

KNRAMP August (2025) Advisory Team Workshop

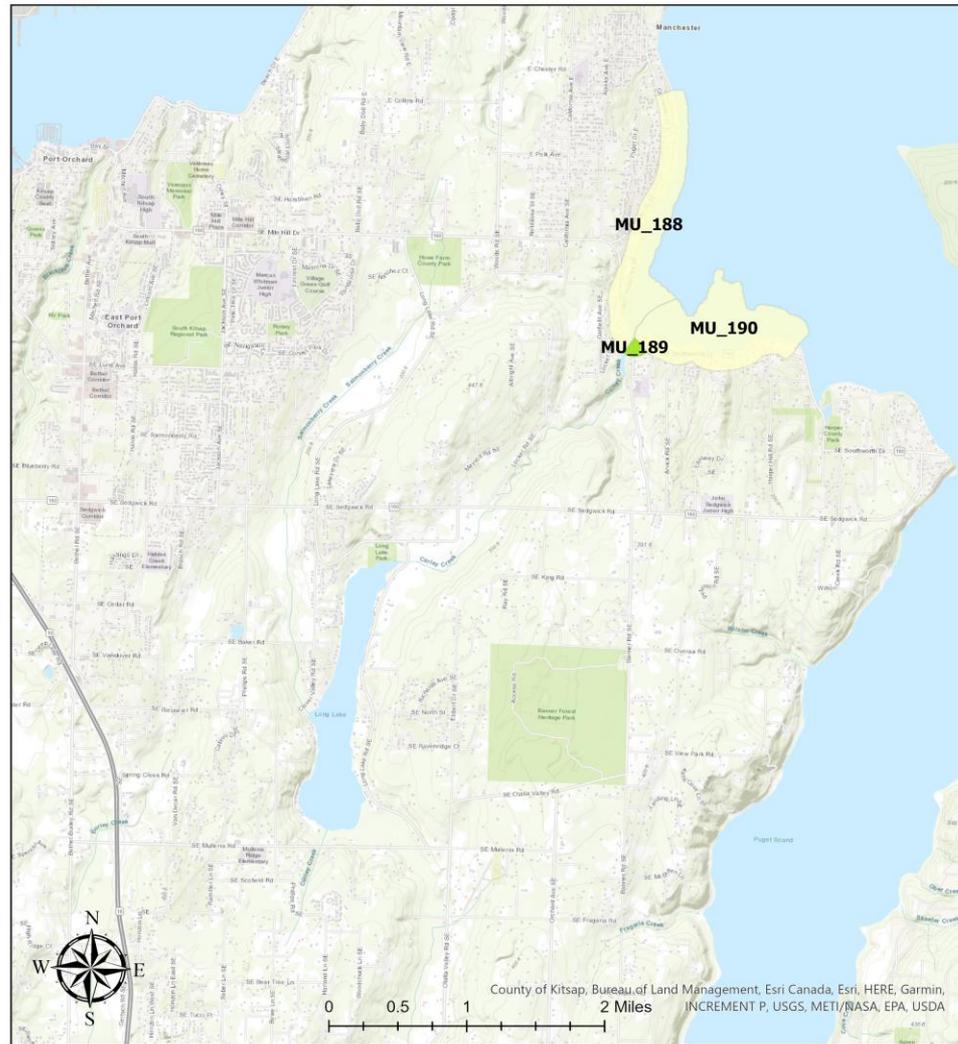
Scenario prioritization for Curley and Kinman Creek

WCAEF

Overall Score Scale Reminder

Assets	Attributes	Condition Rating				
		Very Low	Low	Medium	High	Very High
Forest	Forest Cover (%)	<40%	40%-55%	55%-70%	70%-85%	>85%
	Mature Forests (%)	<20%	20%-40%	40%-60%	60%-80%	>80%
Marine Shorelines	Shoreline Armoring (%)	>75%	50%-75%	25%-50%	1%-25%	<1%
	Shoreline Vegetation (%)	<40%	40%-55%	55%-70%	70%-85%	>85%
	Shellfish Growing Areas (SGA commercial classification)	Prohibited	Prohibited & Conditional /Approved	Conditional	Conditional & Approved	Approved
Streams	Riparian Vegetation (%)	<40%	40%-55%	55%-70%	70%-85%	>85%
	B-IBI Score	0-20	20-40	40-60	60-80	80-100
	Water Quality (Water Quality tests)	Fails both	n/a	Passes 1 st , fails 2 nd	n/a	Passes both
	Fish Passage Barriers	5+ (presence of 0% passable barrier)	3-4 (presence of 0% passable barrier)	1-2 (no 0% passable barrier)	0 (with presence of 100% passable barrier)	0 (no 0% passable barrier)
Cartegraph Level Of Service Score		0-20	20-40	40-60	60-80	80-100

Curley Creek Creek Shorelines



Legend

- High
- Medium

Curley Creek Watershed

Curley Creek Shorelines

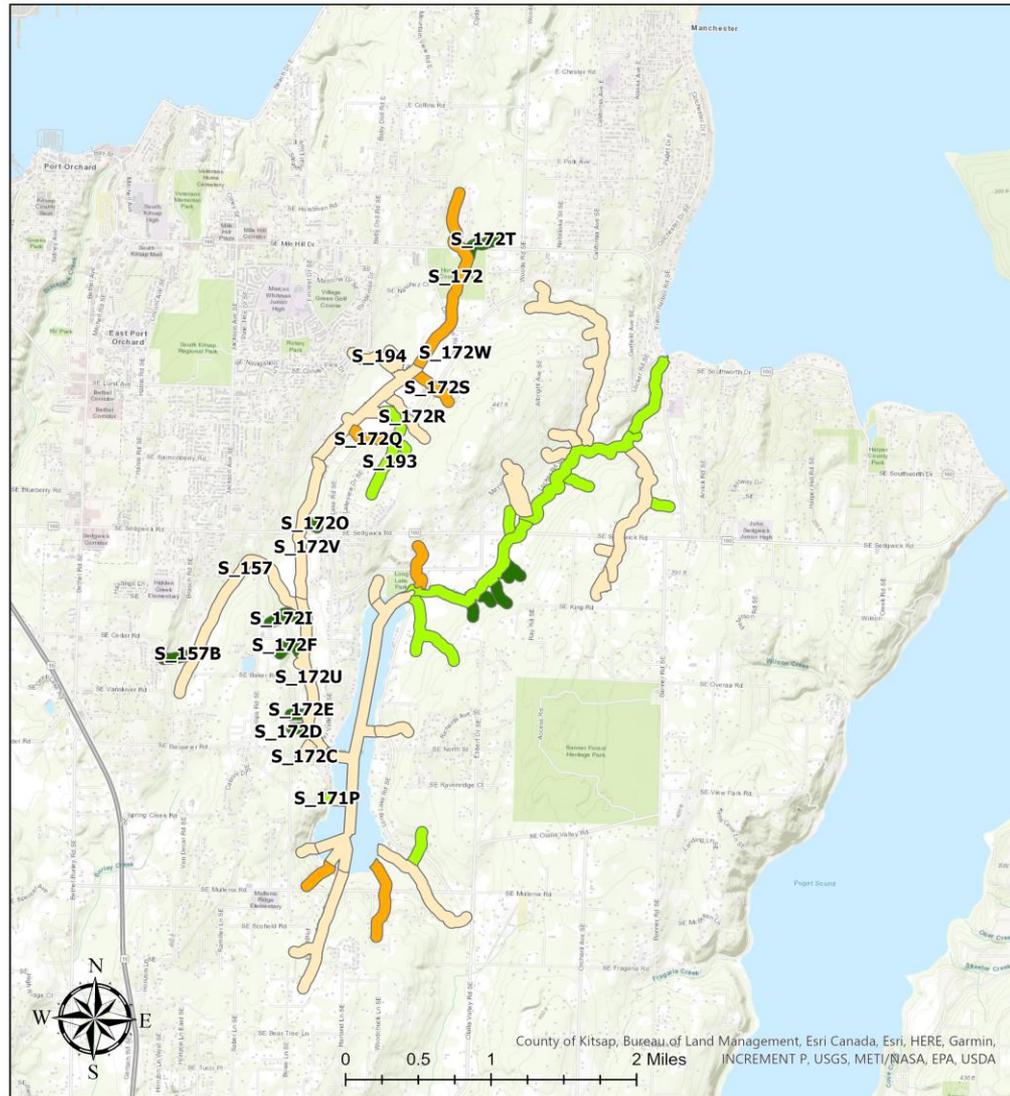
► Scenario 1 - remove shoreline armoring

- Goal - to improve forage fish habitat and natural sediment transport

MU_ID	Current Armor Score	Current Overall Score	Action	Resulting Armor Score	Resulting Overall Score
MU_188	5.2	41.2	Remove 6,800ft of shoreline armoring	62.5	60.6
MU_190	3.9	40.4	Remove 5,400ft of shoreline armoring	64.2	60.4

Potential Partners: Shore Friendly, Roads or WSDOT?

Curley Creek Streams Streams



Legend

- Very High
- High
- Medium
- Low
- Very Low

Curley Creek Watershed

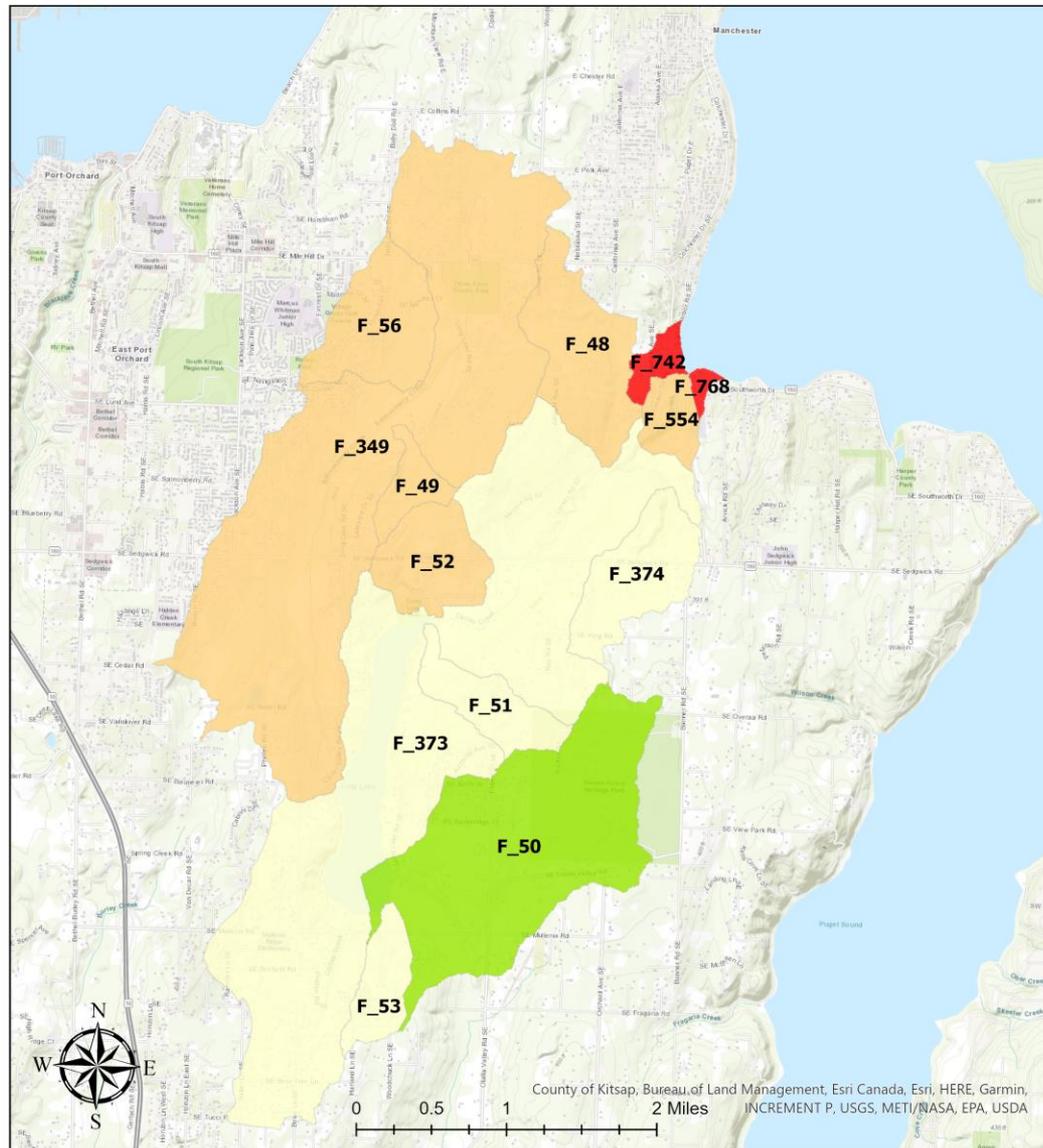
Curley Creek Streams

- ▶ Scenario 6 - Combination Scenario - Improve riparian vegetation and remove fish passage barriers to achieve DLOS in the main segments of Salmonberry Creek.
 - ▶ Goal - improve fish access to upper tributaries and provide the stream with cool water by improving shade.

MU_ID	Current Riparian Score	Current Fish Passage Score	Current Overall Score	Action	Resulting Riparian Score	Resulting Fish Passage Score	Resulting Overall Score
S_172	43.9	0	22.0	Plant 1,800ft of riparian vegetation + remove 1 full barrier & 2 partial barriers	73.3	50	61.7
S_172U	48.3	50	49.2	Plant 1,100ft of riparian vegetation	73.3	50	61.7
S_172V	44.5	50	46.0	Plant 1,600ft of riparian vegetation	86.7	50	60.0
S_172W	7.9	100	50.4	Plant 1,900ft of riparian vegetation	40.0	100	61.2

Potential Partners: Roads, WSDOT, KCD, GPC, Parks

Curley Creek Forests



Legend

- High
- Low
- Medium
- Very Low

Curley Creek Watershed

Curley Creek Forests

- ▶ Scenario 9 - Combination Scenario - Focus efforts around Salmonberry Creek by improving forest cover to 75% and mature forest to 25%
 - ▶ Goal - improve hydrologic maturity and overall groundwater intrusion to provide cool water to Salmonberry Stream

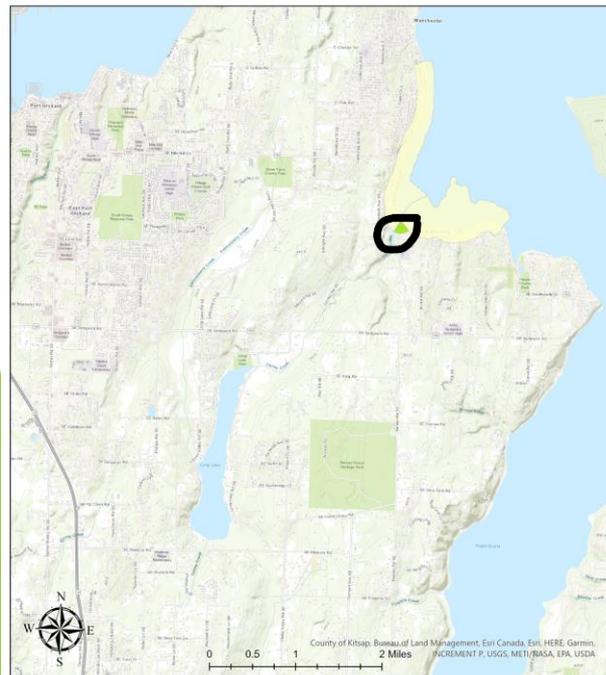
MU_ID	Current Forest Cover Score	Current Mature Forest Cover Score	Action	Resulting Forest Cover Score	Resulting Mature Forest Cover Score
F_49	69.6	4.6	Acquire/protect 27.4 acres of mature forest	69.6	40.0
F_54	58.8	0.0	Acquire and protect 35 acres of mature forest + plant 8.3 acres of forest	66.7	40.0
F_56	44.5	21.8	Acquire/protect 81 acres of mature forest + plant 61.6 acres of forest	66.7	40.0
F_349	54.4	20.9	Acquire/protect 614 acres of mature forest + plant 246.7 acres of forest	66.7	40.0

DLOS = 60
+6.0
Current LOS = 42.2

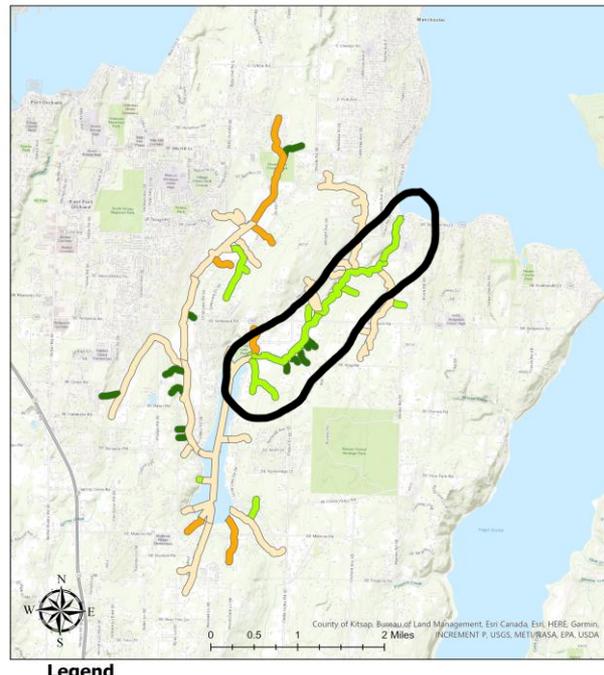
Total Action Acres	1073.4 acres	Weighted Overall Score	48.2
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Potential Partners: Parks, KCD, GPC, DNR

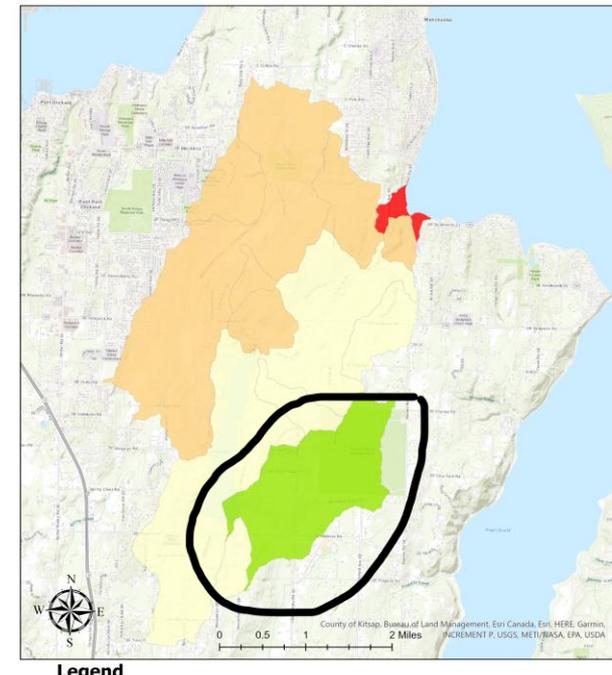
Curley Creek Watershed Areas to Protect



Curley Creek Watershed



Curley Creek Watershed



Curley Creek Watershed

Scenario Review - Curley Creek

Scenario	Asset	Action	LOS Improvement
1	Shoreline	Decrease armoring by removing 10,200ft	+19.6
2	Shoreline	Improve shoreline vegetation by planting 7,700ft	+19.6
3	Shoreline	Remove 7,400ft of armoring and plant 3,100ft of shoreline vegetation	+19.2
4	Stream	Improve riparian cover in Salmonberry Creek by planting 6,900ft	+15.7
5	Stream	Remove 8 full blockage fish passage barriers across four MUs	+27.5
6	Stream	Improve riparian cover by planting 6,400ft and remove 1 full blockage fish barrier and 2 partial barriers	+19.3
7	Forest	Increase mature forest cover by acquiring/protecting 757 acres	+3.7
8	Forest	Improve forest cover by planting/protecting 422 acres	+ 3.1
9	Forest	Improve forest cover by planting/protecting 316 acres and mature forest by acquiring/protecting 757 acres)	+ 6

Kinman Creek - Shorelines



Legend

Medium

Kinman Creek Watershed

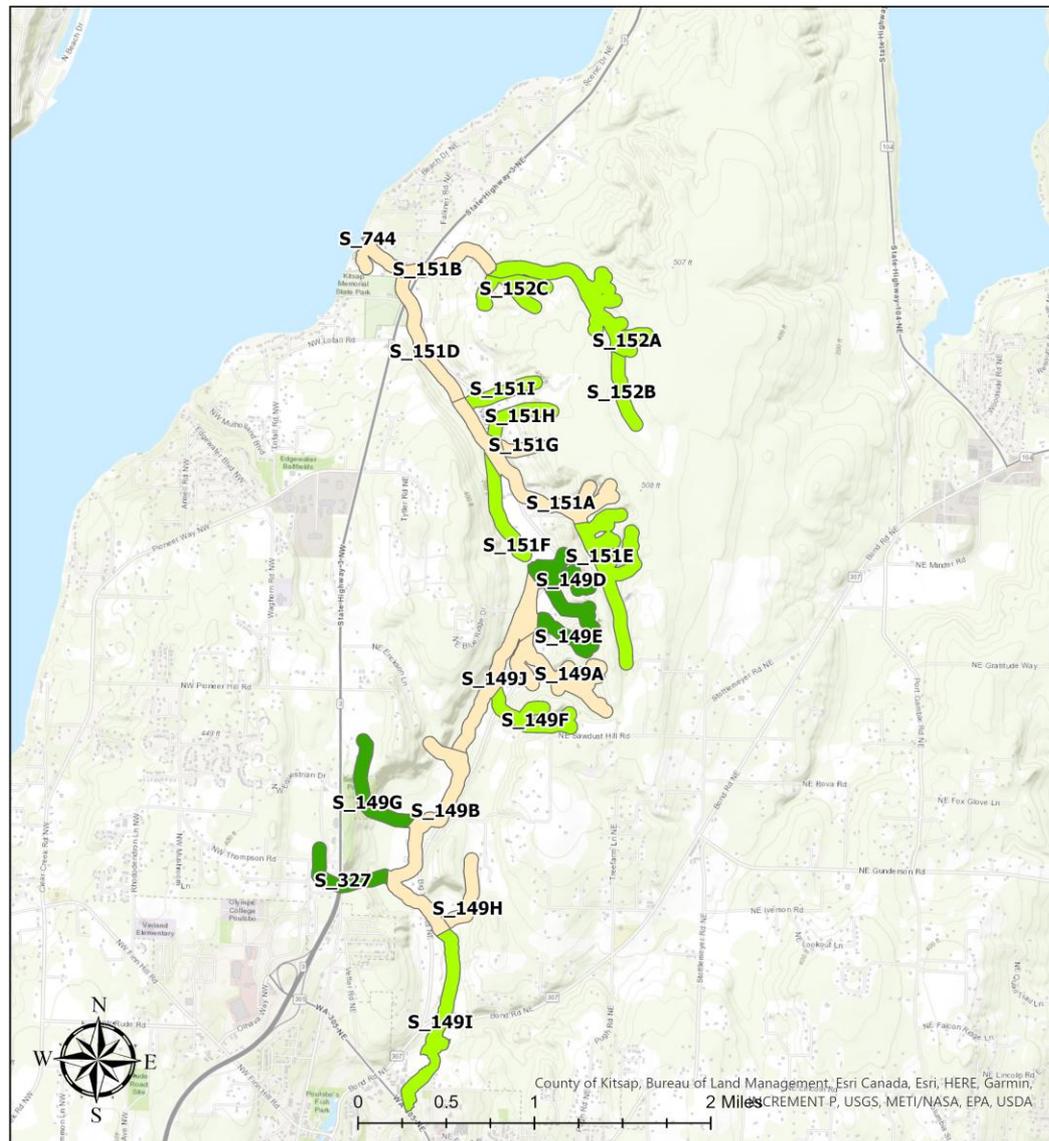
Kinman Creek - Shorelines

- ▶ Scenario 1 - Remove shoreline armoring
 - ▶ Goal - improve forage fish habitat and sediment transport

MU_ID	Current Armor Score	Current Overall Score	Action	Resulting Armor Score	Resulting Overall Score
MU_69	42.1	54.1	Remove 3,200ft of shoreline armoring	60.0	60.1

Potential Partners: Shore Friendly, Parks, GPC

Kinman Creek Streams



Legend

- Medium
- High
- Very High

Kinman Creek Watershed

Kinman Creek Streams

► Scenario 4 - Remove full blockage barriers

- Goal - improve fish passage to allow salmon to reach healthy upper tributaries

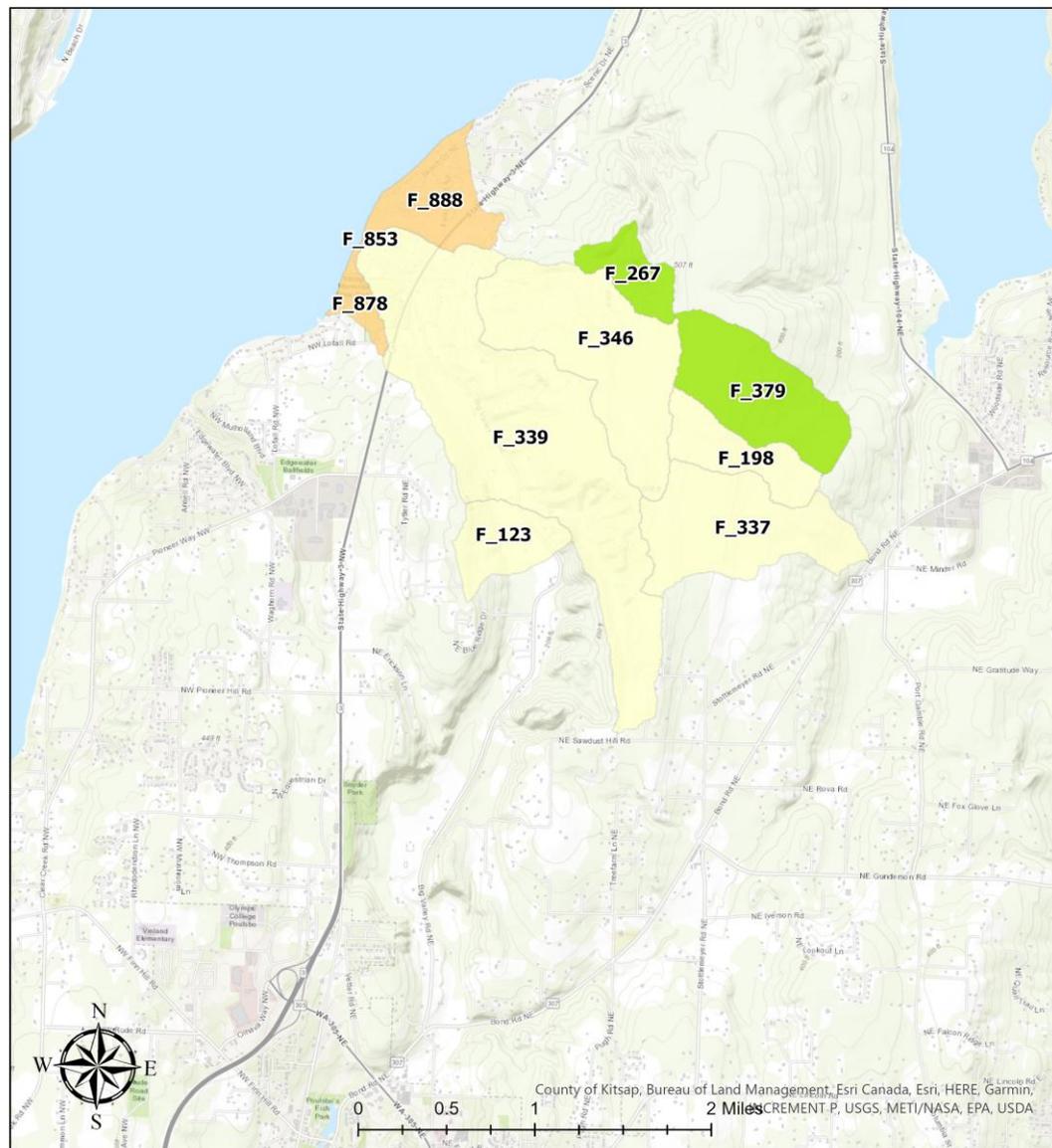
MU_ID	Current Fish Passage Score	Current Overall Score	Action	Resulting Fish Passage Score	Resulting Overall Score
S_151A	30	43.1	Remove 1 full barrier	50	49.7
S_151B	1	42.8	Remove 3 full barriers	50	55.0
S_151D	30	48.3	Remove 1 full barrier	100	65.8
S_149A	30	57.2	Remove 1 full barrier	50	62.2
S_149H	1	58.6	Remove 2 full barriers	100	83.4
S_149J	1	49.0	Remove 3 full barriers	30	56.2

Kinman Creek

Dogfish Creek

Potential Partners: Kitsap County Roads, KCD, WSDOT

Kinman Creek Forests



Legend

- High
- Low
- Medium
- Very Low

Kinman Creek Watershed

Kinman Creek Forests

- ▶ Scenario 9 - Combination of 1 and 2 - Focus efforts on F_339 and F_346 to improve forest cover to 85% and mature forest to 25%
 - ▶ Goal - improve hydrologic maturity and overall groundwater intrusion to provide cool water to Kinman Creek

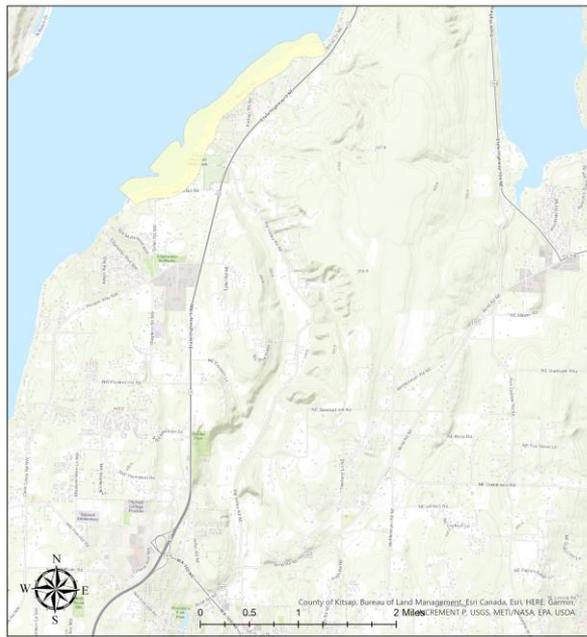
MU_ID	Current Forest Cover Score	Current Mature Forest Cover Score	Action	Resulting Forest Cover Score	Resulting Mature Forest Cover Score
F_339	63.6	29.8	Plant/protect 133.3 acres of forest and Acquire/protect 133.1 acres of mature forest	80.0	40.0
F_346	79.0	26.4	Plant/protect 38.5 acres of forest and Acquire/protect 82 acres of mature forest	80.0	40.0

DLOS = 60
+9.2
Current LOS = 46.03

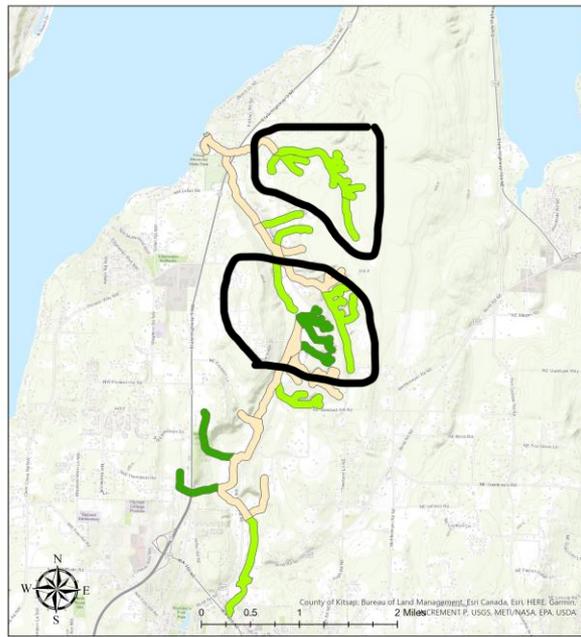
Total Action Acres	215.3 acres	Weighted Overall Score	55.25
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Potential Partners: Parks, KCD, GPC, DNR

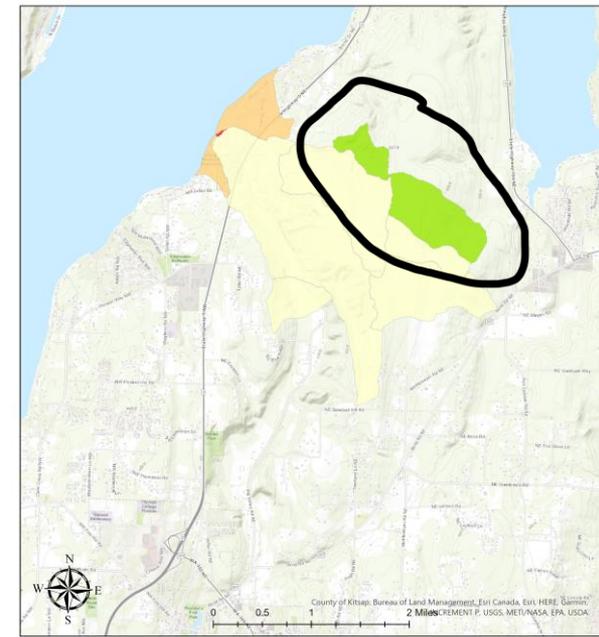
Kinman Creek Watershed Areas to Protect



Kinman Creek Watershed



Kinman Creek Watershed



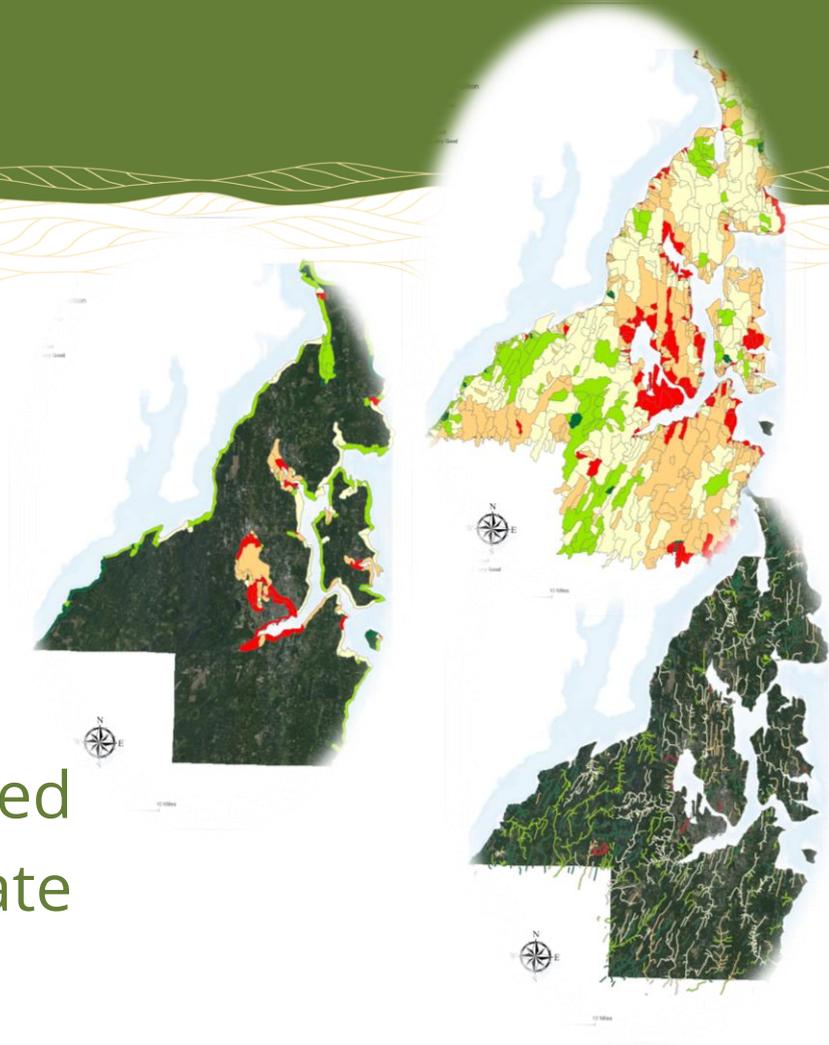
Kinman Creek Watershed

Scenario Review - Kinman Creek

Scenario	Asset	Action	LOS Improvement
1	Shoreline	Decrease armoring by removing 3,200ft	+ 6
2	Shoreline	Improve shoreline vegetation by planting 2,100ft	+ 6.6
3	Shoreline	Decrease armoring by removing 1,800ft and improve shoreline vegetation by planting 1,100ft	+ 6.8
4	Stream	Remove 11 full blockage fish passage barriers across six MUs	+ 12.2
5	Stream	Conduct a PIC program to improve water quality	+ 14
6	Stream	Remove 5 full blockage fish passage barriers and conduct a PIC program to improve water quality	+22.3
7	Forest	Improve forest cover by planting/protecting 374 acres	+ 8.1
8	Forest	Improve mature forest cover by acquiring/protecting 275 acres	+ 5.9
9	Forest	Improve forest cover by planting/protecting 172 acres and mature forest cover by acquiring/protecting 215 acres	+ 9.2

KNRAMP October (2024) Core Team Workshop

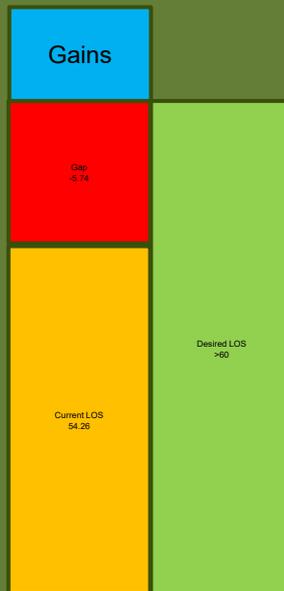
Pilot Watershed
Implementation Update



Forests in Big Beef Creek

July 2024 conditions assessment

BB Creek Watershed	Aggregate LOS	DLOS	LOS Gap
	54.26	60	5.74



July 2024 feedback:

Table A9. Scenarios proposed to the Core Team for forests in Big Beef Creek.

SCEN	WHAT	COST	WHO	LOS Improvement
9	Increase forest cover by planting 1054 acres of upland forest	\$21,084,678	DNR, WDFW, GPC, other land trusts, private landowners	+6.36
10	Improve mature forest % by acquiring 1491 acres of land for protection	\$8,943,107	DNR, GPC and other land trusts...	+6.84
11	Scenario 9 and 10 full actions	\$30,027,785	DNR, WDFW, GPC and other land trusts	+13.58
12	Increase forest % by planting 549 acres, and increase mature forest % by acquiring 672 acres of land for protection	\$15,012,000	KCD, DNR, WDFW, GPC and other land trusts	+6.22

Big Beef Creek Forests Map

Unit	LOS	DLOS	LOS Gap
F_398	53.55	66.85	13.31

Forest LOS score based on weighted average of MUs in the Watershed

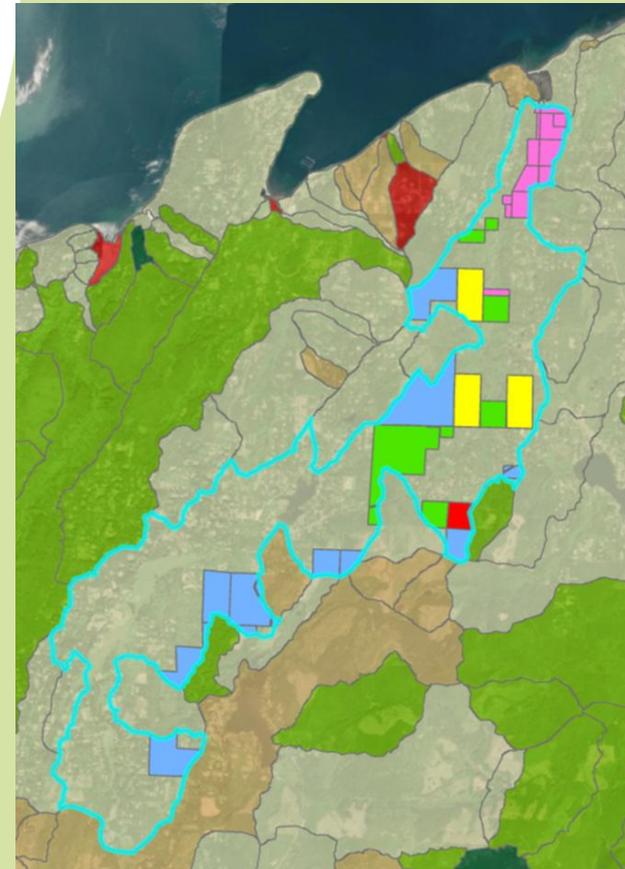
For big Beef Creek to reach 60 weighted average this MU (right F_398) needs to reach LOS of 66.85.

Current LOS is 53.55

Goal is to improve this MU by 13.31

F_398

Gap
-13.31



Forest Actions in Big Beef Creek

- Any other actions currently under way?
- Identifying any roadblocks?
- What workarounds can we identify for any roadblocks?

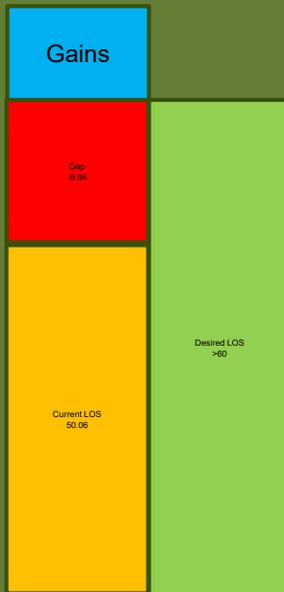
F_398 Gap -13.31	1.04 Remaining
	5 – Private land
	4 – Public Works land
	3 – DNR and Green Mountain State Forest land
	2 – DNR to WDFW land transfer
	1 – Current GPC?HCSEG Land

Action	Change in F1 forest cover	Change in F2 mature	Change in LOS	Status
1 - Current GPC/HCSEG land	13.37 acres	135.43 acres	+1.21	Protected
2 - DNR to WDFW land Transfer	98.78 acres	207.52	+2.8	Transfer in progress
3 - Adjacent DNR and Green Mt State Forest land	178.77 acres	546.17 acres	+6.32	Not yet started
4 - Public Works land	0.02 acres	28.77 acres	+0.24	Not yet started
5 - Private land	16.11 acres	195.74 acres	+1.7	Not yet started
Total	307.05 acres	1,113.63 acres	+12.27	

Forests in Chico Creek

July 2024 conditions assessment

Chico Creek Watershed	Aggregate LOS	DLOS	LOS Gap
	50.06	60	9.94



July 2024 feedback:

Table A9. Scenarios proposed to the Core Team for forests in Chico Creek.

SCEN	WHAT	COST	WHO	LOS improvement
8	Increase forest cover by planting 494 acres of upland forest	\$9,879,035	City of Bremerton, DNR, KCD...	+10.57
9	Improve mature forest % by acquiring 2615 acres of land for protection	\$15,691,145	DNR, GPC, other land trusts...	+9.99
10	Scenario 8 and 9 full actions	\$25,570,180	City of Bremerton, DNR, KCD, GPC and other land trusts	+20.56
11	Increase forest % by planting 367 acres, and increase mature forest % by acquiring 181 acres of land for protection	\$8,426,000	City and County Parks, DNR, GPC and other land trusts, KCD	+10.34

Chico Creek Map

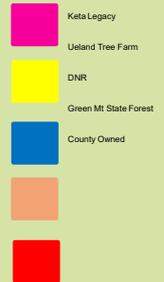
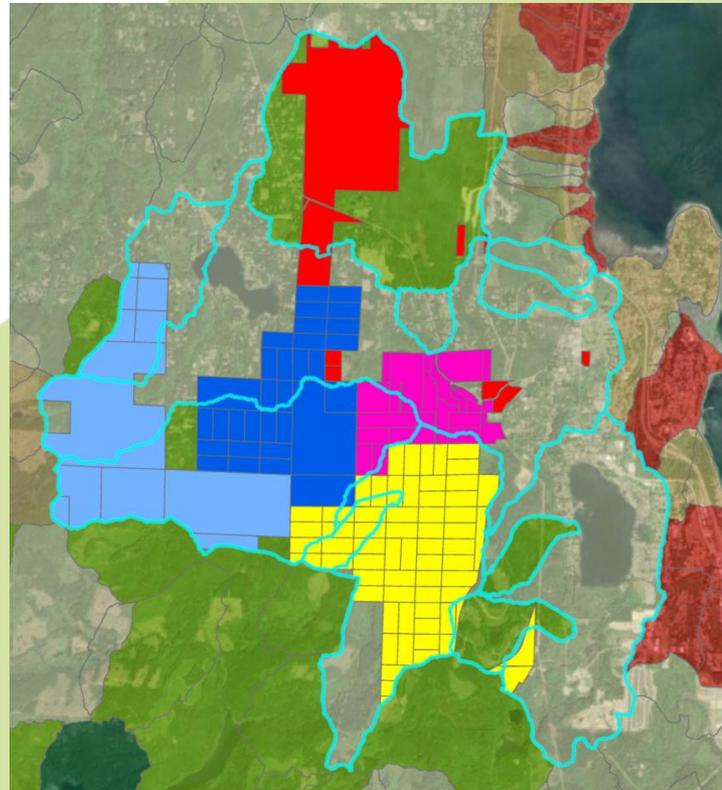
Chico Creek Watershed	Aggregate LOS	DLOS	LOS Gap
	50.06	60	9.94

Forest LOS score based on weighted average of MUs in the Watershed

There are many combinations of improvements across MUs to reach a watershed wide LOS of 60

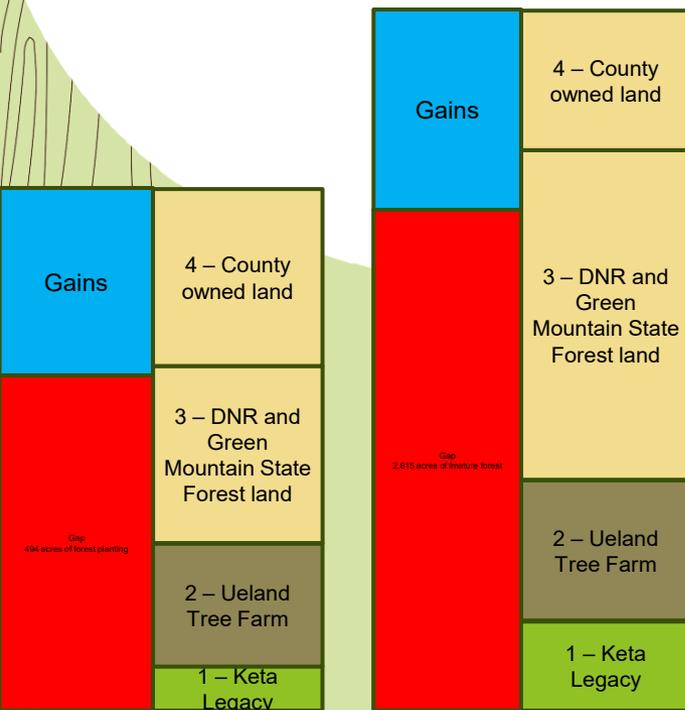
Current LOS is 50.06

Goal is to expand overall forest cover by 494 acres and expand mature forest cover by 2,615 acres



Forest Actions in Chico Creek

- Any other actions currently under way?
- Identifying any roadblocks?
- What workarounds can we identify for any roadblocks?



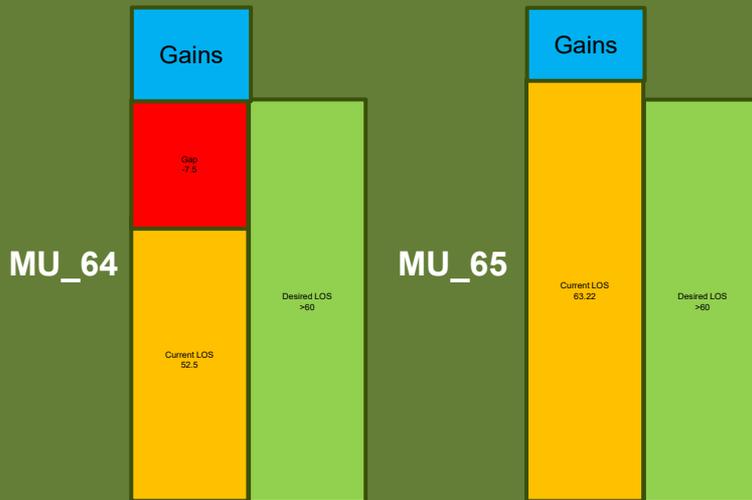
Action	Change in F1 forest cover	Change in F2 mature	Change in LOS	Status
1 - Current Keta Legacy	28.68 acres	261.79 acres	TBD	Protected
2 - Ueland Tree Farm land	265.66 acres	904.33 acres	TBD	Potential Progress
3 - Adjacent DNR and Green Mt State Forest Land	216.25 acres	1489.88 acres	TBD	Not yet started
4 - County owned land	123.34 acres	517.53 acres	TBD	Not yet started
Total	633.93 acres	3173.53 acres	TBD	

Shorelines in Big Beef Creek



July 2024 conditions assessment

Unit	LOS	DLOS	LOS Gap
MU_63	70.12	60	+10.12
MU_64	52.50	60	7.5
MU_65	63.22	60	+3.22



July 2024 feedback:

Table A7. Scenarios proposed to the Core Team for shorelines in Big Beef Creek

SCEN	WHAT	COST	WHO	LOS improvement
1	Increase forest cover to 90% or 4563 ft of planting	\$228,000	WDFW, Roads Div., KCD, ...	MU_64 +13.8 MU_65 +5.5
2	Decrease armor to 50% or remove 4021 ft	\$4,020,000	Roads Div., Shore Friendly	MU_64 +9.7
3	Admin step (no in situ action)	Nom.	KCHD, DOH	MU_65 +16.7
4	Decrease bacteria via PIC Program	\$100,000	KCHD, DOH	MU_65 +16.67
5	Increase forest cover by planting 1799 ft and reduce armoring by removing 892 ft	\$981,950	Roads Div., Shore Friendly, WDFW, KCD	MU_64 +6.9 MU_65 +3.3

Big Beef Creek Shorelines Map

Unit	LOS	DLOS	LOS Gap
MU_63	70.12	60	+10.12
MU_64	52.50	60	7.5
MU_65	63.22	60	+3.22

 = extent of shoreline armoring



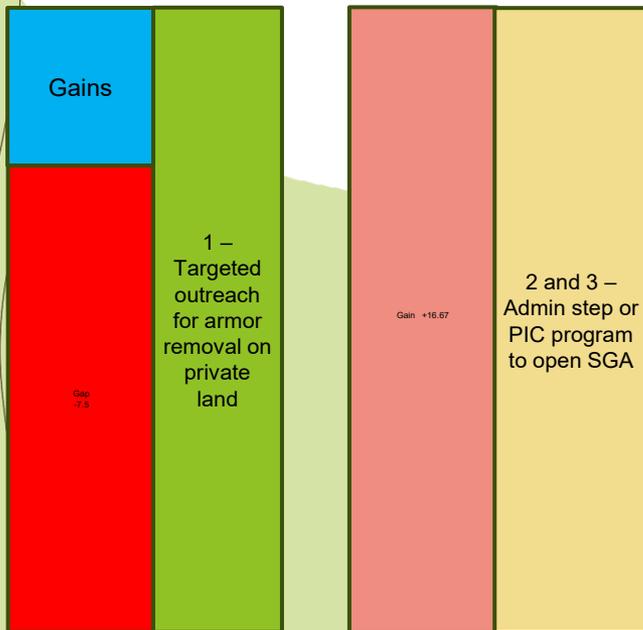
Attribute	Indicator	Condition Rating				
		Very Low	Low	Medium	High	Very High
M1. Shoreline Armoring	% shoreline armoring	>75%	50%-75%	25%-50%	1%-25%	<1%
M2. Shoreline Vegetation	% canopy cover	<40%	40%-55%	55%-70%	70%-85%	>85%
M3. Shellfish Growing Areas	SGA commercial classification	Prohibited	Prohibited & Conditional/Apr.	Conditional	Conditional & Approved	Approved
LOS Score		0-20	20-40	40-60	60-80	80-100

Shoreline Actions in Big Beef Creek

- Any other actions currently under way?
- Identifying any roadblocks?
- What workarounds can we identify for any roadblocks?

MU_64

MU_65



Action	Change in M1 Shoreline Armor	Change in M3 SGA Classification	Change in LOS	Status
1 - Remove 4021 ft of shoreline armoring in MU_64	-6000ft	N/A	+11.65	Completed targeted outreach to 6000 ft of private armoring
2 - admin step to open SGA in MU_65	N/A	Prohibited to Approved	+16.7	TBD
3 - PIC Program around MU_65	N/A	Prohibited to Approved	+16.7	Not yet started

Shorelines in Chico Creek

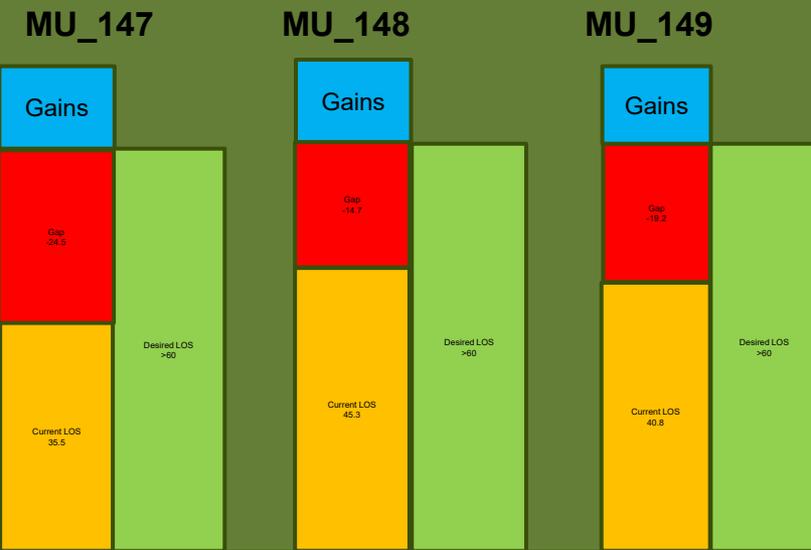
July 2024 conditions assessment

Unit	Current LOS	DLOS	LOS Gap
MU_147	35.5	60	24.5
MU_148	45.3	60	14.7
MU_149	40.8	60	19.2

July 2024 feedback:

Table A10. Scenarios proposed to the Core Team for shorelines in Chico Creek.

SCEN	WHAT	COST	WHO	LOS Improvement
1	Increase forest cover to 95% by planting 7,240 ft	\$362,000	WDFW, WSDOT, KCD, ...	MU_147 +25.3 MU_148 +21.8 MU_149 +20.6
2	Decrease shoreline armoring to 15% by removing 5,548 ft	\$5,548,000	WSDOT, Shore Friendly	MU_147 +20.2 MU_148 +0.1 MU_149 +19.2
3	Admin step (No in situ action)	Nom.	KCHD, DOH	MU_148 +13.3
4	Decrease bacteria via PIC program	\$100,000	KCHD, DOH	MU_148 +13.3
5	Increase forest cover by planting 2397 ft and remove 2886 ft of shoreline armoring	\$3,312,850	WDFW, WSDOT, KCD, KCHD, DOH, Shore Friendly	MU_147 +24.6 MU_148 +17.4 MU_149 +19.3

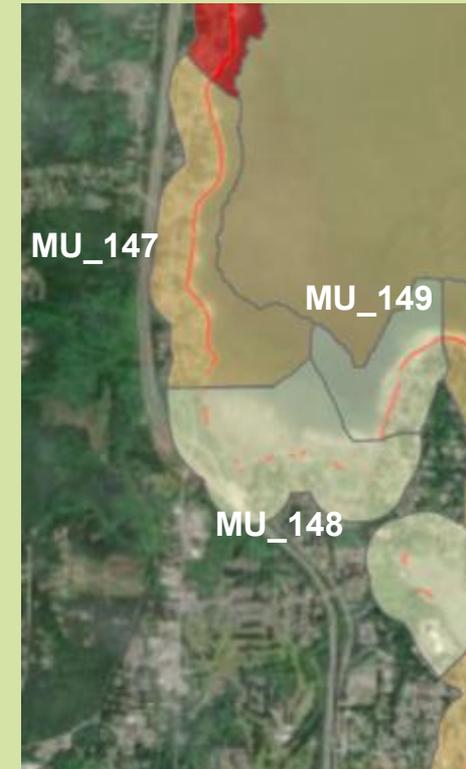


Chico Creek Shorelines Map

Unit	Current LOS	DLOS	LOS Gap
MU_147	35.5	60	24.5
MU_148	45.3	60	14.7
MU_149	40.8	60	19.2

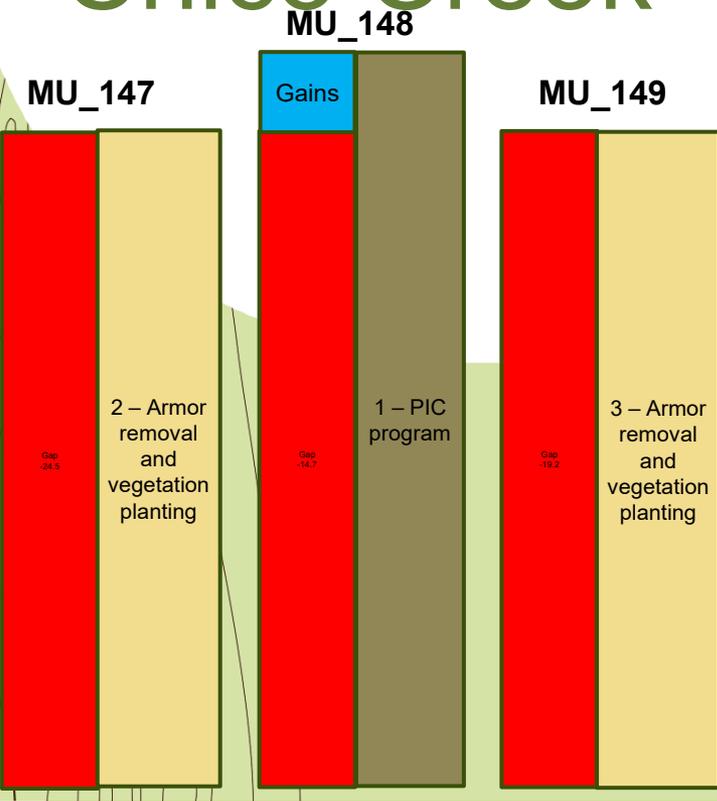
Attribute	Indicator	Condition Rating				
		Very Low	Low	Medium	High	Very High
M1. Shoreline Armoring	% shoreline armoring	>75%	50%-75%	25%-50%	1%-25%	<1%
M2. Shoreline Vegetation	% canopy cover	<40%	40%-55%	55%-70%	70%-85%	>85%
M3. Shellfish Growing Areas	SGA commercial classification	Prohibited	Prohibited & Conditional/Appr.	Conditional	Conditional & Approved	Approved
LOS Score		0-20	20-40	40-60	60-80	80-100

_____ = extent of shoreline armoring



Shoreline Actions in Chico Creek

- Any other actions currently under way?
- Identifying any roadblocks?
- What workarounds can we identify for any roadblocks?



Action	Change in M1 shoreline armoring	Change in M3 SGA Classification	Change in LOS	Status
1 - PIC Program around MU_148	N/A	Prohibited to Approved	+20	In progress - KPHD ongoing work in Chico Bay
2 - Shoreline armor removal and vegetation planting in MU_147	3957.25 ft armor removal 1226.7 ft vegetation planting	N/A	+24.78	Not yet started
3 - Shoreline armor removal and vegetation planting in MU_149	1411.79 ft armor removal 139.82 ft vegetation planting	N/A	+19.48	Not yet started