



**Brian Abbott Fish Barrier Removal Board Meeting
Proposed Agenda**

Tuesday, January 16, 2024: 9:00 a.m. to 12:00 p.m.

Teams Meeting Link: [Click here to join the meeting](#)

Or call in: [+1 872-242-8913](tel:+18722428913),670056137#

Phone Conference ID: 670 056 137#

Purpose of Meeting:	<i>The intent of this monthly Board meeting is to provide general updates around fish barrier removal topics and funding, queue future discussion on FBRB’s match requirements, present on FBRB project status updates, and share upcoming opportunities for engagement.</i>	
Time	Agenda Topic	Materials
9:00-9:30 a.m. (30 mins)	Welcome and Introductions – Joy Juelson, Facilitator, Triangle Associates; and Chair Tom Jameson, WDFW <ul style="list-style-type: none"> ▪ Board and staff introductions ▪ Review agenda and meeting purpose ▪ Public Comments: Submit public comments via e-mail to FBRB@dfw.wa.gov for inclusion in the record ▪ Review November summary <ul style="list-style-type: none"> ○ Decision: Approval of November 2023 meeting summary 	Agenda November 2023 Meeting Summary
9:30-9:50 a.m. (15 mins)	General Updates <ul style="list-style-type: none"> ▪ Fish Passage Strategy Updates – Jane Atha, WDFW ▪ Update on WDFW Fish Passage Rulemaking – Gabrielle Stilwater, WDFW ▪ Governor’s Proposed 2024 Supplemental Budget – Chair Jameson and John Foltz, RCO ▪ PROTECT Call for Projects – Christy Rains, WDFW ▪ Additional Topics? 	Governor’s 2024 Proposed Budget (Climate Budget) PROTECT Call for Projects (linked)
9:45-10:00 a.m. (15 mins)	Board Project Funding Updates – Christy Rains, WDFW and John Foltz, RCO <ul style="list-style-type: none"> ▪ Update on projects seeking or that have successfully obtained federal funding ▪ Update on amount and allocation of returned funds 	PROTECT Project Spreadsheet NOAA Grant FBRB Bundle
10:00-10:30 a.m. (30 mins)	FBRB Project Status Updates – Christy Rains & Technical Review Team (TRT), WDFW <ul style="list-style-type: none"> ▪ Presentation on status of FBRB funded projects 	FBRB Project Presentation
10:30-10:45 a.m. (15 mins)	Break	

Purpose of Meeting:	<i>The intent of this monthly Board meeting is to provide general updates around fish barrier removal topics and funding, queue future discussion on FBRB's match requirements, present on FBRB project status updates, and share upcoming opportunities for engagement.</i>	
Time	Agenda Topic	Materials
10:45-11:15 a.m. (30 mins)	FBRB Project Status Update Cont. – <i>Christy Rains & TRT, WDFW</i> <ul style="list-style-type: none"> ▪ Presentation on status of FBRB funded projects 	FBRB Project Presentation
11:15-11:30 a.m. (15 mins)	FBRB Match Requirements – <i>Christy Rains, WDFW and John Foltz, RCO</i> <ul style="list-style-type: none"> ▪ Update on SRFB match modernization ▪ Review FBRB match requirements ▪ Queue future Board discussion of match requirements 	FBRB Statute (HB 2251)
11:30-11:40 a.m. (10 mins)	Project and Policy Issue / Opportunities – <i>Board Members</i> <ul style="list-style-type: none"> ▪ 2025-2027 Grant Round status update – <i>Christy Rains, WDFW and John Foltz, RCO</i> ▪ Any additional topics or updates? 	
11:40-11:50 a.m. (10 mins)	Discuss Upcoming Opportunities for Engagement – <i>Triangle Associates & Board Members</i> <ul style="list-style-type: none"> ▪ Input from Board members ▪ Additional items upon request 	
11:50 a.m. - 12:00 p.m. (10 mins)	Action Items & Review – <i>Triangle Associates</i> <ul style="list-style-type: none"> ▪ Review action items / paths forward ▪ Plan for future meetings: <ul style="list-style-type: none"> ○ February 20, 2024 	
12:00 p.m.	Adjourn	

Rank	PRISM No.	Scope*	Stream Name	County	Project Sponsor	Legislative District	Original FBRB		PROTECT request	Type	Local Programs Authorized	Local Programs Comments	
							Request	FBRB Match					
2	21-1415	Restoration	Sexton Cr	Snohomish	Snohomish Co Surface Water	44	\$ 1,038,190	\$ 183,216		County			
6	21-1500	Restoration	Delameter Cr	Cowlitz	Cowlitz County of	19	\$ 1,657,500	\$ 292,500		County			
7	21-1422	Restoration	Trib to Harper Inlet	Kitsap	Kitsap County of	26	\$ 4,964,111	\$ 876,020	\$ 5,840,000	County	\$ 100,000	9/2023 Authorized Design	
8	21-1420	Restoration	Squalicum Cr	Whatcom	Bellingham City of	42	\$ 4,132,623	\$ 729,287		City			
9	21-1398	Restoration	Trib to MF Newaukum R	Lewis	Lewis County Public Works	20	\$ 1,067,870	\$ 266,968		County			
17	21-1458	Restoration	Fisher Cr (2 barriers)	Skagit	Skagit County Public Works	39	\$ 3,980,984	\$ 705,350	\$ 5,348,750	County			
20	21-1412	Restoration	Eagle Cr (4 barriers)	Chelan	Chelan Co Natural Resource	12	\$ 1,211,865	\$ 213,859		County			
23	21-1427	Restoration	George Davis Cr (3 barriers)	King	Sammamish City of	45	\$ 1,300,000	\$ 230,000		City			
25	21-1409	Restoration	Naylor Cr	Jefferson	Jefferson Co Public Works	24	\$ 1,591,320	\$ 280,822	\$ 1,913,000	County	\$ 1,913,000	9/2023 Authorized Construction	
27	21-1400	Restoration	Lost Cr	Lewis	Lewis County Public Works	20	\$ 1,045,798	\$ 261,450		County			
28	21-1418	Restoration	Padden Cr	Whatcom	Bellingham City of	40	\$ 1,335,973	\$ 235,760		City			
29	21-1404	Restoration	Padden Cr	Whatcom	Bellingham City of	40	\$ 4,103,719	\$ 724,186		City			
30	21-1396	Restoration	Berwick Cr (Logan Hill)	Lewis	Lewis County Public Works	20	\$ 1,244,662	\$ 311,166	\$ 1,430,000	County	\$ 1,430,000	9/2023 Authorized Construction	
31	21-1513	Restoration	Taylor Cr	King	Seattle Public Utilities	37	\$ 1,000,000	\$ 400,000		City			
33	21-1419	Restoration	Padden Cr	Whatcom	Bellingham City of	40	\$ 1,615,867	\$ 285,153		City			
34	21-1399	Restoration	Trib to Lucas Cr	Lewis	Lewis County Public Works	20	\$ 1,140,358	\$ 285,090		County			
55	21-1435	Restoration	Barrel Springs	Skagit	Skagit County Public Works	40	\$ 1,095,803	\$ 327,006	\$ 1,238,084	County			
63	21-1397	Restoration	Scammon Cr	Lewis	Lewis County Public Works	19	\$ 908,360	\$ 227,090	\$ 1,046,000	County		original request \$1M	
64	21-1395	Restoration	Berwick Cr (Lebree)	Lewis	Lewis County Public Works	19	\$ 1,102,379	\$ 275,595	\$ 1,168,000	County			
67	21-1506	Restoration	Erick Cr	Cowlitz	Cowlitz County of	19	\$ 1,747,600	\$ 308,400	\$ 2,408,000	County	\$ 410,000	4/2023 Authorized Design	
69	21-1514	Restoration	Percival Cr	Thurston	Tumwater City of	22	\$ 1,459,450	\$ 257,550	\$ 2,000,000	County	\$ 100,000	8/2023 Authorized Right of Way	
70	21-1511	Restoration	Derby Canyon	Chelan	Chelan Co Natural Resource	12	\$ 1,813,050	\$ 319,950		County			
76	21-1498	Restoration	Ruby Cr	Kitsap	Port Orchard City of	26	\$ 1,852,842	\$ 326,973		City			
87	21-1557	Restoration	Anderson Cr (Newberry Hill)	Kitsap	Kitsap County Public Works	35	\$ 1,995,971	\$ 354,230	\$ 2,400,000	County	\$ 3,020,000	9/2023 Authorized Construction	
92	21-1540	Restoration	Gee Cr	Clark	Ridgefield City of	20	\$ 1,423,000	\$ 1,475,650		City			
101	21-1558	Restoration	Trib to Swamp Cr	King	Kenmore City of	1	\$ 1,094,306	\$ 291,200		City			
102	21-1394	Restoration	Little Soos Cr (2 barriers)	King	Covington City of	47	\$ 2,395,920	\$ 422,810		City			
									\$ 24,791,834		\$ 6,973,000		
							total	\$ 48,411,161					

2023 NOAA FBRB bundle parameters:

- Unfunded FBRB 23-25 list (ranked >35)
- Restoration projects
- \$700k and greater
- Didn't submit for PROTECT

Rank	PRISM#	Project Name	FBRB Request	NOAA ~request	Sponsor	County	Ownership
55	21-1435	Barrel Springs and Dry Creek Restoration	\$1,095,803	\$1,095,803	Skagit County Public Works	Skagit	Private
56	21-1459	Berwick Crk at Bishop Fish Passage Constr - FBRB	\$1,306,213	\$1,340,187	Chehalis Port of	Lewis	County
62	21-1474	Coleman Creek at SM 4.7	\$733,899	\$764,020	Kittitas Co Conservation Dist	Kittitas	Private
70	21-1511	Derby Creek BNSF Crossing	\$1,813,050	\$2,092,050	Chelan Co Natural Resource	Chelan	Private
99	21-1553	Derby Canyon Orchards	\$374,000	\$924,500	Chelan Co Natural Resource	Chelan	Private
76	21-1498	Ruby Creek Culvert at Sidney Rd Port Orchard	\$1,852,842	\$2,253,000	Port Orchard City of	Kitsap	City
92	21-1540	Ridgefield - Gee Creek Culvert Replacement	\$1,423,000	\$1,423,000	Ridgefield City of	Clark	City
101	21-1558	kenmore 192 trib culvert	\$1,094,306	\$1,094,306	Kenmore City of	King	City
102	21-1394	SE 256th St Culvert Replacement CIP 1145	\$2,395,920	\$2,395,920	Covington City of	King	1 city,1 private
			\$12,089,033	\$13,382,786			

2023-25 FBRB project list with projects working towards PROTECT and the FBRB NOAA bundle reflected

Rank	PRISM#	Site ID	Project Name	Project Type	Grant Request	Sponsor	Ownership	PROTECT
1	21-1445	127H0049	Damon Creek at Kirkpatrick Road Fish Passage Const	Restoration	\$ 740,500	Chehalis Basin FTF	County	FBRB
2	21-1415	310516	Sexton Creek Fish Passage Restoration	Restoration	\$ 1,038,190	Snohomish Co Surface Water	County	FBRB
3	21-1443	80001261	Johnson Crk Triple Restoration, Hoko-Ozette '22	Restoration	\$ 395,1896	North Olympic Salmon Coalition	County	withdrew FBRB
4	21-1523	983061	West Fork Grays Fish Passage Project	Restoration	\$ 295,389	Cowlitz Indian Tribe	State	FBRB
5	21-1562	25.0253 0.00	Clear Creek Reconnection	Restoration	\$ 1,664,219	CREST	County	FBRB
6	21-1500	106c0057	Garlock Road Delameter Creek Fish Passage Project	Restoration	\$ 1,657,500	Cowlitz County of	County	FBRB
7	21-1422	932931	Harper Estuary Barrier Correction	Restoration	\$ 4,964,111	Kitsap County of	County	FBRB/PROTECT
8	21-1420	602273	Squalicum Cr at Baker Cr Fish Passage Improvement	Restoration	\$ 4,132,623	Bellingham City of	City	FBRB
9	21-1398	125 1301E18A	MF Newaukum Trib- Kruger Fish Passage Const- FBRB	Restoration	\$ 1,067,870	Lewis County Public Works	County	FBRB
10	21-1541	603691	Mission Creek Subbasin Fish Barrier Removal Design	Planning	\$ 188,087	Chelan Co Natural Resource	Private	FBRB
11	21-1392	125 1609W04B	Newskah Trib at Newkah Road 2 Fish Passage Const.	Restoration	\$ 562,902	Chehalis Basin FTF	County	FBRB
12	21-1437	1015C-07	Langlois Creek Culvert Replacements (SVT & PSE)	Restoration	\$ 1,219,166	Snoq Vly Watershed Dist	Multiple (1county, 1private)	FBRB
13	21-1461	603181	Beaver Creek Barriers 603181 and 603183	Restoration	\$ 78,406	Chelan Co Natural Resource	Private	FBRB
14	21-1517	930891	Griggs Creek Private Fish Passage Project	Restoration	\$ 261,000	South Puget Sound SEG	Private	FBRB
15	21-1424	343002	Thompson Creek at Thompson Creek Rd. Fish Passage	Restoration	\$ 500,000	Thurston County Public Works	County	FBRB
16	21-1431	602306	Mill Creek Passage - Roosevelt Street	Restoration	\$ 1,774,885	Tri-State Steelheaders Inc	City	FBRB
17	21-1458	03.0181 0.55	Fisher Creek Restoration at Cedardale and Starbird	Restoration	\$ 3,980,984	Skagit County Public Works	County	FBRB/PROTECT
18	21-1516	1350387	Jones Creek Fish Barrier Removal	Restoration	\$ 669,484	Cowlitz Indian Tribe	County	FBRB
19	21-1543	602331	Naneum Creek at SM 3.75	Restoration	\$ 205,300	Kittitas Co Conservation Dist	County	FBRB
20	21-1412	603922	Eagle Creek Four Barrier Corrections	Restoration	\$ 1,211,865	Chelan Co Natural Resource	Private	FBRB
21	21-1432	602295	Mill Creek Passage - 5th Avenue Bridge	Restoration	\$ 2,186,954	Tri-State Steelheaders Inc	City	FBRB
22	21-1491	XID5170	Williams Creek Fish Passage Design	Planning	\$ 462,400	Snohomish Co Surface Water	Multiple (2county, 3private)	FBRB
23	21-1427	920017	George Davis Creek Fish Passage Construction	Restoration	\$ 1,300,000	Sammamish City of	Multiple (2city, 1private)	FBRB
24	21-1470	997391	Wisem Creek Barrier Corrections x3 Project, Ph 2	Restoration	\$ 544,400	Trout Unlimited - WA Coast	County	withdrew FBRB
25	21-1409	160756	Naylors Cr. Culvert Replacement Construction	Restoration	\$ 1,591,320	Jefferson Co Public Works	County	FBRB/PROTECT
26	21-1545	603177	Stonewater Ranch Passage Improvement Project	Restoration	\$ 209,750	Trout Unlimited-WA Water Proj	Private	FBRB
27	21-1400	021(46005)(0438)	Lucas Crk Trib at MP 4.39- Fish Passage Const-FBRB	Restoration	\$ 1,045,798	Lewis County Public Works	County	FBRB
28	21-1418	01.0622 0.70	Padden Cr at 14th St Fish Passage Improvement	Restoration	\$ 1,335,973	Bellingham City of	City	FBRB
29	21-1404	994370	Padden Cr at 30th St Fish Passage Improvement	Restoration	\$ 4,103,719	Bellingham City of	City	FBRB
30	21-1396	021(40077)(0010)	Berwick Creek at Logan Fish Passage Const - FBRB	Restoration	\$ 1,244,662	Lewis County Public Works	County	FBRB/PROTECT
31	21-1513	921475	Taylor Creek Fish Passage Improvements	Restoration	\$ 1,000,000	Seattle Public Utilities	City	FBRB
32	21-1475	20800029	Anton & Cedar Creek Fish Passage Restoration	Restoration	\$ 901,000	Wild Salmon Center	County	FBRB
33	21-1419	01.0622 0.50	Padden Cr at 12th St Fish Passage Improvement	Restoration	\$ 1,615,867	Bellingham City of	City	FBRB
34	21-1399	021(46005)(0423)	Lucas Crk Trib at MP 4.24- Fish Passage Const-FBRB	Restoration	\$ 1,140,358	Lewis County Public Works	County	FBRB
35	21-1487	80001279	Hoko Ozette Rd MP 6.38 80001279 Culvert Replacem	Planning	\$ 249,235	North Olympic Salmon Coalition	County	FBRB
36	21-1508	602754	North Fork Goble Creek Fish Passage Design	Planning	\$ 382,500	Cowlitz County of	County	
37	21-1389	CR100	Carpenter and English Cr Fish Passage Barrier Impr	Restoration	\$ 353,351	Skagit Fish Enhancement Group	Private	
38	21-1536	370168	Black Slough Comprehensive Barrier Removals Design	Planning	\$ 207,000	Whatcom County FCZD	County	
39	21-1544	920054	Laughing Jacobs Creek Barrier Removal	Planning	\$ 755,860	Trout Unlimited Inc.	Multiple (1state, 2city)	
40	21-1551	602769	Peoples Creek Fish Passage	Restoration	\$ 379,950	Tulalip Tribes	Private	
41	21-1547	80001331	Hoko Ozette Rd MP 2.9 80001331 Culvert Replaceme	Planning	\$ 264,450	North Olympic Salmon Coalition	County	
42	21-1520	115 TC086	Beatty Crk at Chelsie Ln Fish Barrier Replacement	Restoration	\$ 490,000	South Puget Sound SEG	Private	
43	21-1433	602298	Mill Creek Passage Design - Colville to 3rd	Planning	\$ 195,760	Tri-State Steelheaders Inc	City	
44	21-1473	CR26	Carpenter Creek at Cascade Ridge Design	Planning	\$ 250,125	Skagit County Public Works	County	
45	21-1463	19.0174 0.10	Wright's Creek Culvert and Hatchery Intake Replace	Planning	\$ 316,073	North Olympic Salmon Coalition	Multiple (1Tribal, 1county)	
46	21-1552	880003	SE 432nd Street Culvert	Restoration	\$ 950,000	King County of	Multiple (1county, 1private)	
47	21-1438	601620	Eagle Creek Barrier Design & Replacement 601620	Restoration	\$ 354,199	Chelan Co Natural Resource	Private	
48	21-1464	132121870A	Elliott Rd Barriers Design	Planning	\$ 97,000	Tulalip Tribes	Private	
49	21-1532	601799	Williams Creek #1	Restoration	\$ 283,000	Tulalip Tribes	Private	
50	21-1501	992658	Ennis Creek Fish Passage Design	Planning	\$ 255,000	Port Angeles City of	City	
51	21-1519	132111613	Pilchuck Tributary Watt Crossing	Restoration	\$ 257,000	Tulalip Tribes	Private	
52	21-1488	127E0416	W. Beeville Loop Road Fish Passage Planning	Planning	\$ 126,050	Trout Unlimited Inc.	County	
53	21-1391	CR28	CR 28 East Hickox Road at Carpenter Cr.	Planning	\$ 192,500	Skagit Fish Enhancement Group	City	
54	21-1417	992167	Secret Creek Fish Passage Design	Planning	\$ 501,900	Snohomish Co Surface Water	County	
55	21-1435	983023	Barrel Springs and Dry Creek Restoration	Restoration	\$ 1,095,803	Skagit County Public Works	Private	NOAA
56	21-1459	601456	Berwick Crk at Bishop Fish Passage Constr - FBRB	Restoration	\$ 1,306,213	Chehalis Port of	County	NOAA

Rank	PRISM#	Site ID	Project Name	Project Type	Grant Request	Sponsor	Ownership	PROTECT
57	21-1484	604104	Coal Creek Fish Passage Restoration	Restoration	\$ 260,800	Trout Unlimited - WA Coast	Private	
58	21-1489	127E0411	W. Beeville Road Fish Passage Planning	Planning	\$ 126,050	Trout Unlimited Inc.	County	
59	21-1472	102 N196	North Creek Fish Barrier Correction Project at McC	Restoration	\$ 284,000	Adopt A Stream Foundation	County	
60	21-1413	160253	Center Road MP 3.23 Fish Barrier Removal	Planning	\$ 250,750	Jefferson Co Public Works	County	
61	21-1423	13.0133 0.50	Green Cove at Country Club Rd. Fish Passage Design	Planning	\$ 297,500	Thurston County Public Works	County	
62	21-1474	Col04.97	Coleman Creek at SM 4.7	Restoration	\$ 733,899	Kittitas Co Conservation Dist	Private	NOAA
63	21-1397	021(14001)(0134)	Scammon Creek at Graf Fish Passage Const - FBRB	Restoration	\$ 908,360	Lewis County Public Works	County	PROTECT
64	21-1395	601812	Berwick Creek at Labree Fish Passage Const - FBRB	Restoration	\$ 1,102,379	Lewis County Public Works	County	PROTECT
65	21-1521	998111	Forrester Barrier Culvert Removal	Restoration	\$ 230,210	Kitsap Conservation District	Private	
66	21-1548	160549	East Tarboo Creek Fish Passage	Planning	\$ 246,500	Northwest Watershed Institute	County	
67	21-1506	106c0008	Erick Creek Fish Passage Project	Restoration	\$ 1,747,600	Cowlitz County of	County	PROTECT
68	21-1528	14.0026 0.10	Lynch Road MP 2.27-Lynch Creek Barrier Planning	Planning	\$ 154,228	Mason County of	County	
69	21-1514	3410304	Percival Creek Fish Barrier Removal	Restoration	\$ 1,459,450	Tumwater City of	City	PROTECT
70	21-1511	040072	Derby Creek BNSF Crossing	Restoration	\$ 1,813,050	Chelan Co Natural Resource	Private	NOAA
71	21-1546	609424	Williams Creek #2	Restoration	\$ 414,000	Tulalip Tribes	Private	
72	21-1542	881002	Barnabee Farms Springbrook Creek Restoration	Restoration	\$ 200,000	Bainbridge Island Land Trust	Private	
73	21-1455	602722	Seidel Creek Multiple Fish Barrier Correction Desi	Planning	\$ 190,000	Adopt A Stream Foundation	Private	
74	21-1530	609418	Whiskey Creek Barriers, Ellensburg	Restoration	\$ 500,000	Mid-Columbia RFEG	Private	
75	21-1390	NC213	NC 213 Norway Park Creek at Pavilion Dr	Restoration	\$ 379,500	Skagit Fish Enhancement Group	Private	
76	21-1498	1320082	Ruby Creek Culvert at Sidney Rd Port Orchard	Restoration	\$ 1,852,842	Port Orchard City of	City	NOAA
77	21-1393	27.0218 0.30	Mill Creek Barrier Improvements NE 259th St-61 Av	Planning	\$ 371,450	Clark County Public Works	County	
78	21-1531	920751	South Fork Dogfish Creek Culvert Replacement	Restoration	\$ 554,805	Poulsbo City of	City	
79	21-1555	993475	Upper Catherine Creek Barrier Correction Design	Planning	\$ 49,000	Adopt A Stream Foundation	Private	
80	21-1486	1080139	Clearwater Creek Bridge Design	Planning	\$ 200,000	Sea Resources	County	
81	21-1529	15.0340 0.20	Fletcher Bay Rd Fish Passage Restoration	Planning	\$ 146,000	Mid-Puget Sound Fish Enh Grp	City	
82	21-1549	105 K053021a	North Cr Culvert Replacement at Harborview Dr	Planning	\$ 350,000	Gig Harbor Public Works	City	
83	21-1538	606544	Crystal Creek	Planning	\$ 195,000	Trout Unlimited Inc.	Multiple (3county, 2city, 1private)	
84	21-1522	105 K011119a	Schoolhouse at 108th	Restoration	\$ 977,500	Pierce County of	County	
85	21-1468	608267	Cutler Barrier Removal	Restoration	\$ 144,907	Cascadia Conservation District	Private	
86	21-1426	105 R120623a	20th Street Culvert Replacement Design	Planning	\$ 221,000	Fife City of	City	
87	21-1557	998132	Newberry Hill Culvert Replacement Site ID 998132	Restoration	\$ 1,995,971	Kitsap County Public Works	County	PROTECT
88	21-1526	14.0029D 0.13	Mill Creek Trib. Shadow Valley Fish Passage	Restoration	\$ 403,000	South Puget Sound SEG	Private	
89	21-1480	040067	Derby Creek Barrier Correction	Restoration	\$ 213,418	Cascade Col Fish Enhance Group	Private	
90	21-1439	125 1301E17B	Hammer and Guenther Fish Barrier Removal	Restoration	\$ 292,528	Lewis Conservation District	Private	
91	21-1504	931933	Panther Creek Barrier Removal - Talbot Road	Planning	\$ 412,500	Renton City of	City	
92	21-1540	1350331	Ridgefield - Gee Creek Culvert Replacement	Restoration	\$ 1,423,000	Ridgefield City of	City	NOAA
93	21-1497	881052	Cooper Creek Culvert Restoration	Restoration	\$ 719,845	Bainbridge Island City of	City	
94	21-1496	920409	Annapolis Creek Culvert Removal at Bay St	Planning	\$ 425,000	Port Orchard City of	City	
95	21-1479	040069	Derby Creek Barrier Design	Planning	\$ 185,000	Cascade Col Fish Enhance Group	Private	
96	21-1502	938435	Gilliam Creek Fish Passage Prelim Dsgn	Planning	\$ 300,000	Tukwila City of	City	
97	21-1481	700302	Little Chumstick Fish Barriers Design	Planning	\$ 188,000	Cascade Col Fish Enhance Group	Private	
98	21-1537	700197	Fauntleroy Creek Culvert Replacement at 45th	Planning	\$ 700,000	Seattle Public Utilities	City	
99	21-1553	040071	Derby Canyon Orchards	Restoration	\$ 374,000	Chelan Co Natural Resource	Private	NOAA
100	21-1554	603057	Camas Creek Crossing Design Project	Planning	\$ 100,500	Chelan Co Natural Resource	County	
101	21-1558	922130	kenmore 192 trib culvert	Restoration	\$ 1,094,306	Kenmore City of	City	NOAA
102	21-1394	983173	SE 256th St Culvert Replacement CIP 1145	Restoration	\$ 2,395,920	Covington City of	Multiple (1city, 1private)	NOAA

Ostrander Creek Fish Passage Project

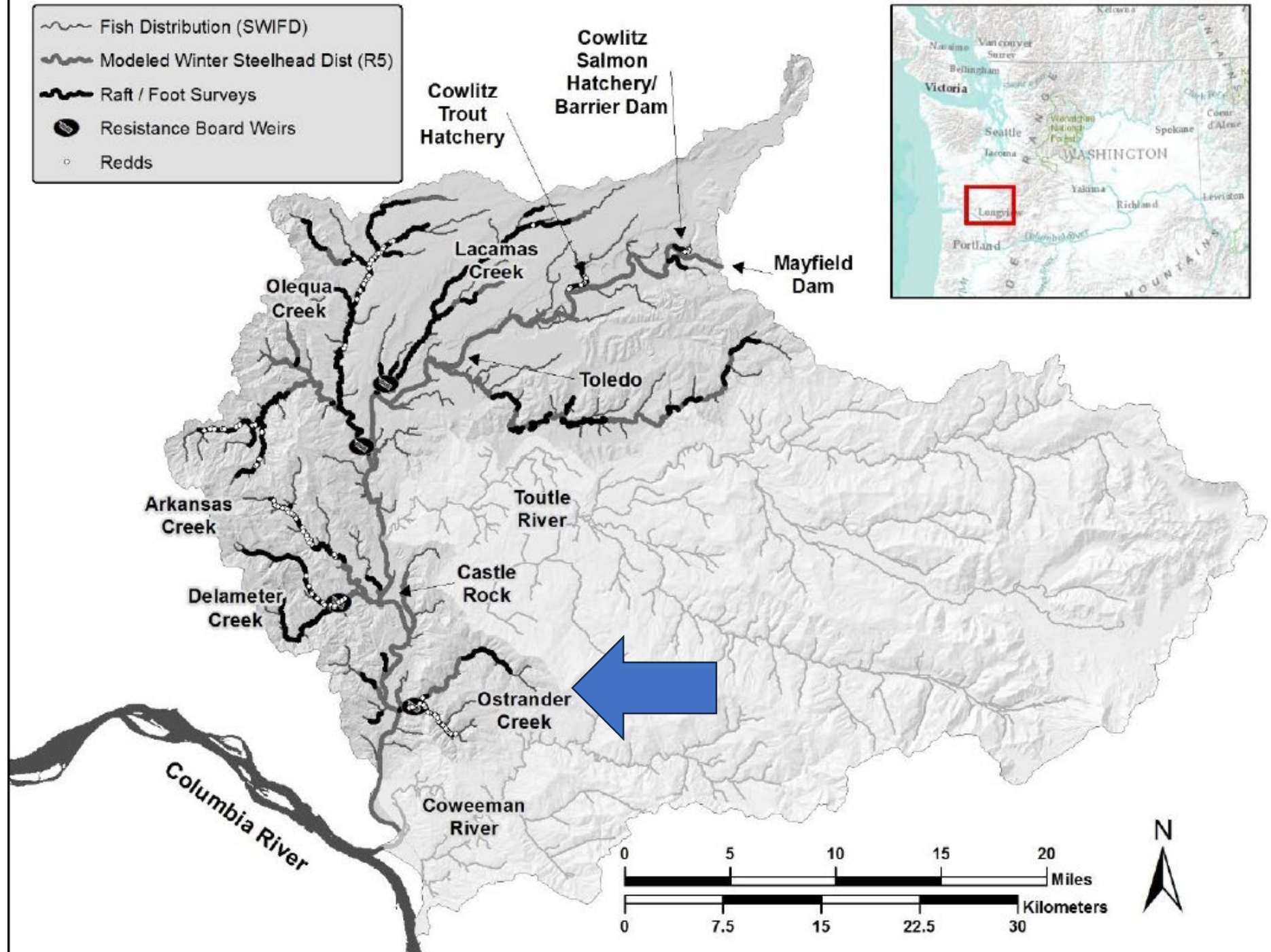
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Cowlitz Indian Tribe

Peter Barber



-  Fish Distribution (SWIFD)
-  Modeled Winter Steelhead Dist (R5)
-  Raft / Foot Surveys
-  Resistance Board Weirs
-  Redds



Ostrander Cr 2

(Reach Information)

Tier: 3

Reach Length: 39613 ft.

Multi-Species Values

Restoration: 91%

Preservation: 9%

Description: SF Ostrander Creek to Ostrander RB Trib 2 ('04)

Species ^A	Designation	Reach Potential	Restoration Needs	Multi-Species Priority *
<u>Winter Steelhead</u>	Contributing	M	Floodplain function and channel migration processes	H
<u>Coho</u>	Primary	L	Instream flows	H
Chum	Contributing		Off channel & side channel habitat	H
Fall Chinook	Contributing		Riparian conditions & functions	H
Projects				
<u>DNR-A0302</u>			Stream channel habitat structure & bank stability	H
<u>DNR-A0075</u>			Watershed conditions & hillslope processes	H
<u>DNR-L0013</u>			Water quality	M
<u>DNR-L0003</u>			Access to blocked habitats	L
<u>DNR-L0014</u>			Regulated stream management for habitat functions	L
<u>DNR-A0353</u>				

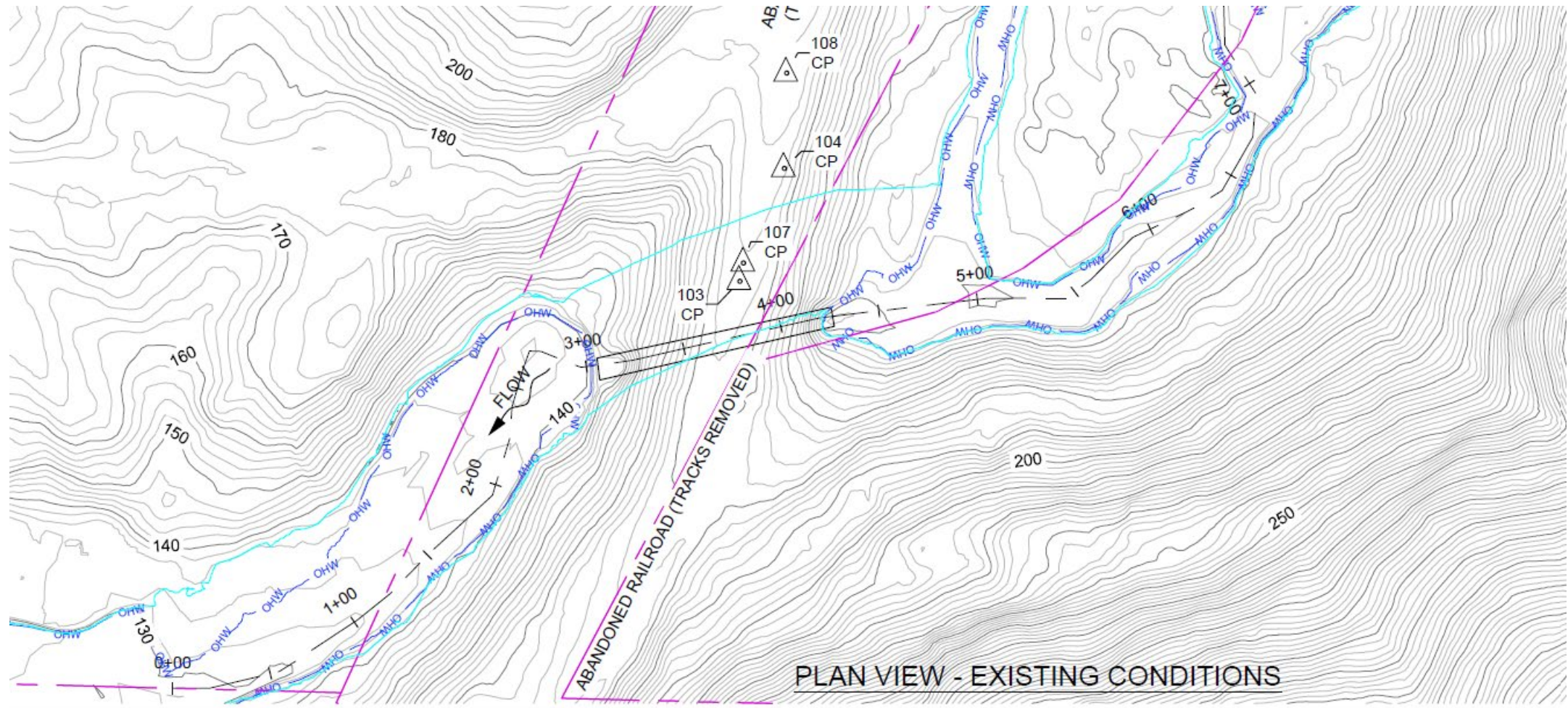
Note: *Multi-Species Priority are derived from conditions of limiting factors and not from field observation

^ASpecies without a reach potential are present in the subbasin not in the reach

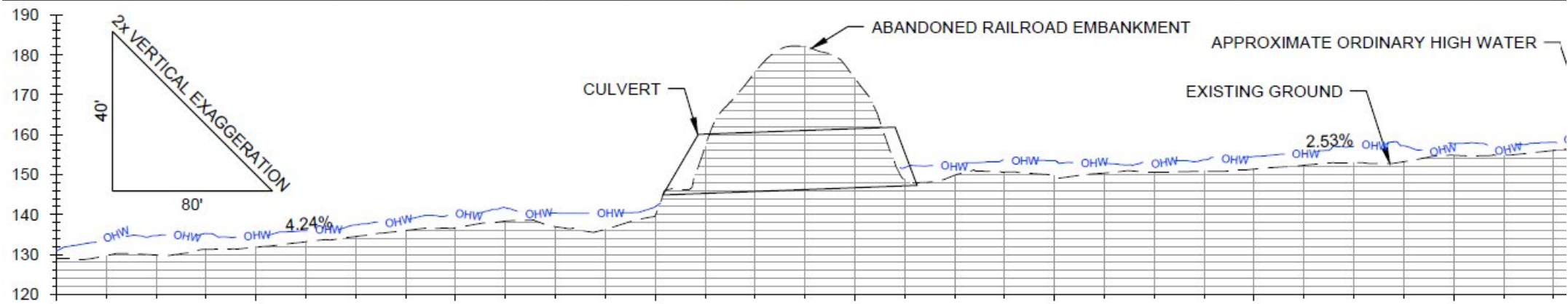








PLAN VIEW - EXISTING CONDITIONS

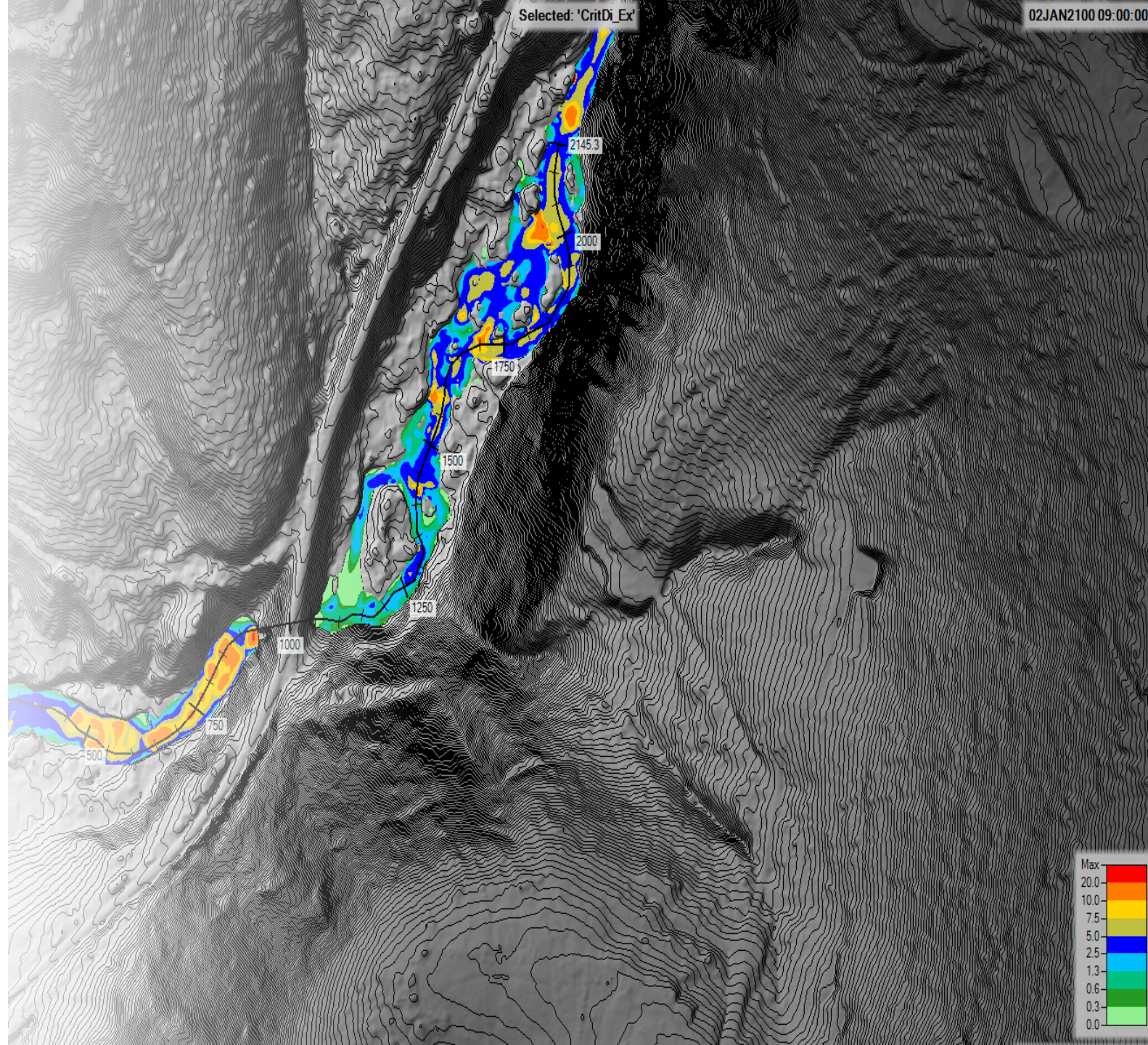


Project Goals

1st Restore fish passage

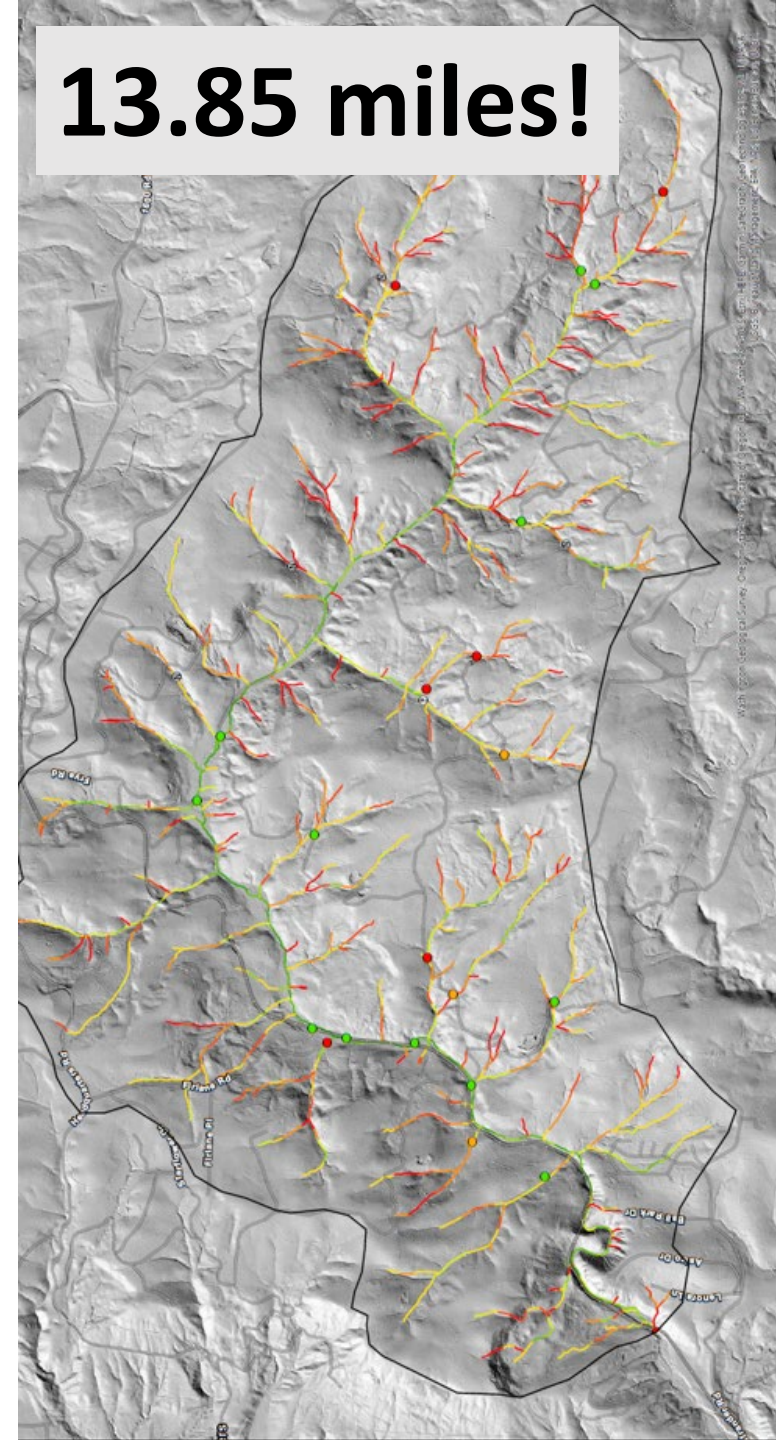
2nd Restore/replicate natural channel conditions

3rd *Embrace natural processes but limit the transport of large quantities of stored bedload to downstream reaches*



Design Criteria

- Restore Fish Passage (May, January are target times)



Design Criteria

- Restore Fish Passage (May, January are target times)
- Develop design that matches geomorphic template of site



Design Criteria

- Restore Fish Passage (May, January are target times)
- Develop design that matches geomorphic template of site
- Do not increase flooding, erosion, or sediment impacts to downstream neighbors
 - Hold grade in riffle at Q100



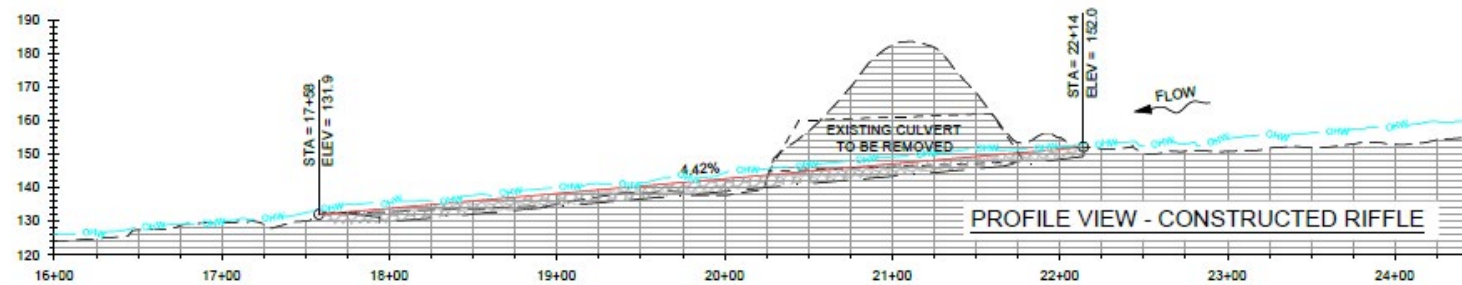
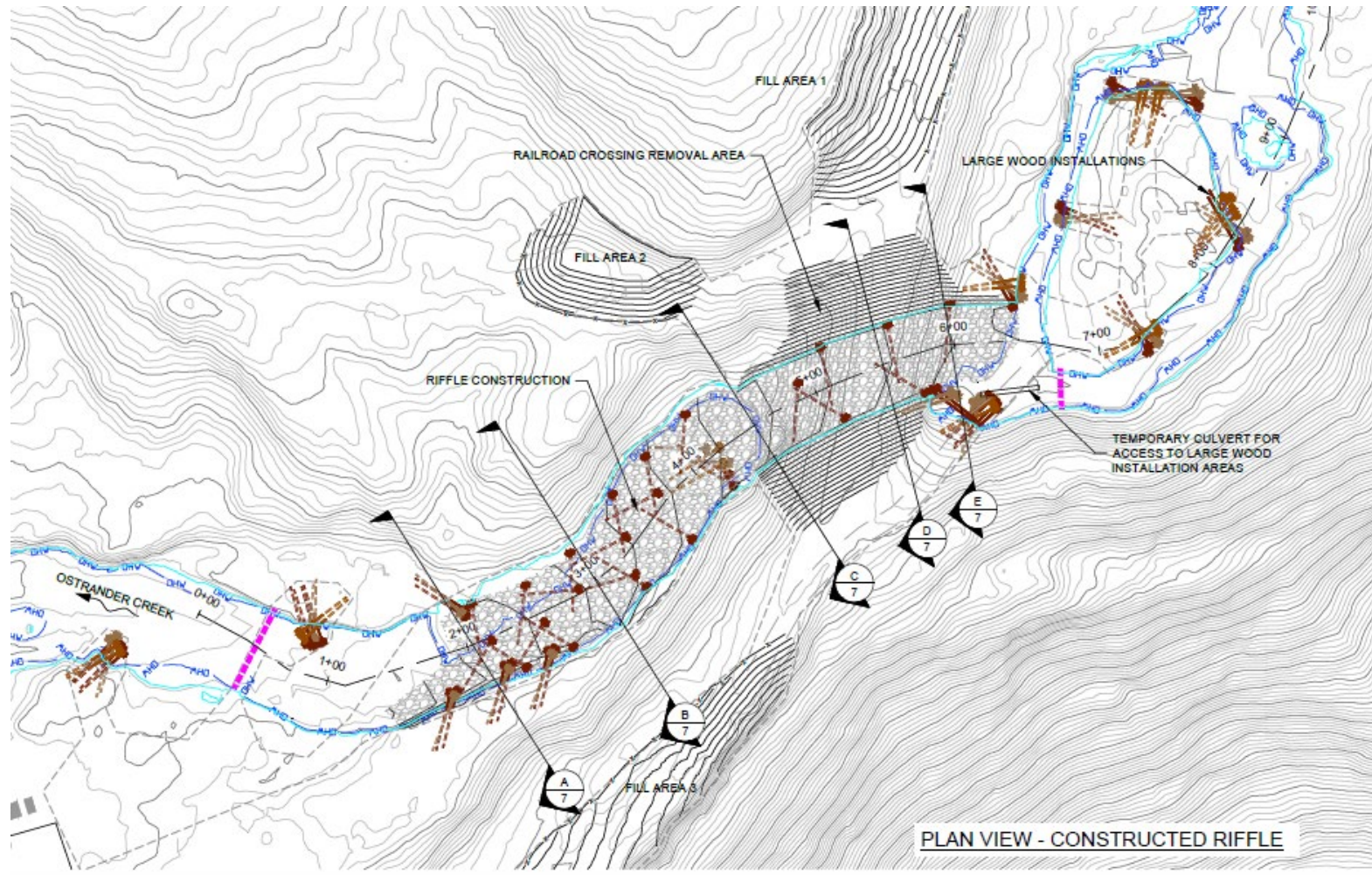
Design Criteria

- Restore Fish Passage (May, January are target times)
- Develop design that matches geomorphic template of site
- Do not increase flooding, erosion, or sediment impacts to downstream neighbors
 - Hold grade in riffle at Q100
- Keep D50 within 20% of existing conditions



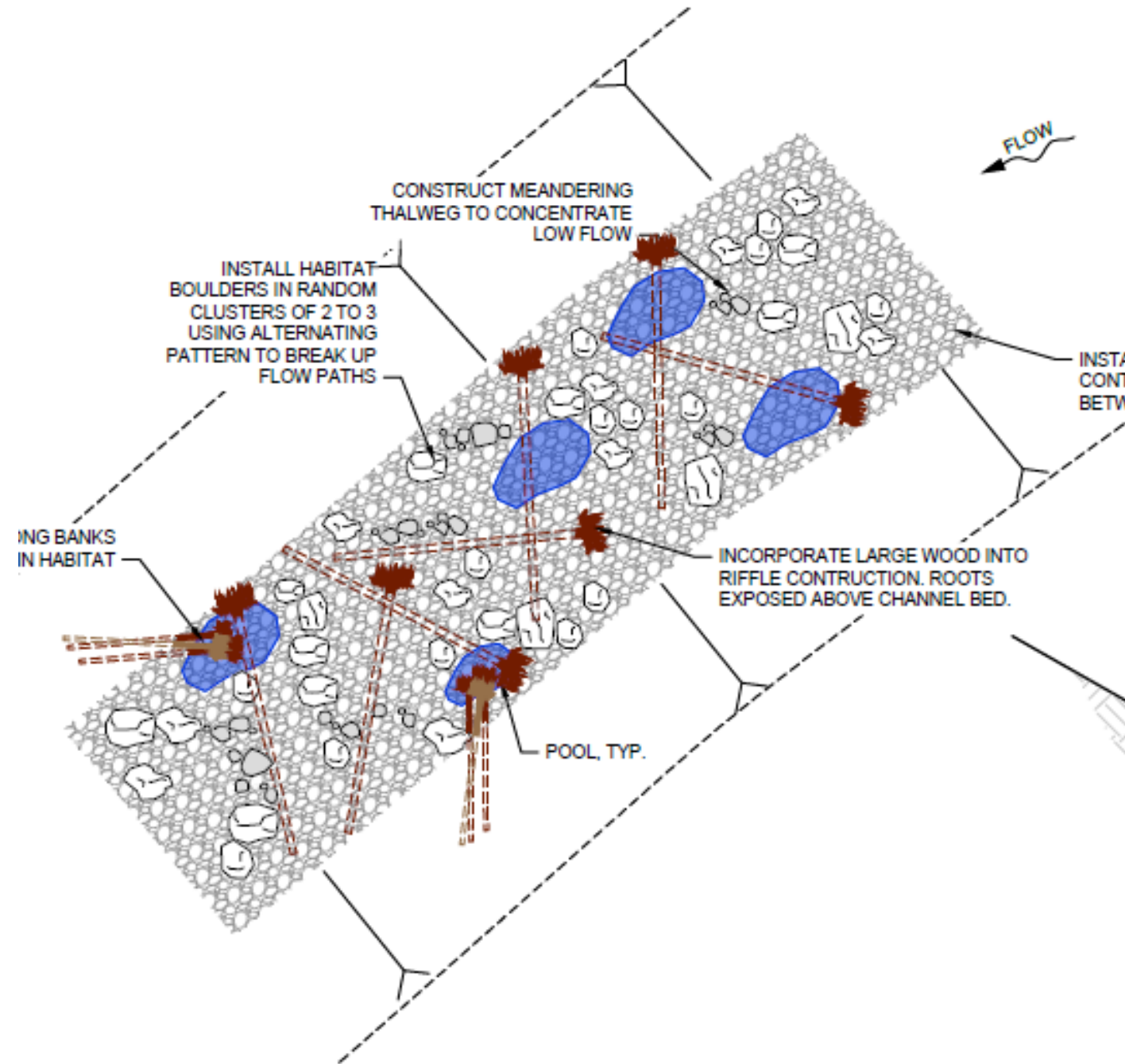
Design - Alt 1B

- 14 CY material removed, channel gradient at 4.5%



Design - Alt 1B

- 14 CY material removed, channel gradient at 4.5%
- LWD incorporated into the channel to create pool complexity with the riffle design



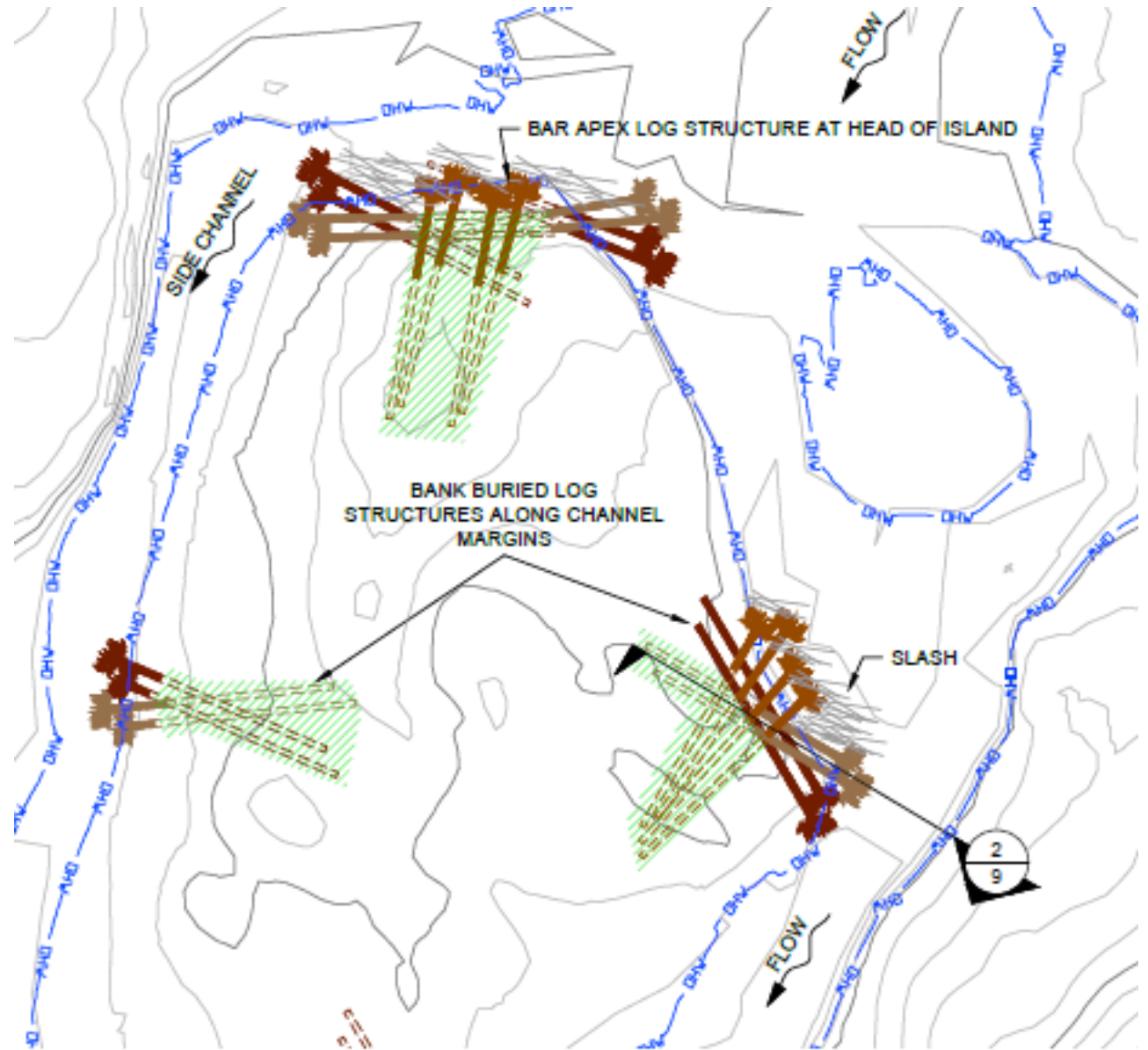
Design - Alt 1B

- 14 CY material removed, channel gradient at 4.5%
- LWD incorporated into the channel
- Stream-sim type approach – matches downstream channel slope



Design - Alt 1B

- 14 CY material removed
- LWD incorporated into the channel
- Stream-sim type approach – matches downstream channel slope
- Upstream logjam installation to maintain channel sinuosity and natural deposition areas



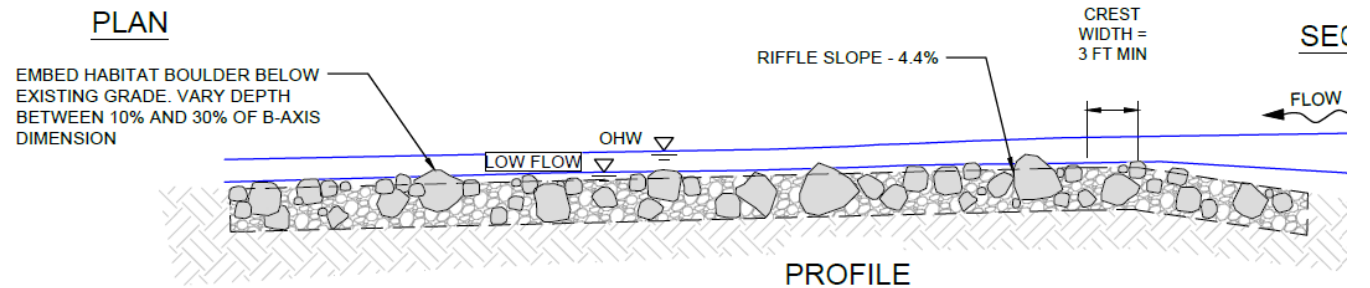
Design - Alt 1B

- 14 CY material removed
- LWD incorporated into the channel
- Stream-sim type approach – matches downstream channel
- Logjam installation upstream to maintain channel sinuosity and natural deposition areas
- Riffle mixture composed of two size classes. One is buried to maintain channel stability; the other is a surface layer to match instream conditions.

Stability Matrix			
HEC-11 Rock Gradation. (Table 2, page 36), based on D50, 25% larger for rounded			
Percent of gradation smaller than	Rock Size Range		GammaS = 167 pcf
	min	max	
	(in)	(in)	
100	36.7	41.6	50% MIX 1 - STABILITY MATRIX (24-42" SUB-ANGULAR OR ROUNDED BOULDERS)
85	29.4	34.3	
50	24.5	28.2	

Alluvium Mix (Fuller-Thompson)			
25% larger for the rounded stability matrix rock			
% smaller (overall)		Size (inches)	
overall mix	alluvium mix	min	max
50	100	24.5	28.2
42	84	11.8	13.6
25	50	4.8	5.5
10	20	2.5	2.8
5	10	0.9	1.0

50% MIX 2 - ALLUVIUM
(24" MINUS ROUNDED COBBLE/GRAVEL; D50=5")
WASH IN SILTY SAND TO SEAL VOIDS

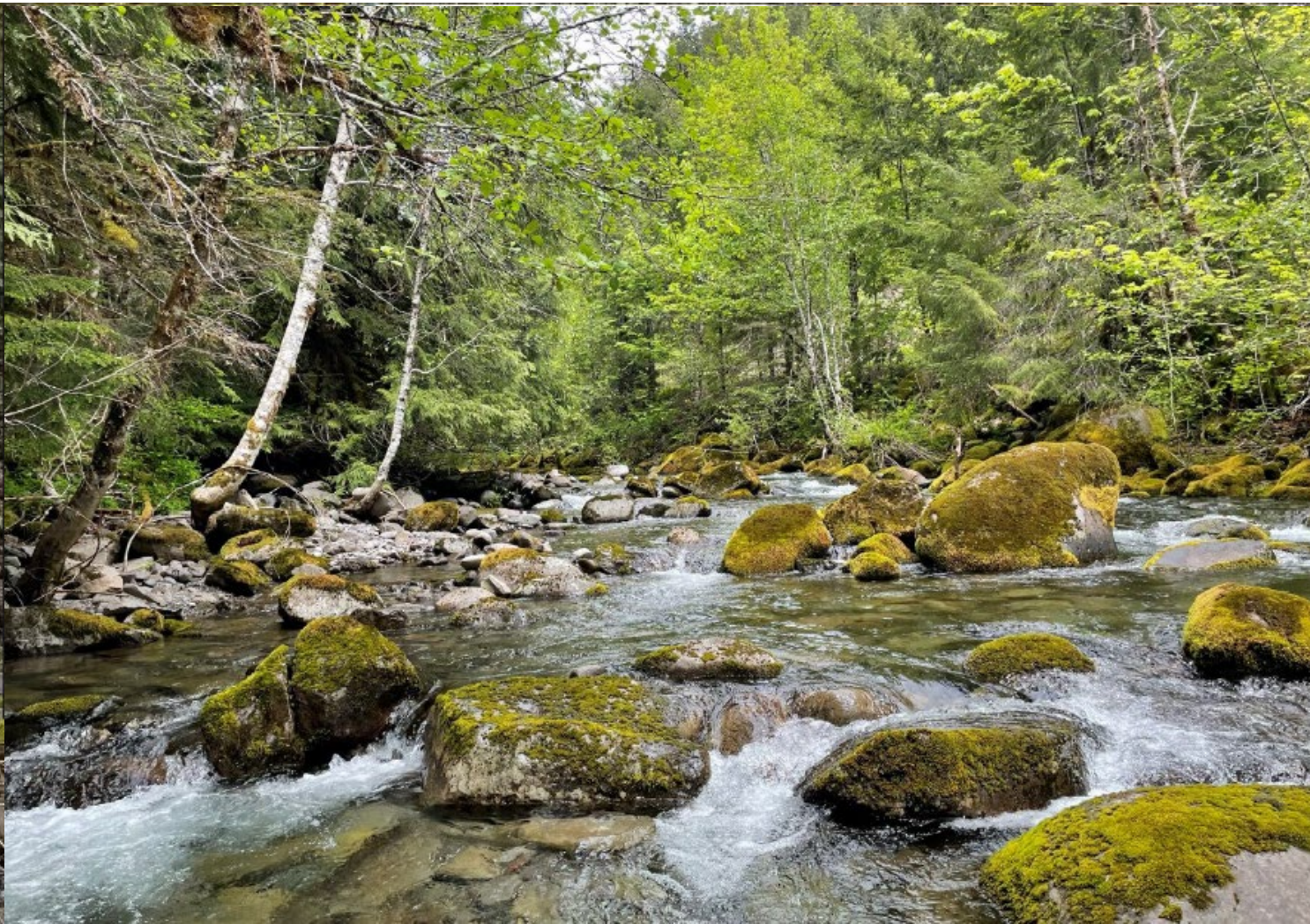


Design Criteria

- Restore Fish Passage (May, January are target times)
- Develop design that matches geomorphic template of site
- Do not increase flooding, erosion, or sediment impacts to downstream neighbors
 - Hold grade in riffle at Q100
- *Keep D50 within 20% of existing conditions*
- *TRT – approved Hydraulic/Roughened Channel design due to downstream safety concerns, site constraints, risk, and likelihood for long term fish passage.*
- **YES** – CLOMR and coordination with the County and FEMA = 1yr review.







Questions?

Restoration Projects Completed



presented January 2024

Completed Projects Showcase

- Overview of the FBRB Program to date
- 2023 construction season report out – RESTORATION PROJECTS
- We'll highlight about half at this meeting, more to come
- Coming Soon! RCO will begin providing standard updates on project completion per grant round, stay tuned!

2017-19

86 Project apps

~\$18.9M

13 projects
funded

11 restoration
projects
(85%)

2019-21

56 Project apps

~\$24.7M

52 project
funded

28 restoration
projects
(54%)

2021-23

88 Project apps

~\$26.8M

21 projects
funded

16 restoration
projects
(76%)

2023-25

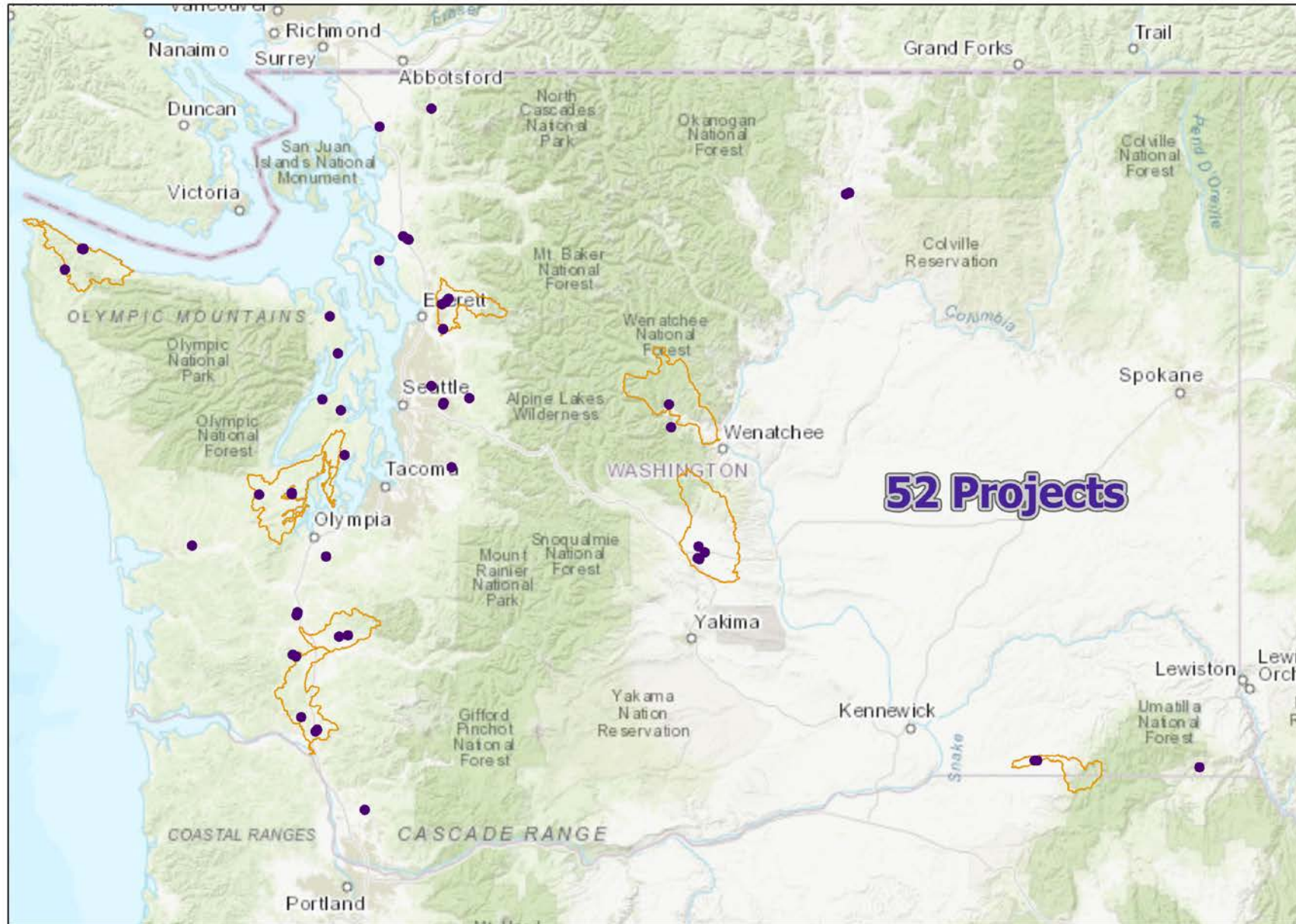
102 Project apps

~\$48.4M state
(plus PROTECT)

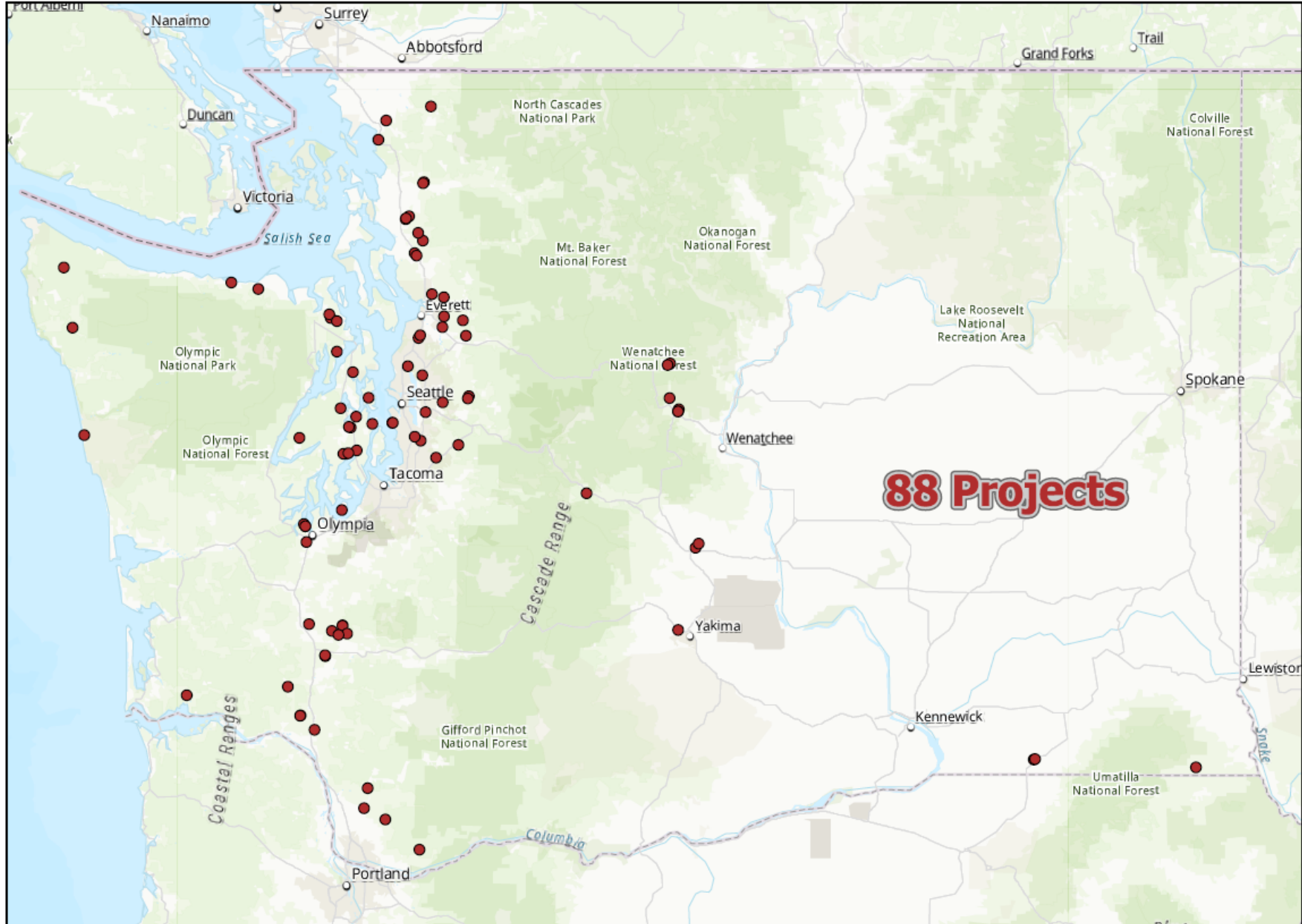
Currently funded
through #54

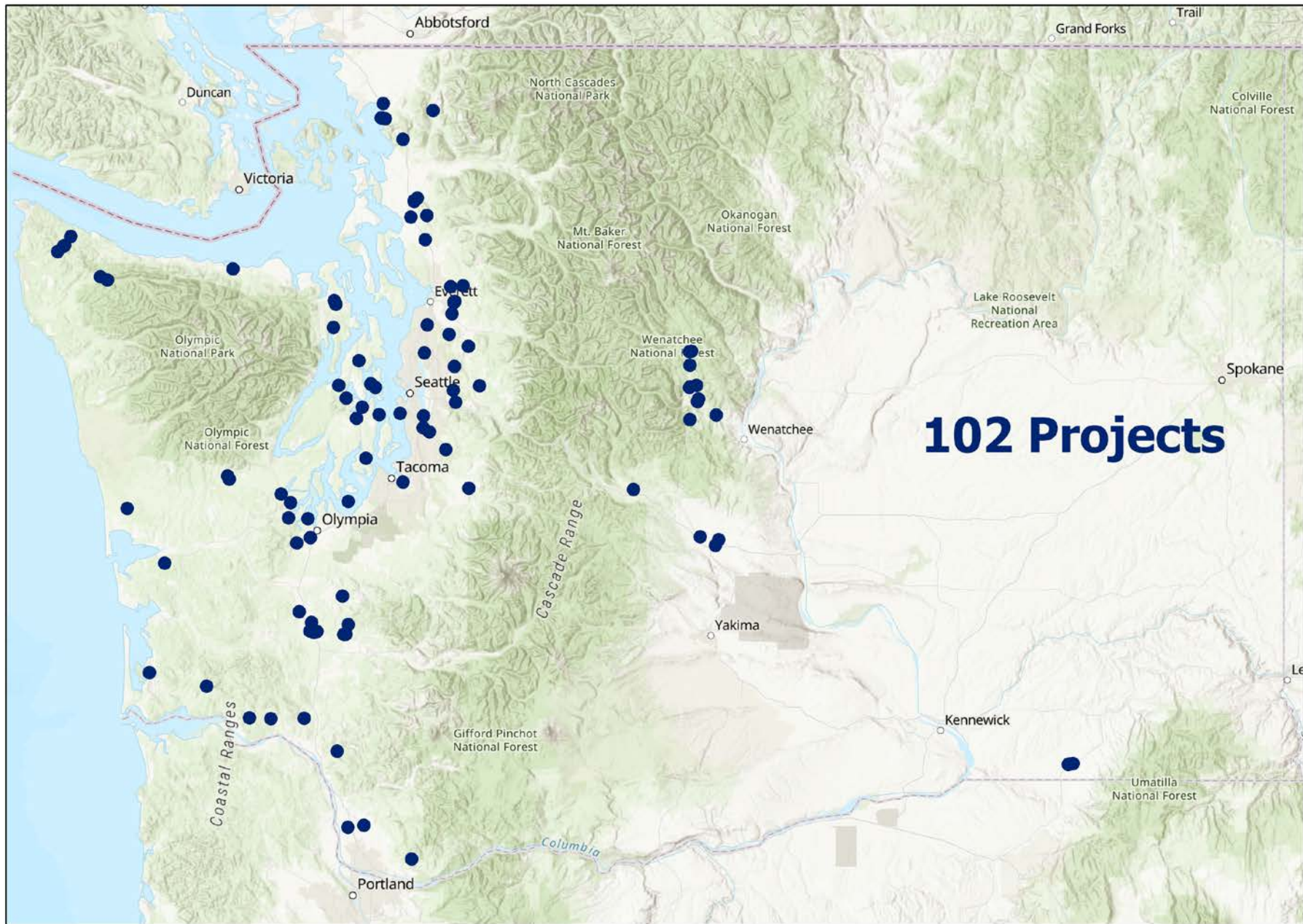
~37 restoration
projects
(69%)

Fish Barrier Removal Board: 2019 to 2021 Funded Projects



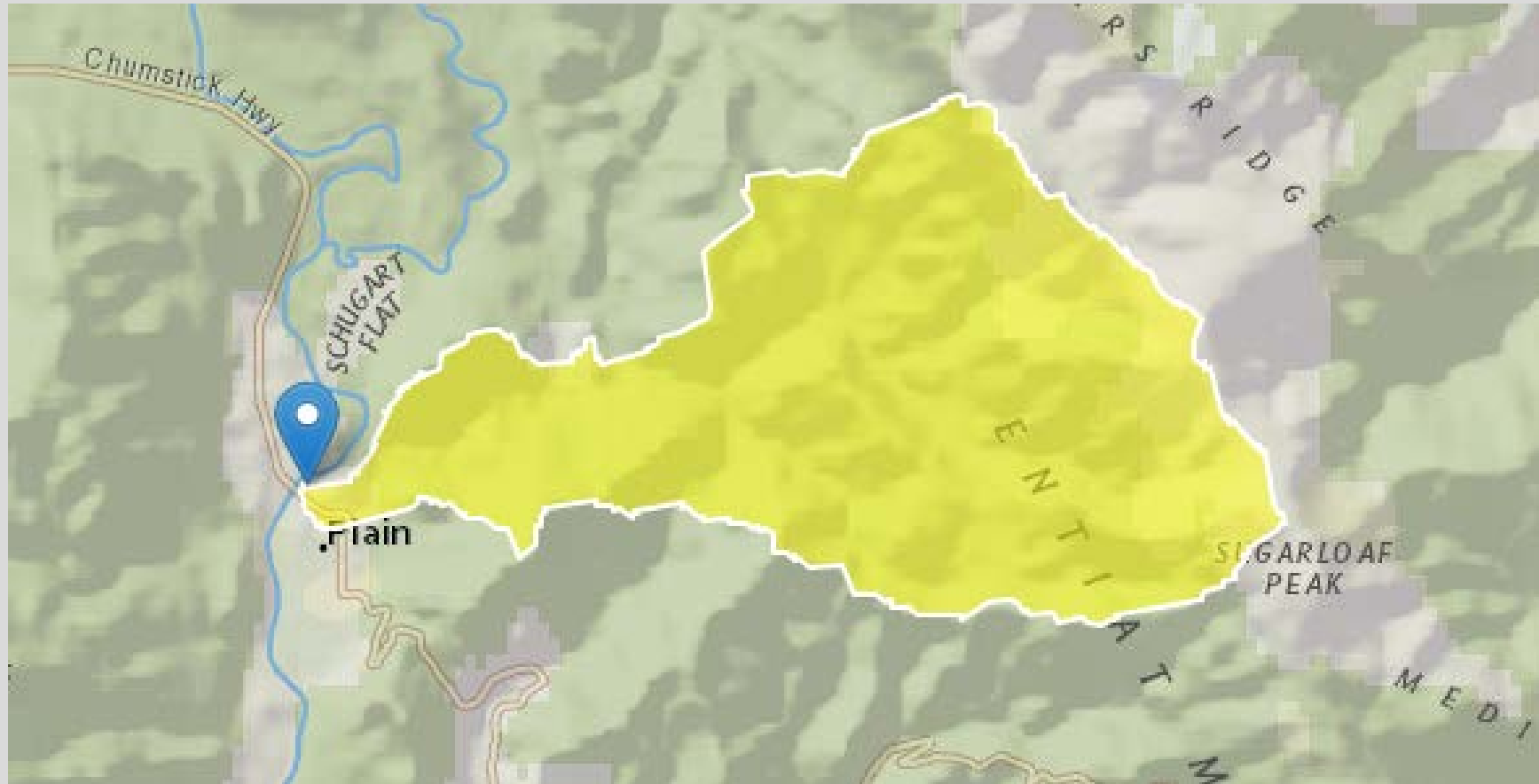
Fish Barrier Removal Board: 2021 to 2023 Proposed Projects





2023-2025 FBRB Projects

Project 21-1461: Beaver Creek Barriers



- 2023-2025 Restoration. Rank 12th. CCNRD. FBRB Grant award: \$78,000. RCO Counterpart: John Foltz
- Independent tributary to mainstem Wenatchee River – basin area of about 10 square miles
- High level of spring influence from upper elevations (5-6,000ft)– cold water refugia – critical for climate change
- Rearing habitat for all three of UCSRB’s target recovery species: Spring Chinook, Steelhead, Bull Trout

Project 21-1461: Beaver Creek Barriers

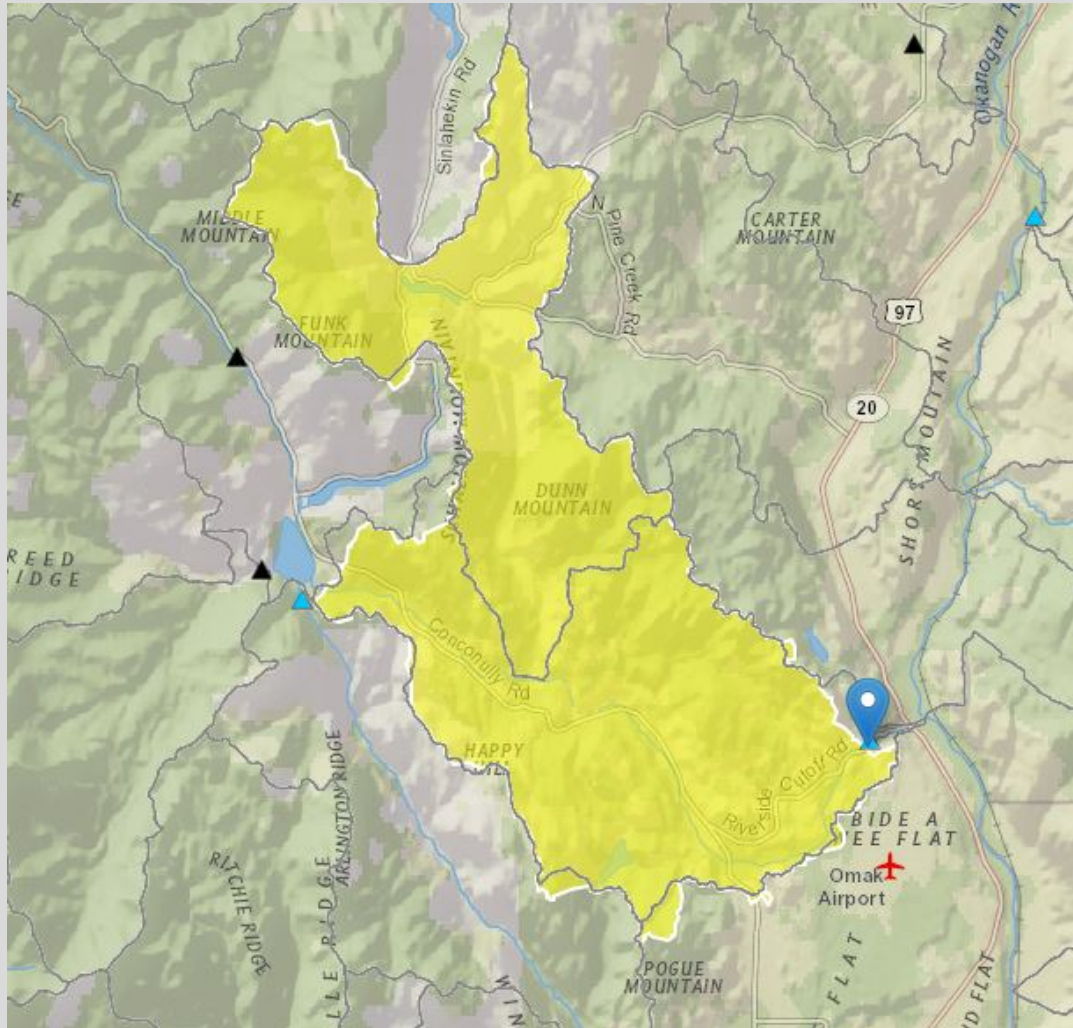
- FPDSI Barrier Site ID's: 603181 and 603183
- Two diversion dams with intakes
- Project removed both dams and non-compliant fish screens
- Consolidated withdrawals at lower site location, installed compliant fish screen, and used sinuosity/channel planform/coarsened riffle to avoid 'alternative design'



Project 21-1461: Beaver Creek Barriers



Project 19-1631: Johnson Creek at Green Acres Road



- 2019-2021 Restoration. Rank 21st. TU. FBRB Grant award: \$480,670. RCO Counterparts: Dave Caudill, John Foltz
- Independent tributary to mainstem Okanogan River – basin area of about 65 square miles from site
- Habitat for all three of UCSRB's target recovery species: Spring Chinook, Steelhead, Bull Trout - including documented spawning habitat.

Project 19-1631: Johnson Creek at Green Acres Road

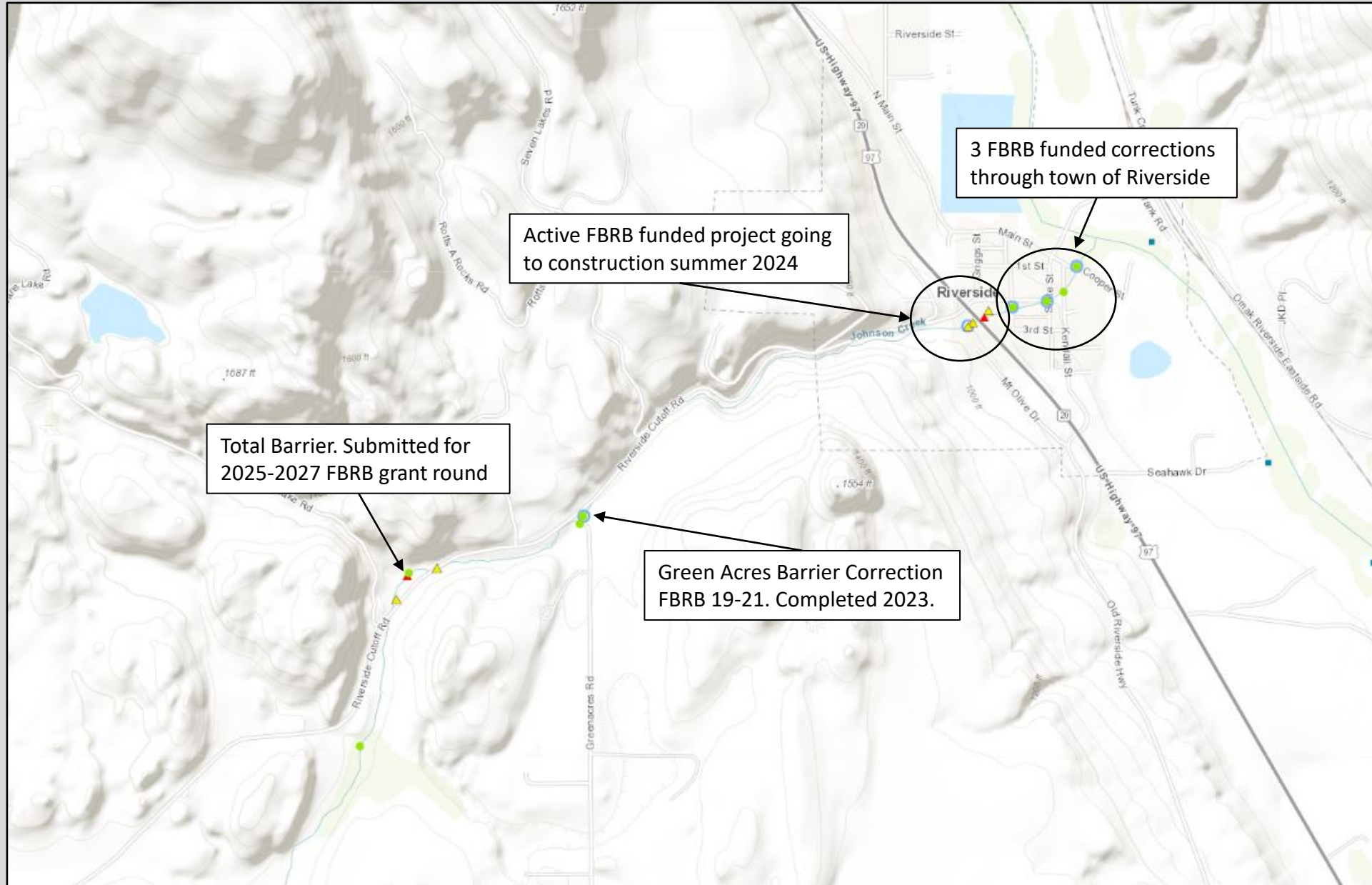
- FPDSI Barrier Site ID 114JC005.
- 0% passable culvert. WSD
- Project replaced 4 ft round culvert with a 22 ft x 10ft box culvert
- Species include ST, CK, BT, RT



Project 19-1631: Johnson Creek at Green Acres Road



Project 19-1631: Johnson Creek at Green Acres Road

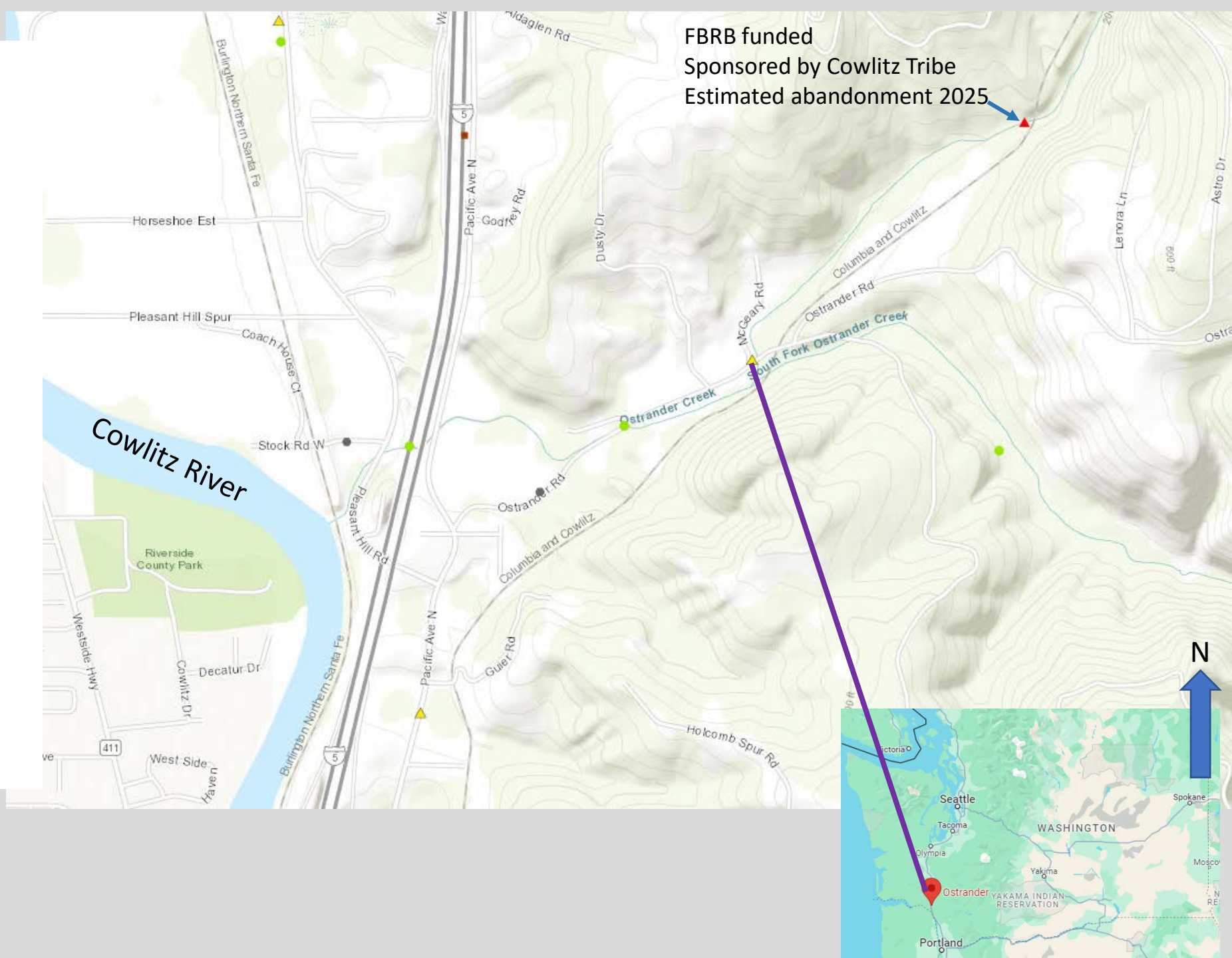


Ostrander Creek
19-21 Planning Grant,
Rank=15
21-23 Restoration Grant
Rank=6
Sponsor=Cowlitz County

Crossing Ostrander Road
Site ID#: 106c0159

TRT = Michelle Cramer, Josh
Lambert, George Fornes

Upstream Gain = 0.75 miles to
next barrier*
*FBRB funded project w ~14 mi
upstream gain free of barriers to
EOF!



FBRB funded
Sponsored by Cowlitz Tribe
Estimated abandonment 2025

Before



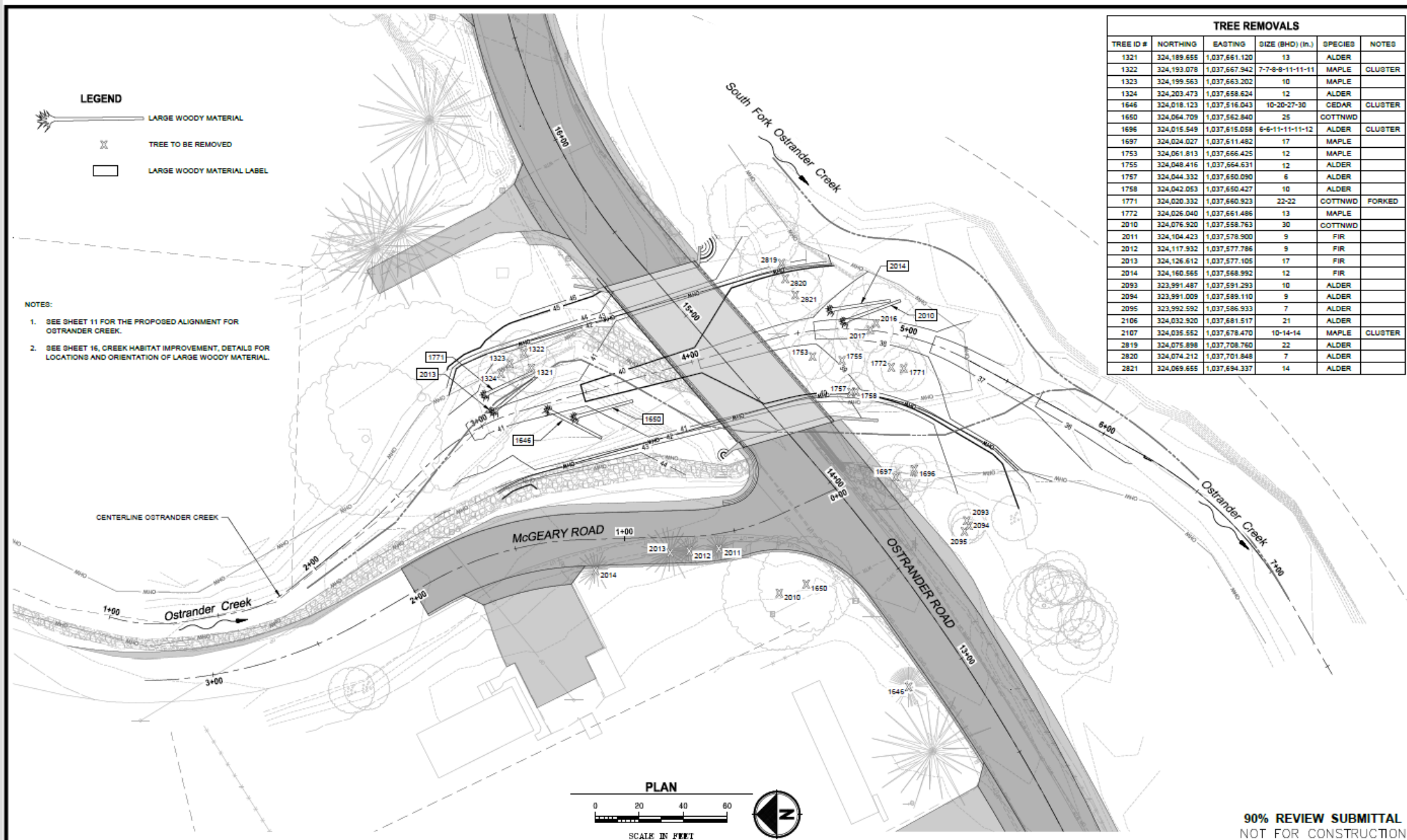
Passability: 67% (velocity)

Replaced with 81 ft bridge



Channel Work Completed summer 2023
Photo taken after early Dec 2023 rains

Plan View of final designs



LEGEND

- LARGE WOODY MATERIAL
- TREE TO BE REMOVED
- LARGE WOODY MATERIAL LABEL

- NOTES:**
- SEE SHEET 11 FOR THE PROPOSED ALIGNMENT FOR OSTRANDER CREEK.
 - SEE SHEET 16, CREEK HABITAT IMPROVEMENT, DETAILS FOR LOCATIONS AND ORIENTATION OF LARGE WOODY MATERIAL.

TREE REMOVALS					
TREE ID #	NORTHING	EASTING	SIZE (BHD) (in.)	SPECIES	NOTES
1321	324,189.655	1,037,661.120	13	ALDER	
1322	324,193.078	1,037,667.942	7-7-8-8-11-11-11	MAPLE	CLUSTER
1323	324,199.563	1,037,663.202	10	MAPLE	
1324	324,203.473	1,037,658.624	12	ALDER	
1646	324,018.123	1,037,516.043	10-20-27-30	CEDAR	CLUSTER
1650	324,064.709	1,037,562.840	25	COTTNWD	
1696	324,015.549	1,037,615.058	6-6-11-11-11-12	ALDER	CLUSTER
1697	324,024.027	1,037,611.482	17	MAPLE	
1753	324,061.813	1,037,666.425	12	MAPLE	
1755	324,048.416	1,037,664.631	12	ALDER	
1757	324,044.332	1,037,650.090	6	ALDER	
1758	324,042.053	1,037,650.427	10	ALDER	
1771	324,020.332	1,037,660.923	22-22	COTTNWD	FORKED
1772	324,026.040	1,037,661.486	13	MAPLE	
2010	324,076.920	1,037,558.763	30	COTTNWD	
2011	324,104.423	1,037,578.900	9	FIR	
2012	324,117.932	1,037,577.786	9	FIR	
2013	324,126.612	1,037,577.105	17	FIR	
2014	324,160.565	1,037,568.992	12	FIR	
2093	323,991.487	1,037,591.293	10	ALDER	
2094	323,991.009	1,037,589.110	9	ALDER	
2095	323,992.592	1,037,586.933	7	ALDER	
2106	324,032.920	1,037,661.517	21	ALDER	
2107	324,035.552	1,037,678.470	10-14-14	MAPLE	CLUSTER
2819	324,075.898	1,037,708.760	22	ALDER	
2820	324,074.212	1,037,701.848	7	ALDER	
2821	324,069.655	1,037,694.337	14	ALDER	

PLAN

SCALE IN FEET

90% REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

BRIAN BIERHAGEN PROJECT MANAGER 10/26/2021 DATE NILS HOVLAND DRAWN BY 10/26/2021 DATE SHAWN ELLIS CHECKED BY 10/26/2021 DATE	HORIZ. SCALE: 1" = 20' VERT. SCALE: PROJECT ID: 1209 ROAD NO.: 59700 (OSTRANDER) COMPUTER FILE: P02415015H05_Habitat Improvement.dwg	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98625	DIRECTOR OF PLANNING & ENVIRONMENTAL SERVICES	SECTION 12, T8N, R2W CRP NO. 765	OSTRANDER ROAD CULVERT REPLACEMENT	SHEET 15 OF 38
					CREEK HABITAT IMPROVEMENT PLAN	

Removed onsite trees
placed in the channel
racking material



UNT Delameter Creek
21-23 Restoration Grant
Rank=15
Sponsor=Lower Columbia
Fish Enhancement Group

Crossing private road in
Cowlitz County
Site ID#: 601597

TRT = Alex Uber, Amee Barr,
Josh Lambert, George Fornes

Upstream Gain = ~1 mile to
EOF

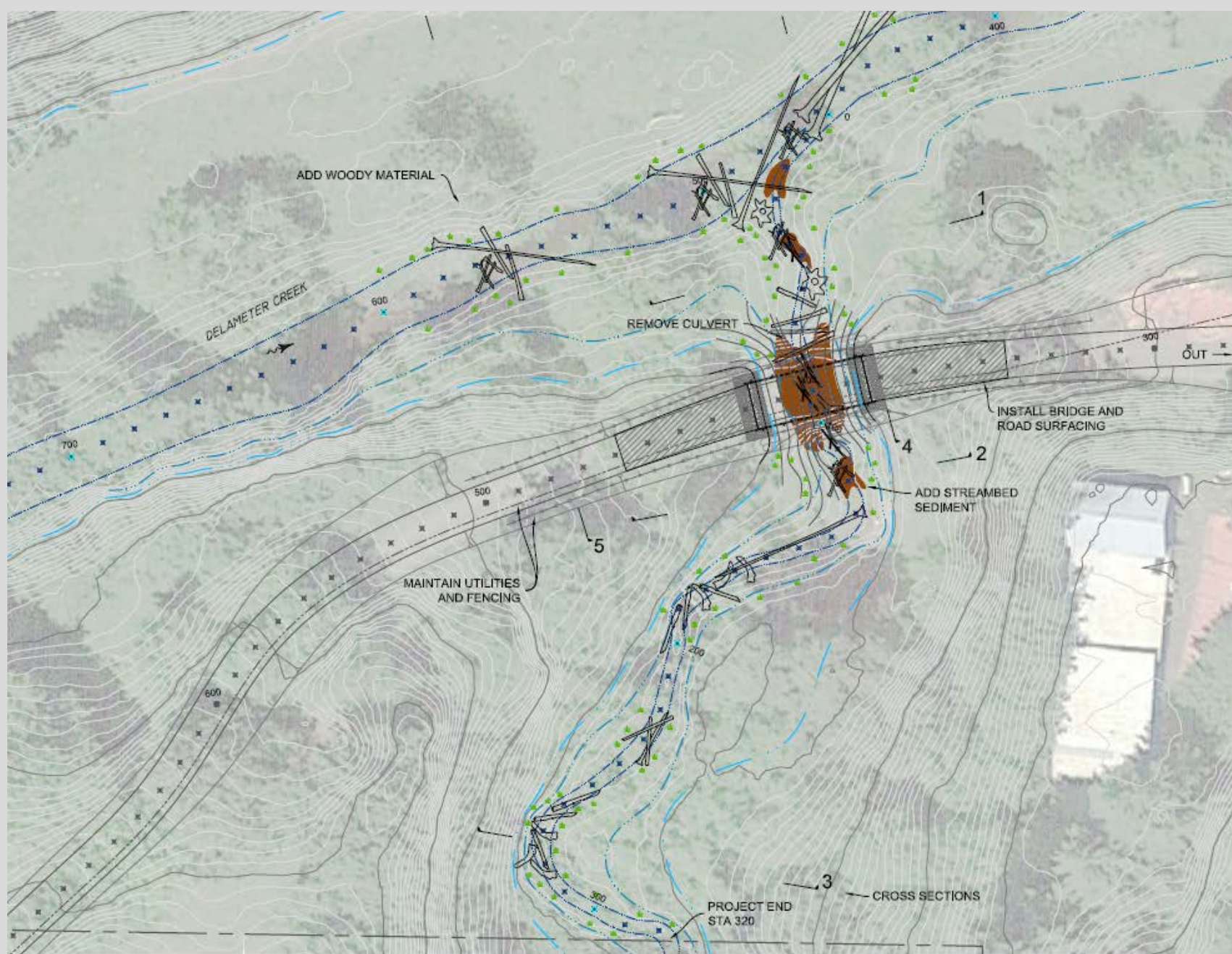


Before



Passability: 33% (slope)

Replaced with 30 ft bridge



DRAFT
12-13-21



SMAYDA
ENVIRONMENTAL
ASSOCIATES, INC.



Delameter Creek Tributary at Vinton Property
Culvert Maintenance

SITE PLAN

SHEET
3
OF
8



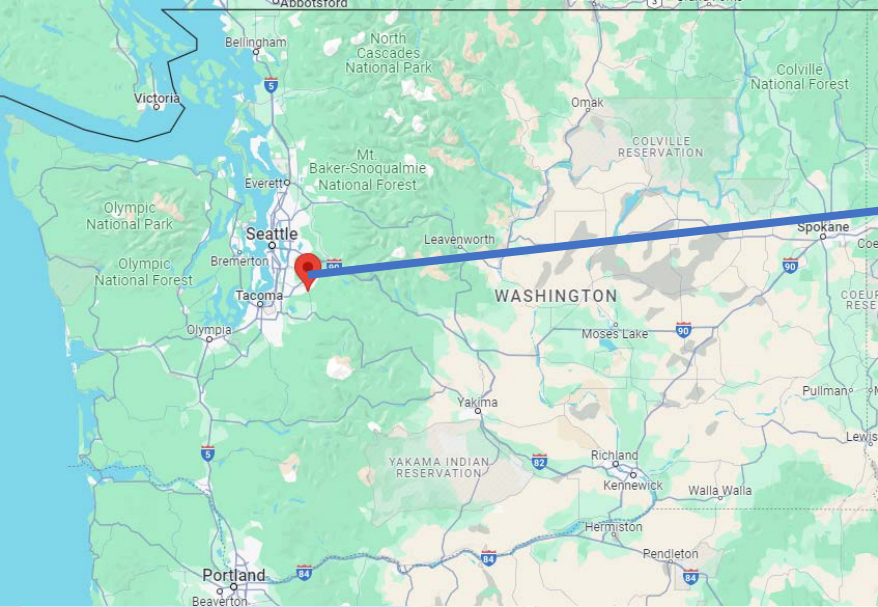
Completed



SALMON RESTORATION
FUNDED BY
BRIAN ABBOTT FISH BARRIER REMOVAL BOARD

THE BOARD IS A PARTNER OF A PARTNERSHIP OF LOCAL GOVERNMENTS AND INDUSTRY GROUPS TO RESTORE SALMON HABITAT IN THE BURNING TREE CREEK WATERSHED.

IN MEMORY OF BRIAN ABBOTT
A TIRELESS ADVOCATE FOR SALMON RECOVERY



Culvert #1 (997695)
SR169 WSDOT injunction

Culvert #3 (930418)
trail crossing replaced with a
maintenance accessible bridge
FBRB funds

Culvert #2 (930417)
access rd not in use
Abandoned
FBRB funds

Ravensdale Creek
19-21 Restoration Grant
Rank=52
Sponsor=King County

Crossing SR 169, old access road, & trail
Site ID#: 930417 (abandoned), 930418

Upstream Gain = 0.65 miles to SR 169
2.4 miles US SR169

TRT= Corey Morss. Dave Collins worked w RCO





Downstream

Before

Trail Crossing
930418
67% velocity
Replaced w a
maintenance accessible
100' bridge
FBRB Funds



Middle Site
930417
33% velocity
ABANDONED
FBRB Funds

Before



Upstream

Before

SR 169
997695
33% velocity
Replaced w a 100' bridge
WSDOT Injunction

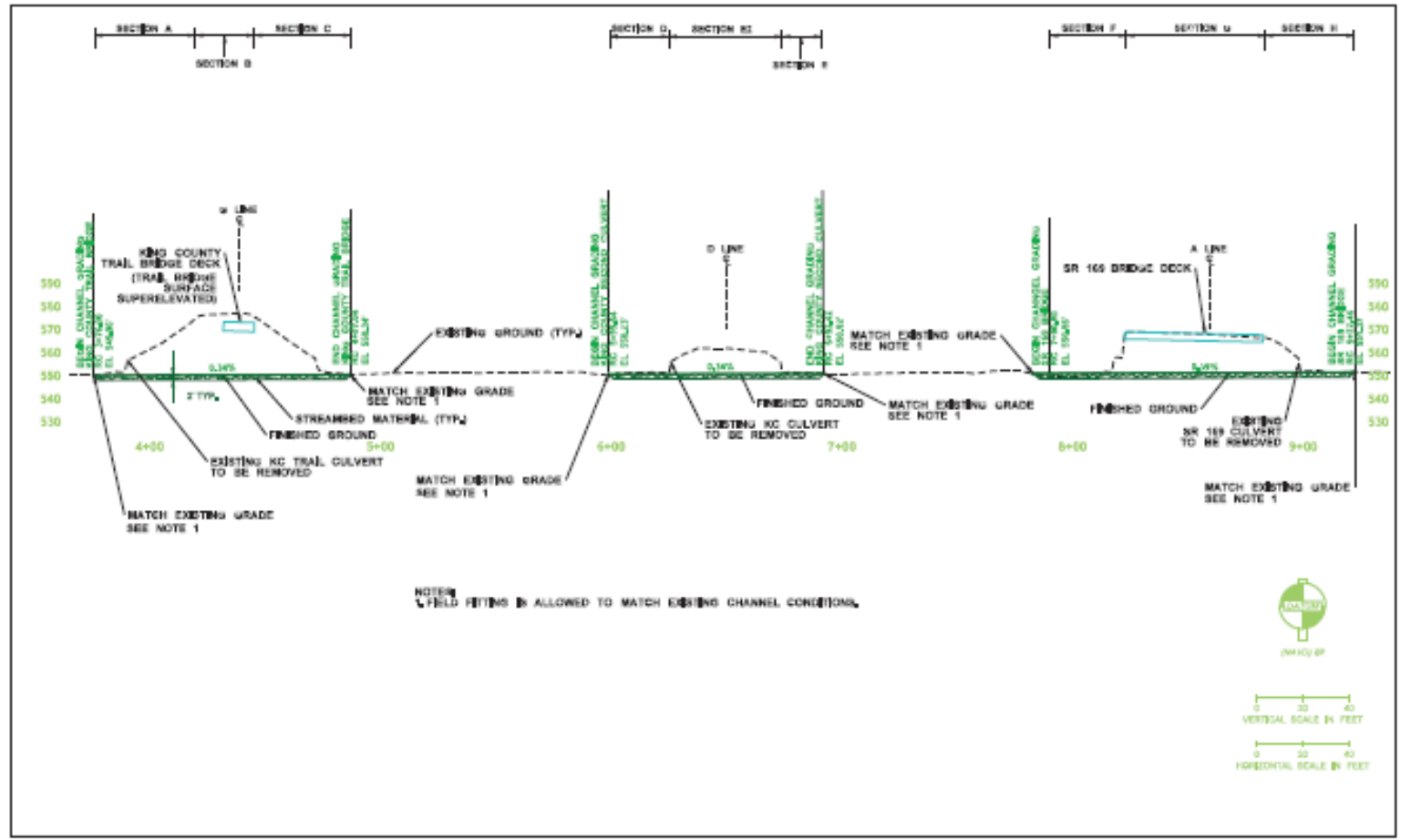


Middle

RAVENSDALE CREEK - PROPOSED STREAM PROFILE

546' channel reconstruction

PROJECT NAME: SR 169 RAVENSDALE CREEK - FISH PASSAGE	REFERENCE: NWS-2020-1227-001
PURPOSE: IMPROVE FISH PASSAGE	APPLICANT: WSDOT
PROPOSED: 120' SPAN BRIDGE, 100' PEDESTALIAN BRIDGE	COUNTY: UNINCORPORATED KING COUNTY
LOCATION: NAD 83(1), NAVD 88	FILE#: BLACK DIAMOND
DATE: NAD 83(1), NAVD 88	WATER BODY: RAVENSDALE CREEK
ADJACENT PROPERTY OWNERS: KING COUNTY PARKS	DATE: FEBRUARY 2, 2021





- Fall 2023
- 1 yr. post construction

- Looking US at SR169 and the abandoned site

Trail Crossing
Looking US at the
abandonment
and SR169
crossing

