

Roads to Success for Sediment Reduction

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Why Reduce Sediment Delivery?



Chokes Salmon Redds

Reduces Egg-to-Fry Survival

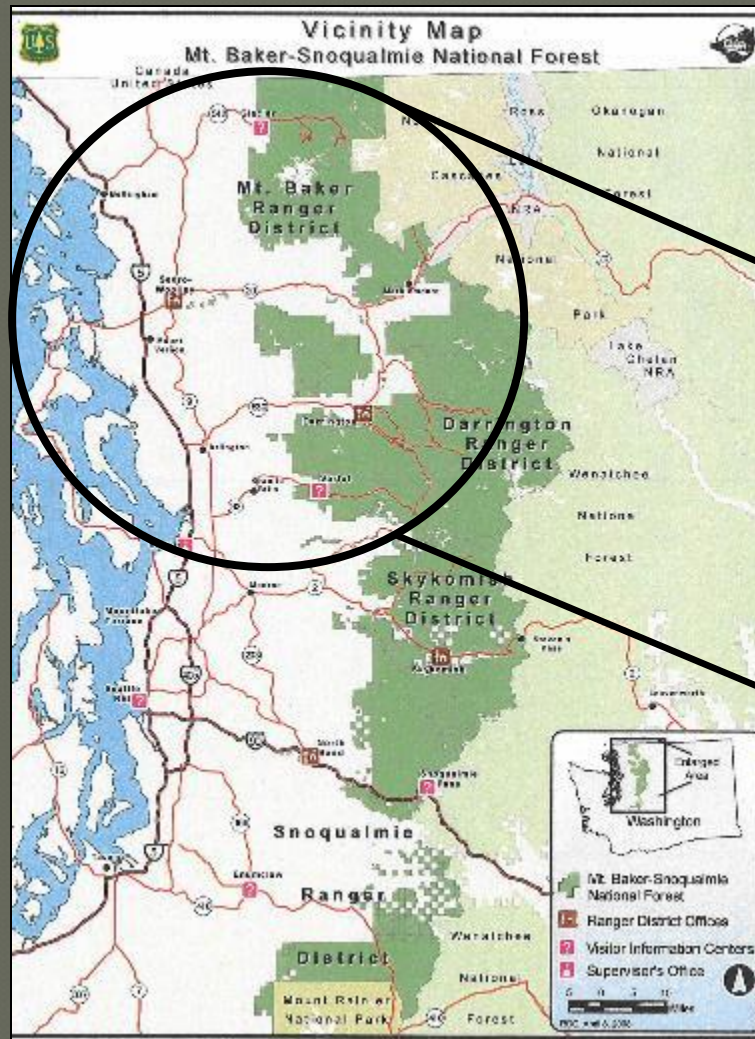
Fills Stream Channels/Pools

Widens Active Channel

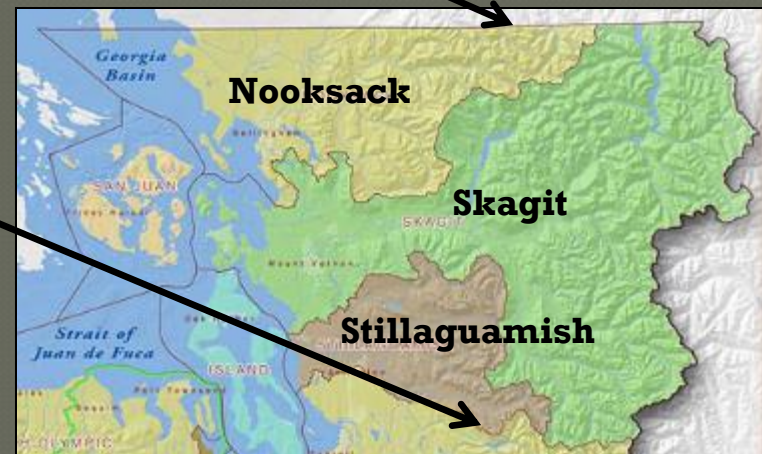
Increases Water Temperatures



Mt. Baker-Snoqualmie National Forest



North Puget Sound Watersheds
Critical to Chinook Recovery in
Puget Sound



Focus on Three Priority Puget Sound Watersheds

1999- 2009

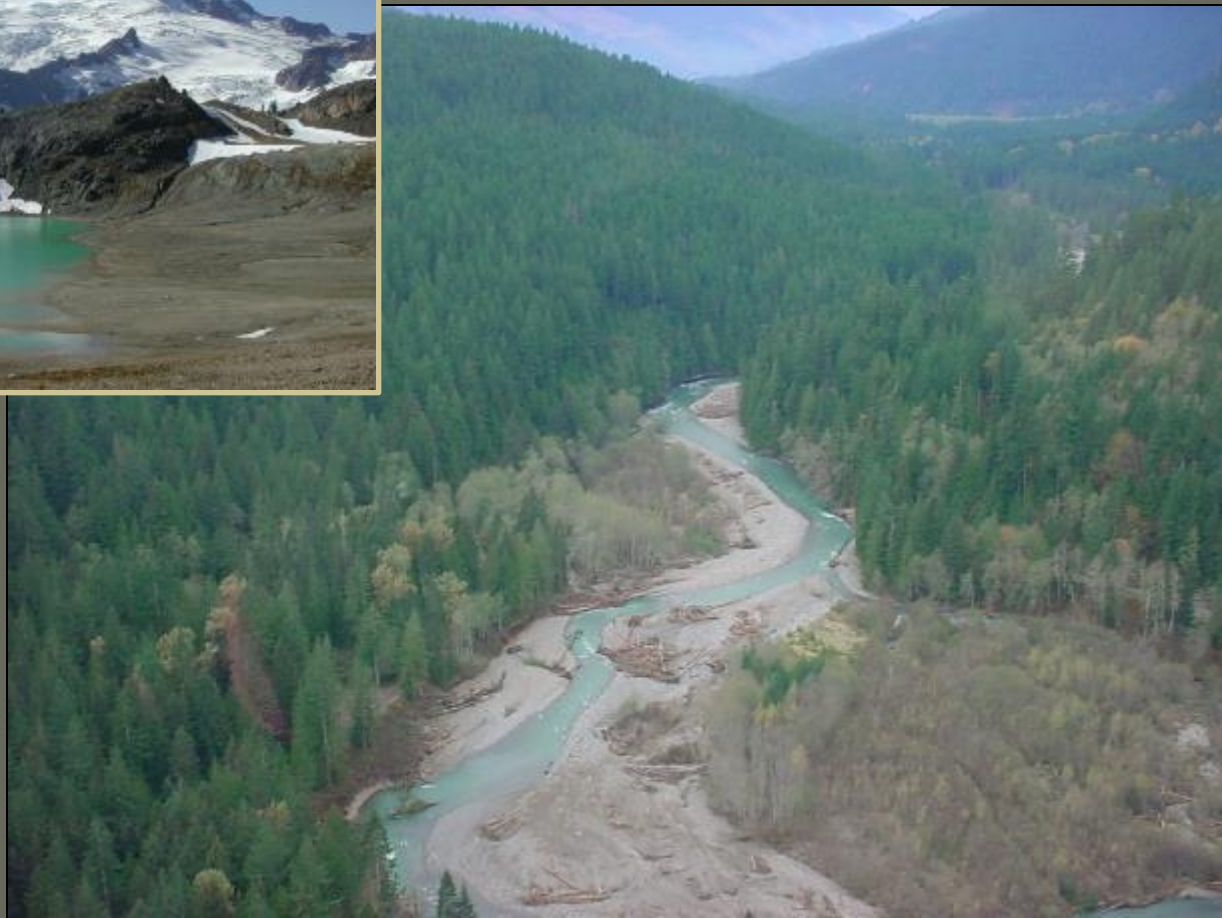
Watershed	# of Projects	SRFB \$	Match \$	Total	Road Miles Treated
Nooksack	4	408,199	93,520	501,719	37.40
Skagit	9	2,822,994	697,621	3,520,615	168.54
Stillaguamish	5	923,768	211,136	1,134,904	59.34
Total	18	\$4,154,961	\$1,002,277	\$5,157,238	265.28

Nooksack River

WRIA 1 Salmon Recovery Board



- Nooksack Chinook Recovery Plan
- WRIA 1 Limiting Factors Analysis
- Hazardous Slope Inventories



Nooksack River

Nooksack Salmon Enhancement Association (NSEA)



1999- 2001



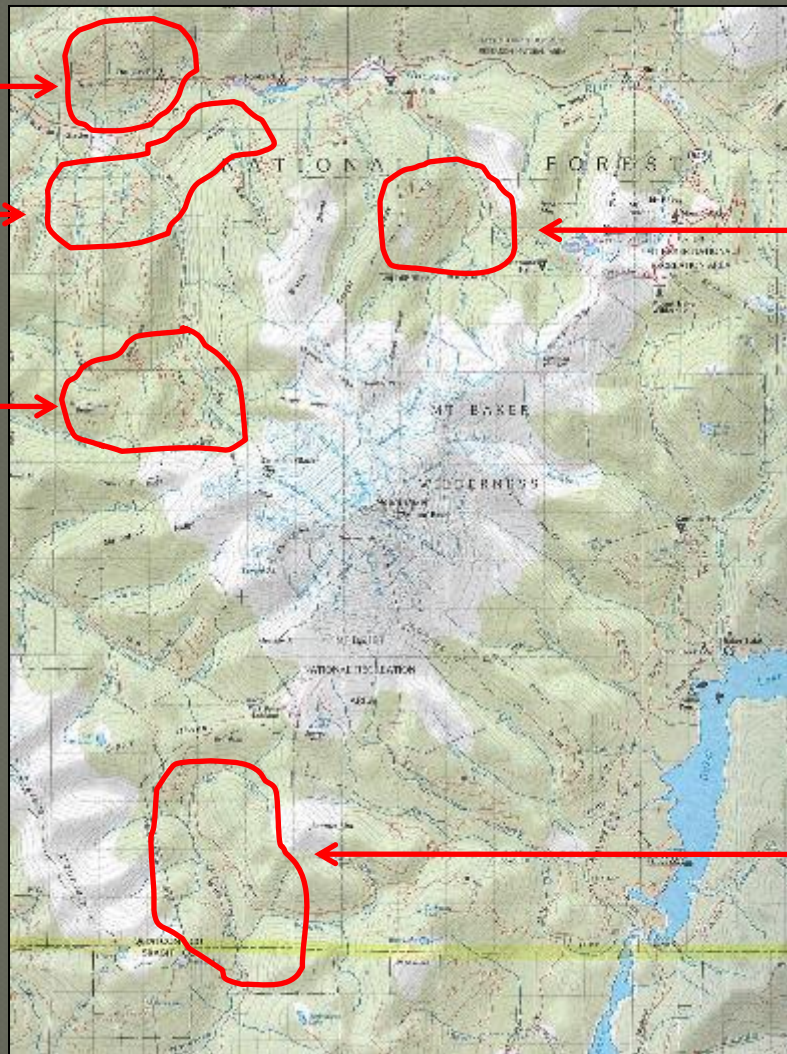
Project #	Sponsor	Title	SRFB \$	Match	Total	Road Miles Treated
01-1295R	NSEA	Nooksack Roads	174,199	31,000	205,199	10.80
00-1792R	NSEA	Wells Creek	90,000	25,000	115,000	13.00
00-1138R	NSEA	Grouse Butte	90,000	30,050	120,050	7.30
99-1342R	NSEA	West Church	54,000	7,470	61,470	6.30
			\$408,199	\$93,520	\$501,719	37.40

Comprehensive Nooksack Focus

West Church

Nooksack Roads

Grouse Butte



Wells Creek

Grouse Butte
Nooksack Roads
Wells Creek

West Church



Grouse Butte



More Efficient to Treat Entire Road System in an Area

Grouse Butte



7/20/00 Rd 36 Mile 3.24
Installed culvert



7/20/00 Rd 36 Mile 3.24
Culvert location



7/20/00 Rd 36 Mile 4.12 (3.95-4.41)
Slope of road



10/11/00



10/11/00



10/11/00

Nooksack Roads





Skagit River

Skagit Watershed Council



- Skagit Chinook Recovery Plan
- WRIA 3 & 4 Limiting Factors Analysis
- Hazardous Slope Inventories



Skagit River

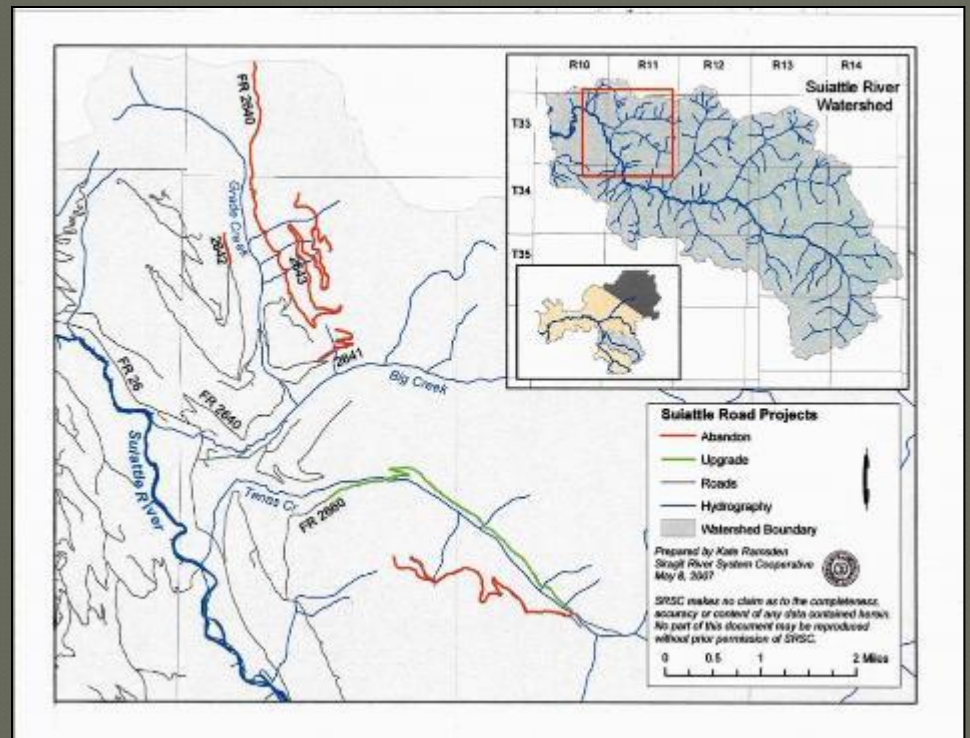
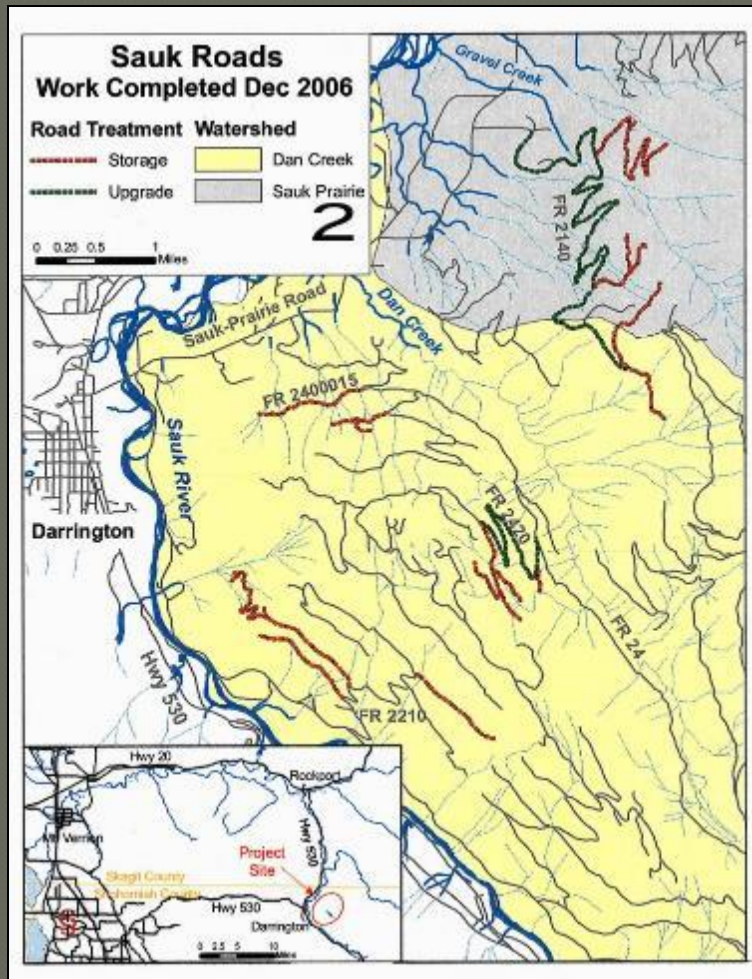
Skagit Conservation District & Skagit River System Cooperative



2000- 2009

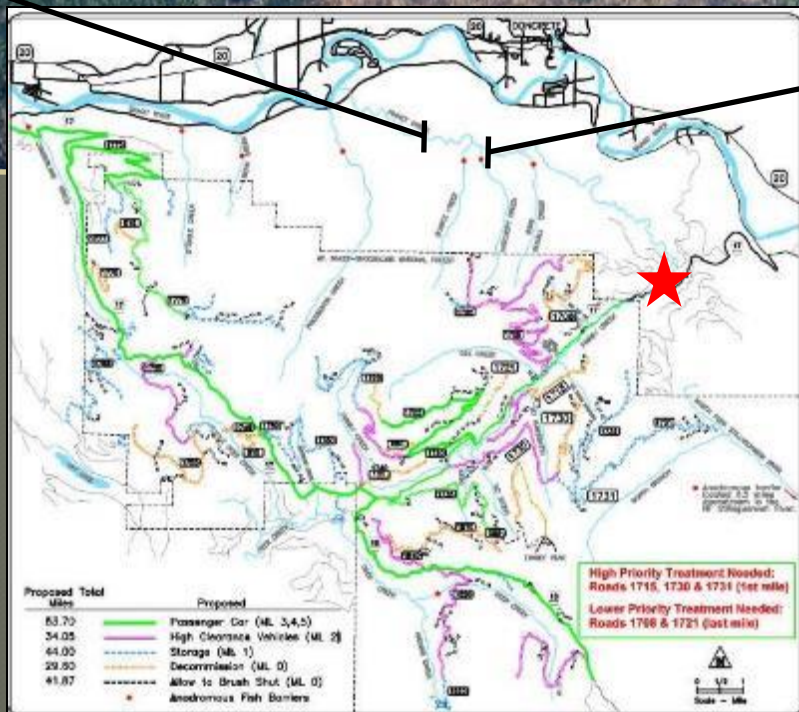
Project #	Sponsor	Title	SRFB \$	Match \$	Total	Road Miles Treated
08-1750R	Skagit CD	Diobsud Creek	335,000	60,000	395,000	11.00
07-1791R	Skagit CD	Bacon Creek	395,000	70,000	465,000	17.50
06-2213R	Skagit CD	Finney Phase III	274,000	49,915	323,915	10.80
06-2212R	Skagit CD	Cascade Roads	355,000	65,000	420,000	9.90
01-1358R	Skagit CD	Finney Phase II	367,016	64,750	431,766	26.84
01-1232R	Skagit CD	Goodman Road	71,584	12,726	84,310	4.50
00-1723R	Skagit CD	Finney Phase I	341,399	254,300	595,699	44.00
07-1789R	SRSC	Suiattle Phase I	302,600	53,625	356,225	19.00
01-1357R	SRSC	Sauk Sediment	381,395	67,305	448,700	25.00
			\$2,822,994	\$697,621	\$3,520,615	168.54

Sauk – Suiattle Roads



Finney Creek





Headwater Road Treatments
Reduce Sediment
in Lower Reach

★ Anadromous Barrier



Cascade Roads



Obsolete Culverts



Failed Culverts





Undersized Culvert



Rock-Lined Rolling Dip



1



2



3



4



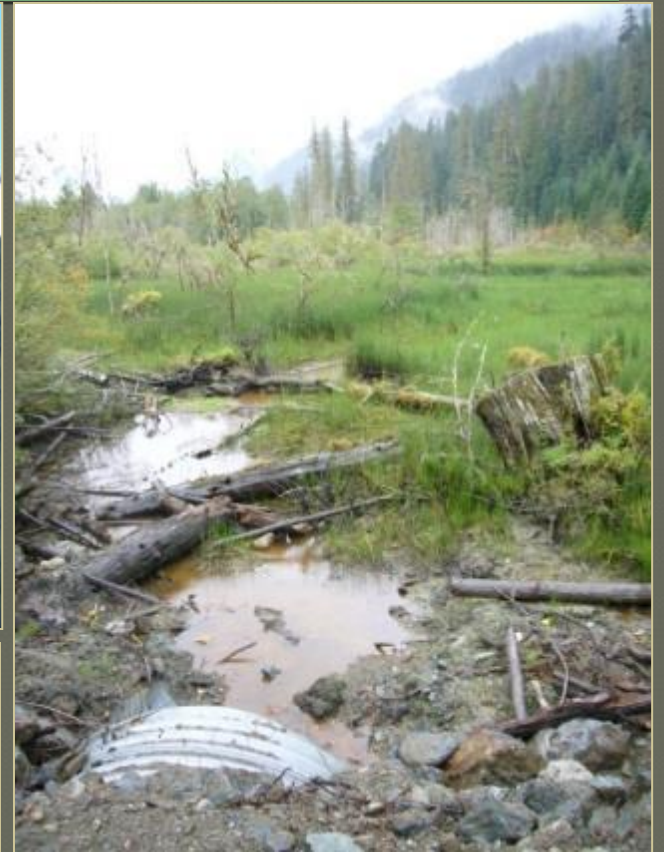
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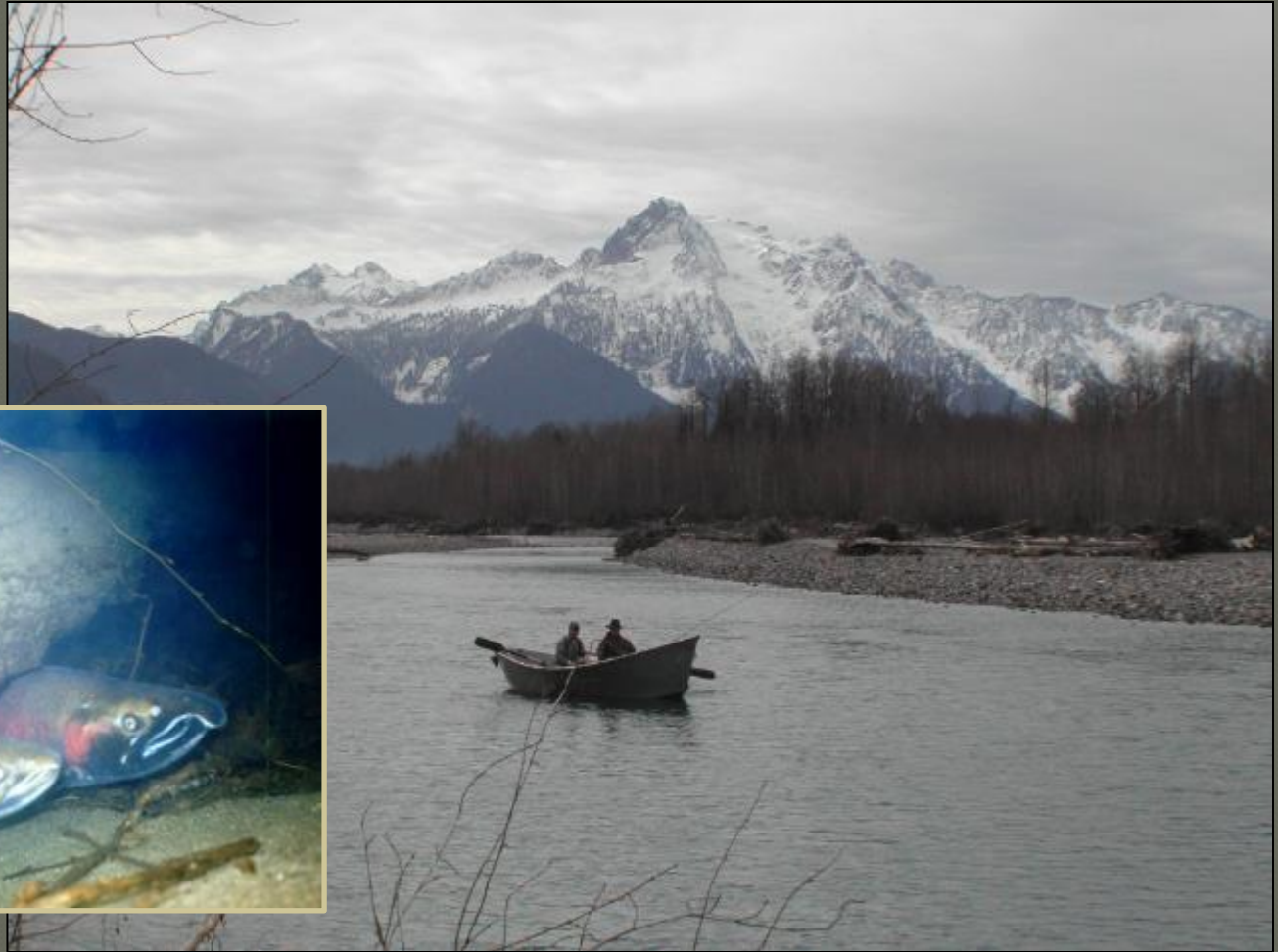


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Bacon Creek







Stillaguamish River

Stillaguamish Tribe & Snohomish County

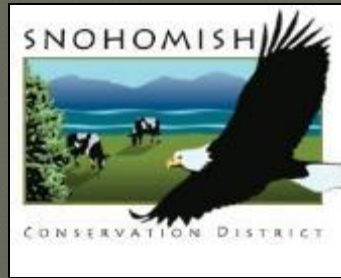


- Stillaguamish Chinook Recovery Plan
- WRIA 5 Limiting Factors Analysis
- Hazardous Slope Inventories



Stillaguamish River

Snohomish Conservation District & Stillaguamish Indian Tribe



2000- 2008

Project #	Sponsor	Title	SRFB \$	Match	Total	Miles Treated
06-2266R	Snohomish CD	Deer Creek	178,248	36,274	214,522	8.50
05-1588R	Snohomish CD	Segelsen Road	302,568	67,525	370,093	12.30
02-1596R	Snohomish CD	Little Deer	253,110	47,000	300,110	19.64
00-1779R	Snohomish CD	Westside Higgins	89,644	30,685	120,329	5.90
00-1775R	Stilly Tribe	NF Stilly Decommission	100,198	29,652	129,850	13.00
			\$923,768	\$211,136	\$1,134,904	59.34

NF Road Decommissioning



Westside Higgins Road



Deer - Segelsen

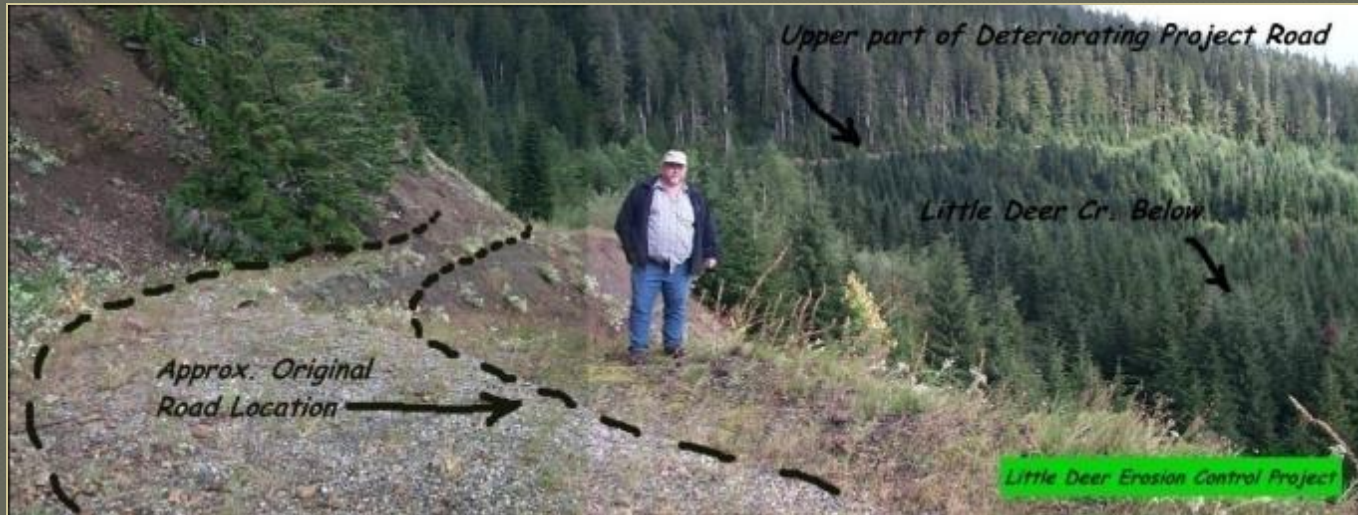




Little Deer Creek

Example of a Slide Caused by a Deteriorating Road

Note: This particular slide is on private property and not part of the project, but it shows the results of similar conditions and poor road drainage in the same watershed.



Little Deer Creek





Sure glad everyone is doing habitat restoration!



A sunset over a body of water. The sun is low on the horizon, creating a bright orange glow that fades into a darker orange and then a deep red as it goes up. The water is dark and reflects the light from the sun. On the left side of the image, there is a dark, irregular silhouette that looks like a tree or a rock formation.

Thank you!

Hopefully Tomorrow We'll Respect Our Rivers Instead of
Taking Them for Granted as We Do Today!