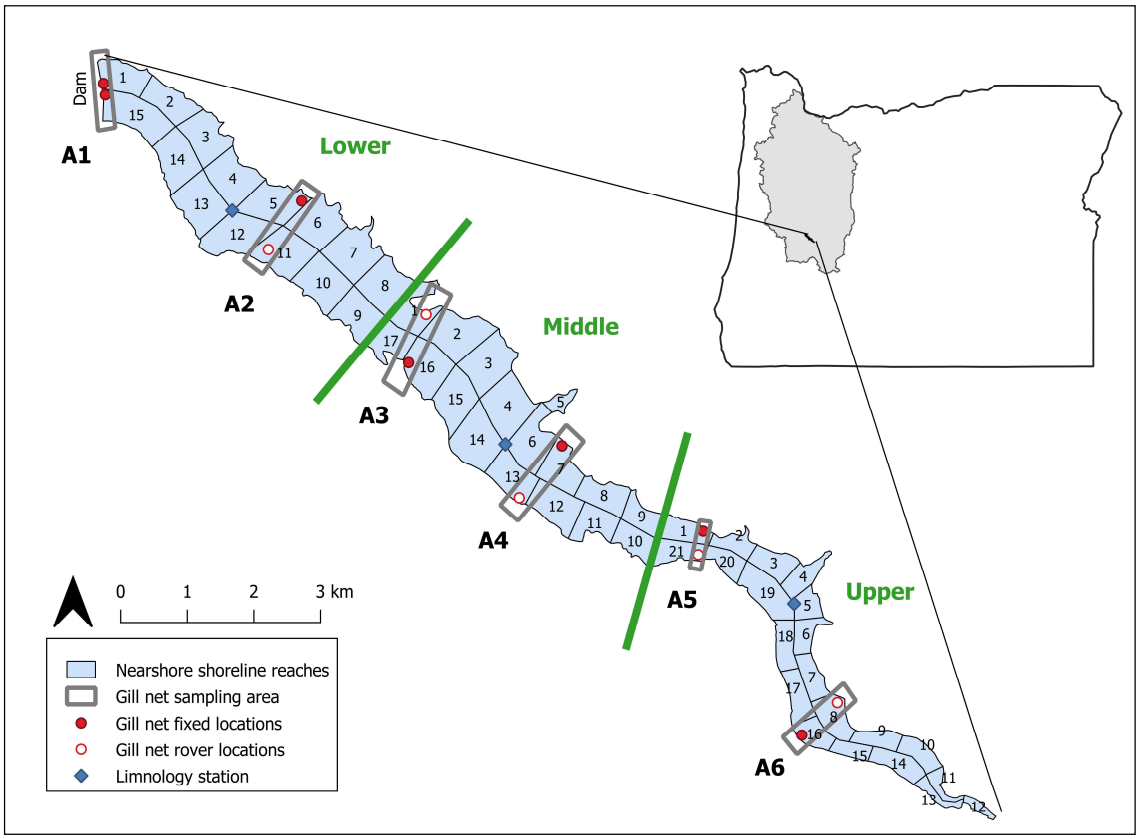

Figure A1. Map of LOP Reservoir nearshore shoreline reaches, reservoir zones (lower, middle and upper), gill netting sampling areas and limnological stations.

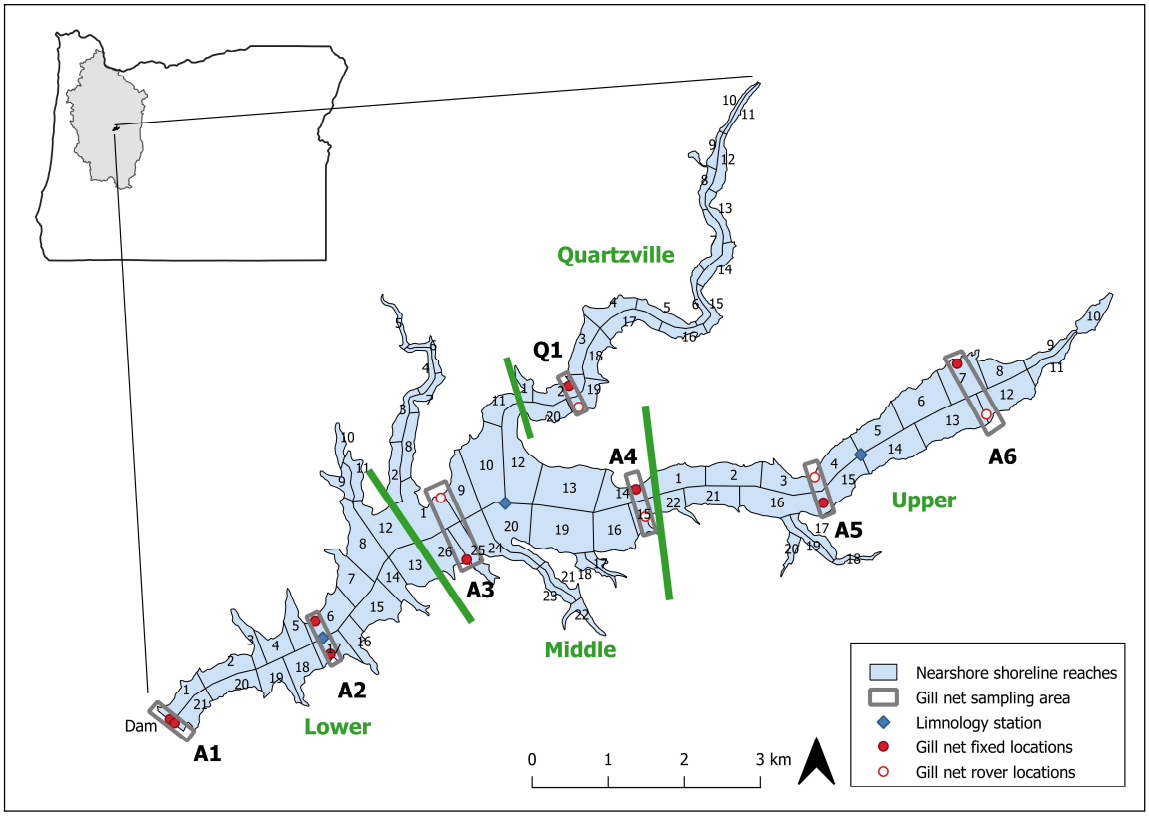

Figure A2. Map of Green Peter Reservoir nearshore shoreline reaches, reservoir zones (lower, middle and upper), gill netting sampling areas and limnological stations.