

# 2019-2021 Grant Round Update



Restoration Projects Completed

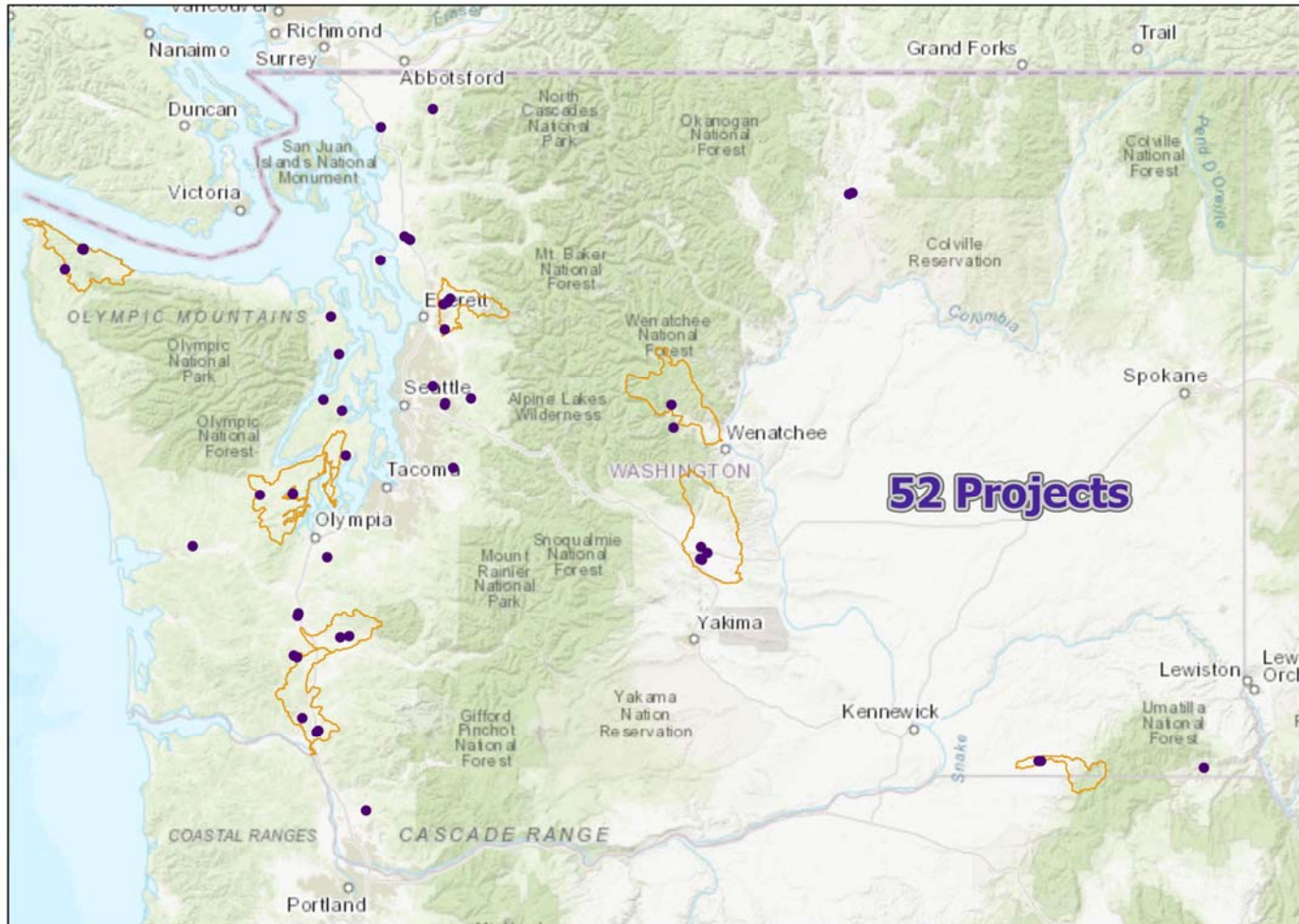
January 2023

## 2019-2021 Funded Projects List, ~\$24.7 M

Rank	Project Name	County	Miles Opened	Project Type
1	Johnson Creek	Clallam	2.4	Planning
2	MF Newaukum River	Lewis	1.3	Planning
3	NF Ostrander Creek	Cowlitz	18.05	Restoration
4	Johnson Creek	Okanogan	1.01	Restoration
5	Coleman Creek	Kittitas	0.35	Restoration
6	Cottonwood Creek	Asotin	2.54	Restoration
7	Dayton Creek	Mason	0.8	Restoration
8	Catherine Creek	Snohomish	3.9	Planning
9	Chumstick Creek	Chelan	14.29	Restoration
10	Little Pilchuck Creek	Snohomish	11.2	Planning
11	Uncle Johns Creek	Mason	0.4	Planning
12	Mill Creek	Walla Walla	0.38	Restoration
13	Cooke Creek	Kittitas	1.34	Restoration
14	Johnson Creek	Okanogan	0.07	Restoration
15	NF Ostrander Creek	Cowlitz	1.12	Planning
16	Trib to MF Newaukum River	Lewis	2.2	Planning
17	Lower Hoko Wetland Complex	Clallam	2.4	Planning
18	Thorndyke Creek	Jefferson	10.04	Planning
19	Railroad Creek	Clallam	0.15	Restoration
20	Delameter Creek	Cowlitz	2.1	Planning
21	Johnson Creek	Okanogan	0.34	Restoration
22	Caribou Creek	Kittitas	0.86	Restoration
23	Mill Creek	Walla Walla	0.24	Planning
24	Uncle Johns Creek	Mason	1	Restoration
25	Trib to Little Pilchuck Creek	Snohomish	1	Restoration
26	Mill Creek	Chelan	4.35	Restoration

Rank	Project Name	County	Miles Opened	Project Type
27	Parke Creek	Kittitas	2.3	Restoration
28	Talbot Creek	Clallam	0.4	Planning
29	Mason Creek	Clark	3.15	Planning
30	Seabeck Creek	Kitsap	10.2	Restoration
31	Kenney Creek	Whatcom	4.26	Planning
32	Squalicum Creek	Whatcom	8.9	Restoration
33	Fisher Creek	Skagit	1.91	Planning
34	Fisher Creek	Skagit	3.48	Planning
35	Spurgeon Creek	Thurston	1.2	Restoration
36	Naylors Creek	Jefferson	4.93	Planning
37	Geissler Creek	Grays Harbor	2.35	Restoration
38	Scammon Creek	Lewis	1.21	Restoration
39	Scammon Creek	Lewis	0.83	Restoration
40	Dickerson Creek	Kitsap	3.42	Restoration
41	Minter Creek	Pierce	1.26	Planning
42	George Davis Creek	King	0.38	Planning
43	Langlois Creek	King	1.37	Planning
44	Ebright Creek	King	1.11	Planning
45	Kristoferson Creek	Island	0.82	Restoration
46	Starbird Creek	Skagit	8.56	Planning
47	Scammon Creek	Lewis	1.37	Planning
48	Sexton Creek	Snohomish	1.1	Planning
49	King Creek	Lewis	1.6	Restoration
50	King Creek	Lewis	1.12	Restoration
51	Willows Creek	King	1.79	Restoration
52	Ravensdale Creek	King	0.65	Restoration

## Fish Barrier Removal Board: 2019 to 2021 Funded Projects



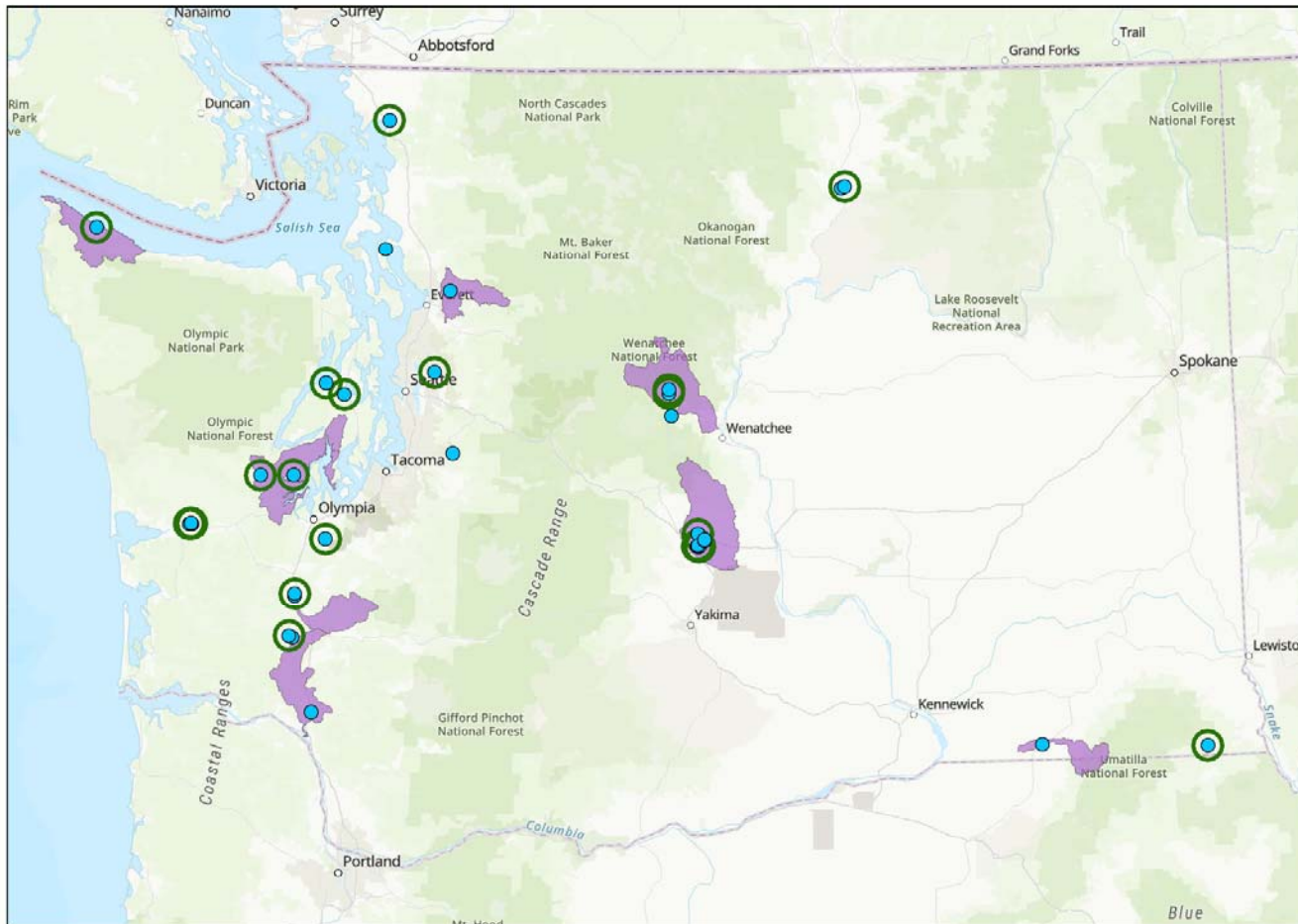
# 2019-2021 Funded Restoration Projects

## Completed Projects – 17

Rank	Project Name	County	Miles Opened	Project Type
3	NF Ostrander Creek	Cowlitz	18.05	Restoration
4	Johnson Creek	Okanogan	1.01	Restoration
5	Coleman Creek	Kittitas	0.35	Restoration
6	Cottonwood Creek	Asotin	2.54	Restoration
7	Dayton Creek	Mason	0.8	Restoration
9	Chumstick Creek	Chelan	14.29	Restoration
12	Mill Creek	Walla Walla	0.38	Restoration
13	Cooke Creek	Kittitas	1.34	Restoration
14	Johnson Creek	Okanogan	0.07	Restoration
19	Railroad Creek	Clallam	0.15	Restoration
21	Johnson Creek	Okanogan	0.34	Restoration
22	Caribou Creek	Kittitas	0.86	Restoration
24	Uncle Johns Creek	Mason	1	Restoration
25	Trib to Little Pilchuck Creek	Snohomish	1	Restoration
26	Mill Creek	Chelan	4.35	Restoration

Rank	Project Name	County	Miles Opened	Project Type
27	Parke Creek	Kittitas	2.3	Restoration
30	Seabeck Creek	Kitsap	10.2	Restoration
32	Squalicum Creek	Whatcom	8.9	Restoration
35	Spurgeon Creek	Thurston	1.2	Restoration
37	Geissler Creek	Grays Harbor	2.35	Restoration
38	Scammon Creek	Lewis	1.21	Restoration
39	Scammon Creek	Lewis	0.83	Restoration
40	Dickerson Creek	Kitsap	3.42	Restoration
45	Kristoferson Creek	Island	0.82	Restoration
49	King Creek	Lewis	1.6	Restoration
50	King Creek	Lewis	1.12	Restoration
51	Willows Creek	King	1.79	Restoration
52	Ravensdale Creek	King	0.65	Restoration

## Fish Barrier Removal Board: 2019-2021 Restoration Projects



**Barriers Corrected**

**17 Projects, 23 barriers**

**Opened ~53 miles**

**Ownership breakdown:**

- 11 county
- 9 private
- 3 city

# #19 Railroad Creek at a relic railroad grade

Site ID: 601572





## Railroad Creek trib to the Hoko River

- Ownership: Private
- Passability: 67% (slope)
- Gain to next barrier: 0.16 miles and 2.49 acres forested wetland
- One (1.5ft) round culvert  
Replaced with open channel
- Potential species benefit: Coho, Steelhead, Sea-run Cutthroat, resident trout





# #30 Seabeck Creek at Holly-Seabeck Rd

site ID 15.0400 0.60





# Seabeck Creek trib to the Hood Canal

- Ownership: County
- Passability: 33% (velocity)
- Gain to next barrier: 10.2 miles
- One (6ft) round culvert  
Replaced with 60 ft bridge
- Potential species benefit:  
Coho, Chum,  
Steelhead, Sea-run  
Cutthroat, resident trout









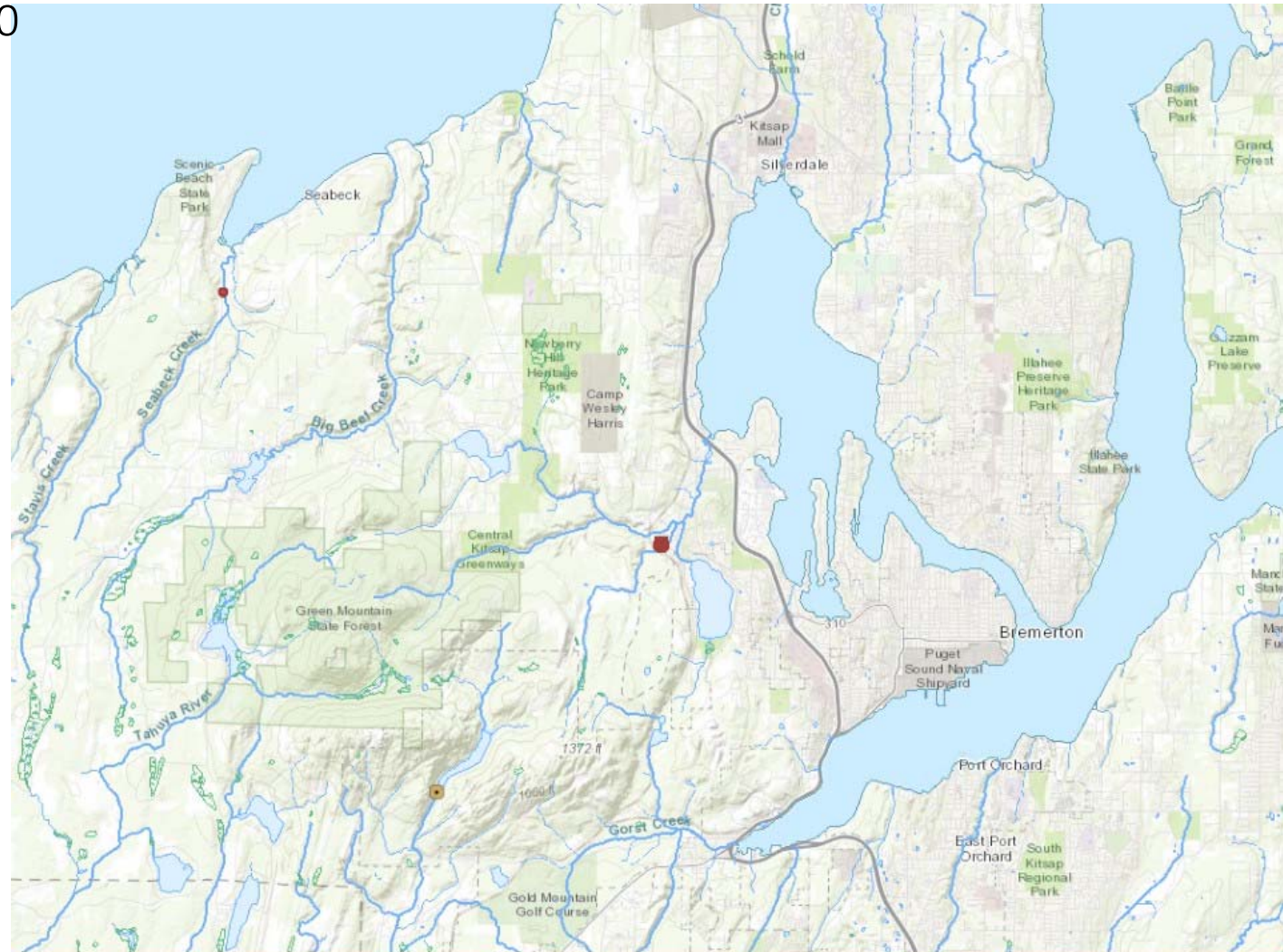






# #40 Dickerson Creek at Northlake Way NW

Site ID 15.0231 0.40





## Dickerson Creek trib to Chico Creek

- Ownership: Private
- Passability: 33% (WSD)
- Gain to next barrier: 3.42 miles
- Failed fishway replaced with rerouted channel and ELJ's
- Potential species benefit: Coho, Chum, Steelhead, Sea-run Cutthroat, resident trout

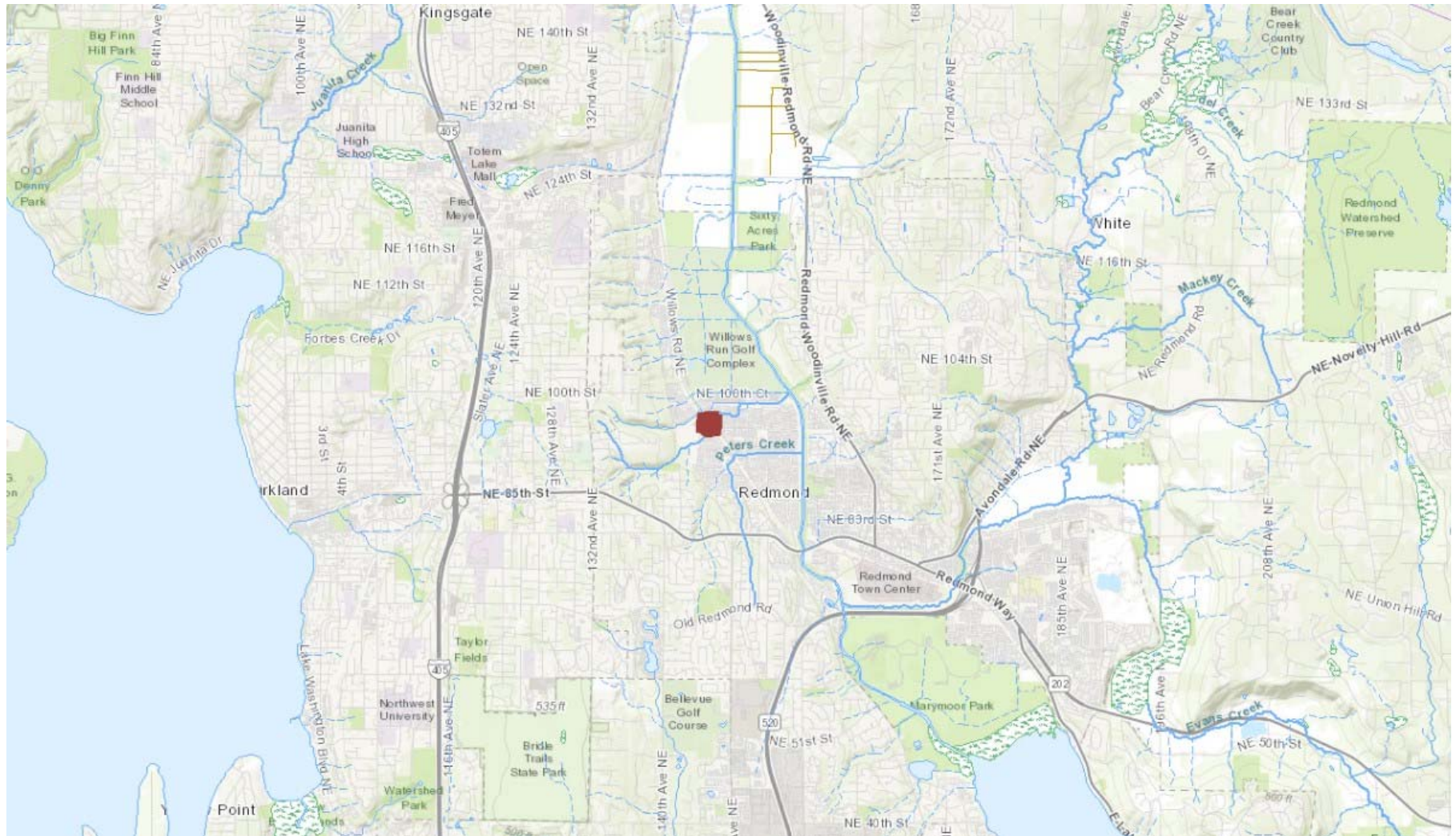






# #51 Willows Creek at Willows Rd NE

Site ID # 600300



# Willows Creek trib to the Sammamish River



- Ownership: City
- Passability: 33% (depth)
- Gain to next barrier: 1.79 miles
- One (3.3ft x 2.4 ft) round culvert replaced with 12 ft wide box culvert
- Potential species benefit: Sockeye, Coho, Steelhead, Sea-run Cutthroat, resident trout









# #32 Squalicum Creek Fish Passage

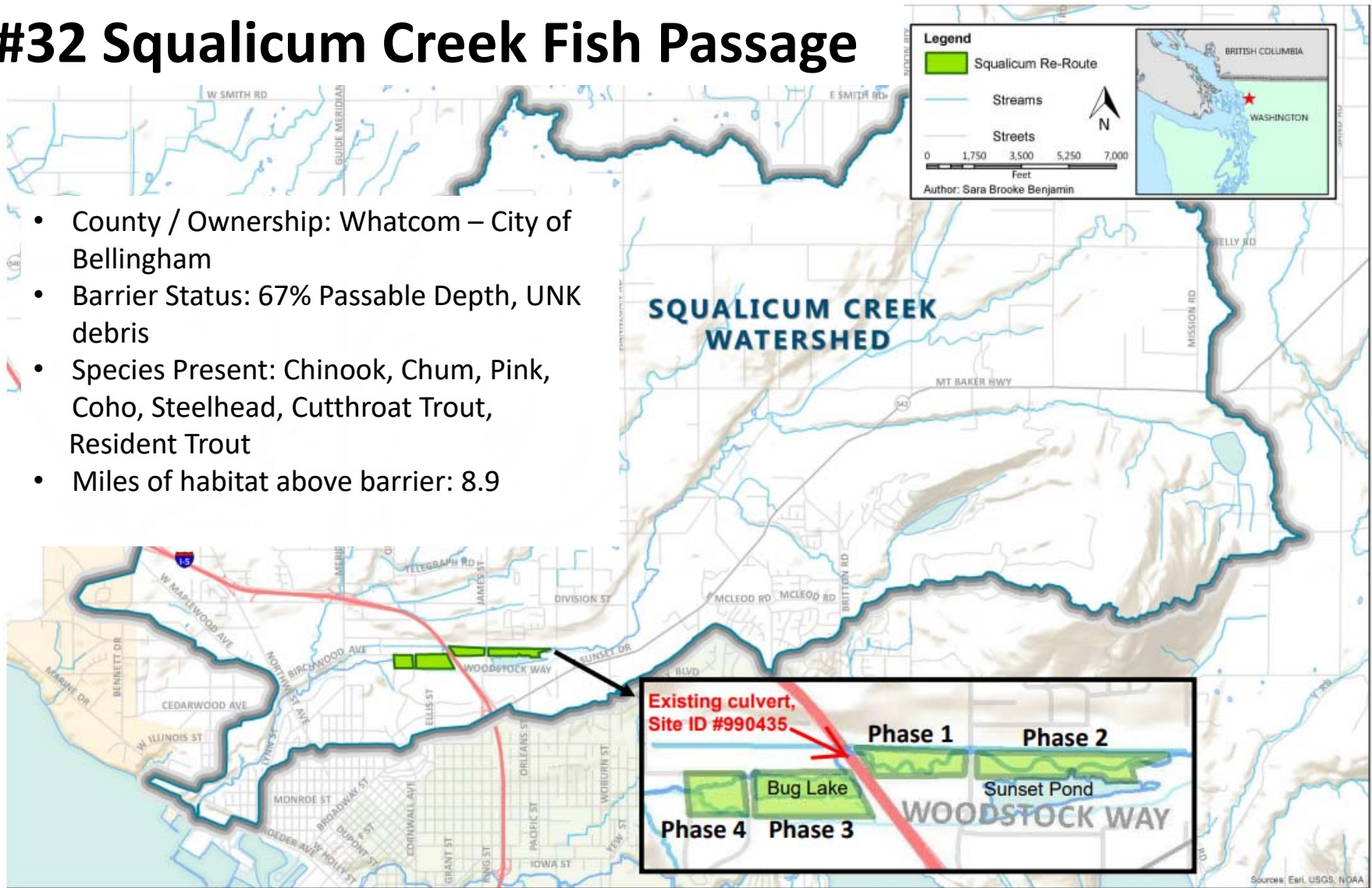
- County / Ownership: Whatcom – City of Bellingham
- Barrier Status: 67% Passable Depth, UNK debris
- Species Present: Chinook, Chum, Pink, Coho, Steelhead, Cutthroat Trout, Resident Trout
- Miles of habitat above barrier: 8.9

**Legend**

- Squalicum Re-Route
- Streams
- Streets

0 1,750 3,500 5,250 7,000  
Feet

Author: Sara Brooke Benjamin



Source: Esri, USGS, NOAA

# Squalicum Creek Fish Passage



Before: Three Corrugated Metal Pipe Culverts – various lengths, and spans. Spall rock dumped throughout site.



After: Bottomless Steel Plate Arch Culvert – 60 feet in length and 30 feet wide

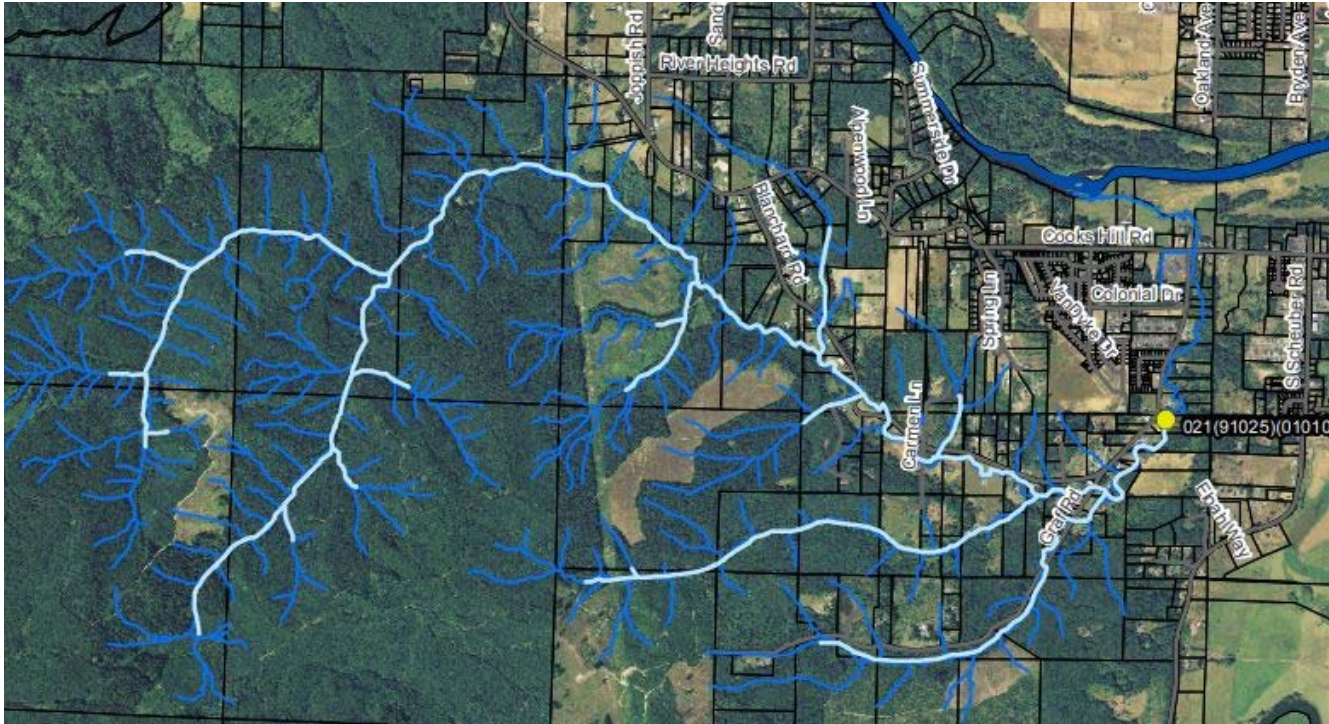


# Scammon Creek – Hamilton Property

- County / Ownership: Lewis / Private
- Barrier Status: 33% Passable Slope Barrier
- Species Present: Chinook, Chum, Coho, Steelhead, Cutthroat Trout, Resident Trout
- Miles of Habitat made accessible: 1.21
- Before: 4.5ft x 20 ft round culvert After: 44ft bridge



# #39 Scammon Creek – RM 1.15



- County / Ownership: Lewis / County
- Barrier Status: 33% Passable Depth Barrier
- Species Present: Chum, Coho, Steelhead, Cutthroat Trout, Resident Trout
- Miles of Habitat made accessible: 0.83
- Before: Twin Box Culverts 42ft L x 10ft W x 10ft H
- After: 50 ft bridge

## Scammon Creek – RM 1.15



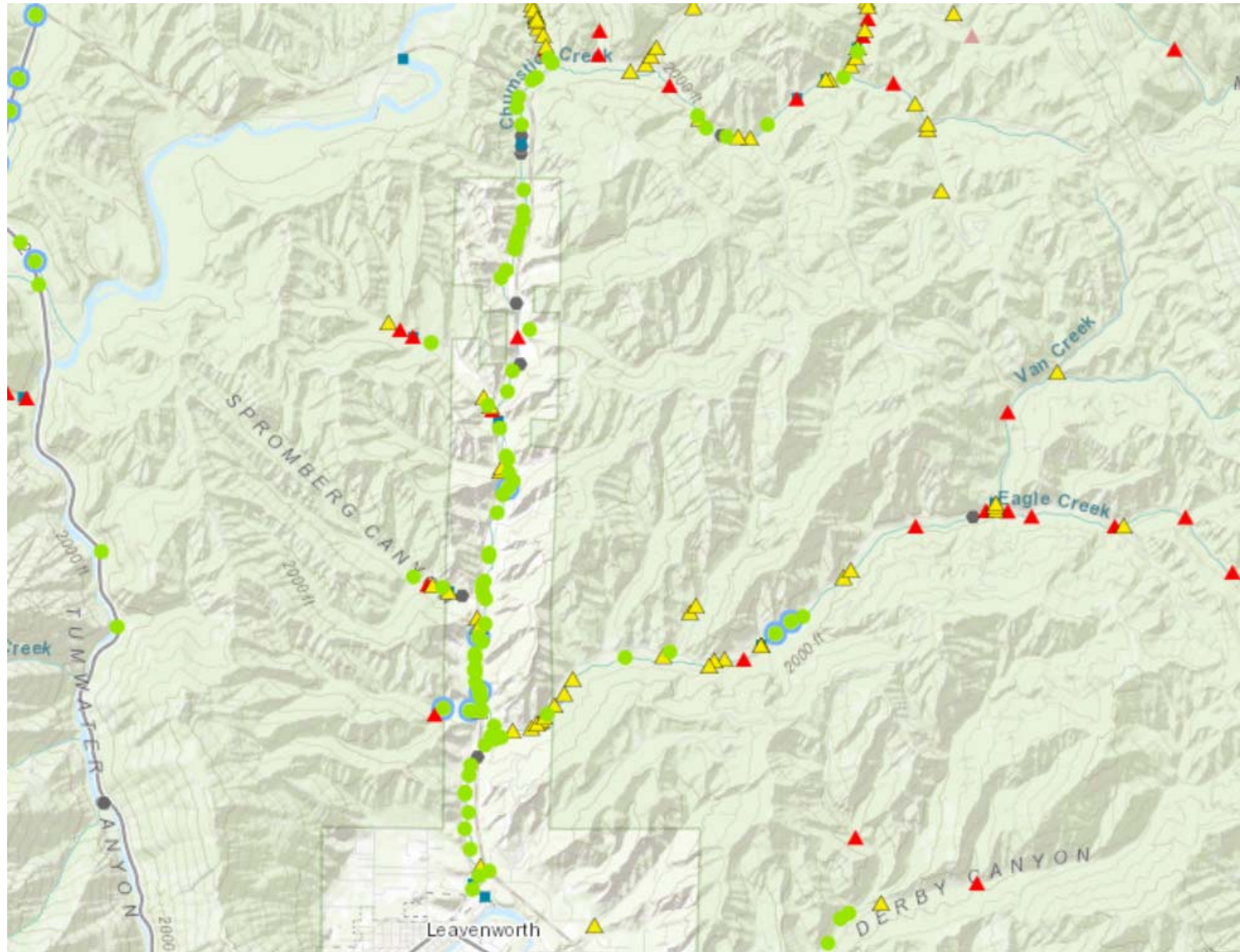
021(91025)(01010) Before



021(91025)(01010) After

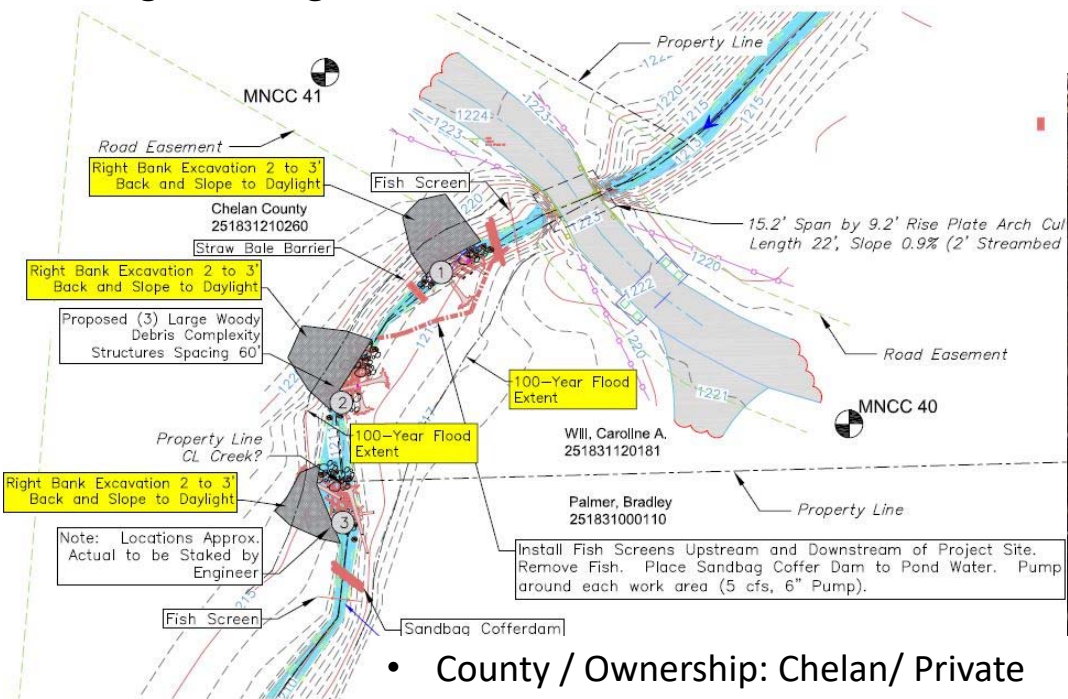


**#9  
Chumstick  
Creek  
Culverts:  
Alpenview  
and  
Motteler**



# Alpenview Road: Adaptive Management

- Initial survey 11/16/2017: Slope barrier, not countersunk
- Structure survey during design in 2019: sediment aggradation, countersunk, non-barrier
- Flashy bedload characteristics in stream due to lack of any key pieces of LWM and past and ongoing land use
- FBRB approved alternative design to install immobile LWM jams, in channel, to maintain minimum bedload height through structure.



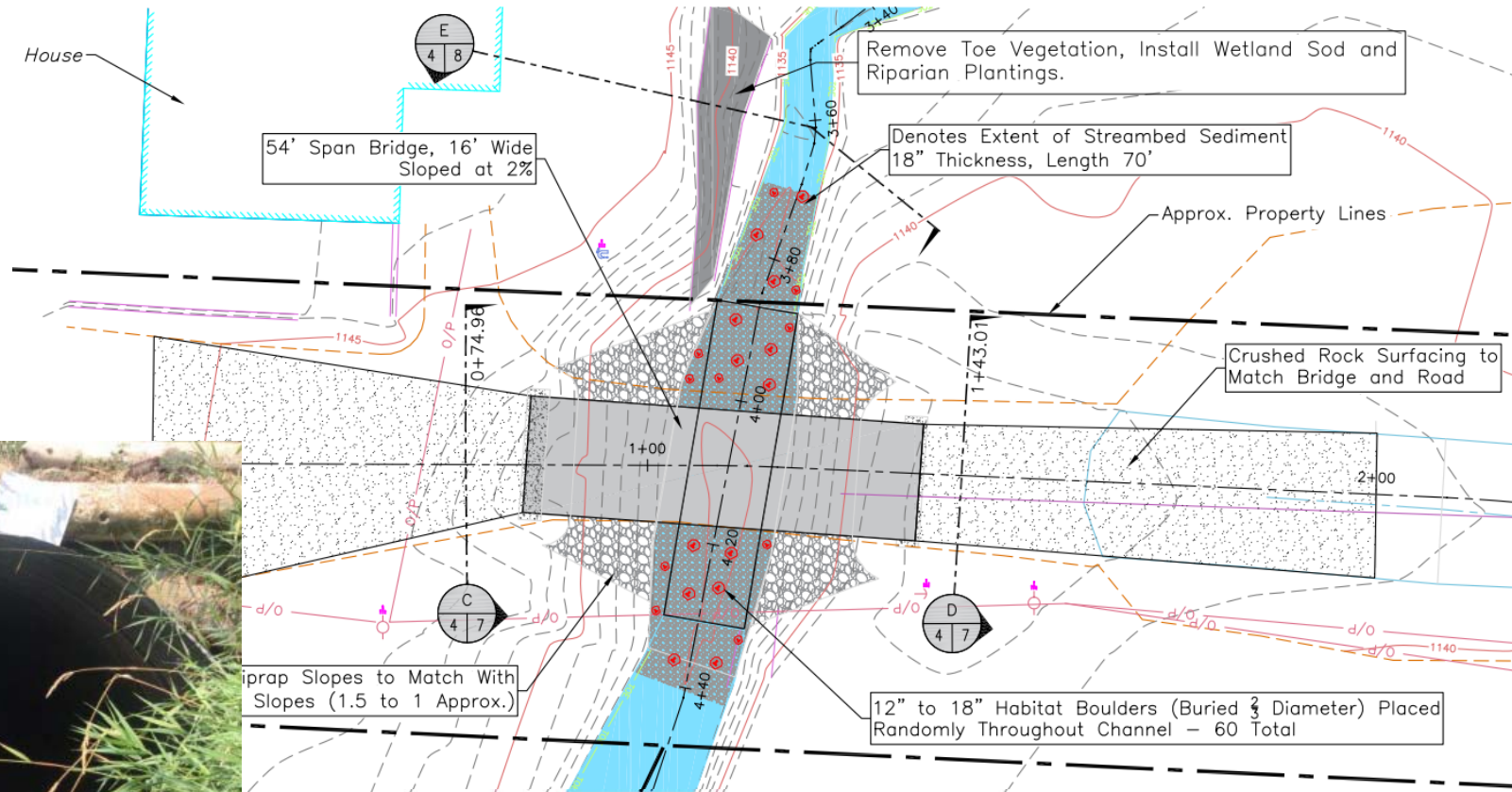
- County / Ownership: Chelan/ Private
- Barrier Status: 100% Passable



- Species Present: Chinook, Coho, Steelhead, Resident Trout
- Miles of Habitat made accessible: 14 (from lower barrier)

# Motteler Road

- County / Ownership: Chelan/ County
- Barrier Status: 67% Passable Slope Barrier



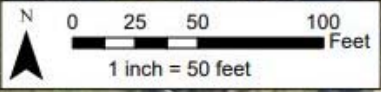
- Species Present: Chinook, Coho, Steelhead, Resident Trout
- Miles of Habitat made accessible: 14

# Motteler Road



Project in final stages, all in water work finished. Planting and paving scheduled for spring 2023

# #49 King Creek Barrier Removal



- County / Ownership: Lewis / County
- Barrier Status: 33% Passable Depth
- Species Present: Coho, Steelhead, Cutthroat Trout, Resident Trout
- Miles of Habitat made accessible: 2.3

**Legend**

- Existing Culvert
- Proposed Culvert



# King Creek Barrier Removal



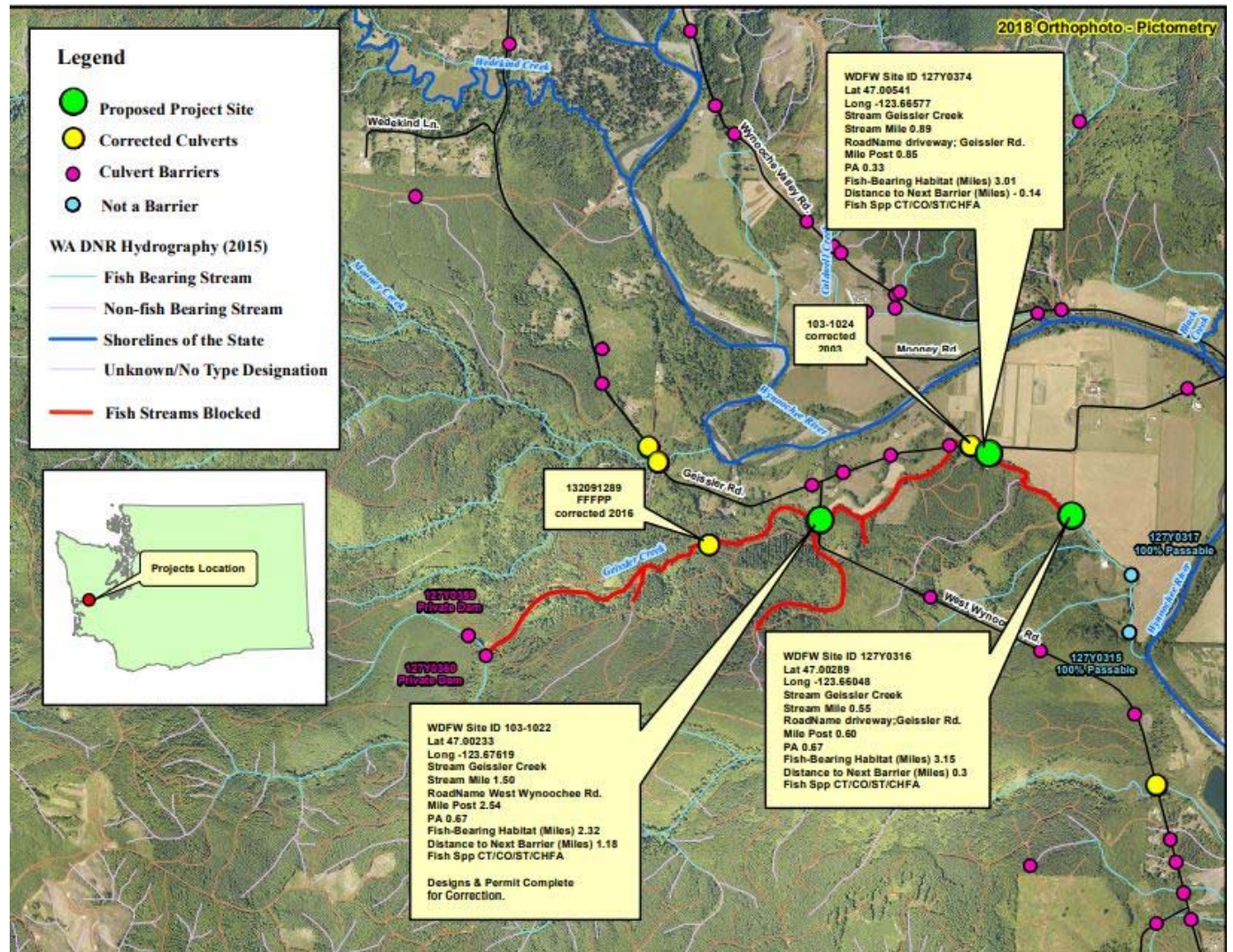
Before: 4ft x 45ft squash culvert



After: 16ft x 8ft x 36ft Box Culvert

# #37 Geissler Creek Fish Barrier Corrections

- Three barriers replaced for ~550K
- County / Ownership: Grays Harbor / County x 2 Private x 1
- Barrier Status: 67% Passable Velocity and Slope
- Species Present: Coho, Steelhead, Cutthroat Trout, Resident Trout
- Miles of Habitat made accessible: 2.35



# Geissler Creek Fish Barrier Corrections



103-1022 Before: 4ft x 35ft round culvert



After: 19ft x 55ft arch culvert



# Geissler Creek Fish Barrier Corrections



127Y0316 Before: 5ft x 40ft round culvert



After: 60ft steel bridge

# Geissler Creek Fish Barrier Corrections

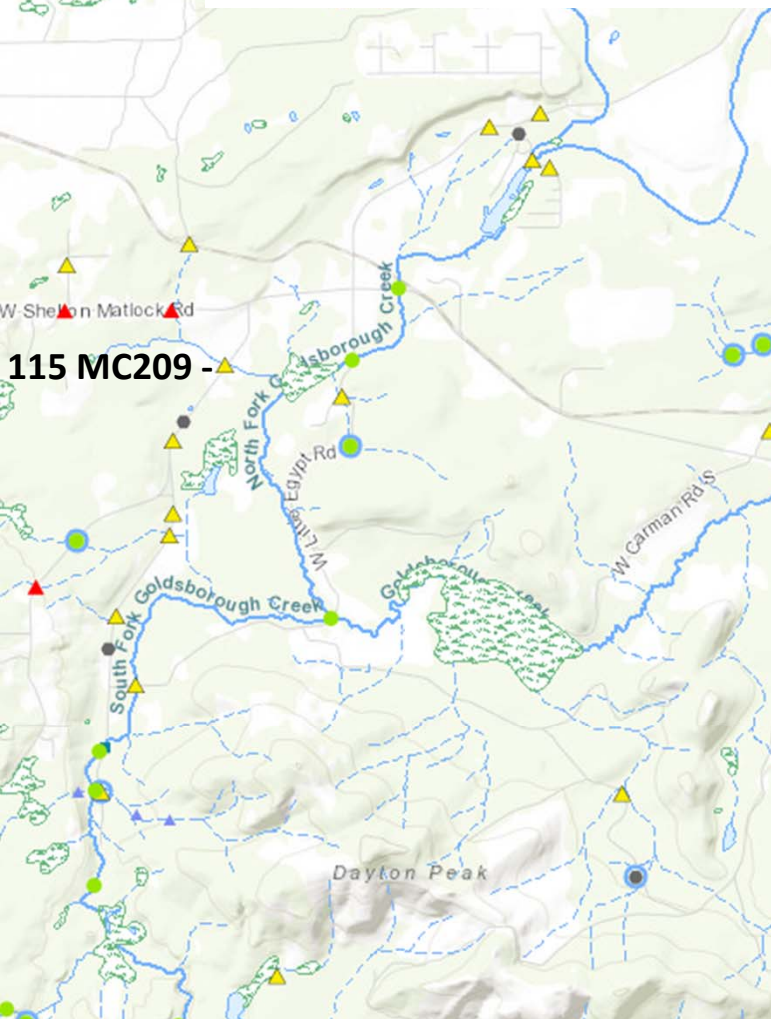


127Y0374 Before: 4ft by 25ft round culvert

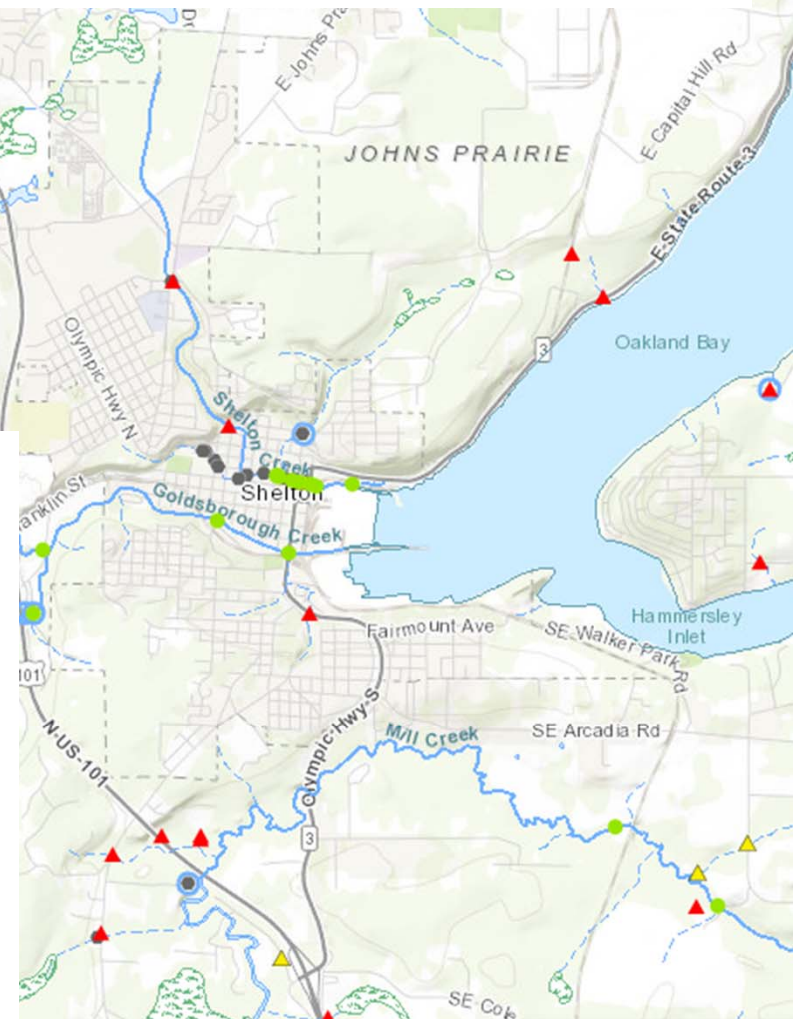


After: 50ft Steel Bridge

# #7 Dayton Creek- Highland Road Fish Barrier Correction



- Ownership: Mason County
- Priority watershed: Goldsborough
- Upstream Gain: 0.8 miles
- Potential Species Benefit: coho, steelhead, sea run cutthroat and resident trout



# Dayton Creek

## Before:

- 67% fish passable (slope barrier)
- Crossings: 2 5.5 ft squash corrugated steel culverts
- Hydraulic drop at Outlets of culverts



# Dayton Creek Barrier Correction

4-sided box culvert with 19 ft hydraulic opening



# #24 Uncle Johns Creek Fish Barrier Corrections

- Ownership: Mason County
- Upstream Gain: 1 miles, no upstream barriers
- Potential Species Benefit: chum, coho, steelhead, sea run cutthroat & resident trout



# Uncle Johns Creek Upper Fish Barrier Corrections



## Before:

- Passability: 67% (velocity barrier)
- Crossing: 4ft diameter precast concrete culvert, rip rap upstream & downstream



# Uncle Johns Creek Upper Fish Barrier Correction

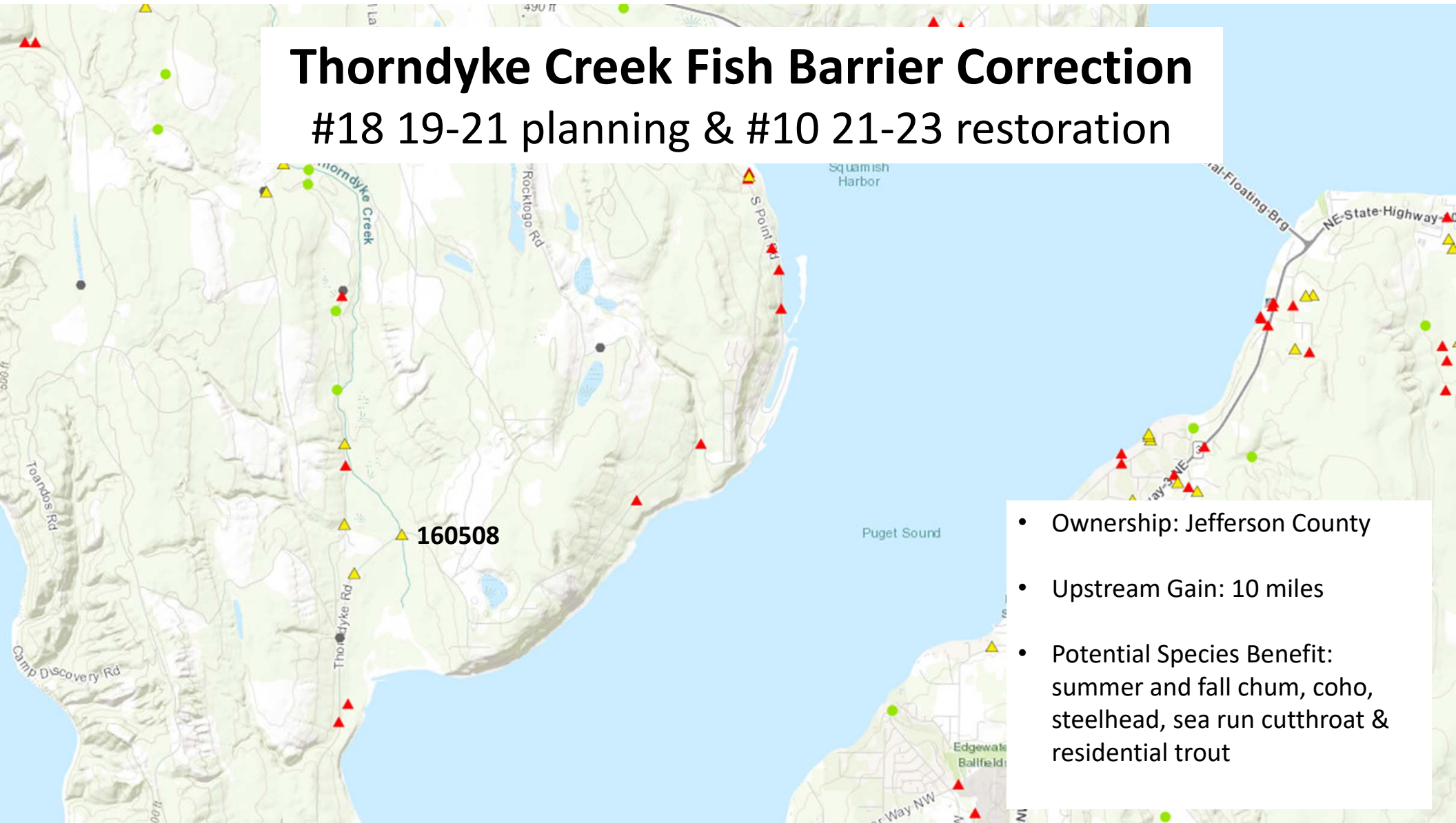
4-side box culvert with 18 ft hydraulic opening





# Thorndyke Creek Fish Barrier Correction

#18 19-21 planning & #10 21-23 restoration



- Ownership: Jefferson County
- Upstream Gain: 10 miles
- Potential Species Benefit: summer and fall chum, coho, steelhead, sea run cutthroat & residential trout

# Thorndyke Creek

## Before:

- 33% fish passable (velocity barrier)
- Crossings: 2 60-inch diameter corrugated steel culverts
- Inlet & outlet of right bank culvert perched at low flows



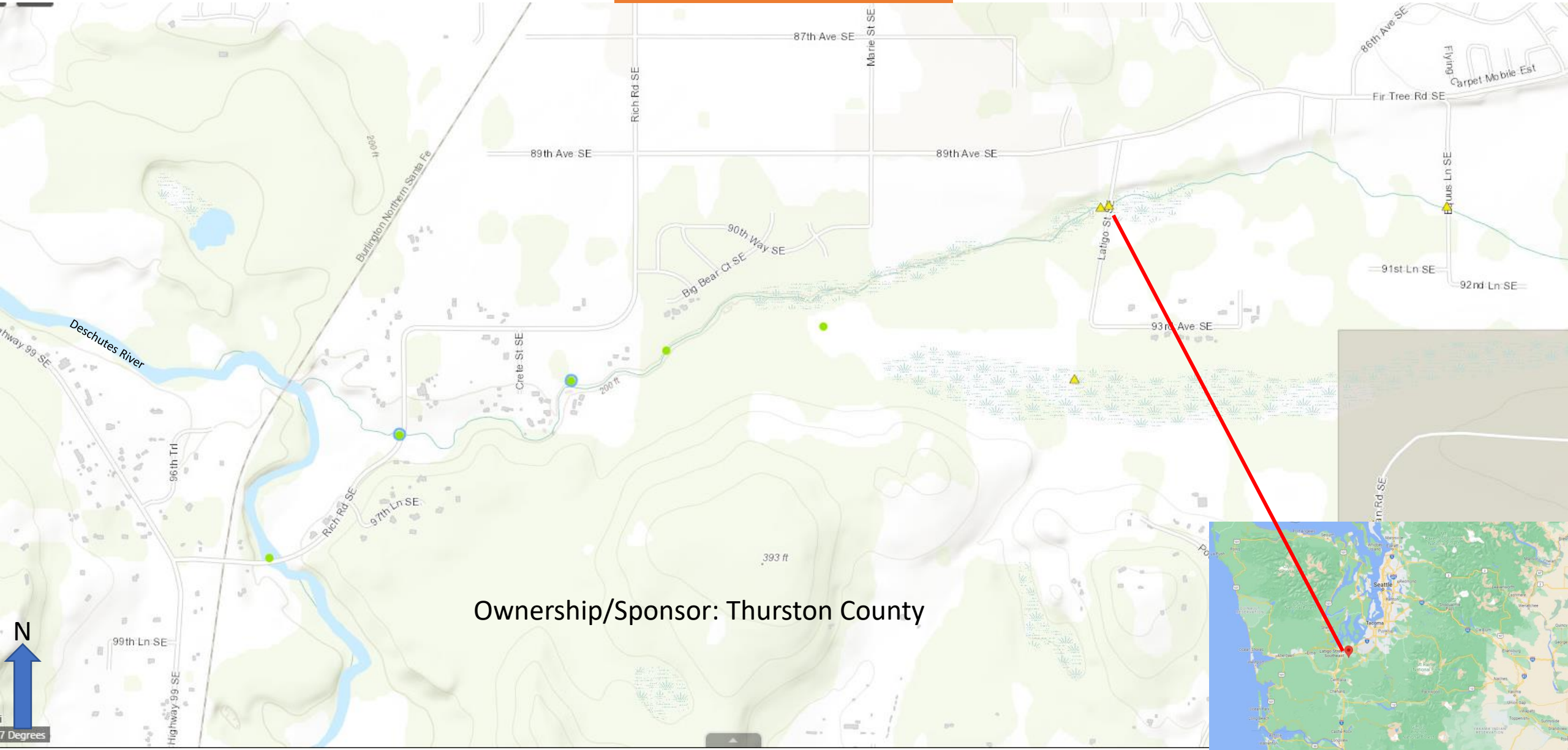
# Re-watering Thorndyke Creek



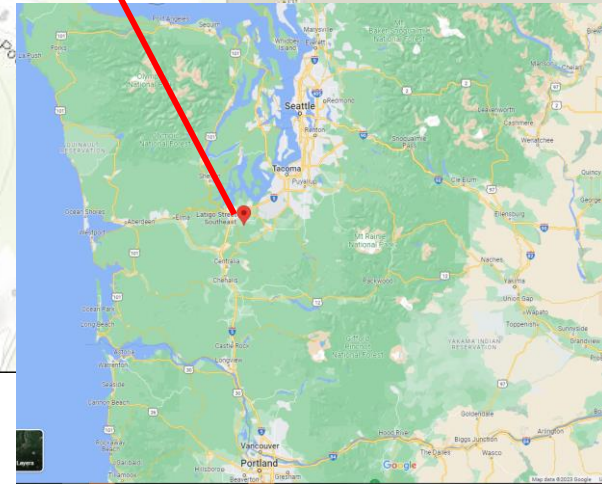
# Thorndyke Creek Post Restoration



# Spurgeon Creek



Ownership/Sponsor: Thurston County



# Spurgeon Creek 2 barrier removals

Chehalis Western Trail Site ID# 115 TC125

Before



Passability: 33% (velocity)  
Gain to next barrier: 50'  
Two 4ft round culverts  
Replaced with 86 ft bridge

Potential species benefit: Chum,  
Chinook, Coho, Steelhead, SR  
Cutthroat, Resident Trout

Latigo Street SE Site ID# 341645

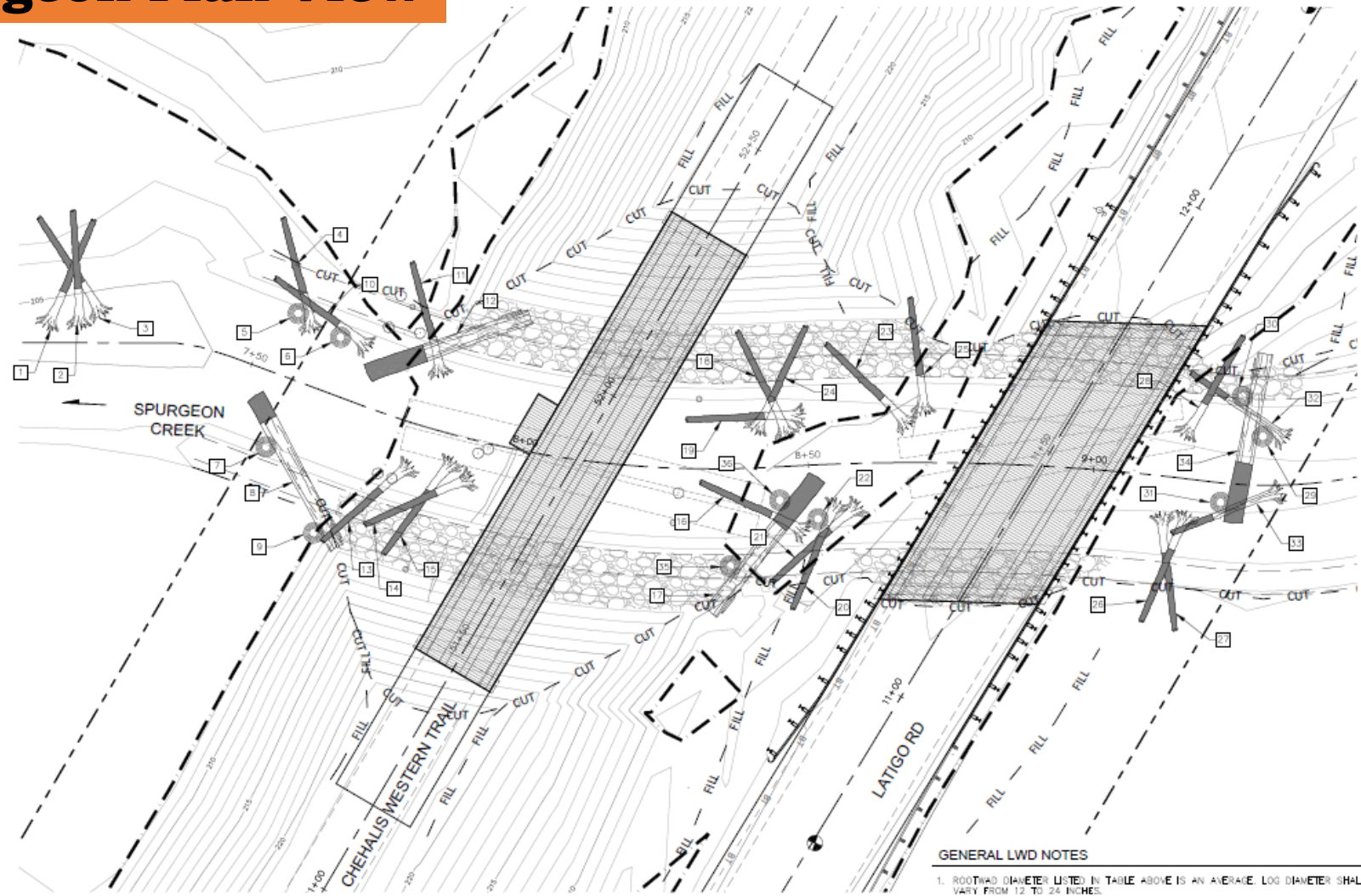
Before



Passability: 33% (velocity)  
Gain to next barrier: 3/4 mile  
Two 3.5' round culverts  
Replaced with 55 ft bridge

# Spurgeon Plan View

T.17 N.R.1 W. SEC. 16  
LAT: 46.95 LONG:-122.81



### LOG LEGEND:

- KEY LOG (3" DIA., 30' LONG)
  - PIER LOG (8" DIA., 10' LONG)
  - LOG WITH ROOTWAD (18" DIA., 20' LONG)
- \*GRAY PORTIONS OF LOG INDICATES BURIED END

### SHEET LEGEND

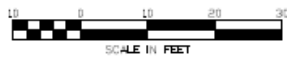
- RIGHT OF WAY
- GRADING LINES  
CUT  
FILL
- WETLAND BOUNDARY
- LIGHT LOOSE RIP RAP UNDER STREAMBED MATERIAL
- EXISTING TREES TO BE REMOVED

### LOG INFORMATION

LOG NUMBER	LOG TYPE	TOTAL LENGTH (FT)	BURIED LENGTH (FT)	DIAMETER (FT)	SLOPE (FT/FT)	MIN DEPTH (FT)
1	ROOTWAD	20.0	13.33	1.5	-0.044	3.5
2	ROOTWAD	20.0	13.33	1.5	-0.044	3.5
3	ROOTWAD	20.0	13.33	1.5	-0.044	3.5
4	ROOTWAD	20.0	13.33	1.5	-0.044	3.5
5	PIER LOG	10.0	6.66	0.7	-	8
6	PIER LOG	10.0	6.66	0.7	-	8
7	PIER LOG	10.0	6.66	0.7	-	8
8	KEY LOG	35.0	11.67	3.0	-0.268	6
9	PIER LOG	10.0	6.66	0.7	-	8
10	ROOTWAD	20.0	13.33	1.5	-0.176	5
11	ROOTWAD	20.0	13.33	1.5	-0.176	5
12	KEY LOG	35.0	11.67	3.0	-0.268	7.5
13	ROOTWAD	20.0	13.33	1.5	-0.176	7
14	ROOTWAD	20.0	13.33	1.5	-0.176	7
15	ROOTWAD	20.0	13.33	1.5	-0.176	7
16	ROOTWAD	20.0	13.33	1.5	-0.176	3
17	KEY LOG	30.0	10.0	3.0	-0.141	5.0
18	ROOTWAD	20.0	13.33	1.5	-0.176	7.5
19	ROOTWAD	20.0	13.33	1.5	-0.268	5
20	ROOTWAD	20.0	13.33	1.5	-0.268	7
21	ROOTWAD	20.0	13.33	1.5	-0.268	7
22	PIER LOG	10.0	6.66	0.7	-	8
23	ROOTWAD	20.0	13.33	1.5	-0.176	4.5
24	ROOTWAD	20.0	13.33	1.5	-0.194	3.5
25	ROOTWAD	20.0	13.33	1.5	-0.141	6
26	ROOTWAD	20.0	13.33	1.5	-0.176	3
27	ROOTWAD	20.0	13.33	1.5	-0.176	3
28	ROOTWAD	20.0	13.33	1.5	-0.268	8.5
29	PIER LOG	10.0	6.66	0.7	-	8
30	PIER LOG	10.0	6.66	0.7	-	8
31	PIER LOG	10.0	6.66	0.7	-	8
32	ROOTWAD	35.0	23.33	1.5	-0.268	9.5
33	ROOTWAD	25.0	16.66	1.5	-0.150	5.5
34	KEY LOG	35.0	11.67	3.0	-0.213	9.5
35	PIER LOG	10.0	6.66	0.7	-	8
36	PIER LOG	10.0	6.66	0.7	-	8

### GENERAL LWD NOTES

- ROOTWAD DIAMETER LISTED IN TABLE ABOVE IS AN AVERAGE LOG DIAMETER SHALL VARY FROM 12 TO 24 INCHES.
- PIER LOG DIAMETER LISTED IN TABLE ABOVE IS AN AVERAGE LOG DIAMETER SHALL VARY FROM 8 TO 16 INCHES.
- KEY LOG DIAMETER LISTED IN TABLE ABOVE IS AN AVERAGE LOG DIAMETER SHALL VARY FROM 30 TO 42 INCHES.
- LOGS SALVAGED DURING CLEARING AND CRUSHING MAY BE USED AS LWD IF LOGS MEET PROJECT SPECIFICATIONS. LOGS SHALL RETAIN ALL BRANCHES FOR USE AS LWD.
- CONTRACTOR SHALL FILL OVER EXCAVATED AREAS FOR LWD PLACEMENT WITH STREAMBED MATERIAL AT THE CONTRACTORS EXPENSE.
- SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION.



W.D.F.W. HPA HPA 2020-X-XXX+01  
U.S.A.C.F. REFERENCE RWS-2020-XXXX  
DATE: 12-18-2020

G:\Projects\08\_CapitalConst\63008 Spurgeon Creek Fish Passage Replacement\Design\CADD\Current Design\63008\_LWD\_12\_14\_20.dwg 3/15/2021

THURSTON COUNTY PUBLIC WORKS  
9605 TILLEY RD S. STE-C  
OLYMPIA, WA 98512-9140  
(360)867-2300

Designed: \*\*\*  
Drafted: RME  
Checked: \*\*\*  
Scale: AS NOTED

Revisions: \_\_\_\_\_  
Date: \_\_\_\_\_

FISH PASSAGE ENHANCEMENT PROGRAM  
LATIGO RD AND CHEHALIS WESTERN TRAIL  
AT SPURGEON CREEK

CP No. 63008 FA No. \_\_\_\_\_

LOG PLACEMENT PLAN

Sheet

8  
11

# Spurgeon Completed





# Ebright Completed

19-21 FBRB planning project  
constructed by City of  
Samammish

\*Ownership/Sponsor: City of  
Sammamish

\*Site ID# 920108

\*Passability: 67% (slope)

\*Gain to next barrier: ~ 1 mi

\*Two 2.5 ft concrete culverts

\*Replaced with 14 ft box  
culvert

