Washington State Parks Fish Passage Inventory within Water Resource Inventory Areas (WRIA) 1-23

WDFW Habitat Program Restoration Division Fish Passage Section

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This report is also available in a pdf format at WDFW's website: <u>http://wdfw.wa.gov/publications/</u>.

Additional data requests can be made to the Fish Passage Section, Data Manager, Habitat Program, WDFW, 600 Capital Way N, Olympia, Washington. 98501. Phone: 360-902-2411.

Introduction

Like Washington's State Parks, it is recognized that salmon and trout are symbols of the natural outdoor environment we live in and are valued by the citizens of the State of Washington. In addition, vigorous populations of salmonids are important for healthy, functioning ecosystems because of the interdependence of vast numbers of fauna and flora. Many occupants of aquatic and terrestrial ecosystems depend on salmonids for food. Most emphatically, endangered species including salmonids present imposing arguments to maintain and manage wild species on an integrated basis.

Fish passage at human-made instream barriers, such as road crossings, is one of the most recurrent and correctable obstacles to healthy salmonid stocks in Washington. In some cases, many miles of quality salmonid spawning and rearing habitat have been blocked by a single barrier culvert. Washington State parks recognizes that it can play a critical role in salmonid recovery by providing fish passage, since many State parks have fish bearing streams with high quality habitat within the park boundaries.

Currently there is pending litigation which involves culverts on State-owned land within Water Resource Inventory Area's (WRIA's) 1-23. The culvert case is a Federal court sub-proceeding of U.S. versus Washington, with the United States and 21 American Indian tribes as the plaintiffs, and the State of Washington as the defendant. As a landowning agency, Washington State Parks is joined by Washington State Department of Transportation (WSDOT), Washington Department of Natural Resources (WDNR), and Washington Department of Fish and Wildlife (WDFW) in this culvert case. In 2007, Federal District Court Judge Martinez agreed with the tribes that state owned barriers to fish passage reduce the amount of harvest available to the tribes and are therefore a breach of the tribes' treaty rights. A decision is still pending to determine what remedy should be awarded to the tribes regarding the state-owned barrier culverts. However, State Parks and the other State agencies continue moving forward in a good faith effort to correct fish passage barriers.

In 2008, the Washington State Parks Commission (Parks) and contracted with WDFW to conduct a fish passage inventory and associated habitat assessments on State Park lands, in order to identify and prioritize fish passage barriers for future correction. The inventory focused on fish bearing streams in WRIA's 1-23, within the culvert case area, since those fish passage barriers are a high priority for correction by Parks. This inventory was funded by the Washington State Legislature, who understands that inventories, prioritization, and correction of fish passage barriers are part of the overall strategy to recover salmonid populations.

This report summarizes the fish passage inventory and prioritization work conducted.

For this report, a fish passage structure is referred to as a site. The structure at that site is referred to as a feature. Instream features affecting fish passage include culverts, dams, fishways, and other features.

Methods

Inventory/ Feature Evaluation

The inventory was conducted within the boundaries of Washington State Park lands. WDFW field crews conducted a road inventory by driving or walking all roads along known and potentially fish bearing streams within the Parks properties. All culverts found in natural drainages were assigned a Site ID number and their geographical locations were recorded using GPS. Data collection and evaluation methods for all features are described in the *Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual* (WDFW 2009).

The potential for fish presence was determined based on stream size, gradient, fish observation, flow duration and information provided by WDFW biologists. Each potentially fish bearing stream was walked to measure the habitat, locate additional features not found during the road inventory, and to determine the extent of potential fish use. Detailed notes of the habitat, referenced by hip chain distance, were recorded during the habitat survey. All human-made features associated with fish bearing waters were documented, photographed, and evaluated for fish passage (culvert, dams, fishways) or fish safety (surface water diversions). While the inventory was focused on fish passage, additional human-made features (including surface water diversions such as gravity diversions or pumps) were also evaluated.

Expected fish species utilization includes those species currently inhabiting the stream, and also those which potentially could or have been known to use the stream. Expected fish species utilization was determined by direct observation and by using resources such as the Washington State Salmon and Steelhead Stock Inventory (WDF *et. al.* 1992), Washington State Salmonid Stock Inventory Bull Trout/Dolly Varden Appendix (WDFW 1998), Streamnet, and by personal communication with WDFW regional biologists and Parks staff.

Fish Passage Priority Index

The Fish Passage Priority Index (PI) is a tool to prioritize projects so the highest quality projects, that have the largest benefit to salmonids, are corrected first. The PI model consolidates variables which affect a project's feasibility, (species utilization, passage improvement, production potential, habitat gain, project cost, and fish stock mobility and health) resulting in a numeric indicator of relative priority. The PI values are dynamic, allowing for modification as new information becomes available.

On streams where fish passage barriers were identified, habitat assessments, data analysis and barrier prioritization were completed per the *Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual* (WDFW 2009).

Results

Ninety-five of the 115 State Parks had fish bearing streams or lakes and therefore, were inventoried for fish passage. There were 244 sites evaluated, including 178 culvert crossings, seven dams, one fishway, five water diversions, 53 non-culvert crossings, and six "other" features. One hundred sixty-six features (101 culverts, seven dams, five diversions, and 53 non-culvert crossings) were located on a potentially fish bearing stream or lake. Of the 166 features, 79 culverts, seven dams, and seven "other" features were determined to be fish passage barriers. One diversion was unscreened. Of the 93 fish passage barriers, 35 were full barriers and 58 were partial barriers to fish.

Thirty-seven inventoried fish passage barriers had upstream habitat assessments conducted, in order to qualify and quantify the potential habitat gain and prioritize barriers for correction using the Priority Index (PI) method. Results of the habitat assessments and PI numbers calculated are summarized in Table 1, which is sorted from highest to lowest PI number.

					Lineal		D .	
Site Id	Park Name	Stream Name	Tributary to	Feature Type	Gain (m)	Spawning (m ²)	Rearing (m^2)	PI
She lu	Fark Name	Indille	1110utary to	Туре	(111)	(111)	(111)	F1
105		Whiteman		other:				
K041717a	Joemma Beach	Cove	Case Inlet	dike/levee	1,645	15	17,391	20.59
125								
1304W03	Willapa Hills	Nicholson	~	-				
A	Trail	Cr	Chehalis R	culvert	5,849	1,486	14,470	20.21
125 1305W23B	Willapa Hills Trail	Fronia Cr	Chehalis R	culvert	5,627	2,342	23,720	19.49
940404	Millersylvania	Unnamed	Allen Cr	culvert	737	0	35,130	18.54
940316	Manchester	Unnamed	Beaver Cr	culvert	1,387	144	2,976	17.53
940342	Willapa Hills Trail	Salmon Cr	Rock Cr	culvert	6,085	7,562	7,730	17.16
940314	Manchester	Unnamed	Beaver Cr	culvert	858	38	2,389	15.30
940442	Potlatch	Unnamed	Hood Canal	culvert	287	623	334	14.90
940284	Saltwater	McSoreley Cr	Puget Sound	other: streambed control	4,176	5,058	8,459	13.32
125	Willapa Hills							
1205W05B	Trail	Unnamed	Rock Cr	culvert	115	73	1,464	12.84
940362	Willapa Hills Trail	Unnamed	Chehalis R	culvert	839	0	1,856	12.36
940343	Willapa Hills Trail	Unnamed	Salmon Cr	culvert	1,789	2,402	1,944	11.43
811371	Potlatch	Unnamed	Hood Canal	culvert	162	550	281	11.20

Table 1. Inventoried fish passage barriers with habitat assessments conducted and Priority Index (PI) numbers generated to help prioritize barrier correction.

Table 1 (continued) – Inventoried fish passage barriers with habitat assessments conducted and Priority Index (PI) numbers generated to help prioritize barrier correction.

		r		-				
		Stream		Feature	Lineal Gain	Spawning	Rearing	
Site Id	Park Name	Name	Tributary to	Туре	(m)	(m^2)	(m^2)	PI
940479	Wallace Falls	Unnamed	Wallace R	culvert	858	308	489	10.91
940142	Wallace Falls	Unnamed	Wallace R	culvert	2,123	1,670	3,928	9.77
125	Willapa Hills							
1205W06B	Trail	Unnamed	Rock Cr	culvert	892	207	647	9.47
940357	Willapa Hills Trail	Unnamed	Rock Cr	culvert	949	96	519	9.43
940001	Sequim Bay	Unnamed	Sequim Bay	culvert	1,272	1,435	1,256	9.42
	Willapa Hills							
940345	Trail	Unnamed	Rock Cr	culvert	560	261	429	8.43
040105	Willapa Hills	TT 1	TT 1	1 (570	0	212	7.01
940105	Trail Willapa Hills	Unnamed	Unnamed	culvert	579	0	313	7.91
940347	Trail	Unnamed	Rock Cr	culvert	793	379	505	6.88
997962	Dosewallips	Unnamed	Hood Canal	culvert	806	1,453	886	6.83
125	Willapa Hills							
1304W13B	Trail	Unnamed	Chehalis R	culvert	229	49	338	6.62
940130	Bogachiel	Unnamed	Bogachiel R	culvert	93	34	27	6.37
940143	Wallace Falls	Unnamed	Wallace R	culvert	867	300	617	6.23
			Bywater	non-culvert				
940461	Wolfe Property	Unnamed	Bay	crossing	439	102	211	5.16
	, , , , , , , , , , , , , , , , , , ,		Bywater					
940405	Wolfe Property	Unnamed	Bay	culvert	175	0	44	4.60
940391	Wallace Falls	Unnamed	Wallace R	culvert	171	0	46	3.96
940399	Wolfe Property	Unnamed	Bywater	oulvert	110	0	33	3.86
940399	Willapa Hills	Unnamed	Bay	culvert	110	0	33	5.80
940352	Trail	Unnamed	Rock Cr	culvert	394	462	415	2.17
				other:				
	Hoko River/		Little Hoko	streambed				
940224	Cowan Ranch	Unnamed	R	control	129	183	65	2.15
	Hoko River/		Little Hoko					
940226	Cowan Ranch	Unnamed	R	culvert	435	126	207	2.02
				1				
940217	Forks of the Sky	Unnamed	Deer Cr	non-culvert crossing	161	417	287	1.98
210217	- SKy		Lk	crossing	101	.17	207	1.70
940100	Saint Edward	Unnamed	Washington	culvert	150	0	55	1.60
0.40205		TT 1	Puget	1.	74			1.07
940305	Penrose Point	Unnamed	Sound	culvert	74	4	98	1.07
940306	Penrose Point	Unnamed	Puget Sound	culvert	37	1	40	1.01
			Wildcat					
940080	Larrabee	Unnamed	Cove	culvert	26	0	3	0.79

Discussion

The following is a brief park-by-park discussion of fish passage structures identified in fish bearing streams. Details for features evaluated are found in Appendix 1. Summary reports for culverts evaluated are found in Appendix 2. Photos associated with features evaluated are found in Appendix 3. Descriptions of State Parks within WRIA's 1-23 are included in Appendix 4.

WRIA 01

Birch Bay

Terrell Creek

There is one site identified at Birch Bay State Park. Site 940044 is a bridge for Terrell Cr, WRIA 01.0089, on Helwig Rd within park boundaries. It is not a barrier to fish passage.

Larrabee

Seven sites are identified at Larrabee State Park. Due to the steep terrain of the area, most sites are above natural barriers and are inaccessible to anadromous salmonids. Site 940055 is a streambed control structure that is a barrier due to excessive hydraulic drop on a tributary to Fragrance Lake that is inaccessible to anadromous salmonids. Site 940066 is a culvert on a non-fish bearing natural drainage. Sites 940068, 940069, 940072, and 940080 are culverts located above natural barriers and are not accessible to anadromous salmonids. Site 940080 has a PI of 0.79 and a potential lineal habitat gain of 26 meters. Site 940078 is a barrier dam located above a natural barrier falls and is not accessible to anadromous salmonids.

WRIA 02

Moran

Cascade Lake and Cascade Creek

There are 16 features that were evaluated for fish passage at Moran State Park. All of the sites are located above natural barriers and are not accessible to anadromous salmonids. There are populations of resident trout in the stream systems and landlocked Kokanee salmon in Cascade Lake. Site 940010 is a dam and diversion at the outlet of Mountain Lake that is a total barrier to fish passage. Sites 940017 and 940026 are dams with diversion, both total barriers located on Cascade Creek. Site 940016 is a bridge on Cascade Creek and is a non-barrier. The remaining sites are all culverts. Sites 940014, 940014, 940034, and 940096 are all considered non-barriers. Sites 940012, 940018, 940023, 940025, and 940032 are all barriers to fish passage.

Moran Creek

Site 940011 is a culvert with attached fishway on Moran Creek and is considered a non-barrier.

Mud Bay Tidelands

No human-made, instream features were located at this park.

Sucia Island

Sucia Island State Park has one identified fish passage barrier, site 940509. Site 940509 is a culvert that is located between Mud Bay and a closed pocket estuary. The site is backwatered by the tide only at extreme high tides and is therefore considered a barrier to fish passage. The estuary upstream of the site has potential juvenile salmonid rearing habitat but is not considered to be a significant reach because the lineal gain is less than 200 meters.

WRIA 03

Deception Pass

There is one site that was evaluated in Deception Pass State Park. Site FD39 was identified by a previous fish passage barrier inventory and is considered a barrier. There is not a significant reach upstream of this site.

Larrabee

Larrabee State Park is located in WRIAs 01 and 03. Refer to WRIA 01.

WRIA 04

Everett Property

No human-made, instream features were located at this park.

Rockport

Skagit River tributaries

Eleven sites were evaluated in Rockport State Park. Tributaries to the Skagit River flow through the park but because of high gradient conditions downstream of the park, none of the sites are accessible to anadromous salmonids. Sites 940037 and 940061 are culverts on non-fish bearing natural drainages. Site 940045 is a bridge and a non-barrier. Sites 940056 and 940070 are barrier culverts which lack a significant reach either upstream or downstream. Sites 940038, 940039, 940040, 940041, 940058, and 940059 are barrier culverts on potentially fish bearing streams that have a significant reach of habitat both upstream and downstream.

WRIA 05

Mount Pilchuck

No human-made, instream features were located at this park.

WRIA 06

Cama Beach

No human-made, instream features were located at this park.

Deception Pass

Deception Pass State Park is located in WRIAs 03 and 06. Refer to WRIA 03.

Dugualla

No human-made, instream features were located at this park.

Ebey's Landing

No human-made, instream features were located at this park.

Fort Casey

No human-made, instream features were located at this park.

Fort Ebey

No human-made, instream features were located at this park.

Joseph Whidbey

No human-made, instream features were located at this park.

Possession Point

No human-made, instream features were located at this park.

South Whidbey

One feature is identified in South Whidbey State Park. Site 940035 is a barrier culvert on a potentially fish bearing stream that is inaccessible to anadromous salmonids due to high gradient conditions downstream.

WRIA 07

Forks of the Sky

Forks of the Sky State Park contains many tributaries to the Skykomish River but most are considered non-fish bearing due to high gradient conditions. One feature was identified. Site 940217 is a non-culvert crossing barrier, a log puncheon with excessive hydraulic drop, located

on a stream that is not accessible to anadromous salmonids due to high gradient conditions downstream. Site 940217 has a PI of 1.98 and a potential lineal gain of 161m.

Mount Pilchuck

No human-made, instream features were located at this park.

Wallace Falls

Wallace River and tributaries

Wallace Falls State Park includes many tributaries to the Wallace River and the North Fork Wallace River. Many, but not all, of these streams are above natural barriers and are not accessible to anadromous salmonids. Sites 940148, 940482, 940483, and 940484 are all non-culvert crossings and are non-barriers. Site 940147 is a dam on the North Fork Wallace River and is a total barrier. Site 940147 is inaccessible to anadromous salmonids. Sites 940142, 940143, 940391, 940426, and 940479 are barrier culverts on potentially fish bearing streams that are accessible to anadromous salmonids. Of those sites, 940391 and 940426 lack significant reach. Site 940142 has a PI of 9.77 and a potential habitat gain of 2,123 lineal meters. Site 940143 has a PI of 6.23 with a gain of 867m. Site 940142, 940143, 940391, and 940426 are located on an unnamed tributary to the North Fork Wallace River, upstream of a natural feature locally known as "Small Falls". This cascade over bedrock and boulders has been determined to be passable to salmonid species with robust jumping abilities.

WRIA 08

Lake Sammamish

Tibbetts Creek

There are four sites identified in Lake Sammamish State Park. Two sites, 940244 and 940245 are located on Tibbetts Creek, WRIA 08.0169. Site 940244 is a culvert. Site 940245 is a bridge. Both were evaluated as 100% passable to fish. Site 940248 is a culvert located on an isolated non-fish bearing wetland.

Laughing Jacobs Creek

Site 940253 is a 100% passable bridge on Laughing Jacobs Creek, WRIA 08.0166.

Mercer Slough

No human-made, instream features were located at this park.

Saint Edward

Unnamed tributary to Lake Washington

One site is identified in Saint Edward State Park. Culvert 940100 is a barrier to fish passage on an unnamed tributary to Lake Washington that is accessible to resident salmonid populations only due to high gradient conditions downstream of the culvert. There is not significant reach upstream of culvert 940100. Site 940100 has a PI of 1.60 and a potential habitat gain of 150 lineal meters.

Squak Mountain

No human-made, instream features were located at this park.

WRIA 09

Flaming Geyser

There are six sites identified in Flaming Geyser State Park, all culverts:

Cristy Creek

Culvert 940104, on Cristy Creek, has been evaluated as a fish passage barrier.

Unnamed tributaries to Green River

The other culverts are located on unnamed tributaries to the Green River. Culvert 940119 has been evaluated as a non-barrier. Culverts 940108, 940116, 940126, and 940127 are all considered barriers to fish passage.

GRG - Black Diamond

No human-made, instream features were located at this park.

GRG – Hanging Gardens

No human-made, instream features were located at this park.

GRG – Jellum

No human-made, instream features were located at this park.

Kanaskat – Palmer

No human-made, instream features were located at this park.

Lower Green River

One culvert, 940337, is identified in Lower Green River property. It is located on a stream that was evaluated as a non-fish bearing natural drainage.

Nolte

Deep Creek

One culvert, 940267, is identified in Nolte State Park. It is located on a stream that is presumed to be inaccessible to anadromous salmonids.

Saltwater

McSorely Creek

There are six sites identified in Saltwater State Park. They are all located on McSorely Creek, WRIA 09.0381. Sites 940279, 940280, 940282, 940285, and 940286 are all bridges and are all non-barriers. Site 940284 is a streambed control structure that is a partial barrier to fish passage due to excessive hydraulic drop. Site 940284 has a PI of 13.32 and a potential habitat gain of 4,176 lineal meters.

WRIA 10

Auburn Game Farm

No human-made, instream features were located at this park.

Dash Point

Unnamed tributaries to Puget Sound

There are five sites identified in Dash Point State Park. All are located on unnamed tributaries to Puget Sound. Sites 940254 and 940258 are culverts and both are non-barriers to fish passage. Sites 940257, 940259, and 940488 are all culverts located on non-fish bearing natural drainages.

Federation Forest

White River unnamed tributaries

Federation Forest has several tributaries to the White River which flow from high gradient slopes on the north side of the park to a low gradient area along the shore of the White River known as Deadman Flat. Three culverts were identified during previous fish passage barrier inventories of State Route 410 for WSDOT and all were re-evaluated for State Parks. Sites 991898, 996678, and 996679 are all barrier culverts on streams that are accessible to anadromous salmonids and all three lack significant reach due to high gradient conditions upstream.

WRIA 11

Elbow Lake

No human-made, instream features were located at this park.

Nisqually

There are six sites identified in Nisqually State Park. Sites 940401, 940412, and 940413 are all culverts on non-fish bearing natural drainages.

Mashel River

Site 940400 is a non-barrier bridge on the Mashel River.

Nisqually River unnamed tributaries

Site 940414 is a barrier culvert on an unnamed tributary to the Nisqually River which lacks significant reach upstream of the site.

Unnamed tributary to Ohop Creek

Site 940402 is a barrier culvert on an unnamed tributary to Ohop Creek that is inaccessible to anadromous salmonids due to high gradient conditions downstream of the site.

WRIA 12

Steilacoom Lake Shoreland

No human-made, instream features were located at this park.

WRIA 13

Tolmie

Unnamed tributary to Puget Sound

Tolmie State Park has one fish passage site that is a culvert on an unnamed tributary to the Nisqually Reach of Puget Sound. Site 115 TC092 is a culvert that is situated within the tidal zone and has been evaluated as a non-barrier.

WRIA 14

Harstine Island

Unnamed tributary to Puget Sound

Harstine Island Property has one site that was evaluated (excluding Mason County-owned culverts on East Yates Road). Site 940394 is a culvert on an unnamed tributary to Puget Sound that is considered non-fish bearing.

Lake Isabella

No human-made, instream features were located at this park.

Stretch Point

No human-made, instream features were located at this park.

Twanoh

Twanoh Creek

There are two fish passage sites identified in Twanoh State Park. Site 940339 is a culvert on an unnamed tributary to Twanoh Creek that is considered to be non-fish bearing due to a small channel width. Site 940340 is a non-barrier bridge on Twanoh Creek, a tributary to Hood Canal, WRIA 14.0134.

WRIA 15

Belfair

Little Mission Creek

There are three sites identified in Belfair State Park, all are located on Little Mission Creek, a tributary to Hood Canal, WRIA 15.0493. Site 810170 is a non-barrier culvert and site 940221 is a non-barrier bridge. Non-barrier site 940242 is an abandoned culvert crossing where the culvert has been removed and the channel restored to full ecological function. These barriers were repaired by State Parks as part of a shoreline restoration project in 2006.

Blake Island

Unnamed tributaries to Puget Sound

There are 16 sites identified on Blake Island State Park and they are all culverts. Thirteen are situated on small tributaries to Puget Sound that are considered non-fish bearing because they fail to meet the physical criteria of a potentially fish bearing stream: 940327, 940465, 940466, 940467, 940468, 940469, 940470, 940471, 940474, 940475, 940476, 940477, and 940478.

Three additional culvert sites are located on streams that meet the physical criteria for potentially fish bearing streams in regards to channel slope and channel width but they are considered non-fish bearing. These three streams are ephemeral, lacking adequate flow for likely rearing-limited species: coho, searun cutthroat. No connectivity to additional freshwater sources precludes use by resident trout. These sites are 940327, 940465, and 940466.

Camp Calvinwood

No human-made, instream features were located at this park.

Haley Property

Unnamed tributary to Puget Sound

The Haley Property has two sites within its boundaries, both culverts. Site 940406 is a fish passage barrier on a small tributary to Puget Sound that lacks significant reach upstream of the culvert. Site 940407 is a culvert on a stream that is considered non-fish bearing.

Illahee

No human-made, instream features were located at this park.

Joemma Beach

Joemma Beach has one site within the boundaries, a dike/levee with an associate tidegate structure, site 105 K041717a, which was constructed by the Department of Fisheries in the early 1960's. Property has since been transferred to Washington State Parks, however, ownership and legal responsibilities for the dike/levee are still unclear.

Kitsap Memorial

No human-made, instream features were located at this park.

Manchester

Unnamed tributary to Puget Sound

Site 940321 is a culvert on a small unnamed stream that is considered non-fish bearing.

Beaver Creek

Sites 940314 and 940316 are both barrier culverts on an unnamed tributary to Beaver Creek and both have significant reach upstream of the sites. Site 940314 has a potential lineal habitat gain of 858 meters and a PI of 15.30. Site 940316 has a potential gain of 1,387 meters and a PI of 17.53. Downstream of park boundaries there are three partial barrier culverts and one culvert with a barrier status of "unknown" due to complex hydrology.

Penrose Point

Unnamed tributary to Puget Sound

Penrose Point State Park has seven sites identified within its boundaries, all culverts. Five of the culverts are located on streams that are considered non-fish bearing: 940302, 940303, 940304, 940307, and 940499. Sites 940305 and 940306 are located on an unnamed tributary to the Puget Sound that is inaccessible to anadromous salmonids due to a natural barrier falls downstream. Site 940305 is a barrier while 940306 has complex hydrologic properties and has a barrier status of unknown. Both are lacking significant reach upstream of the culverts. Site 940305 has a potential lineal habitat gain of 75 meters and a PI of 1.07. Site 940306 has a potential gain of

37 meters and a PI of 1.01. It is noteworthy that the stream that includes culverts 940305 and 940306 may have historically flowed into an estuary where the current day use area is located. It appears that the stream has at some point in the past been re-routed to a new course that includes the barrier waterfall. There is historic anadromous salmonid presence mapped in this stream.

Scenic Beach

Unnamed tributary to Hood Canal

There are three sites identified within the boundaries of Scenic Beach State Park. Site 940329 is a dam on a small potentially fish bearing tributary to Hood Canal. The dam is a barrier to fish passage but there is not a significant reach of habitat upstream of the site. Sites 940330 and 940331 are culverts on a non-fish bearing natural drainage upslope from site 940329.

Square Lake

Square Lake has one site identified within its boundaries: 940308 is a culvert on a non-fish bearing natural drainage.

WRIA 16

Dosewallips

Unnamed tributary to Hood Canal

Site 997962 is one of two culverts identified in Dosewallips State Park. Site 997962 and 997963 are culverts on a tributary to the Hood Canal. Site 997962 is a fish passage barrier with a potential lineal habitat gain of 806 meters and a PI of 6.83. Downstream of 997962 there is a WSDOT culvert that is a partial barrier. Site 997963 is considered non-fish bearing because of high gradient conditions upstream.

Lilliwaup Tidelands

No human-made, instream features were located at this park.

Pleasant Harbor

Unnamed tributaries to Hood Canal

Pleasant Harbor State Park has two sites, both are culverts. Site 940311 is a culvert on a non-fish bearing natural drainage. Site 940312 is considered a fish passage barrier on a small tributary to Hood Canal that lacks significant reach upstream of the culvert.

Potlatch

Unnamed tributaries to Hood Canal

There are three sites identified in Potlatch State Park. Sites 811371 and 940442 are both fish passage barrier culverts on the same tributary to Hood Canal. Downstream of these sites and outside of park boundaries there are two total barriers: one culvert and one artificial waterfall. Site 940442 has a potential lineal habitat gain of 287 meters and a PI of 14.90. Site 811371 lacks significant reach upstream, with a potential gain of 162 meters and a PI of 11.20. Site 940504 is a culvert on a non-fish bearing natural drainage.

Triton Cove

One site was identified in Triton Cove State Park. Site 940310 is a culvert located on a non-fish bearing natural drainage.

WRIA 17

Anderson Lake

No human-made, instream features were located at this park.

Fort Flagler

Fort Flagler has two sites identified, 940277 and 940278. Both are culverts on non-fish bearing natural drainages.

Fort Townsend

No human-made, instream features were located at this park.

Fort Worden

There are two sites identified with the boundaries of Fort Worden State Park.

Site 940313 is a culvert on a non-fish bearing natural drainage.

Chinese Garden Lagoon

Site 940135 is a lake control structure at the outlet of Chinese Garden Lagoon. The site is a potential fish passage barrier. Potential fish use in the lagoon is considered "unknown". We have been unable to find any information of historic fish presence and the physical conditions (warm water temperatures, low dissolved oxygen, etc.) may be undesirable for salmonid habitat restoration.

H J Carroll Site

No human-made, instream features were located at this park.

Kinney Point

No human-made, instream features were located at this park.

Miller Peninsula

No human-made, instream features were located at this park.

Mystery Bay

No human-made, instream features were located at this park.

Point Hannon

No human-made, instream features were located at this park.

Right Smart Cove

No human-made, instream features were located at this park.

Rothschild House

No human-made, instream features were located at this park.

Sequim Bay

Unnamed tributary to Sequim Bay

Two sites were identified in Sequim Bay State Park. Site 940001 is a culvert that is a fish passage barrier on a tributary to Sequim Bay. Site 940001 has a potential lineal habitat gain of 1,272 meters and a PI of 9.42. Site 940232 is a culvert on a non-fish bearing natural drainage.

Shine Tidelands

No human-made, instream features were located at this park.

Wolfe Property

Unnamed tributaries to Bywater Bay

Five sites are identified within the Wolfe Property boundaries. Sites 940399 and 940405 are both fish passage barrier culverts that lack a significant reach of habitat upstream. Site 940399 has a potential lineal habitat gain of 110 meters and a PI of 3.86. Site 940405 has a potential gain of 175 meters and a PI of 4.60. Sites 940438 and 940461 are both undefined non-culvert stream crossings. These are both very old structures consisting of logs in the stream channel that may be either natural or man-made. Site 940438 is considered a non-barrier. Site 940461 is considered a barrier to fish passage. Site 940461 has a potential gain of 439 meters and a PI of 5.16. Site 940462 is a culvert that is considered a barrier to fish passage but it is not accessible by anadromous salmonids due to subsurface flow conditions downstream of the culvert.

WRIA 19

Clallam Bay

No human-made, instream features were located at this park.

Hoko River/ Cowan Ranch

There are ten sites identified in the Hoko River/ Cowan Ranch properties. Sites 940231, 940234, 940235, 940236, 9490237, and 940238 are all culverts on non-fish bearing natural drainages. Site 940223 is a location of a culvert that has been washed out and it is not a barrier to fish passage. Site 940224 is a series of three notched log streambed controls that are considered a fish passage barrier due to excessive hydraulic drop; there is not a significant reach upstream of the site due to high gradient conditions. Site 940224 has a potential lineal habitat gain of 129 meters and a PI of 2.15. Site 940225 is an abandoned crossing with five notched log streambed controls still in place; the site is not a barrier to fish passage. Site 940226 is a culvert that is considered a fish passage barrier located on a stream that has high gradient conditions upstream that would exclude anadromous salmonids. Site 940226 has a potential gain of 435 meters and a PI of 2.02.

WRIA 20

Bogachiel

Unnamed tributary to Bogachiel River

There are two sites identified in Bogachiel State Park. Site 940131 is a bridge and a non-barrier. Site 940130 is a fish passage barrier culvert without a significant reach of habitat upstream. Site 940130 has a potential lineal habitat gain of 93 meters and a PI of 6.37.

Sol Duc

No human-made, instream features were located at this park.

WRIA 21

Griffith-Priday

No human-made, instream features were located at this park.

Ocean City

Ocean City State Park contains five sites. Sites 940420, 940421, 940422, and 940424 are all culverts that are considered non-barriers. Site 940423 is a culvert on a non-fish bearing natural drainage.

Pacific Beach

No human-made, instream features were located at this park.

Seashore Conservation Area

No human-made, instream features were located at this park.

WRIA 22

Bottle Beach

There is one site in Bottle Beach State Park. Site 940416 is a non-barrier bridge.

Damon Point

No human-made, instream features were located at this park.

Grayland Beach Approach

No human-made, instream features were located at this park.

Lake Sylvia

Lake Sylvia tributaries

There are 17 sites identified in Lake Sylvia State Park. All but one of the sites in the park are situated above a natural barrier falls that excludes anadromous salmonids. The following sites are all culverts on non-fish bearing natural drainages: 940439, 127S0305, 127S0306, 127S0307, 127S0308, 127S0386, 127S0387, 127S0388, 127S0389, 127S0390, and 127S0391. Sites 940430 and 940436 are non-barrier bridges. Site 940431 is a barrier dam that is not accessible to anadromous salmonids and lacks a significant reach of habitat downstream. Sites 940433,

940434, and 940435 are barrier culverts located on tributaries to Lake Sylvia and are not accessible to anadromous salmonids.

Schafer

There are two sites identified in Schafer State Park. Site 940446 is a culvert on a non-fish bearing natural drainage. Site 940447 is a non-barrier bridge.

Seashore Conservation Area

No human-made, instream features were located at this park.

Twin Harbors Beach

No human-made, instream features were located at this park.

Westhaven

No human-made, instream features were located at this park.

Westport Light

No human-made, instream features were located at this park.

WRIA 23

Millersylvania

Allen Creek and tributary

Six sites are identified in Millersylvania State Park. Sites 940383, 940411, and 994494 are all non-barrier bridges. Site 940403 is a non-barrier culvert. Site 125 1702W34A is a non-barrier culvert but there is a potential for future debris blockage from beaver activity. Site 940404 is a culvert that is a fish passage barrier. Site 940404 has a potential lineal habitat gain of 737 meters, a PI of 18.54, and five downstream culverts, outside of park boundaries, that have a barrier status of "unknown" due to complex hydrology.

Rainbow Falls

Chehalis River and unnamed tributary

There are two sites identified in Rainbow Falls State Park. Site 940107 is the site of an abandoned crossing over the Chehalis River that is a non-barrier. Site 940110 is a fish passage barrier culvert located on a small tributary to the Chehalis River that is not accessible to anadromous salmonids due to high gradient conditions downstream.

Willapa Hills Trail

The Willapa Hills Trail includes 49 stream crossing features.

Nicholson Creek

Site 125 1304W03A is a barrier culvert located on Nicholson Creek, a tributary to the Chehalis River. Site 125 1304W03A has a potential gain of 5,849 meters and a PI of 20.21.

Unnamed tributaries to Chehalis River

Site 125 1304W13B is a barrier culvert located on an unnamed tributary to the Chehalis River. Site 125 1304W13B has a potential gain of 229 meters and a PI of 6.62. Site 940105 is a barrier culvert on an unnamed stream. Site 940105 has a potential gain of 579 meters and a PI of 7.91. Downstream of 940105 there is a total barrier culvert on private land and a county road culvert with a barrier status of unknown due to complex hydrology. Site 940106 is a non-barrier culvert.

Fronia Creek

Site 125 1305W23B is a barrier culvert located on Fronia Creek, a tributary to the Chehalis River. Site 125 1305W23B has a potential gain of 5,627 meters and a PI of 19.49. There is one privately owned barrier culvert downstream that is a partial barrier.

Salmon Creek and tributaries

Site 940342 is a barrier culvert on Salmon Creek, tributary to Rock Cr. Site 940342 has a potential gain of 6,085 meters and a PI of 17.16. Site 940341 is a culvert on a non-fish bearing ditched drainage. Site 940343 is a barrier culvert on an unnamed tributary to Salmon Creek. Site 940343 has a potential gain of 1,789 meters and a PI of 11.43.

Rock Creek and tributaries

Sites 125 1205W05B and 125 1205W06B are both fish passage barrier culverts located on unnamed tributaries to Rock Creek. Site 125 1205W05B lacks significant upstream (115 meters) and has a PI of 12.84. Site 125 1205W06B has a potential gain of 892 meters and a PI of 9.47. Site 940344 is a location of bridge washout situated on Rock Creek, tributary to Chehalis River, and the site is a non-barrier. Site 940345 is a barrier culvert on an unnamed tributary to Rock Creek. Site 940345 has a potential gain of 560 meters and a PI of 8.43. Site 940346 is culvert located on a non-fish bearing natural drainage. Site 940347 is a barrier culvert on an unnamed tributary to Rock Creek. Site 940347 has a potential gain of 793 meters and a PI of 6.88. Site 940348 is a culvert located on a non-fish bearing natural drainage. Site 940349 is a non-barrier bridge on Rock Creek. Site 940350 is a culvert on a non-fish bearing natural drainage. Site 940351 is a barrier culvert on an unnamed tributary to Rock Creek that is inaccessible to anadromous salmonids. Site 940352 has a potential gain of 394 meters and a PI of 2.17. Sites 940353 and 940354 are both culverts on non-

fish bearing natural drainages. Site 940355 is a barrier culvert on a tributary to Rock Creek that is not accessible to anadromous salmonids due to high gradient conditions. Sites 940356 and 940357 are both barrier culverts on unnamed tributaries to Rock Creek; site 940356 does not have a significant reach upstream. Site 940357 has a potential gain of 949 meters and a PI of 9.43.

Chehalis River tributaries, Stowe Creek, Katula Creek, Marcuson Creek, Dell Creek, and other tributaries

Site 940358 is a non-barrier bridge located on the Chehalis River. Sites 940359 and 940360 are both non-barrier bridges on tributaries to the Chehalis River, Stowe Creek and Katula Creek respectively. 940361 is a barrier culvert, without significant reach upstream, on an unnamed tributary to the Chehalis River that is not accessible to anadromous salmonids. 940362 is a barrier culvert on an unnamed tributary to the Chehalis River. Site 940362 has a potential gain of 839 meters and a PI of 12.36. Site 940363 is a culvert on a non-fish bearing natural drainage. Site 940364 is a location of a washed out bridge on the Chehalis River and is a non-barrier. Sites 940365 and 940366 are both non-barrier bridges on tributaries to the Chehalis River, Marcuson Creek and Dell Creek respectively. Site 940367 is a barrier culvert on an unnamed tributary to the Chehalis River. Site 940368 is a non-barrier culvert on an unnamed tributary to the Chehalis River. Site 940369 is a non-barrier bridge located on Garret Creek, tributary to the Chehalis River. Sites 940370 and 940371 are both culverts on non-fish bearing tributaries to the Chehalis River. Sites 940372 and 940373 are both barrier culverts on unnamed tributaries to the Chehalis River and both lack significant reach upstream. Site 940374 is a culvert on a non-fish bearing tributary to the Chehalis River. Site 940375 is a barrier culvert without significant reach upstream that is situated on a small tributary to the Chehalis River that is inaccessible to anadaromous salmonids. Sites 940376 and 940377 are both non-barrier sites on located on the Chehalis River; 940376 is a washed out bridge, 940377 is a bridge. Sites 940378, 940379, 940380, 940381, and 940382 are all non-barrier bridges on tributaries to the Chehalis River.

Future Work

The inventory, while extensive and deemed to cover the vast majority of instream features potentially blocking fish passage, should not be considered a 100% survey of all features within the park system within WRIA's 1-23. Recent State Parks land acquisitions and/or lands that were not identified in the past two contracts between WDFW and Parks are remaining to be inventoried.

The following is a summary of State Parks Not Included in the Fish Passage Barrier Inventory:

- **WRIA 01**: none (all properties were included in the inventory)
- WRIA 02:Clark Island, Doe Island, Iceburg Island, James Island, Jones Island, Matia Island,
Patos Island, Posey Island, Stuart Island, Turn Island

- WRIA 03:Burrows Island, Cone Island, parts of Deception Pass (includes: Hope Island,
Kiket Island, Northwest Island, Pass Island, Skagit Island), and Saddlebag Island
- **WRIA 04**: none (all properties were included in the inventory)
- **WRIA 05**: none (all properties were included in the inventory)
- **WRIA 06**: parts of Deception Pass (includes Ben Ure Island, Deception Island, and Strawberry Island), part of Fort Casey: 60 acre new acquisition
- **WRIA 07**: Everett Jetty, parts of Iron Horse Trail/Olallie State Park: due to location above Snoqualmie Falls (anadromous barrier).
- **WRIA 08**: part of Bridle Trails: newly acquired 4.7 acre parcel to the east of main park
- **WRIA 09**: part of GRG Jellum property: two new parcel acquisitions, 7 acre and 0.7 acre
- **WRIA 10**: none (all properties were included in the inventory)
- **WRIA 11**: none (all properties were included in the inventory)
- WRIA 12: Steilacoom Lake Shoreland
- WRIA 13: Washington State Park Headquarters
- WRIA 14: Hope Island, McMicken Island, Squaxin Island
- **WRIA 15**: Cutts Island, Eagle Island, part of Joemma Beach (newly acquired parcels contiguous with the park: 7.6 acres and 2 acres)
- **WRIA 16**: part of Dosewallips State Park: new acquisition of two parcels north of park, 23 acres and 4.3 acres
- WRIA 17: part of Fort Townsend State Park: 254 contiguous acres to the north of main park, part of Sequim Bay State Park, 2.7 acre new acquisition on the western edge. Toandos Peninsula Tidelands.
- WRIA 18: no park properties
- WRIA 19: part of Hoko River/ Cowan Ranch: new acquisitions totaling 63 acres
- **WRIA 20**: none (all properties were included in the inventory)
- WRIA 21: part of Griffith-Priday State Park: two parcels east of main park, 121 and 3 acres
- **WRIA 22**: part of Bottle Beach: extremely small parcels of newly acquired property.
- **WRIA 23**: none (all properties were included in the inventory)

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Washington Department of Fish and Wildlife. 2009. Fish Passage and Surface Water Diversion Screening Assessment and Prioritization Manual. Washington Department of Fish and Wildlife. Olympia, Washington.

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Appendix 1

Instream Features Evaluated for Fish Passage

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Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Status	Blockage
810170	47.43037362	-122.8813911	Belfair	Little Mission Cr	Hood Canal	15.0493	Yes	Culvert	No	None
940221	47.4301172	-122.8810329	Belfair	Little Mission Cr	Hood Canal	15.0493	Yes	Bridge	No	None
940242	47.42958741	-122.8797988	Belfair	Little Mission Cr	Hood Canal	15.0493	Yes	Abandoned	No	None
940044	48.90335536	-122.7707683	Birch Bay	Terrell Cr	Birch Bay	01	Yes	Bridge	No	None
940323	47.5399089	-122.484934	Blake Island	unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940325	47.54198873	-122.4849715	Blake Island	unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940327	47.54169261	-122.4831837	Blake Island	unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940328	47.53935625	-122.4864201	Blake Island	unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940465	47.53829363	-122.4860608	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940466	47.53382878	-122.4974106	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940467	47.54434134	-122.5015418	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940468	47.54279006	-122.4971948	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940469	47.54464873	-122.4928768	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940470	47.54467183	-122.4926669	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940471	47.54431324	-122.490665	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940474	47.54066386	-122.4880271	Blake Island	Unnamed	Unnamed	15	No	Culvert	N/A	N/A
940475	47.54022795	-122.4894277	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940476	47.54001017	-122.4897681	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940477	47.54089645	-122.4853397	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940478	47.53108768	-122.4927021	Blake Island	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940130	47.89420373	-124.3587854	Bogachiel	unnamed	Bogachiel R	20	Yes	Culvert	Yes	Total
940131	47.89579885	-124.3658756	Bogachiel	unnamed	Bogachiel	20	Yes	Bridge	No	None
940416	46.89277691	-124.0455229	Bottle Beach	Redman Sl	Pacific Ocean	22.1317	Yes	Bridge	No	None
940254	47.31970358	-122.4137151	Dash Point	unnamed	Puget Sound	10	Yes	Culvert	No	None
940257	47.3193294	-122.4133682	Dash Point	unnamed	unnamed	10	No	Culvert	N/A	N/A
940258	47.31847597	-122.4134062	Dash Point	unnamed	Puget Sound	10	Yes	Culvert	No	None
940259	47.31831846	-122.4135698	Dash Point	unnamed	unnamed	10	No	Culvert	N/A	N/A
940488	47.31570095	-122.4093769	Dash Point	unnamed	unnamed	10	No	Culvert	N/A	N/A
FD39	48.41407	-122.65024	Deception Pass	unnamed	Bowman Bay	03	Unk	Culvert	Yes	Total
997962	47.68786351	-122.9026942	Dosewallips	unnamed	Hood Canal	16	Yes	Culvert	Yes	Partial
997963	47.68951237	-122.9117785	Dosewallips	unnamed	Hood Canal	16	No	Culvert	N/A	N/A

Instream Features Inventoried for Fish Passage within Washington State Parks Water Resource Inventory Areas (WRIAs) 1-23

Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Barrier Status	Blockage
991898	47.1589088	-121.7284164	Federation Forest	unnamed	White R	10	Yes	Culvert	Yes	Partial
996678	47.1546218	-121.7023759	Federation Forest	unnamed	White R	10	Yes	Culvert	Yes	Partial
996679	47.1543698	-121.7065264	Federation Forest	unnamed	White R	10	Yes	Culvert	Yes	Total
940104	47.27293958	-122.0210056	Flaming Geyser	Cristy Cr	Green R	09	Yes	Culvert	Yes	Partial
940108	47.27340337	-122.0200769	Flaming Geyser	unnamed	Green R	09	Yes	Culvert	Yes	Partial
940116	47.27358725	-122.0204359	Flaming Geyser	unnamed	Green R	09	Yes	Culvert	Yes	Partial
940119	47.27299586	-122.027994	Flaming Geyser	unnamed	Green R	09	Yes	Culvert	No	None
940126	47.27382777	-122.0304495	Flaming Geyser	unnamed	Green R	09	Yes	Culvert	Yes	Partial
940127	47.27426352	-122.0300346	Flaming Geyser	unnamed	Green R	09	Yes	Culvert	Yes	Partial
940217	47.81644785	-121.5801636	Forks of the Sky	unnamed	Deer Cr	07.0000	Yes	Fill/Puncheon	Yes	Partial
940277	48.09244237	-122.6949519	Fort Flagler	unnamed	unnamed	17	No	Culvert	N/A	N/A
940278	48.09315915	-122.6963979	Fort Flagler	unnamed	unnamed	17	No	Culvert	N/A	N/A
940135	48.141312	-122.7799818	Fort Worden	Chinese Garden Lagoon	Puget Sound	17	Unk	Stormwater	Yes	Total
940313	48.13417729	-122.7735247	Fort Worden	unnamed wetland	unnamed pond	17	No	Culvert	N/A	N/A
940406	47.29701659	-122.7854963	Haley Property	unnamed	Hood Canal	15	Yes	Culvert	Yes	Total
940407	47.29767203	-122.7877343	Haley Property	unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940394	47.26148287	-122.874314	Harstine Island			14	No	Culvert	N/A	N/A
940223	48.25367907	-124.3455958	Hoko River Cowan Ranch	unnamed	Little Hoko R	19	Yes	Washout	No	None
940224	48.24308496	-124.3429099	Hoko River Cowan Ranch	unnamed	Little Hoko R	19	Yes	Streambed Control	Yes	Partial
940225	48.23622437	-124.348912	Hoko River Cowan Ranch	unnamed	Little Hoko R	19	Yes	Abandoned	No	None
940226	48.25599681	-124.3504183	Hoko River Cowan Ranch Hoko River	unnamed	Little Hoko R	19	Yes	Culvert	Yes	Total
940231	48.25533451	-124.3503157	Cowan Ranch Hoko River	unnamed	Little Hoko R	19	No	Culvert	N/A	N/A
940234	48.24879052	-124.3407789	Cowan Ranch	unnamed	Little Hoko R	19	No	Culvert	N/A	N/A
940235	48.25011817	-124.3433406	Hoko River Cowan Ranch	unnamed	Little Hoko R	19	No	Culvert	N/A	N/A
940236	48.25076953	-124.3445186	Hoko River Cowan Ranch	unnamed	Little Hoko R	19	No	Culvert	N/A	N/A
940237	48.25137717	-124.3449192	Hoko River Cowan Ranch	unnamed	Little Hoko R	19	No	Culvert	N/A	N/A
940238	48.25420676	-124.3479223	Hoko River Cowan Ranch	unnamed	Little Hoko R	19	No	Culvert	N/A	N/A

<i>a</i> , 15				~					Barrier	
Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Status	Blockage
940206	47.38409691	-121.4727098	Iron Horse	Humpback Cr	SF Snoqualmie R	07.0512	Yes	Culvert	Yes	Total
710200	17.50109091	121.1121090	non Horse		SF Snoqualmie	07.0312	105	Current	105	Total
940207	47.38470689	-121.5214067	Iron Horse	Hansen Cr	R	07.0505	Yes	Bridge	No	None
					SF Snoqualmie			~ .		
940208	47.39612596	-121.5716889	Iron Horse	Harris Cr	R SF Snoqualmie	07.0502	Yes	Culvert	Yes	Total
940210	47.40107244	-121.5816838	Iron Horse	Rock Cr	R Shoquanne	07.0501	Yes	Culvert	Yes	Total
					SF Snoqualmie					
940211	47.42462399	-121.6340712	Iron Horse	Mine Cr	R	07.0495	Yes	Bridge	No	None
940212	47.43293485	-121.657922	Iron Horse	Hall Cr	SF Snoqualmie R	07.0490	Yes	Bridge	No	None
710212	11.13233.103	121.037922	non nonse		SF Snoqualmie	07.0120	105	Biluge	110	Ttone
940213	47.43668413	-121.6628643	Iron Horse	Change Cr	R	07.0489	Yes	Bridge	No	None
0.40.01.4	15 10055000	101 55000 60			SF Snoqualmie	07.0405		Streambed		D 1
940214 105	47.43275983	-121.7523368	Iron Horse	Boxley Cr	R	07.0485	Yes	Control	Yes	Partial
K041717a	47.22131	-122.80644	Joemma Beach	Whitman Cr	Whitman Cove	15.0032	Yes	Dike/Levee	Yes	Unk
940244	47.55319845	-122.0676959	Lake Sammamish	unnamed ditch	Tibbitts Cr	08	Yes	Culvert	No	None
940245	47.55196523	-122.0680571	Lake Sammamish	Tibbetts Cr	Lk Sammamish	08.0169	Yes	Bridge	No	None
940248	47.55674092	-122.0634414	Lake Sammamish	isolated wetland		08	No	Culvert	N/A	N/A
				Laughing Jacobs						
940253	47.56513813	-122.0505948	Lake Sammamish	Cr	Lk Sammamish	08.0166	Yes	Bridge	No	None
940430	47.00647576	-123.5866427	Lake Sylvia	Sylvia Cr	Wynoochee R	22.0261	Yes	Bridge	No	None
940431	46.99620973	-123.5982592	Lake Sylvia	Sylvia Cr	Wynoochee R	22.0261	Yes	Dam	Yes	Total
940433	46.99683473	-123.5978741	Lake Sylvia	unnamed	Sylvia Lk	22.0000	Yes	Culvert	Yes	Partial
940434	46.99756372	-123.5895251	Lake Sylvia	unnamed	Sylvia Lk	22.0000	Yes	Culvert	Yes	Partial
940435	46.99627737	-123.5913059	Lake Sylvia	unnamed	Sylvia Lk	22.0000	Yes	Culvert	Yes	Partial
940436	46.99641308	-123.5939492	Lake Sylvia	Sylvia Cr	Wynoochee R	22.0261	Yes	Bridge	No	None
940439	47.00356489	-123.5896914	Lake Sylvia	unnamed	Sylvia Lk	22.0000	No	Culvert	N/A	N/A
127S0305	46.99174	-123.60101	Lake Sylvia	unnamed	unnamed	22.0345	No	Culvert	N/A	N/A
127S0306	46.99477	-123.59684	Lake Sylvia	unnamed	Sylvia Lk	22.0000	No	Culvert	N/A	N/A
127S0307	46.99505	-123.59565	Lake Sylvia	unnamed	Sylvia Cr	22.0261	No	Culvert	N/A	N/A
127S0308	46.99597	-123.5933	Lake Sylvia	unnamed	Sylvia Cr	22.0261	No	Culvert	N/A	N/A
127S0386	47.0056	-123.58859	Lake Sylvia	unnamed	Sylvia Lk	22.0000	No	Culvert	N/A	N/A
127S0387	47.00414	-123.58932	Lake Sylvia	unnamed	Sylvia Lk	22.0000	No	Culvert	N/A	N/A
127S0388	47.00284	-123.5897	Lake Sylvia	unnamed	Sylvia Lk	22.0000	No	Culvert	N/A	N/A

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Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Status	Blockage
127S0389	47.00228	-123.59	Lake Sylvia	unnamed	Sylvia Cr	22.0000	No	Culvert	N/A	N/A
127S0390	47.00125	-123.58992	Lake Sylvia	unnamed	Sylvia Cr	22.0000	No	Culvert	N/A	N/A
127S0391	46.99983	-123.59037	Lake Sylvia	unnamed	Sylvia Cr	22.0000	No	Culvert	N/A	N/A
940055	48.65774838	-122.4700896	Larrabee	unnamed	Fragrance Lk	01	Yes	Streambed Control	Yes	Partial
940066	48.64870148	-122.4761733	Larrabee	unnamed	Samish Bay	01	No	Culvert	N/A	N/A
940068	48.6474628	-122.4806922	Larrabee	unnamed	Samish Bay	01.0635	Yes	Culvert	Yes	Partial
940069	48.64708381	-122.4807657	Larrabee	unnamed	unnamed	01	Yes	Culvert	Yes	Total
940072	48.68175498	-122.4576313	Larrabee	unnamed	Chuckanut Cr	01.0629	Yes	Culvert	Yes	Partial
940078	48.66398768	-122.4787454	Larrabee	unnamed	Chuckanut Bay	01.0633	Yes	Dam	Yes	Total
940080	48.6525345	-122.4906052	Larrabee	unnamed	Wildcat Cove	01	Yes	Culvert	Yes	Total
993483	48.7085838	-122.4855957	Larrabee	unnamed	Chuckanut Cr	01.0627	Yes	Culvert	Yes	Partial
995318	48.6660626	-122.4831256	Larrabee	unnamed	Chuckanut Bay	01.0633	Yes	Culvert	Yes	Total
996047	48.69896234	-122.4902912	Larrabee	unnamed	Chuckanut Cr	01	Yes	Fill/Puncheon	Yes	Total
940337	47.30726683	-122.1986566	Lower Green River	unnamed	Green R	09	No	Culvert	N/A	N/A
940314	47.57715811	-122.5553894	Manchester	unnamed	Beaver Cr	15	Yes	Culvert	Yes	Partial
940316	47.57370389	-122.5553355	Manchester	unnamed	Beaver Cr	15	Yes	Culvert	Yes	Partial
940321	47.57444692	-122.556443	Manchester	unnamed	unnamed	15	No	Culvert	N/A	N/A
940383	46.91527161	-122.9176348	Millersylvania	Allen Cr	Beaver Cr	23	Yes	Bridge	No	None
940403	46.90852497	-122.9182955	Millersylvania	unnamed	Allen Cr	23	Yes	Culvert	No	None
940404	46.91471818	-122.9195	Millersylvania	unnamed	Allen Cr	23	Yes	Culvert	Yes	Partial
940411	46.913663	-122.909847	Millersylvania	unnamed	Allen Cr	23.0000	Yes	Bridge	No	None
994494	46.91741849	-122.9045367	Millersylvania	Blooms Ditch	Black R	23.0684	Yes	Bridge	No	None
125 1702W34A	46.90918	-122.9166	Millersylvania	Allen Cr	Beaver Cr	23	Yes	Culvert	Unk	Unk
940010	48.64993356	-122.8125282	Moran	Mountain Lk	Cascade Cr	02	Yes	Dam	Yes	Total
940011	48.65659278	-122.8554718	Moran	Moran Cr	Cascade Cr	02	Yes	Culvert	No	None
940012	48.65198875	-122.8507271	Moran	unnamed	Cascade Lk	02	Yes	Culvert	Yes	Partial
940013	48.65208022	-122.8504003	Moran	unnamed	Cascade Lk	02	Yes	Culvert	No	None
940014	48.65233071	-122.8502002	Moran	unnamed	Cascade Lk	02	Yes	Culvert	No	None
940015	48.64959161	-122.843312	Moran	unnamed	Cascade Lk	02	Yes	Culvert	Yes	Partial
940016	48.64495251	-122.8359039	Moran	Cascade Cr	Buck Bay	02	Yes	Bridge	No	None
940017	48.64479083	-122.836346	Moran	Cascade Cr	Buck Bay	02	Yes	Dam	Yes	Total

Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Barrier Status	Blockage
940018	48.64779396	-122.8454922	Moran	unnamed	Cascade Lk	02	Yes	Culvert	Yes	Total
940023	48.64851751	-122.8437482	Moran	unnamed	Cascade Lk	02	Yes	Culvert	Yes	Total
940024	48.64890661	-122.8436986	Moran	unnamed	Cascade Lk	02	Yes	Culvert	Yes	Total
940025	48.64938543	-122.8262599	Moran	Cascade Cr	Buck Bay	02	Yes	Culvert	Yes	Partial
940026	48.64539377	-122.8351161	Moran	Cascade Cr	Buck Bay	02	Yes	Dam	Yes	Total
940032	48.64818783	-122.8206332	Moran	unnamed	Cascade Cr	02	Yes	Culvert	Yes	Partial
940034	48.65217687	-122.8194537	Moran	unnamed	Cascade Cr	02	Yes	Culvert	No	None
940096	48.66096556	-122.8362824	Moran	unnamed	Paul Cr	02	Yes	Culvert	No	None
940400	46.84706432	-122.3310898	Nisqually	Mashel R	Nisqually R	11.0101	Yes	Bridge	No	None
940401	46.85933531	-122.3400797	Nisqually	unnamed	Ohop Cr	11	No	Culvert	N/A	N/A
940402	46.86022932	-122.3429168	Nisqually	unnamed	Ohop Cr	11	Yes	Culvert	Yes	Total
940412	46.8362907	-122.3376589	Nisqually	unnamed	Nisqually	11.0000	No	Culvert	N/A	N/A
940413	46.83636416	-122.3391972	Nisqually	unnamed	Nisqually	11.0000	No	Culvert	N/A	N/A
940414	46.8372153	-122.3348923	Nisqually	unnamed	Nisqually R	11.0000	Yes	Culvert	Yes	Total
940267	47.27546635	-121.937436	Nolte	Deep Cr	Deep Lk	09.0142	Yes	Culvert	Yes	Partial
940420	47.03229566	-124.1690455	Ocean City	unnamed	unnamed	21.0000	Yes	Culvert	No	None
940421	47.03232111	-124.1691221	Ocean City	unnamed	unnamed	21.0000	Yes	Culvert	No	None
940422	47.03321981	-124.1630467	Ocean City	unnamed wetland	unnamed wetland	21.0000	Yes	Culvert	No	None
940423	47.03328843	-124.1605049	Ocean City	unnamed	unnamed	21.0000	No	Culvert	N/A	N/A
940424	47.03142135	-124.1575681	Ocean City	unnamed pond	unnamed pond	22.0000	Yes	Culvert	No	None
940302	47.25739396	-122.7494922	Penrose Point	unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940303	47.25668023	-122.7501228	Penrose Point	unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940304	47.25674662	-122.7500187	Penrose Point	unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940305	47.25788662	-122.7489029	Penrose Point	unnamed	Puget Sound	15	Yes	Culvert	Yes	Partial
940306	47.25830992	-122.7487152	Penrose Point	unnamed	Puget Sound	15	Yes	Culvert	Unk	Unk
940307	47.25881505	-122.7407888	Penrose Point	unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940499	47.25598141	-122.750868	Penrose Point	Unnamed	Puget Sound	15	No	Culvert	N/A	N/A
940311	47.66512201	-122.9129232	Pleasant Harbor	unnamed	Hood Canal	16	No	Culvert	N/A	N/A
940312	47.66444797	-122.9148717	Pleasant Harbor	unnamed	Hood Canal	16	Yes	Culvert	Yes	Total
811371	47.36207735	-123.1582653	Potlatch	unnamed	Hood Canal	16.0218	Yes	Culvert	Yes	Partial
940442	47.36247885	-123.1573185	Potlatch	unnamed	Hood Canal	16.0218	Yes	Culvert	Yes	Partial
940504	47.36384419	-123.159485	Potlatch	Unnamed	Hood Canal	16	No	Culvert	N/A	N/A
940107	46.63064241	-123.2317308	Rainbow Falls	Chehalis R	Grays Harbor	23.0045	Yes	Abandoned	No	None

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Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA 1	Fish Use?	Feature Type	Status	Blockage
940110	46.62776768	-123.2313526	Rainbow Falls	unnamed	Chehalis R	23	Yes	Culvert	Yes	Total
940037	48.49945077	-121.6253574	Rockport	unnamed	unnamed	04	No	Culvert	N/A	N/A
940038	48.49858644	-121.6240285	Rockport	unnamed	unnamed	04	Yes	Culvert	Yes	Partial
940039	48.49721094	-121.623143	Rockport	unnamed	unnamed	04	Yes	Culvert	Yes	Total
940040	48.49640959	-121.6216761	Rockport	unnamed	unnamed	04	Yes	Culvert	Yes	Partial
940041	48.4929584	-121.6257541	Rockport	unnamed	unnamed	04	Yes	Culvert	Yes	Partial
940045	48.49685632	-121.6214648	Rockport	unnamed	unnamed	04	Yes	Bridge	No	None
940056	48.4891643	-121.6077662	Rockport	unnamed	unnamed	04	Yes	Culvert	Yes	Partial
940058	48.48980987	-121.6177999	Rockport	Fern Cr	Skagit R	04	Yes	Culvert	Yes	Total
940059	48.49251664	-121.6153139	Rockport	Fern Cr	Skagit R	04	Yes	Culvert	Yes	Partial
940061	48.48690785	-121.6185218	Rockport	Fern Cr	Skagit R	04	No	Culvert	N/A	N/A
940070	48.48691723	-121.6200957	Rockport	unnamed	unnamed	04	Yes	Culvert	Yes	Partial
940100	47.73044826	-122.2547554	Saint Edward	unnamed	Lake Washington	08.0226	Yes	Culvert	Yes	Partial
940279	47.3729173	-122.3244509	Saltwater	McSorley Cr	Puget Sound	09.0381	Yes	Bridge	No	None
940280	47.37306655	-122.3232218	Saltwater	McSorley Cr	Puget Sound	09.0381	Yes	Bridge	No	None
940282	47.3749573	-122.3199413	Saltwater	McSorley Cr	Puget Sound	09.0381	Yes	Bridge	No	None
940284	47.37477659	-122.3162125	Saltwater	McSorley Cr	Puget Sound	09.0381	Yes	Streambed Control	Yes	Partial
940285	47.37503409	-122.3161638	Saltwater	McSorley Cr	Puget Sound	09.0381	Yes	Bridge	No	None
940286	47.37538391	-122.3151801	Saltwater	McSorley Cr	Puget Sound	09.0381	Yes	Bridge	No	None
940329	47.64964885	-122.8466425	Scenic Beach	unnamed	Hood Canal	15	Yes	Dam	Yes	Partial
940330	47.64879391	-122.8468671	Scenic Beach	unnamed	Hood Canal	15	No	Culvert	N/A	N/A
940331	47.64856607	-122.8470876	Scenic Beach	unnamed	Hood Canal	15	No	Culvert	N/A	N/A
940446	47.09722055	-123.4664082	Schafer	unnamed	EF Satsop R	22.0000	No	Culvert	N/A	N/A
940447	47.09821249	-123.4665959	Schafer	EF Sastsop R	Satsop R	22.0360 A	Yes	Bridge	No	None
940001	48.04062814	-123.0277088	Sequim Bay	unnamed	Sequim Bay	17.0297	Yes	Culvert	Yes	Total
940232	48.03925297	-123.0300918	Sequim Bay	unnamed	unnamed	17	No	Culvert	N/A	N/A
940035	48.06039844	-122.5943642	South Whidbey	unnamed	Puget Sound	06.0044	Yes	Culvert	Yes	Partial
940308	47.4800086	-122.6871189	Square lake	unnamed	Square Lk	15	No	Culvert	N/A	N/A
940509	48.75362361	-122.9028799	Sucia Island	Unnamed	Mud Bay	02	Yes	Culvert	Yes	Partial
115 TC092	47.12021	-122.77662	Tolmie	unnamed	Nisqually Reach	13	Yes	Culvert	No	None

Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Barrier Status	Blockage
940310	47.60814018	-122.9855908	Triton Cove	unnamed	Hood Canal	16	No	Culvert	N/A	N/A
940339	47.37557359	-122.9724922	Twanoh	unnamed	Twanoh Cr	14	No	Culvert	N/A	N/A
940340	47.37763251	-122.9731725	Twanoh	Twanoh Cr	Hood Canal	14.0134	Yes	Bridge	No	None
940142	47.87512121	-121.6766703	Wallace Falls	unnamed	Wallace R	07.0000	Yes	Culvert	Yes	Partial
940143	47.8747061	-121.6740373	Wallace Falls	unnamed	Wallace R	07	Yes	Culvert	Yes	Partial
940144	47.87439181	-121.6703456	Wallace Falls	unnamed	Wallace R	07	Yes	Culvert	Yes	Total
940147	47.90077801	-121.6743274	Wallace Falls	Wallace R	Skykomish R	07	Yes	Dam	Yes	Partial
940148	47.89476312	-121.6707883	Wallace Falls	NF Wallace R	Wallace R	07.0951	Yes	Bridge	No	None
940391	47.86822153	-121.6741253	Wallace Falls	unnamed	Wallace R	07	Yes	Culvert	Yes	Partial
940426	47.87416289	-121.6720671	Wallace Falls	unnamed	unnamed	07	Yes	Culvert	Yes	Partial
940479	47.86577855	-121.6802925	Wallace Falls	Unnamed	Wallace R	07	Yes	Culvert	Yes	Total
940482	47.90758997	-121.6808651	Wallace Falls	NF Wallace R	Wallace R	07.0951	Yes	Ford	No	None
940483	47.90768653	-121.6805234	Wallace Falls	NF Wallace R	Wallace R	07.0951	Yes	Ford	No	None
940484	47.9111	-121.6834	Wallace Falls	NF Wallace R	Wallace R	07.0951	Yes	Ford	No	None
940105	46.63716233	-123.2273364	Willapa Hills Trail	unnamed	unnamed	23	Yes	Culvert	Yes	Partial
940106	46.6370605	-123.2320716	Willapa Hills Trail	unnamed	Chehalis R	23	Yes	Culvert	No	None
940341	46.54545699	-123.3994162	Willapa Hills Trail	unnamed	unnamed to Salmon CR	23	No	Culvert	N/A	N/A
940342	46.54500536	-123.3972559	Willapa Hills Trail	Salmon Cr	Rock Cr	23.1166	Yes	Culvert	Yes	Partial
940343	46.54472702	-123.3914514	Willapa Hills Trail	unnamed	Salmon Cr	23	Yes	Culvert	Yes	Total
940344	46.54683056	-123.3861827	Willapa Hills Trail	Rock Cr	Chehalis R	23.1155	Yes	Washout	No	None
940345	46.54898104	-123.3813936	Willapa Hills Trail	unnamed	Rock Cr	23	Yes	Culvert	Yes	Partial
940346	46.55206615	-123.375237	Willapa Hills Trail	unnamed	Rock Cr	23	No	Culvert	N/A	N/A
940347	46.55226918	-123.3653768	Willapa Hills Trail	unnamed	Rock Cr	23	Yes	Culvert	Yes	Total
940348	46.55256927	-123.3612491	Willapa Hills Trail	unnamed	Rock Cr	23	No	Culvert	N/A	N/A
940349	46.55277272	-123.3562899	Willapa Hills Trail	Rock Cr	Chehalis R	23.1155	Yes	Bridge	No	None
940350	46.54914068	-123.340009	Willapa Hills Trail	unnamed	Rock Cr	23	No	Culvert	N/A	N/A

Site ID	*L atituda	*Longitudo	Park	Stream	Tributory to	WDIA	Eich Uco?	Easture Trues	Barrier	Disaltaga
Site ID	*Latitude	*Longitude	Willapa Hills	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Status	Blockage
940351	46.5480794	-123.3380422	Trail	Rock Cr	Chehalis R	23.1155	Yes	Bridge	No	None
940331	40.3460794	-125.5560422	Willapa Hills	KOCK CI	Chenans K	23.1133	168	blidge	INO	None
940352	46.54766141	-123.3344525	Trail	unnamed	Rock Cr	23.1159	Yes	Culvert	Yes	Partial
740352	40.34700141	-125.5544525	Willapa Hills	uimanicu	KOCK CI	23.1137	105	Curven	105	Tartia
940353	46.55110912	-123.3305872	Trail	unnamed	Rock Cr	23	No	Culvert	N/A	N/A
710555	10.55110712	125.5505072	Willapa Hills	umumed		23	110	Curvent	10/11	10/11
940354	46.55278713	-123.320861	Trail	unnamed	Rock Cr	23	No	Culvert	N/A	N/A
710551	10.55270715	125.520001	Willapa Hills	umumed		23	110	Curvent	10/11	10/11
940355	46.55270854	-123.3198047	Trail	unnamed	Rock Cr	23	Yes	Culvert	Unk	Unk
,			Willapa Hills							
940356	46.55311288	-123.317361	Trail	unnamed	Rock Cr	23	Yes	Culvert	Yes	Total
			Willapa Hills			_				
940357	46.55667165	-123.3119527	Trail	unnamed	Rock Cr	23	Yes	Culvert	Yes	Total
			Willapa Hills							
940358	46.55991637	-123.3058562	Trail	Chehalis R	Grays Harbor	23.0190	Yes	Bridge	No	None
			Willapa Hills							
940359	46.56664384	-123.2988926	Trail	Stowe Cr	Chehalis R	23.1152	Yes	Bridge	No	None
			Willapa Hills							
940360	46.59586667	-123.2796544	Trail	Katula Cr	Chehalis R	23.1147	Yes	Bridge	No	None
			Willapa Hills							
940361	46.60000873	-123.2769231	Trail	unnamed	Chehalis R	23	Yes	Culvert	Yes	Partial
			Willapa Hills							
940362	46.61870548	-123.2745875	Trail	unnamed	Chehalis	23	Yes	Culvert	Yes	Partial
			Willapa Hills							
940363	46.62213818	-123.275595	Trail	unnamed	Chehalis R	23	No	Culvert	N/A	N/A
			Willapa Hills							
940364	46.63571014	-123.2605913	Trail	Chehalis R	Grays Harbor	23.0190	Yes	Washout	No	None
			Willapa Hills							
940365	46.63706707	-123.2468785	Trail	Marcuson Cr	Chehalis R	23.1095	Yes	Bridge	No	None
			Willapa Hills	5 1 6						
940366	46.63725333	-123.2087267	Trail	Dell Cr	Chehalis R	23.1091	Yes	Bridge	No	None
0.400.67	16 6272 100 1	100 100 1050	Willapa Hills			22	**			
940367	46.63724094	-123.1994358	Trail	unnamed	Chehalis R	23	Yes	Culvert	Unk	Unk
040269	46 627220005	102 100000	Willapa Hills	1		22	V		N	N
940368	46.63732085	-123.1822992	Trail	unnamed	Chehalis R	23	Yes	Culvert	No	None
040260	16 62722000	102 172406	Willapa Hills	Compt C:	Chahalis Cr	22 1004	Vas	Duidaa	No	Non-
940369	46.63732696	-123.173496	Trail	Garret Cr	Chehalis Cr	23.1084	Yes	Bridge	No	None
940370	46 62200222	122 166026	Willapa Hills Trail	unnamad	Chabalia D	23	No	Culvert	N/A	N/A
940370	46.62290222	-123.166036	Willapa Hills	unnamed	Chehalis R	23	INU	Culvert	IN/A	IN/A
940371	16 61725247	122 169/276	Trail	unnamad	Chabalia P	23	No	Culvert	N/A	N/A
740371	46.61725247	-123.1684376	Hall	unnamed	Chehalis R	23	INU	Culvert	1N/A	1N/A

Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Barrier Status	Blockage
SILCID	Latitude	Longitude	Willapa Hills	Sticalli		WINA		Teature Type	Status	DIOCKage
940372	46.60793088	-123.1511781	Trail	unnamed	Chehalis R	23	Yes	Culvert	Yes	Partial
			Willapa Hills			-				
940373	46.60959672	-123.1240739	Trail	unnamed	Chehalis R	23	Yes	Culvert	Yes	Total
			Willapa Hills							
940374	46.61124639	-123.12035	Trail	unnamed	Chehalis R	23	No	Culvert	N/A	N/A
			Willapa Hills					~ .		
940375	46.61261094	-123.1176599	Trail	unnamed	Chehalis R	23	Yes	Culvert	Yes	Total
940376	46.62524827	-123.1015486	Willapa Hills Trail	Chehalis R	Grays Harbor	23.0190	Yes	Washout	No	None
940370	40.02324827	-125.1015480	Willapa Hills	Chemans R	Grays Harbor	25.0190	ies	washout	NO	None
940377	46.63544846	-123.0806009	Trail	Chehalis R	Grays Harbor	23.0190	Yes	Bridge	No	None
210377	10.05511010	125.0000000	Willapa Hills		Glugs Hurbor	25.0170	105	Bilage	110	Ttolle
940378	46.63334995	-123.0685479	Trail	unnamed	Chehalis R	23.0952	Yes	Bridge	No	None
			Willapa Hills							
940379	46.6347471	-123.0452059	Trail	unnamed	Chehalis R	23.0947	Yes	Bridge	No	None
			Willapa Hills							
940380	46.63848386	-123.0192057	Trail	Chehalis R	Grays Harbor	23.0190	Yes	Bridge	No	None
0.40201	16 61100 600	100 000 4 650	Willapa Hills	,		22	37	D 11		N
940381	46.64432692	-122.9884652	Trail Willapa Hills	unnamed	Chehalis R	23	Yes	Bridge	No	None
940382	46.64714469	-122.9758596	Willapa Hills Trail	Newaukum R	Chehalis R	23.0882	Yes	Bridge	No	None
125	40.04714409	-122.9738390	Willapa Hills	NewauKulli K	Chenans K	23.0882	105	Diluge	INU	None
1205W05B	46.5494241	-123.3314163	Trail	unnamed	Rock Cr	23.0000	Yes	Culvert	Yes	Total
125			Willapa Hills							
1205W06B	46.55166884	-123.3464601	Trail	unnamed	Rock Cr	23	Yes	Culvert	Yes	Partial
125			Willapa Hills							
1304W03A	46.6350335	-123.1676928	Trail	Nicholson Cr	Chehalis R	23.1083	Yes	Culvert	Yes	Partial
125			Willapa Hills							
1304W13B	46.610286	-123.1333619	Trail	unnamed	Chehalis R	23.1079	Yes	Culvert	Yes	Partial
125 1305W23B	46.6054245	-123.2758059	Willapa Hills Trail	Fronia Cr	Chehalis R	23.1145	Yes	Culvert	Yes	Partial
940399	47.88698099	-122.639602	Wolfe Property	unnamed	Bywater Bay	17	Yes	Culvert	Yes	Partial
940405	47.88578568	-122.6393167	Wolfe Property	unnamed	Bywater Bay	17	Yes	Culvert	Yes	Total
940438	47.88656256	-122.6353713	Wolfe Property	unnamed	Bywater Bay	17.0000	Yes	Undefined	No	None
940461	47.88768733	-122.6359498	Wolfe Property	Unnamed	Bywater Bay	17	Yes	Undefined	Yes	Partial
940462	47.88883758	-122.6396356	Wolfe Property	Unnamed	Bywater Bay	17	Yes	Culvert	Yes	Partial

* WGS 84 map datum.

Appendix 2

Summary Reports for Road Crossings Evaluate

Level A Culvert Assessment Report

Site ID:	115 TC092	Facility			
Latitude:	47.12021	Stream:	unnamed	WRIA:	13
Longitude:	-122.77662	Tributary To:	Nisqually Reach	Fish Use Potential:	Yes

Location

Tolmie State Park. Drive Marvin Rd NE north from I-5,right on 56th Ave,, left on Hill St. NE, left on Entry Dr. Culvert at bottom of hill in Tolmie S.P.

Data Source

Organization:	Was	shingtor	n Depa	rtment of								
Field Crew:	Cierebiej Survey Date: 12/17/2007								7			
	Culvert Details Level A Parameters											
		Guivei	Detai	13				Lev				
<u>ID</u> Shape Ma	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>	
11 RND F	229	1 45	1 45	12 90	0 1 1	NO	0.00		Yes		0.90	

All dimensions in meters

Channel Description		Plunge Pool		Road	
Toe Width (m):	1.4	Length (m):	-999.99	Fill Depth (m):	3.00
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	1.04	OHW Width (m):	-999.99		

Assessment Results

Barrier:	No	Passability (%):	100	Method:	Professional Judgment
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Tidal culvert. Barnacle line through entire length of culvert and 0.55 m high at inlet, bedloaded throughout. Appears
passable, even when evaluated at low tide, however it constricts tidal flows.

Species

Sockeye 🔳 F	Pink 🔲 Chum 📃 Chino	ok 🔲 Coho 🔲 Steelhead 🗹 S	Sea Run Cutthroat 🖌 F	Resident Trout 🔲 Bull Trout	
Potential Habitat	Gain				
		Spowning (og m):		Longth (m):	

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Unknown	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

		Leve	A Cuivert A	455655111611L	Report		
	1205W05B 5494241		Facility Stream:	unnamed		WRIA:	23.0000
Longitude: -12	3.3314163		Tributary To:	Rock Cr		Fish Use Potentia	al: Yes
Location Willapa Hills Tr	ail State Park						
Data Source							
Organization:	Washington	Departme	ent of Fish and	d Wildlife			
Field Crew:	Erkel;Romer	0		Survey Date:	02/19/2008		
	Quiling at	Datalla				Parameters	
<u>ID Shape Mat</u> 1.1 RND C All dimensions in m	ST 0.91	<u>Rise Lei</u>	ngth <u>WDIC</u> 90 0.03	Apron WSD NO 0.4	rop Location Cou	Intersunk Backwater No	<u>Slope (%)</u> 3.19
Channel Descri	ption		Plu	nge Pool		Road	
Toe Width (m) Average Width Culvert/Stream	(m):	1.8 -99.99 0.6	9 M	ength (m): lax Depth (m HW Width (r		Fill Depth (m): 5.50
Assessment Re	sults						
Barrier:	Yes	Pass	ability (%):	0	Meth	nod: Lev	vel A
Reason:	Slope	Fish	way Present:	No	Rech	neck:	
Comments Beaver rack US	S end. DS en	d outfall ir	to Rock Cr.				
Species							
Sockeye	Pink 📃 Chum	Chino	ok 🖌 Coho 🖌	Steelhead ៴	Sea Run Cutthro	oat 🗹 Resident Trout [Bull Trout
Potential Habita	at Gain						
Survey Type:	RS	FS	Spawni	ng (sq m):	73	Length (m):	115

Rearing (sq m):

1,464

PI Total

Significant Reach:

No

12.84

Site ID: 125 12	05W06B	Facility						
Latitude: 46.551	668841	Stream:	unnamed		WRIA:	23		
Longitude: -123.34	16460061	Tributary To:	Rock Cr		Fish Use Potential:	Yes		
Location Willapa Trails Stat	e Park. Across fro	m Cole Rd.						
Data Source								
Organization: W	ashington Departn	nent of Fish and	d Wildlife					
Field Crew: Er	kel;Romero	5	Survey Date: 0	2/19/2008				
Culvert Details Level A Parameters								
ID Shape Materia	<u>l Span Rise L</u>	ength WDIC	Apron WSDrop	Location Counter	ersunk Backwater	<u>Slope (%)</u>		
1.1 RND SST	0.61 0.61	6.90 0.04	NO 0.13	Outlet N	lo	2.19		
All dimensions in meter	8							
Channel Description	on	Plur	nge Pool		Road			
Toe Width (m):	0.	75 Le	ength (m):	3.10	Fill Depth (m):	0.50		
Average Width (m): 1.	70 Ma	ax Depth (m):	0.45				
Culvert/Stream W	idth Ratio: 0.	36 OI	HW Width (m):	2.50				
Assessment Resul	ts							
Barrier: Ye	es Pa	ssability (%):	33	Method	l: Leve	IA		
Reason: Slo	ppe Fis	hway Present:	No	Recheo	ck:			
Comments								
Species	k 🔲 Chum 🔲 Chin	ook 🖌 Coho 🛃	Steelhead 🔽 S	ea Run Cutthroat	✓ Resident Trout	Bull Trout		
			oleemeau 🖌 S					
Potential Habitat G	ain							
Survey Type:	RSFS	Spawnir	ng (sq m):	207	Length (m):	892		

Survey Type:	RSFS	Spawning (sq m):	207	Length (m):	892
Significant Reach:	Yes	Rearing (sq m):	647	PI Total	9.47

	Le	vel A Culvert Asse	essment Report			
Site ID: 125 13 Latitude: 46.635 Longitude: -123.1		Facility Stream: Ni Tributary To: Ch	cholson Cr nehalis R	WRIA: Fish Us	23 . e Potential:	.1083 Yes
Location Behind county gra	vel pit					
Data Source						
Organization: W	ashington Departn	nent of Fish and W	ildlife			
Field Crew:	rd;Romero	Surv	vey Date: 02/25/2008	8		
	-Culvert Details		Lev	vel A Paramete	rs ———	
<u>ID Shape Materia</u> 1.1 RND PCC All dimensions in meter	0.91 0.91	<u>ength WDIC Apre</u> 28.40 0.04 NG		<u>Countersunk</u> <u>B</u> No		<u>be (%)</u> .41
Channel Description	on	Plunge	Pool	Roa	d	
Toe Width (m): Average Width (m Culvert/Stream W	-	99 Max I	th (m): -999.99 Depth (m): -99.99 Width (m): -999.99	9	Depth (m):	5.00
Assessment Resu						
		ssability (%): hway Present:		Method: Recheck:	Level A	
Comments Beaver dam at US	Send. US end is p	onded.				
Species						
Sockeye Pin	k 🔲 Chum 🖌 Chir	ook 🖌 Coho 🖌 St	eelhead 🗹 Sea Run Cu	utthroat 🖌 Resid	ent Trout 🔲 Bu	ull Trout
Potential Habitat G	ain					
Survey Type:	RSFS	Spawning ((sq m): 1,486	6 Ler	igth (m):	5,849
Significant Reach	Yes	Rearing (so	գ m)։ 14,470) PI 1	Fotal	20.21

Level A Culvert Assessment Report

Site ID:	125 1304W13B	Facility			
Latitude:	46.610286	Stream:	unnamed	WRIA:	23.1079
Longitude:	-123.1333619	Tributary To:	Chehalis R	Fish Use Potentia	l: Yes

Location

Willapa Hills Trail State Park. Rails to trails entrance from Ceres Hill Rd

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife										
Field Crew: Romero; Thompson Survey Date: 02/28/2012						2					
Culvert Details Level A Parameters											
		0	D:	ما به مر م	WDIC	Anron		Location	Countorounk	Declaustor	Clane (0/)
<u>ID Shape Ma</u>	aterial	<u>Span</u>	<u>Rise</u>	<u>Length</u>		Apron	<u>wspiop</u>	Location	<u>Countersunk</u>	Dackwaler	<u>Slope (%)</u>

0.91 0.91 12.50 All dimensions in meters

Channel Description	Plun	Plunge Pool			Road		
Toe Width (m):		Lei	ngth (m):	-999.99		Fill Depth (m):	4.00
Average Width (m):	4.10	Ma	x Depth (m):	0.75			
Culvert/Stream Width Ratio:	0.22	OF	IW Width (m):	-999.99			

Assessment Results

Barrier:	Yes	Passability (%):	67	Method:	Level B
Reason:	Velocity	Fishway Present:	No	Recheck:	

Comments

DS of pipe in the plunge pool area looks like it has been cleaned-out with an excavator.	
Species	

Sockeye Pir	nk 📃 Chum	Chinook	🖌 Coho 🖌	Steelhead 🖌	Sea Run Cutt	hroat 🖌 R	esident Trout	Bull Tro	out
Potential Habitat (Gain								
	DC	EQ	Snawnir		40		Longth (m):		220

Survey Type:	RSFS	Spawning (sq m):	49	Length (m):	229
Significant Reach:	Yes	Rearing (sq m):	338	PI Total	6.62

.

	Lev	el A Culvert A	ssessment	Report		
Site ID: 125 130	5W23B	Facility				
Latitude: 46.6054	245	Stream:	Fronia Cr		WRIA:	23.1145
Longitude: -123.27	58059	Tributary To:	Chehalis R		Fish Use Potentia	l: Yes
Location						
Willapa Hills Trail S	tate Park					
Data Source						
Organization: Wa	ashington Departm	nent of Fish and	Wildlife			
Field Crew: Ro	mero;Thompson	S	Survey Date:	03/22/2012		
	-Culvert Details			Level A F	Parameters	
ID Shape Material	<u>Span Rise L</u>	ength WDIC	Apron <u>WSDrc</u>	p Location Count	tersunk <u>Backwater</u>	<u>Slope (%)</u>
1.1 RND PCC	0.91 0.91	13.00 0.45	NO 0.00	I	No No	1.84
All dimensions in meters						
Channel Description	n	Plur	nge Pool		Road	
Toe Width (m):		Le	ngth (m):	10.00	Fill Depth (m)	: 1.50
Average Width (m)	: 2.	00 Ma	ax Depth (m):	1.00		
Culvert/Stream Wid	dth Ratio: 0.	46 Oł	HW Width (m): 6.00		
Assessment Result	s					
Barrier: Ye	s Pa	ssability (%):	67	Metho	d: Lev	el A
Reason: Slop	pe Fis	hway Present:	No	Reche	ck:	
Comments Interior slope break	a, two upstream se	ections are set a	at approximate	ely 4% slope.		
Species						
Sockeye Pink	Chum 🔲 Chin	ook 🗸 Coho 🖌	Steelhead 🖌	Sea Run Cutthroat	Resident Trout	Bull Trout
Potential Habitat Ga	ain					
Survey Type:	RSFS	Spawnir	ng (sq m):	2,342	Length (m):	5,627

Rearing (sq m):

23,720

PI Total

Significant Reach:

Yes

19.49

Level A Culvert Assessment Report

Site ID:	125 1702W34A	Facility			
Latitude:	46.90918	Stream:	Allen Cr	WRIA:	23
Longitude:	-122.9166	Tributary To:	Beaver Cr	Fish Use Potential:	Yes

Location

Millersylvania State Park. At the end of park by the beach. Below Deep Lake.

Data Source

Organization:	Washington Department of Fish a	and Wildlife	
Field Crew:	Ponder	Survey Date:	05/29/2012

Culvert Details							Level A Parameters				
ID	<u>Shape</u>	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.5	RND	CST	0.76	0.76	5.80	0.19	NO	-99.99	Yes	Yes	-0.17
2.5	RND	CST	0.76	0.76	6.10	0.31	NO	-99.99	Yes	Yes	0.48
3.5	RND	CST	0.76	0.76	6.20	0.32	NO	-99.99	Yes	Yes	0.81
4.5	RND	CST	0.76	0.76	6.20	0.10	NO	-99.99	Yes	Yes	0.48
5.5	RND	CST	0.76	0.76	6.10	0.17	NO	-99.99	Yes	Yes	-0.49
All di	mensions	in meters									

Channel Description

Culvert/Stream Width Ratio:

	4.5	Le
(m):	5.90	M

0.64

Plunge Pool

Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Road

Fill Depth (m):	0.50

Assessment Results

Toe Width (m): Average Width

Barrier:	No	Passability (%):	100	Method:	Level B
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Culverts are rotting and will need to be replaced in the near future. 5/29/12- Don Ponder did not observe any velocity or depth barrier conditions during site visit, however culvert is frequently a debris blockage due to beaver activity.

Species

Sockeve Pink Chum	🛛 Chinook 🖌 Coho 🔲 Steelhead 🖌	Sea Run Cutthroat 🖌 Resident Trout 🔲 Bull Trout

Survey Type:	Spawning (sq m)): Length	(m):
Significant Reach: Unl	known Rearing (sq m):	PI Tota	I

Level A Culvert Assessment Report

Site ID:	127S0305	Facility				
Latitude:	46.99174	Stream:	unnamed	WRIA:	22.0345	
Longitude:	-123.60101	Tributary To:	unnamed	Fish Use Potential	: No	

Location

Water crossing is located at the entrance to Lake Sylvia State Park.

Data Source

Organization:	Mason Conservation District		
Field Crew:	Haque;Lutz;Schuetzler	Survey Date:	05/20/2004

Culvert Details						Level A Parameters						
ID	<u>Shape</u>	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop La	ocation	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.2	RND	PCC	0.49	0.49	-999.90	0.01	NO	-99.99		No		-99.99
2.2	RND	PCC	0.20	0.20	-999.90	0.07	NO	-99.99		No		-99.99
All di	mensions	in meters										

Channel Description

Toe Width (m):	-99.99
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	-99.99

Plunge Pool	
Length (m):	-999.99
Max Depth (m):	-99.99

-999.99

15.00

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	
Reason:	N/A	Fishway Present:	No	Recheck:	

OHW Width (m):

Comments

Species

Survey Type:	Spawning (sq m):	Length (m):
Significant Reach:	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	127S0306	Facility				
Latitude:	46.99477	Stream:	unnamed	WRIA:	22.0000	
Longitude:	-123.59684	Tributary To:	Sylvia Lk	Fish Use Potential	: No	

Location

Lake Sylvia State Park. Water crossing is approximately 0.20 miles southwest of Lake Sylvia bridge.

Data Source

Organization:	Washington Department of Fish &			
Field Crew:	Ingram;Romero	Survey Date:	04/22/2008]
	Culvert Details		l eve	LA Parameters

Culvert Details							Lev	rei A Faraine	lei S		
<u>ID</u> <u>Shape</u>	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>	
1.1 RND	PCC	0.30	0.30	-999.90	0.01	NO	-99.99	No		-99.99	
All dimensions	in meters										

Channel Description		Plunge Pool		Road	
Toe Width (m):	-99.99	Length (m):	-999.99	Fill Depth (m):	4.00
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99		

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

	Steep hillside begins at US	end of culvert and is almost vertical.	No habitat US.
--	-----------------------------	--	----------------

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	127S0307	Facility			
Latitude:	46.99505	Stream:	unnamed	WRIA:	22.0261
Longitude:	-123.59565	Tributary To:	Sylvia Cr	Fish Use Potentia	l: No

Location

Water crossing is approximately 0.15 miles southwest of Lake Sylvia bridge.

Data Source

Organization	Organization: Mason Conservation District										
Field Crew:	ield Crew: Haque;Lutz;Schuetzler Survey Date: 05/20/2004						ŀ				
Culvert Details Level A Parameters								<u></u>			
<u>ID</u> Shape <u>N</u>	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	<u>Location</u>	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	CST	0.46	0.46	-999.90	0.02	NO	-99.99		No		-99.99

All dimensions in meters

Channel Description		P	Plunge Pool		Road	
Toe Width (m):	-99.99		Length (m):	-999.99	Fill Depth (m):	5.00
Average Width (m):	-99.99		Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99		

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Root wad at US end of culvert.			

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	127S0308	Facility			
Latitude:	46.99597	Stream:	unnamed	WRIA:	22.0261
Longitude:	-123.5933	Tributary To:	Sylvia Cr	Fish Use Potential	: No

Location

Water crossing is approximately 50 meters southeast of Lake Sylvia bridge.

Data Source

Organization	Organization: Mason Conservation District										
Field Crew:	ield Crew: Haque;Lutz;Schuetzler Survey Date: 04/20/2004						ŀ				
Culvert Details Level A Parameters											
ID Shape M	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	<u>Location</u>	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	PCC	0.31	0.31	-999.90	0.01	NO	-99.99		No		-99.99

All dimensions in meters

Channel Description		Plunge Pool		Road	
Toe Width (m):	-99.99	Length (m):	-999.99	Fill Depth (m):	0.50
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99		

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	127S0386	Facility			
Latitude:	47.0056	Stream:	unnamed	WRIA:	22.0000
Longitude:	-123.58859	Tributary To:	Sylvia Lk	Fish Use Potential	: No

Location

Water crossing is approximately 1.6 miles north of the Sylvia Lake Rd/Nevills Ln junction, on decommissioned road grade near Lake Sylvia boat launch.

Data Source

Organization:	Washington	n Depa	rtment of	Fish ar	nd Wildl	ife				
Field Crew: Ingram;Romero Survey Date: 04/22/20							4/22/2008	3		
Culvert Details Level A Parameters										
ID Shape Ma	terial Span	Rise	Lenath	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)

	Shape	<u>Iviateriai</u>	<u>Span</u>	RISE	Lengin			<u>vvsbrop</u> Location	Countersunk	Dackwaler	<u>Siope (%)</u>	
1.1	RND	SST	0.25	0.25	-999.90	0.15	NO	0.00	No		-99.99	
All dir	nensions	in meters										

Channel Description			Plunge Pool		Road		
Toe Width (m):	-99.99		Length (m):	-999.99	Fill Depth (m):	0.30	
Average Width (m):	-99.99		Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	127S0387	Facility				
Latitude:	47.00414	Stream:	unnamed	WRIA:	22.000	0
Longitude:	-123.58932	Tributary To:	Sylvia Lk	Fish Use Potential	: N	0

Location

Water crossing is approximately 1.5 miles north of the Sylvia Lake Rd/Nevills Ln junction, on decommissioned road grade near Lake Sylvia boat launch

Data Source

Organization:	Washing	on Depa	rtment of	Fish ar	nd Wildl	ife				
Field Crew: Ingram;Romero Survey Date: ()							4/22/200	8		
	Culvert Details Level A Parameters									
ID Shape Ma	terial Spar	n Rise	Lenath	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)

שו	Shape	Material	<u>Span</u>	Rise	Length		Apron	<u>wsprop</u>	Location	Countersunk	Backwater	Slope (%)	
1.1	RND	OTH	0.20	0.20	-999.90	0.12	NO	-99.99		No		-99.99	
All dir	nensions	in meters											

Channel Description			Plunge Pool		_	Road		
Toe Width (m):	0.4		Length (m):	-999.99		Fill Depth (m):	0.20	
Average Width (m):	-99.99		Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	0.50		OHW Width (m):	-999.99				

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

US is .20 SST, DS is .30m CST		

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	127S0388	Facility			
Latitude:	47.00284	Stream:	unnamed	WRIA:	22.0000
Longitude:	-123.5897	Tributary To:	Sylvia Lk	Fish Use Potential	: No

Location

Water crossing is approximately 1.4 miles north of the Sylvia Lake Rd/Nevills Ln junction, on decommissioned road grade near Lake Sylvia boat launch

Data Source

Organization:	Washington Department of Fish and	d Wildlife
Field Crew:	Ingram;Romero	Survey Date: 04/22/2008
	Culvert Details	Level A Parameters
ID Shapa Ma	tarial Span Diag Langth WDIC	Aprop MCDrop Logistics Countersurely Deckwater Slope (%)

שו	<u>Snape</u>	Material	<u>Span</u>	<u>Rise</u>	Length	VVDIC	<u>Apron</u>	<u>wsDrop</u>	Location	Countersunk	Backwater	<u>Slope (%)</u>	
1.1	RND	SST	0.25	0.25	-999.90	0.02	NO	-99.99		No		-99.99	
All dir	nensions	in meters											

Channel Description			Plunge Pool		_	Road	
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	-999.90
Average Width (m):	-99.99		Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	127S0389	Facility			
Latitude:	47.00228	Stream:	unnamed	WRIA:	22.0000
Longitude:	-123.59	Tributary To:	Sylvia Cr	Fish Use Potential	: No

Location

Water crossing is approximately 1.45 miles north of the Sylvia Lake Rd/Nevills Ln junction, on decommissioned road grade near Lake Sylvia boat launch

Data Source

Organi	Organization: Mason Conservation District											
Field C	Crew:	ew: Ingram;Romero				Survey	Date: 0	4/22/2008	3			
			Culver	t Detai	ls				Lev	vel A Parame	ters	
<u>ID</u> Sh	nape	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 R	RND	CST	0.30	0.30	-999.90	0.02	NO	-99.99		No		-99.99
All dimen	nsions i	in meters										

Channel Description	Plunge Pool		_	Road			
Toe Width (m):	-99.99	Length (m):	-999.99		Fill Depth (m):	0.5	0
Average Width (m):	-99.99	Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99				

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	127S0390	Facility			
Latitude:	47.00125	Stream:	unnamed	WRIA:	22.0000
Longitude:	-123.58992	Tributary To:	Sylvia Cr	Fish Use Potential	: No

Location

Water crossing is approximately 1.30 miles north of the Sylvia Lake Rd/Nevills Ln junction, on decommissioned road grade near Lake Sylvia boat launch

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife									
Field Crew:	Ingram;Ro	nero			Survey	Date:	04/22/200	8		
Culvert Details Level A Parameters										
ID Shane Ma	torial Span	Pico	Longth	WDIC	Anron	W/SDror		Countersunk	Backwater	Slope (%)

שו	<u>Snape</u>	Material	<u>Span</u>	<u>Rise</u>	Length	VVDIC	<u>Apron</u>	<u>wsDrop</u>	Location	Countersunk	Backwater	<u>Slope (%)</u>	
1.1	RND	SST	0.21	0.21	-999.90	0.02	NO	0.00		No		-99.99	
All dir	All dimensions in meters												

Channel Description			Plunge Pool			Road	
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	0.20
Average Width (m):	-99.99		Max Depth (m):	0.20			
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	0.50			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	127S0391	Facility			
Latitude:	46.99983	Stream:	unnamed	WRIA:	22.0000
Longitude:	-123.59037	Tributary To:	Sylvia Cr	Fish Use Potential	: No

Location

Water crossing is approximately 1.2 miles north of the Sylvia Lake Rd/Nevills Ln junction, on decommissioned road grade near Lake Sylvia boat launch

Data Source

Organ	izatio	n: Mas	on Con									
Field Crew: Ingram;Romero							Survey	Date: C	4/22/2008	3		
			Culver	t Detai	ls —				Lev	vel A Parame	ters	
<u>ID</u> Sh	nape	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 R	RND	CST	0.29	0.29	-999.90	0.02	NO	0.80		No		-99.99
All dimer	All dimensions in meters											

Channel Description			Plunge Pool			Road	
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	0.20
Average Width (m):	-99.99		Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	810170	Facility			
Latitude:	47.430373619	Stream:	Little Mission Cr	WRIA:	15.0493
Longitude:	-122.881391055	Tributary To:	Hood Canal	Fish Use Potential	: Yes

Location

Belfair State Park. NE Beck Rd is at W edge of park.

Data Source

Organization:	Drganization: Washington Department of Fish and Wildlife								
Field Crew: Romero;Schmidt Survey Date: 11/27/2007									
Culvert Details Level A Parameters									
<u>ID</u> <u>Shape</u> <u>Ma</u>	<u>terial</u> <u>Span</u>	<u>Rise</u> Len	<u>th WDIC</u>	<u>Apron</u>	WSDrop L	ocation	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 BOX F	PCC 5.53	2.38 16.	0.15	NO	0.00		Yes		1.07

All dimensions in meters

Channel Description		Plunge Pool			Road		
Toe Width (m):	2.5	Length (m):	0.00		Fill Depth (m):	0.10	
Average Width (m):	-99.99	Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	2.21	OHW Width (m):	-999.99				

Assessment Results

Barrier:	No	Passability (%):	100	Method:	Level A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Spe	cies
	Sockeye 🔲 Pink 🖌 Chum 🔲 Chinook 🖌 Coho 📄 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	811371	Facility			
Latitude:	47.362077345	Stream:	unnamed	WRIA:	16.0218
Longitude:	-123.158265349	Tributary To:	Hood Canal	Fish Use Potential:	Yes

Location

Just off SR 101 in approx. 20 meters of the entrance to the Potlach State Park campground.

Data Source

Organization:	Washington	ashington Department of Fish and Wildlife								
Field Crew:	Phinney;Ro	mero			Survey	Date:	03/28/2012	2		
	Culver	t Detai	ls —				Lev	vel A Parame	ters	
ID Shane Ma	orial Span	Pico	Longth	WDIC	Anron	WSDro		Countorsunk	Backwater	Slope (%)

<u>_ID</u>	<u>Shape</u>	Material	<u>Span</u>	Rise	<u>Length</u>	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	<u>Backwater</u>	<u>Slope (%)</u>	
1.1	RND	PVC	0.61	0.61	23.00	0.22	NO	0.00		Yes	No	2.09	
All di	mensions	in meters											

Channel Description		Plunge Pool		Road	
Toe Width (m):	2.15	Length (m):	0.00	Fill Depth (m):	1.00
Average Width (m):	2.35	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	0.26	OHW Width (m):	-999.99		

Assessment Results

Barrier:	Yes	Passability (%):	67	Method:	Professional Judgment
Reason:	Undersized	Fishway Present:	No	Recheck:	

Comments

LVLB not possible due to culvert 991252 23m DS. DS channel bank full width = 1.91m.
Species
🔲 Sockeye 🔲 Pink 🖌 Chum 🔲 Chinook 🖌 Coho 🔄 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 🔲 Bull Trout

Survey Type:	RSFS	Spawning (sq m):	550	Length (m):	162
Significant Reach:	No	Rearing (sq m):	281	PI Total	11.20

Site ID: 940001 Latitude: 48.04062 Longitude: -123.027 Location Sequim Bay State P	708758	Facility Stream: Tributary To: om Sequim Bay	-	Ŋ	WRIA Fish U	: Ise Potentia	17.0297 I: Yes
Data Source							
Organization: Was	shington Departn	nent of Fish and	d Wildlife				
Field Crew: Hirc	l;Romero	5	Survey Date:	11/06/2006]		
	Culvert Details			Leve	I A Parame	ters	
<u>ID</u> <u>Shape</u> <u>Material</u> 1.1 RND PCC All dimensions in meters	-	<u>ength</u> <u>WDIC</u> 32.10 0.08	Apron <u>WSD</u> NO 1.0	<u>rop Location C</u> 4 Outlet	<u>Countersunk</u> No	<u>Backwater</u>	<u>Slope (%)</u> 3.30
Channel Description	1	Plu	nge Pool		Ro	ad	
Toe Width (m): Average Width (m): Culvert/Stream Wid	-99.	99 M	ength (m): ax Depth (m HW Width (r		Fi	ill Depth (m)	: 6.00
Assessment Results	;			_			
Barrier: Yes Reason: WS D		ssability (%): hway Present:	0 No		ethod:	Leve	el A
Comments							
Species							
Sockeye Pink	Chum 📄 Chin	ook 🖌 Coho 🗌	Steelhead	Sea Run Cutth	hroat 🖌 Res	ident Trout [Bull Trout
Potential Habitat Ga	in						
Survey Type:	RSFS	Spawni	ng (sq m):	1,435	Le	ength (m):	1,272
Significant Reach:	Yes	Rearing	g (sq m):	1,256	Р	I Total	9.42

Site ID: 940011		Facility				
Latitude: 48.6565	92781	Stream:	Moran Cr	١	VRIA:	02
Longitude: -122.85	5471815	Tributary To:	Cascade Cr	F	Fish Use Potential:	Yes
_ocation Moran State Park						
Data Source						
Organization: Wa	shington Depar	tment of Fish and	d Wildlife			
Field Crew: Hire	d;Romero		Survey Date: 11/	(15/2006		
	Culvert Detail	s		Level A Pa	rameters	
IDShapeMaterial1.1BOXCPCAll dimensions in meters	<u>Span</u> <u>Rise</u> 1.54 0.95	<u>Length</u> <u>WDIC</u> 15.90 0.04	<u>Apron WSDrop L</u> NO 0.00	<u>ocation</u> <u>Counter</u> Yes		l <u>ope (%)</u> 3.53
Channel Description	n	Plu	nge Pool		Road	
Toe Width (m):		1.6 Le	ength (m):	-999.99	Fill Depth (m):	1.00
Average Width (m)	: -9	9.99 M	ax Depth (m):	-99.99		
Culvert/Stream Wid	th Ratio:	0.96 O	HW Width (m):	-999.99		
Assessment Result	S					
Barrier: No) F	Passability (%):	100	Method:	Fishwa	ay
Reason: N/A	4 F	ishway Present:	Yes	Recheck	:	
Comments						
log streambed cont	rols DS					
Species						
Sockeye Pink	Chum 🔳 Cł	ninook 📃 Coho 📃	Steelhead 🔳 Sea	a Run Cutthroat 🚽	Resident Trout 🔳	Bull Trout
Potential Habitat Ga	in					
Survey Type:		Spawni	ng (sq m):		Length (m):	

Level A Culvert Assessment Report

Site ID:	940012	Facility			
Latitude:	48.651988753	Stream:	unnamed	WRIA:	02
Longitude:	-122.850727111	Tributary To:	Cascade Lk	Fish Use Potential:	Yes

Location

Moran State Park. Near midway campground, Cascade Lk, Moran State Park.

Data Source

Orgar	Organization: Washington Department of Fish and Wildlife											
Field	Crew:	Hird	Hird;Romero Surve				Survey	Date: 1	1/15/2006	6		
·	Culvert Details							Level A Parameters				
<u>ID</u> <u>S</u>	<u>Shape</u>	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1	RND	PCC	0.30	0.30	10.10	0.07	NO	0.00		No		2.67
All dime	ensions	in meters										

Channel Description

Toe Width (m):	0.6
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.50

Plunge Pool	
Length (m):	
Max Depth (m):	
OHW Width (m):	

2.10 0.17 1.40

Road		
Fill Depth (m):	1.00	

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

Species	
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat 🖌 Resident Trout Bull Trout	

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

al A Culvart Ac 1 • D **~**4

		Level A	Culvert A	Assessment	Report			
Site ID: 940 Latitude: 48.6 Longitude: -122	52080216	Str	cility eam: butary To:	unnamed Cascade Lk		WR Fisł	IA: Use Potential:	02 Yes
L ocation Midway Campg	round, Casca	ide Lk, Morai	n State Pai	rk.				
Data Source								
Organization:	Washington	Department	of Fish and	d Wildlife]		
Field Crew:	Hird;Romero)		Survey Date:	11/15/2006]		
	Culvert	Details			Leve	el A Paran	neters	
<u>ID Shape Mate</u> 1.1 RND CS All dimensions in me	ST 0.46	<u>Rise Lengt</u> 0.46 12.00		<u>Apron WSDro</u> NO 0.00	<u>op</u> <u>Location</u> <u>(</u>	<u>Countersun</u> Yes	<u>k Backwater S</u>	<u>lope (%)</u> 2.42
Channel Descrip	otion		Plu	nge Pool			Road	
Toe Width (m): Average Width Culvert/Stream	(m):	0.6 -99.99 0.77	М	ength (m): lax Depth (m) HW Width (m			Fill Depth (m):	1.00
ssessment Res	sults							
Barrier: Reason:	No N/A		ility (%): y Present:	100 No		ethod: echeck:	Level	A
Comments								
Species								
Sockeye	Pink 📃 Chum	Chinook	Coho	Steelhead	Sea Run Cutt	hroat 🖌 R	esident Trout 📃	Bull Trout
Potential Habita	t Gain							
Survey Type:			Spawni	ng (sq m):			Length (m):	
Significant Rea	ch: Ye	es	Rearing	g (sq m):			PI Total	

				-		
14		Facility	-			
						02
850200193	3	Tributary To:	Cascade Lk		Fish Use Potential:	Yes
und, Casca	ade Lk, Mor	an State Parl	κ.			
Washingto	n Departme	ent of Fish an	d Wildlife			
- Hird·Rome	ro		Survey Date:	11/15/2006		
				11/10/2000		
Culver	t Details -			Level A Pa	arameters	
<u>rial Span</u>	<u>Rise</u> <u>Le</u>	ngth WDIC	Apron WSDrop	Location Counte	ersunk <u>Backwater</u> S	<u> Slope (%)</u>
C 0.46	0.46 42	2.50 0.06	NO 0.00	Ye	es	5.99
ers						
_						
tion						
	0.	6 L	ength (m):	-999.99	Fill Depth (m):	1.00
		9 N	lax Depth (m):	-99.99		
Width Ratio	0.7	7 C	HW Width (m):	-999.99		
ults						
No	Pass	sability (%):	100	Method	: Level	Α
N/A	Fish	way Present:	No	Recheo	k:	
J						U
ink 🔲 Chu	m 🔲 Chino	ok 🔲 Coho 🗌	Steelhead	Sea Run Cutthroat	Resident Trout	Bull Trout
Gain						
		Spawn	ing (sq m):		Length (m):]
	52330708 .850200193 und, Casca Washingto Hird;Rome Culver rial Span C 0.46 ters tion (m): Width Ratio	52330708 .850200193 und, Cascade Lk, Mor Washington Departme Hird;Romero Culvert Details rial Span Rise Lei C 0.46 0.46 (m): -99.99 Width Ratio: 0.7 Sults No Pass	52330708 Stream: .850200193 Tributary To: und, Cascade Lk, Moran State Parl Washington Department of Fish an Hird;Romero Culvert Details rial Span Rise Length WDIC C 0.46 0.6 (m): -99.99 Width Ratio: 0.77 C 0.77 Cults Passability (%):	52330708 Stream: unnamed .850200193 Tributary To: Cascade Lk und, Cascade Lk, Moran State Park. Washington Department of Fish and Wildlife Hird;Romero Survey Date:	52330708 Stream: unnamed .850200193 Tributary To: Cascade Lk und, Cascade Lk, Moran State Park. Washington Department of Fish and Wildlife Hird;Romero Survey Date: 11/15/2006 Culvert Details Level A Park rial Span Rise Length WDIC Apron WSDrop Location Counter C 0.46 0.46 42.50 0.06 Max Depth (m): -999.99 Max Depth (m): -999.99 OHW Width (m): -999.99 OHW Width (m): -999.99 Max Depth (m): -999.99 Max Depth (m): -999.99 Max Depth (m): -999.99 OHW Width (m): -999.99	52330708 Stream: unnamed WRIA: .850200193 Tributary To: Cascade Lk Fish Use Potential: und, Cascade Lk, Moran State Park.

	Le	ver A Curvent A	ssessment Rep	JUIL		
Site ID: 940015 Latitude: 48.6495 Longitude: -122.84		Facility Stream: Tributary To:	unnamed Cascade Lk		RIA: h Use Potential:	02 Yes
Location Moran State Park.	Approx. 0.25 mile	es E of Cascade	Lk.			
Data Source						
Organization: Wa	shington Departr	nent of Fish and	Wildlife			
Field Crew: Hire	d;Romero	S	urvey Date: 1	1/15/2006		
[Culvert Details			Level A Para	neters	
<u>ID Shape Material</u> 1.1 RND CST All dimensions in meters	<u>Span</u> <u>Rise I</u> 0.53 0.53	<u>ength WDIC 4</u> 9.40 0.08	Apron <u>WSDrop</u> NO 0.00	Location Countersui No	n <u>k Backwater</u>	<u>Slope (%)</u> -99.99
Channel Description	n	Plun	ige Pool		Road	
Toe Width (m): Average Width (m) Culvert/Stream Wid	-99	.99 Ma	ngth (m): ax Depth (m): HW Width (m):	-999.99 -99.99 -999.99	Fill Depth (m):	1.00
Assessment Result	S					
Barrier: Ye Reason: Slop		ssability (%): shway Present:	33 No	Method: Recheck:	Leve	IA
Comments						
Species						
Sockeye Pink	🔲 Chum 🔲 Chir	nook 📃 Coho 📃	Steelhead 🔳 Se	ea Run Cutthroat 🗹 I	Resident Trout	Bull Trout
Potential Habitat Ga	iin					
Survey Type:		Spawnin	ng (sq m):		Length (m):	
Significant Reach:	Yes	Rearing	(sq m):		PI Total	

	_0			oport			
Site ID: 940018		Facility					
Latitude: 48.64779	93962	Stream:	unnamed		WRIA:	02	
Longitude: -122.845	5492163	Tributary To:	Cascade Lk		Fish Use Potential:	Yes	
Location Moran State Park							
Data Source							
Organization: Was	shington Departn	nent of Fish and	l Wildlife				
Field Crew: Hirc	l;Romero	S	Survey Date:	11/15/2006			
	Culvert Details			Level A P	arameters		
ID Shape Material	<u>Span Rise L</u>	ength WDIC	Apron WSDrop	Location Counte	ersunk Backwater S	Slope (%)	
1.1 RND CST		37.90 0.09	NO 0.19		lo	8.10	
All dimensions in meters							
Channel Description Plunge Pool Road							
Toe Width (m):	().7 Le	ength (m):	-999.99	Fill Depth (m):	2.00	
Average Width (m):	-99.	99 Ma	ax Depth (m):	-99.99			
Culvert/Stream Wid			HW Width (m):				
Assessment Results	6						
Barrier: Yes		ssability (%):	0	Method	l: Level	Δ	
Reason: Slop		hway Present:	No	Recheo		Λ	
Comments							
Rubble sized rocks	placed in culvert	outlet creates o	utfall drop.				
Species							
Sockeye Pink	Chum 🔲 Chin	ook 🔲 Coho 📃	Steelhead	Sea Run Cutthroat	Resident Trout	Bull Trout	
Potential Habitat Ga	in						
Survey Type:		Spawnii	ng (sq m):		Length (m):		
Significant Reach:	Yes	Rearing	(sq m):		PI Total		

Site ID: 940023	Facili	ity			
Latitude: 48.648517511	Strea	am: unnamed	k	WRIA:	02
Longitude: -122.8437481	87 Tribu	tary To: Cascade	Lk	Fish Use Potentia	al: Yes
Location					
Moran State Park, in field	near Camp Morar	٦.			
Data Source					
Organization: Washingt	on Department of	Fish and Wildlife]	
Field Crew: Hird;Rom	ero	Survey Dat	e: 12/05/2006]	
Culve	ert Details		Leve	A Parameters	
<u>ID Shape Material Spar</u>	<u>n Rise Length</u>	WDIC Apron WS	Drop Location	Countersunk Backwater	<u>Slope (%)</u>
1.1 RND PVC 0.38	0.38 52.10	0.03 NO 0	.90 Inlet	No	6.90
All dimensions in meters					
Channel Description		Plunge Pool		Road	
Toe Width (m):	0.7	Length (m):	4.00	Fill Depth (m); 1 00
()	0.7	č ()	1.80): 1.00
Average Width (m): Culvert/Stream Width Rat	-99.99	Max Depth (,		
	tio: 0.54	OHW Width	(m): 0.60		
Assessment Results					
Barrier: Yes	Passabilit	y (%): 0	М	ethod: Lev	el A
Reason: WS Drop	Fishway F	Present: No	R	echeck:	
Comments					
Surface grated box at inle	t. 0.16 outfall.				
Species					
🔲 Sockeye 📄 Pink 🔲 Ch	um 📃 Chinook 📃	Coho 📃 Steelhead	I 🔲 Sea Run Cutt	hroat 🖌 Resident Trout [Bull Trout
Potential Habitat Gain					
Survey Type:		Spawning (sq m):		Length (m):	
Significant Reach:	Yes	Rearing (sq m):		PI Total	

Site ID: 940024 Latitude: 48.64890 Longitude: -122.843 Location Moran State Park ne	698554		unnamed Cascade Lk		WRIA: Fish Use Potential:	02 Yes
Data Source						
Organization: Was	shington Departn	nent of Fish and	d Wildlife			
Field Crew: Hird	;Romero	5	Survey Date:	12/05/2006		
	Culvert Details			Level A F	Parameters	
<u>ID</u> <u>Shape</u> <u>Material</u> 1.1 RND CAL All dimensions in meters	-	<u>ength</u> <u>WDIC</u> 13.60 0.04	Apron <u>WSDrop</u> NO 0.05		<u>tersunk Backwater S</u> No	<u>lope (%)</u> 4.90
Channel Description		Plu	nge Pool		Road	
Toe Width (m): Average Width (m): Culvert/Stream Widt	-99.	99 M	ength (m): ax Depth (m): HW Width (m):	-999.99 -99.99 -999.99	Fill Depth (m):	1.00
Assessment Results						
Barrier: Yes Reason: Slope		ssability (%): hway Present:	0 No	Metho Reche		A
Comments						
Species						
Sockeye Pink	Chum 🔲 Chir	ook 🔲 Coho 📃	Steelhead 🔳 S	Sea Run Cutthroat	t 🗹 Resident Trout 📃	Bull Trout
Potential Habitat Gai	n					
Survey Type:		Spawni	ng (sq m):		Length (m):	
Significant Reach:	Yes	Rearing	y (sq m):		PI Total	

Latitude: 48.649385432 Stream: Cascade Cr WRIA: 02 Longitude: -122.826259939 Tributary To: Buck Bay Fish Use Potential: Yes Location Service Rd to Mountain Lk dam. Data Source Organization: Washington Department of Fish and Wildlife Field Crew: Hird;Romero Survey Date: 12/05/2006 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location No 6.60 Al dimensions in meters Channel Description Plunge Pool Road Toe Width (m): 2.19 Length (m): 6.20 Average Width (m): 99.99 OHW Width (m): 4.90 Culvert/Stream Width Ratio: 0.69 OHW Width (m): 1.00 Assessment Results Barrier: Yes Pasability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck:	_				
Longitude: 122.826259939 Tributary To: Buck Bay Fish Use Potential: Yes Location Service Rd to Mountain Lk dam.	Site ID: 940025	Facility			
Location Service Rd to Mountain Lk dam. Data Source Organization: Washington Department of Fish and Wildlife Field Crew: Hird;Romero Survey Date: 12/05/2006 Culvert Details Level A Parameters ID Shaze Material Span Rise Length WDIC Apron WSDrop. Location Countersunk Backwater Slope (%) 1.1 RND CST 1.52 1.52 9.20 0.12 NO 0.00 No 6.60 All dimensions in meters Channel Description Plunge Pool Road Toe Width (m): 2.19 Average Width (m): 999.99 Culvert/Stream Width Ratio: 0.69 Plunge Pool Road Fill Depth (m): 1.00 Max Depth (m): 0.55 OHW Width (m): 4.90 Assessment Results Barrier: Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Comments					-
Service Rd to Mountain Lk dam. Data Source Organization: Washington Department of Fish and Wildlife Field Crew: Hird;Romero Survey Date: 12/05/2006 Level A Parameters —	Longitude: -122.826259939	Tributary To:	Buck Bay	Fish Use Potentia	l: Yes
Service Rd to Mountain Lk dam. Data Source Organization: Washington Department of Fish and Wildlife Field Crew: Hird;Romero Survey Date: 12/05/2006 Level A Parameters —	Location				
Organization: Washington Department of Fish and Wildlife Field Crew: Hird;Romero Survey Date: 12/05/2006 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND CST 1.52 1.52 9.20 0.12 NO 0.00 No 6.60 All dimensions in meters Plunge Pool Road Road Toe Width (m): 2.19 Length (m): 6.20 Max Depth (m): 1.00 1.00 Average Width (m): 9.939 OHW Width (m): 4.900 Fill Depth (m): 1.00 Average Width (m): 99.39 OHW Width (m): 4.900 Fill Depth (m): 1.00 Assessment Results Barrier: Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Stepeies Species					
Organization: Washington Department of Fish and Wildlife Field Crew: Hird;Romero Survey Date: 12/05/2006 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND CST 1.52 1.52 9.20 0.12 NO 0.00 No 6.60 All dimensions in meters Plunge Pool Road Road Toe Width (m): 2.19 Length (m): 6.20 Max Depth (m): 1.00 1.00 Average Width (m): 9.939 OHW Width (m): 4.900 Fill Depth (m): 1.00 Average Width (m): 99.39 OHW Width (m): 4.900 Fill Depth (m): 1.00 Assessment Results Barrier: Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Stepeies Species					
Field Crew: Hird;Romero Survey Date: 12/05/2006 Culvert Details	Data Source				
Culvert Details Level A Parameters JD Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND CST 1.52 1.52 9.20 0.12 NO 0.00 No 6.60 All dimensions in meters Channel Description Plunge Pool Toe Width (m): 2.19 Average Width (m): -99.99 Culvert/Stream Width Ratio: 0.69 OHW Width (m): 4.90 Assessment Results Barrier: Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Results Species Species Species	Organization: Washington Depar	tment of Fish and	d Wildlife		
Culvert Details Level A Parameters JD Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND CST 1.52 1.52 9.20 0.12 NO 0.00 No 6.60 All dimensions in meters Channel Description Plunge Pool Toe Width (m): 2.19 Average Width (m): -99.99 Culvert/Stream Width Ratio: 0.69 OHW Width (m): 4.90 Assessment Results Barrier: Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Results Species Species Species	Field Crew: Hird: Romero	Ş	Survey Date: 12/05/20	006	
ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND CST 1.52 1.52 9.20 0.12 NO 0.00 No 6.60 All dimensions in meters Channel Description Toe Width (m): 2.19 Average Width (m): 99.99 Culvert/Stream Width Ratio: 0.69 Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Comments Species Sockeye Pink Channel Countersunce Material Species Sockeye Pink Channel Countersunce Material Species Sockeye Pink Chune Chinok Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout					
1.1 RND CST 1.52 1.52 9.20 0.12 NO 0.00 No 6.60 All dimensions in meters Channel Description Toe Width (m): 2.19 Average Width (m): -99.99 Culvert/Stream Width Ratio: 0.69 Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Species Sockeye Pink Channel Description Plunge Pool Real Read Fishway Present: No Recheck: Comments Species Sockeye Pink Channel Description Plunge Pool Resident Trout Barrie: Yes Passability (%): 33 Method: Level A Resident Trout Bull Trout	Culvert Detai	S	L	evel A Parameters	
All dimensions in meters Channel Description Plunge Pool Road Toe Width (m): 2.19 Length (m): 6.20 Average Width (m): -99.99 DHW Width (m): 0.55 OHW Width (m): 4.90 Image: Comparison of the com	<u>ID Shape Material Span</u> <u>Rise</u>	Length WDIC	Apron <u>WSDrop</u> Locatio	n <u>Countersunk</u> <u>Backwater</u>	<u>Slope (%)</u>
Channel Description Plunge Pool Road Toe Width (m): 2.19 Average Width (m): -99.99 Culvert/Stream Width Ratio: 0.69 Assessment Results Barrier: Yes Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No No Recheck: Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Yes Resident Trout Bull Trout	1.1 RND CST 1.52 1.52	9.20 0.12	NO 0.00	No	6.60
Toe Width (m): 2.19 Average Width (m): -99.99 Culvert/Stream Width Ratio: 0.69 Assessment Results Barrier: Yes Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Species Species Sockeye Pink Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout	All dimensions in meters				
Toe Width (m): 2.19 Average Width (m): -99.99 Culvert/Stream Width Ratio: 0.69 Assessment Results Barrier: Yes Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Species Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout					
Average Width (m): -99.99 Culvert/Stream Width Ratio: 0.69 Max Depth (m): 0.55 OHW Width (m): 4.90 Assessment Results Barrier: Yes Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Comments Species Sockeye Pink Chinook Coho Sea Run Cutthroat Resident Trout Buil Trout	Channel Description	Plui	nge Pool	Road	
Culvert/Stream Width Ratio: 0.69 OHW Width (m): 4.90 Assessment Results Barrier: Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No No Recheck: Species Sockeye Pink Cohook Cohook Steelhead Sea Run Cutthroat Resident Trout Bull Trout	Toe Width (m):	2.19 Le	ength (m): 6	.20 Fill Depth (m)	: 1.00
Culvert/Stream Width Ratio: 0.69 OHW Width (m): 4.90 Assessment Results Barrier: Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Comments Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout	Average Width (m):	9.99 M	ax Depth (m): 0	.55	
Assessment Results Barrier: Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No No Recheck: Comments Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout	Culvert/Stream Width Ratio:	0.69 OI	HW Width (m): 4	.90	
Barrier: Yes Passability (%): 33 Method: Level A Reason: Slope Fishway Present: No Recheck: Comments Species Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout					
Reason: Slope Fishway Present: No Recheck: Comments Species Sockeye Pink Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout	Assessment Results				
Comments Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout	Barrier: Yes F	Passability (%):	33	Method: Lev	el A
Species	Reason: Slope F	ishway Present:	No	Recheck:	
Species					
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat 🖌 Resident Trout Bull Trout	Comments				
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat 🖌 Resident Trout Bull Trout					
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat 🖌 Resident Trout Bull Trout					
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat 🖌 Resident Trout Bull Trout					
	Species				
	Sockeye Pink Chum Cl	ninook 🔲 Coho 🕅	Steelhead 🔲 Sea Run	Cutthroat 🖌 Resident Trout	Bull Trout
Potential Habitat Gain			_		
	Potential Habitat Gain				
Survey Type: Spawning (sq m): Length (m):	Survey Type:	Spawni	ng (sq m):	Length (m):	
Significant Reach: Yes Rearing (sq m): PI Total	Significant Reach: Yes	Rearing	ı (sq m):	PI Total	

Site ID: 940032 Latitude: 48.648187828	Facility Stream:	unnamed	10/	RIA:	02
Longitude: -122.820633219	Tributary To:			sh Use Potential:	Yes
Longitude122.020033219	Thouary TO.	Cascade Ci		Sil Use Potential.	162
Location					
5m US of confluence with Cascad	le Cr. Trail to Mou	untain Lk.			
Data Source					
Organization: Washington Depa	rtment of Fish and	d Wildlife			
Field Crew: Hird;Romero		Survey Date: 12	2/05/2006		
Culvert Detai	ls		Level A Para	meters	
<u>ID Shape Material Span</u> <u>Rise</u>	Length WDIC	Apron WSDrop	Location Counters	unk <u>Backwater</u> <u>S</u>	lope (%)
1.1 RND PCC 0.46 0.46	1.50 0.05	NO 0.05	Outlet No		17.00
All dimensions in meters					
Channel Description	Plu	nge Pool		Road	
Toe Width (m):	0.75 Le	ength (m):	1.40	Fill Depth (m):	0.00
Average Width (m):	99.99 M	ax Depth (m):	0.27		
Culvert/Stream Width Ratio:	0.61 O	HW Width (m):	1.10		
Assessment Results					
	Passability (%):	33	Method:	Level	Δ
	Fishway Present:	No	Recheck:		
Comments					
Species					
Sockeye Pink Chum C	hinook 🔲 Coho 🕅	Steelhead 🔲 Se	a Run Cutthroat 🔽	Resident Trout	Bull Trout
			· · · · · · · · · · · ·		
Potential Habitat Gain					
Survey Type:	Spawni	ng (sq m):		Length (m):	
Significant Reach: Yes	Rearing	ı (sq m):		PI Total	

Level A Culvert Assessment Report

Site ID:	940034	Facility			
Latitude:	48.652176867	Stream:	unnamed	WRIA:	02
Longitude:	-122.819453686	Tributary To:	Cascade Cr	Fish Use Potential:	Yes

Location

Moran State Park. From Mount Constitution Rd, follow road to Mountain Lk Camp Ground

Data Source

Organization:	Drganization: Washington Department of Fish and Wildlife									
Field Crew: Hird;Romero Survey Date: 12/05/2006							/2006			
Culvert Details Leve								Level A Parame	ators	
		Ourver		13				Level AT aralle		
<u>ID</u> <u>Shape</u> <u>Ma</u>	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Loca	ation Countersunk	Backwater	<u>Slope (%)</u>
1.1 ARCH M	<i>I</i> RY	0.76	0.91	14.30	0.13	NO	0.00	Yes		1.10

All dimensions in meters

Channel Description	Plunge	Pool		Road			
Toe Width (m):	1	Length	n (m):	-999.99		Fill Depth (m):	1.50
Average Width (m):	-99.99	Max D	epth (m):	-99.99			
Culvert/Stream Width Ratio:	0.76	OHW	Width (m):	-999.99			

Assessment Results

Barrier:	No	Passability (%):	100	Method:	Level A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species					
Sockeye Pink	Chum 📄 Chinook 📄 Coho 📄	Steelhead 🔲 Se	a Run Cutthroat 🖌	Resident Trout	Bull Trout
Potential Habitat Gain					

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

-		Level	A Guivent	A33633		sport			
Site ID: 94	0035	F	acility						
Latitude: 48	.060398438	5	Stream:	unna	med		WF	RIA:	06.0044
Longitude: -12	22.594364184	. T	ributary To	· Puge	t Sound		Fis	h Use Potentia	l: Yes
Location									
(ey State Park.	From main	entrance fo	ollow sig	ins to Gro	oup Camp.			
	,					-FF			
Data Source									
Organization:	Washingtor	Departmer	nt of Fish ar	nd Wildli	ife				
Field Crew:	Hird;Romer			Survey		2/12/2006			
	Thra,rtoinici	0		Currey		12/12/2000			
	Culver	t Details —				Level	A Parar	neters	
<u>ID Shape Ma</u>	<u>aterial</u> <u>Span</u>	<u>Rise</u> Len	gth <u>WDIC</u>	<u>Apron</u>	WSDrop	Location C	ountersur	nk <u>Backwater</u>	<u>Slope (%)</u>
1.1 RND	CST 0.46	0.46 8.9	0.05	NO	0.24	Outlet	No		4.00
All dimensions in	meters								
Channel Desci	ription		Pl	unge Po	ool			Road	
Toe Width (m	ı):	0.8		Length (m):	0.70] [Fill Depth (m)	: 2.00
Average Widt	th (m):	-99.99		Max Dep	oth (m):	0.20			
Culvert/Stream	m Width Ratio	: 0.58] (OHW W	idth (m):	1.30			
Assessment R	esults						L		
Barrier:	Yes	Passa	ability (%):	3	33	Me	ethod:	Leve	el A
Reason:	WS Drop	Fishw	ay Present	: N	lo	Re	check:		
Commente									
Comments									
0									
Species									
Sockeye	Pink 🔲 Chun	n 🔳 Chinoo	k 🔳 Coho 🛛	Steel	nead 🔳 S	Sea Run Cutth	nroat 🗸 F	Resident Trout	Bull Trout
Potential Habit	tat Gain								
Survey Type:			Spawr	ning (sq	m):			Length (m):	

Survey Type:		Spawning (sq m):	Length (m):	
Significant Reach:	Yes	Rearing (sq m):	PI Total	

Level A Culvert Assessment Report

Site ID:	940037	Facility			
Latitude:	48.499450774	Stream:	unnamed	WRIA:	04
Longitude:	-121.625357402	Tributary To:	unnamed	Fish Use Potential:	No

Location

Sauk Mt. Rd., very NW corner of Rockport State Park.

Data Source

Organization:	Washir	igton Dep									
Field Crew:	ew: Hird;Romero Survey Date: 12/13/2006					3					
Culvert Details Level								vel A Parame	ters		
<u>ID</u> <u>Shape</u> <u>Ma</u>	terial <u>Sp</u>	an <u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDro</u>	<u> Location</u>	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>	
1.1 RND C	ST 0.	61 0.61	-999.90	-99.99	NO	-99.99		Unknown		-99.99	
All dimensions in m	All dimensions in meters										

Channel Description			Plunge Pool			Road		
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	-999.90	
Average Width (m):	-99.99		Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99				

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Potential Habitat Gain

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: 940038 Latitude: 48.49858644 Longitude: -121.624028458 Location Rockport State Park	Facility Stream: unnamed Tributary To: unnamed	WRIA: 04 Fish Use Potential: Yes
Data Source		
	ent of Fish and Wildlife	
Field Crew: Hird;Romero	Survey Date: 12/13/2006	
Culvert Details	Level A	Parameters
	ngth <u>WDIC Apron WSDrop Location Cou</u> 1.90 0.08 NO 0.11 Outlet	intersunk <u>Backwater</u> <u>Slope (%)</u> No 5.60
Channel Description	Plunge Pool	Road
Toe Width (m):Average Width (m):-99.9Culvert/Stream Width Ratio:0.9		Fill Depth (m): 1.00
	sability (%): <u>33</u> Meth way Present: No Rech	
Comments		
Species		
Sockeye Pink Chum Chinc	ok 🔲 Coho 🔳 Steelhead 📄 Sea Run Cutthroa	at ✔ Resident Trout 🔲 Bull Trout
Potential Habitat Gain		
Survey Type: Significant Reach: Yes	Spawning (sq m):	Length (m):

	039 497210937 1.623142998	Facility Stream: Tributary To	unnamed D: unnamed		WRIA: Fish Use Potential:	04 Yes
Rockport State	Park					
Data Source						
Organization:	Washington De	partment of Fish a	nd Wildlife			
Field Crew:	Hird;Romero		Survey Date:	12/13/2006		
L	Culvert De	tails		Level A	Parameters	
<u>ID Shape Mat</u> 1.1 RND C All dimensions in m	ST 0.61 0.6		Apron WSDrc NO 0.85	op <u>Location</u> <u>Cour</u> Outlet	<u>ntersunk</u> <u>Backwater</u> <u>S</u> No	lope <u>(%)</u> 4.30
Channel Descri	ption	P	unge Pool		Road	
Toe Width (m): Average Width Culvert/Stream	(m):	-99.99	Length (m): Max Depth (m): OHW Width (m		Fill Depth (m):	0.50
Assessment Re Barrier: Reason: V	sults Yes VS Drop	Passability (%): Fishway Presen	0 t: No	Metho Rech		A
Comments						
Species						
Sockeye	Pink 🔲 Chum 🗌	Chinook 🔲 Coho	Steelhead	Sea Run Cutthroa	at 🖌 Resident Trout 🔲	Bull Trout
Potential Habita	t Gain					
Survey Type: Significant Rea	ich: Yes	·	ning (sq m):		Length (m): Pl Total	

Site ID: 940	040	Facil	ity		<u> </u>		
Latitude: 48.4	496409587	Strea	•	amed		WRIA:	04
Longitude: -12	1.621676062	Tribu	itary To: unna	amed		Fish Use Pot	tential: Yes
Location Rockport State	Park						
Data Source							
Organization:	Washington	Department of	Fish and Wild	life			
Field Crew:	Hird;Romerc)	Survey	/ Date: 1	2/13/2006		
	Culvert	Details			Level	A Parameters -	
<u>ID</u> <u>Shape</u> <u>Mat</u> 1.1 RND C All dimensions in m	ST 1.22	<u>Rise</u> <u>Length</u> 1.22 12.40	<u>WDIC</u> <u>Apron</u> 0.10 NO	<u>WSDrop</u> 0.10	Location Co Outlet	<u>ountersunk</u> <u>Backw</u> No	ater <u>Slope (%)</u> 8.30
Channel Descri	ption		Plunge P	ool		Road	
Toe Width (m) Average Width Culvert/Stream	(m):	1.2 -99.99 1.02		(m): pth (m): Vidth (m):	1.40 0.30 1.80	Fill Dept	h (m): 0.50
Assessment Re	sults						
Barrier:	Yes	Passabilit	ty (%):	33	Me	thod:	Level A
Reason:	Slope	Fishway F	Present:	No	Red	check:	
Comments							
Species							
Sockeye	Pink 📃 Chum	Chinook	Coho 📃 Stee	lhead 🔳 Se	ea Run Cutthi	roat 🖌 Resident T	rout 🔲 Bull Trout
Potential Habita	at Gain						
Survey Type:			Spawning (sc	լ m)։		Length (m):
Significant Rea	ich: Ye	es	Rearing (sq n	n):		PI Total	

Site ID: 940	0041	Facility				
Latitude: 48.4	492958403	Stream:	unnamed		WRIA:	04
Longitude: -12	1.625754062	Tributary To:	unnamed		Fish Use Potential:	Yes
Location Rockport State	Park					
Data Source						
Organization:	Washington Departr	nent of Fish and	Wildlife			
Field Crew:	Hird;Romero	S	Survey Date: 1	2/13/2006		
	Culvert Details			Level A P	arameters	
<u>ID Shape Mar</u> 1.1 RND C All dimensions in m	ST 0.46 0.46	<u>ength</u> <u>WDIC</u> <u>4</u> 5.90 0.19	Apron <u>WSDrop</u> NO 0.00		<u>ersunk Backwater S</u> Io	<u>ope (%)</u> 3.90
Channel Descri	ption	Plur	nge Pool		Road	
Toe Width (m)	:	0.6 Le	ngth (m):	-999.99	Fill Depth (m):	1.00
Average Width	ı (m): -99	.99 Ma	ax Depth (m):	-99.99		
Culvert/Stream	width Ratio: 0	.77 OH	HW Width (m):	-999.99		
Assessment Re	esults					
Barrier:	Yes Pa	ssability (%):	33	Method	1: Level	A
Reason:	Slope Fis	shway Present:	No	Rechee	ck:	
Comments						
Species						
_	Pink 🔲 Chum 📄 Chir	nook 🔲 Coho 📄	Steelhead 📃 S	ea Run Cutthroat	✓ Resident Trout	Bull Trout
Potential Habita	at Gain					
Survey Type:		Spawnir	ng (sq m):		Length (m):	
Significant Rea	ach: Yes	Rearing	(sq m):		PI Total	

Level A Culvert Assessment Report

Site ID:	940056	Facility			
Latitude:	48.489164304	Stream:	unnamed	WRIA:	04
Longitude:	-121.60776621	Tributary To:	unnamed	Fish Use Potential:	Yes

Location

located on "Evergreen Trail" in Rockport State Park

Data Source

	Culvert Details		Leve	A Parameters
Field Crew:	Geroux;Romero	Survey Date:	12/20/2006	
Organization:	Washington Department of Fish			

Guivert Details				Lever AT drameters								
<u>ID</u>	<u>Shape</u>	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
2.2	RND	PVC	0.15	0.15	1.50	0.02	NO	0.09	Outlet	No		7.80
1.2	RND	PVC	0.15	0.15	1.50	0.02	NO	0.09	Outlet	No		7.80
All di	All dimensions in meters											

Channel Description

Toe Width (m):	0.55
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.55

Plunge Pool	
Length (m):	0.95
Max Depth (m):	0.12
OHW Width (m):	1.20

Road							
Fill Depth (m):	0.20						

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

Species					
Sockeye 🔲 Pink 🔲 Chum 🔲 Chinook 🔲 Coho 📄 Steelhead 🔲 Sea Run Cutthroat 🖌 Resident Trout 🔲 Bull Trout					
Potential Habitat Ga	in				
Survey Type:		Spawning (sq m):	Length (m):		
Significant Reach:	No	Rearing (sq m):	PI Total		

Site ID: 940	0058	Facility				
Latitude: 48.	489809871	Stream:	Fern Cr		WRIA:	04
Longitude: -12	1.617799868	Tributary To:	Skagit R		Fish Use Potential:	Yes
Location Road to main o	campground Rock	port State Park				
Data Source						
Organization:	Washington De	partment of Fish an	nd Wildlife			
Field Crew:	Geroux;Romerc		Survey Date: 1	2/20/2006		
	Culvert De	ails		Level A F	Parameters	
<u>ID Shape Ma</u> 1.1 SQSH (All dimensions in n	CST 1.24 0.8	-	Apron WSDrop NO 0.26		<u>tersunk</u> <u>Backwater</u> No	<u>Slope (%)</u> 4.06
Channel Descr	iption	Plu	unge Pool		Road	
Toe Width (m) Average Width Culvert/Strean	n (m):	-99.99 N	ength (m): ⁄lax Depth (m): DHW Width (m):	-999.99 -99.99 -999.99	Fill Depth (m):	1.00
Assessment Re	esults					
Barrier:	Yes	Passability (%):	0	Metho	d: Leve	IA
Reason:	NS Drop	Fishway Present:	No	Reche	ck:	
Comments						
outfall plunges	s onto boulder					
Species						
Sockeye	Pink 🔲 Chum 📗	Chinook 📃 Coho 🗌	Steelhead 🔲 S	ea Run Cutthroat	Resident Trout	Bull Trout
Potential Habit	at Gain					
Survey Type:		Spawn	ning (sq m):		Length (m):	
Significant Rea	ach: Yes	Rearin	g (sq m):		PI Total	

Site ID: 9400		Facility				
	92516642	Stream:	Fern Cr		WRIA:	04
Longitude: -121	.615313918	Tributary To:	Skagit R		Fish Use Potential:	Yes
Location Service road, Ro	ockport State Park					
Data Source						
Organization:	Washington Departm	nent of Fish and	d Wildlife			
Field Crew:	Geroux;Romero	5	Survey Date: 12	2/20/2006		
[Culvert Details			Level A P	Parameters	
<u>ID Shape</u> Mate		ength WDIC	Apron WSDrop			lope (%)
1.1 RND CS		9.90 0.11	NO 0.29		<u></u> No	7.58
All dimensions in me	ters					
Channel Descrip	tion	Plu	nge Pool		Road	
Toe Width (m):	1	I.2 Le	ength (m):	1.60	Fill Depth (m):	0.50
Average Width	(m): -99.	99 M	ax Depth (m):	0.25		
Culvert/Stream			HW Width (m):	1.80		
Assessment Res						
Barrier:		ssability (%):	33	Method		A
Reason: W	S Drop Fis	hway Present:	No	Reche	ck:	
Comments						
Species						
Sockeye 🔳 F	Pink 🔲 Chum 📃 Chin	ook 🔲 Coho 📃	Steelhead 🔲 Se	ea Run Cutthroat	✔ Resident Trout	Bull Trout
Potential Habitat	Gain					
Survey Type:		Spawni	ng (sq m):		Length (m):	
Significant Read	ch: Yes	Rearing	y (sq m):		PI Total	

Level A Culvert Assessment Report

Site ID:	940061	Facility			
Latitude:	48.48690785	Stream:	Fern Cr	WRIA:	04
Longitude:	-121.618521768	Tributary To:	Skagit R	Fish Use Potential:	No

Location

Culvert under old railroad grade, Rockport State Park. About 50m E of 940070.

Data Source

Organization: Washington Department of Fish and Wildlife									
Field Crew: Geroux;Romero Survey Date: 12/21/2006									
Culvert Details Level A Parameters									
<u>ID</u> Shape <u>Ma</u>	terial <u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND C		0.30	-999.90	-99.99	NO	-99.99	Unknown		-99.99

Channel Description

All dimensions in meters

Toe Width (m):	-99.99
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	-99.99

Plunge Pool	
Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Road Fill Depth (m): -999.90

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

outfall onto boulder and broken concrete chunks	

Species

Potential Habitat Gain

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940066	Facility			
Latitude:	48.648701481	Stream:	unnamed	WRIA:	01
Longitude:	-122.476173277	Tributary To:	Samish Bay	Fish Use Potential:	No

Location

Larrabee State Park

Data Source

Organization:	Washington Department of Fish a			
Field Crew:	Geroux;Romero	Survey Date:	01/04/2007]
	Culvert Details		Leve	I A Parameters

			ounoi	Dotai								
<u>ID</u>	<u>Shape</u>	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.2	RND	CST	0.91	0.91	-999.90	-99.99	NO	-99.99		No		-99.99
2.2	RND	CST	0.91	0.91	11.70	0.10	NO	6.00	Outlet	No		22.00
All di	mensions	in meters										

Channel Description

Toe Width (m):	-99.99
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	-99.99

Plunge Pool

Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Fill Depth (m):	-999.90

Road

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

There are barrier falls 5m above	e site. There is also a	a cement headwall on US end.

Species

Potential Habitat Gain

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: 940	068	Facility				
Latitude: 48.6	647462796	Stream:	unnamed		RIA:	01.0635
Longitude: -122	2.48069221	Tributary To:	Samish Bay	Fis	sh Use Potentia	l: Yes
Location Larrabee State	Park					
Data Source						
Organization:	Washington De	epartment of Fish and	d Wildlife			
Field Crew:	Geroux;Romer	٥ ٤	Survey Date: 0	1/04/2007		
	Culvert De	etails		Level A Para	meters	
<u>ID Shape Mat</u> 1.1 RND C All dimensions in m	ST 0.91 0.		Apron <u>WSDrop</u> NO -99.99	Location Countersu No	nk Backwater	<u>Slope (%)</u> 2.62
Channel Descrip	otion	Plu	nge Pool		Road	
Toe Width (m):		1.7 Le	ength (m):	-999.99	Fill Depth (m)	: 14.00
Average Width	(m):	-99.99 M	ax Depth (m):	-99.99		
Culvert/Stream	Width Ratio:		HW Width (m):	-999.99		
Assessment Re	sults					
Barrier:	Yes	Passability (%):	33	Method:	Lev	el A
Reason:	Slope	Fishway Present:	No	Recheck:		
Comments						
	d out, plunges o	onto rocks.				
Species						
Sockeye	Pink 🔲 Chum 📗] Chinook 📄 Coho 📄	Steelhead 🔳 Se	ea Run Cutthroat 🖌	Resident Trout	Bull Trout
Potential Habita	t Gain					
Survey Type:		Spawni	ng (sq m):		Length (m):	
Significant Rea	ch: Yes	Rearing	ı (sq m):		PI Total	

0% ID				<u> </u>		
Site ID: 940069	2040	Facility				04
Latitude: 48.64708		Stream:	unnamed		WRIA:	01
Longitude: -122.480	/65/2/	Tributary To:	unnamed		Fish Use Potentia	: Yes
Location						
Larrabee State Park						
Data Source						
Organization: Was	shington Departr	nent of Fish and	d Wildlife			
Field Crew: Ger	oux;Romero		Survey Date: 0	1/04/2007		
001				1/0 1/2001		
	Culvert Details			Level A P	Parameters	
ID Shape Material	<u>Span</u> <u>Rise</u> <u>L</u>	<u>ength</u> WDIC	Apron WSDrop	Location Count	ersunk Backwater	<u>Slope (%)</u>
1.1 RND CST	0.61 0.61	12.20 0.19	NO 0.47	Outlet N	No	11.70
All dimensions in meters						
Channel Description	I	Plu	nge Pool		Road	
Toe Width (m):	0	.85 Le	ength (m):	-999.99	Fill Depth (m)	-999.90
Average Width (m):	-99	.99 M	ax Depth (m):	-99.99		
Culvert/Stream Wid	th Ratio: 0	.72 O	HW Width (m):	-999.99		
Assessment Results						
Barrier: Yes	Pa	ssability (%):	0	Method	d: Leve	el A
Reason: Slop	e Fis	shway Present:	No	Reche	ck:	
Comments DS is rusted, outfall	nungos onto roc	ka Photo is II	Sond			
	plunges onto roc	.KS. F1101015 0	o enu.			
Species						
Sockeye Pink	🔲 Chum 🔲 Chir	nook 🔲 Coho 🔳] Steelhead 🔲 S	ea Run Cutthroat	✓ Resident Trout	Bull Trout
-						
Potential Habitat Gai	'n					
Survey Type:		Snawni	ng (sq m):		Length (m):	
Significant Reach:	Yes	Rearing	g (sq m):		PI Total	

	070		cility			MDU	A -	04
	486917234		•••••••	unnamed		WRIA		04
Longitude: -12	1.620095658	Iri	butary To:	unnamed		FISN	Use Potential:	Yes
Location Rockport State	Park							
Data Source								
Organization:	Washingtor	Department	of Fish and \	Wildlife]		
Field Crew:	Geroux;Ror	nero	Su	rvey Date:	12/21/2006			
	Culver	t Details			Leve	el A Parame	eters	
<u>ID</u> <u>Shape</u> <u>Mat</u>	erial <u>Span</u>	<u>Rise</u> Lengt	<u>h WDIC A</u>	pron <u>WSDro</u>	p Location	Countersunk	Backwater S	<u>lope (%)</u>
1.1 RND C	ST 0.30	0.30 3.00	0.05 I	NO 0.02	Outlet	No		4.26
All dimensions in m	eters							
			Diver			D		
Channel Descri	•			ge Pool				
Toe Width (m)		0.42		igth (m):	-999.99		ill Depth (m):	-999.90
Average Width	. ,	-99.99		x Depth (m):				
Culvert/Stream	Width Ratio	: 0.71	OH	W Width (m): -999.99			
Assessment Re	sults							
Barrier:	Yes	Passab	ility (%):	67	Μ	ethod:	Level	Α
Reason:	Slope		y Present:	No		echeck:		
L			·					
Comments								
Species								
Sockeye	Pink 📃 Chur	n 📃 Chinook	Coho 🔳 S	Steelhead	Sea Run Cutt	hroat 🖌 Re	sident Trout 🔳	Bull Trout
Potential Habita	t Gain							
Survey Type:			Spawning	g (sq m):		L	ength (m):	
Significant Rea	ich:	No	Rearing ((sq m):		F	Pl Total	

Level A Culvert Assessment Report

Site ID:	940072	Facility			
Latitude:	48.681754978	Stream:	unnamed	WRIA:	01.0629
Longitude:	-122.457631328	Tributary To:	Chuckanut Cr	Fish Use Potential	: Yes

Location

Pine and Cedar Lakes trail. Accessible from Skagit Co. park off of Old Samish Rd.

Data Source

Field Crew: Geroux;Romero Survey Date: 01/10/2007	Organization:	m: Washington Department of Fish a
	Field Crew:	Geroux;Romero

Culvert Details							Level A Parameters					
ID	<u>Shape</u>	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
2.2	RND	PVC	0.61	0.61	2.40	0.04	NO	0.10	Outlet	No		1.60
1.2	RND	PVC	0.61	0.61	2.40	0.04	NO	0.10	Outlet	No		1.60
All d	All dimensions in meters											

Channel Description

Toe Width (m):	1.2
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	1.02

Plunge Pool									
Length (m):	-999.99								
Max Depth (m):	-99.99								
OHW Width (m):	-999.99								

Road Fill Depth (m): -999.90

Assessment Results

Barrier:	Yes	Passability (%): 67	Method:	Level A
Reason:	Slope	Fishway Present: No	Recheck:	

Comments

Species									
Sockeye 🔲 Pink 🔲 Chum 🔲 Chinook 🔲 Coho 🔲 Steelhead 🔲 Sea Run Cutthroat 🖌 Resident Trout 🔲 Bull Trout									
Potential Habitat Ga	in								
Survey Type:		Spawning (sq m):	Length (m):						
Significant Reach:	Yes	Rearing (sq m):	PI Total						

Site ID: 940080		Facility				
Latitude: 48.65253	34498	Stream:	unnamed		WRIA:	01
Longitude: -122.490	60524	Tributary To:	Wildcat Cove		Fish Use Potential:	Yes
_ocation						
Larrabee State Park	road to parkin	n lot for ampithe	ater			
	, road to parting	g lot for amplified				
Data Source						
Organization: Was	shington Depart	ment of Fish and	d Wildlife			
Field Crew: Ger	oux;Romero		Survey Date: 0	1/18/2007		
				1110/2001		
	Culvert Details	3		Level A Pa	rameters	
ID Shape Material	-	Length WDIC	· <u> </u>	Location Counter		<u> Slope (%)</u>
1.1 SQSH CST	1.44 0.94	9.30 0.02	NO 1.50	Outlet No)	7.43
All dimensions in meters						
Channel Decerintion		DI	neno Do ol		Deed	
Channel Description			nge Pool		Road	
Toe Width (m):			ength (m):	-999.99	Fill Depth (m):	1.00
Average Width (m):			ax Depth (m):	-99.99		
Culvert/Stream Widt	h Ratio: (0.60 O	HW Width (m):	-999.99		
Assessment Results						
Barrier: Yes	P	assability (%):	0	Method:	Level	A
Reason: Slope	e Fi	shway Present:	No	Rechecl	<:	
Comments						
Outfall onto boulders	3.					
Species						
	Chum 🔲 Chi	nook 🔲 Coho 📃	Steelhead 🔳 Se	ea Run Cutthroat 🛛	Resident Trout	Bull Trout
Sockeye 🔲 Pink [
Sockeye Pink [
Sockeye Pink	n					
	n RSFS	Spawni	ng (sq m):	0	Length (m):	26

	Level A Curvent Assessment IN		1
Site ID: 940096	Facility		
Latitude: 48.660965558	WRIA:	02	
Longitude: -122.836282438	Tributary To: Paul Cr	Fish Use Potential:	Yes
Location Moran State Park			
Morall State Faik			
Data Source			
Organization: Washington D	epartment of Fish and Wildlife		
Field Crew: Geroux;Rome	o Survey Date:	02/27/2007	
Согоди, кото			
Culvert D	etails	Level A Parameters	
<u>ID Shape Material Span</u> R	<u>se Length WDIC Apron WSDrop</u>	<u>Location</u> Countersunk Backwater Slop	<u>e (%)</u>
1.1 RND PCC 0.46 0.	46 9.70 0.20 NO -99.99	No -0.	.60
All dimensions in meters			
Channel Description	Plunge Pool	Road	
Toe Width (m):	0.9 Length (m):	-999.99 Fill Depth (m):	1.00
Average Width (m):	-99.99 Max Depth (m):	-99.99	
Culvert/Stream Width Ratio:	0.51 OHW Width (m):	-999.99	
Assessment Results			
Barrier: No	Passability (%): 100	Method: Level B	
Reason: N/A	Fishway Present: No	Recheck:	
Commonto			
Comments Small channel between two po	nded wetlands		
Small channel between two po	nded weitands.		
Species			
Sockeye Pink Chum	🛾 Chinook 🔲 Coho 🔲 Steelhead 🔲 S	Sea Run Cutthroat 🖌 Resident Trout 🔲 Bu	Ill Trout
Potential Habitat Gain			
Survey Type:	Spawning (sq m):	Length (m):	
Significant Reach: Yes	Rearing (sq m):	PI Total	

Site ID: 940	100	Faci	litv					
	730448262		Stream: unnamed			WRIA: 08.0226		
			utary To: Lak	e Washingt	on Fi	sh Use Potentia	l: Yes	
.ocation Saint Edward S	State Park							
Data Source								
Organization:	Washington	Department o	f Fish and Wil	dlife				
Field Crew:	Geroux;Rom	iero	Surve	ey Date: 03	/07/2007			
	Culvert	Details			Level A Para	ameters		
		Rise Length	WDIC Apro		<u>_ocation</u> Counters	unk Backwater	<u>Slope (%)</u>	
		0.31 3.50	0.31 NO	-99.99	No		5.70	
All dimensions in m	eters							
Channel Descri	ption		Plunge	Pool		Road		
Toe Width (m)	:	0.7	Length	n (m):	-999.99	Fill Depth (m)): 0.50	
Average Width	(m):	-99.99	Max D	epth (m):	-99.99			
Culvert/Stream	Width Ratio:	0.44	OHW	Width (m):	-999.99			
Assessment Re	sults							
Barrier:	Yes	Passabili	ity (%):	67	Method:	Lev	el A	
Reason:	Slope	Fishway	Present:	No	Recheck:			
Comments								
	veral cinder bl	ocks stacked	around the US	S end; DS end	d is covered by br	ick and mortar.		
Species								
Sockeye	Pink 📃 Chum	Chinook] Coho 🔳 Ste	elhead 🔳 Se	a Run Cutthroat 🖌	Resident Trout	Bull Trout	
otential Habita	at Gain							
Survey Type:	RS	F0	Spawning (s	· · · · · · · ·	0	Length (m):	150	

Survey Type:	RSFS	Spawning (sq m):	0	Length (m):	150
Significant Reach:	No	Rearing (sq m):	55	PI Total	1.60

Level A Culvert Assessment Report

Site ID:	940104	Facility			
Latitude:	47.272939581	Stream:	Cristy Cr	WRIA:	09
Longitude:	-122.021005582	Tributary To:	Green R	Fish Use Potential:	Yes

Location

Flaming Geyser State Park

Data Source

Organizatio	Organization: Washington Department of Fish and Wildlife										
Field Crew: Geroux;Romero Survey Date: 03/13/200								7			
Culvert Details Level									vel A Parame	ters	
ID Shape	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.2 RND	PCC	0.61	0.61	12.40	0.35	NO	0.45	Inlet	No		2.26

NO

All dimensions in meters

CST

2.2 RND

Channel Description

Toe Width (m):	5.1
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.34

1.14

1.14

4.40

0.20

Plunge Pool	
Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

0.18

Outlet

No

Road									
Fill Depth (m):	1.00								

11.24

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

LB is 1.2 RB is 2.2. Broken headwall1.2.	On 11/15/11, Cierebiej;Barber visited this site; RB culvert has washed out;
LB culvert taking most of flow; site is still	a barrier.

Species

Sockeye P	Pink 🔲 Chum 🔲 Chinoc	ok 🖌 Coho 🖌 Steelhead	Sea Run Cutthroat [Resident Trout Bu	II Trout
Potential Habitat	Gain				
Survey Type:		Showning (ag m):		Longth (m):	

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

	LV		SSCSSMCM			
Site ID: 940105		Facility				
Latitude: 46.6371	62326	Stream:	unnamed		WRIA:	23
Longitude: -123.227	7336366	Tributary To:	unnamed		Fish Use Potential:	Yes
Lesstion						
Location Willapa Hills Trail S	tato Park					
	Idle Faik					
Data Source						
Organization: Wa	shington Departr	nent of Fish and	d Wildlife			
Field Crew: Ror	nero;Thompson		Survey Date:	04/02/2012		
	· •					
	Culvert Details			Level A	Parameters	
ID Shape Material		<u>ength</u> WDIC				<u>Slope (%)</u>
1.1 RND PCC	0.91 0.91	15.00 0.06	NO 0.2	2 Outlet	No No	2.70
All dimensions in meters						
Channel Description	۱ 	Plu	nge Pool		Road	
Toe Width (m):		1.8 Le	ength (m):	7.50	Fill Depth (m):	0.50
Average Width (m):	3	.60 M	ax Depth (m): 0.70		
Culvert/Stream Wic	Ith Ratio: 0	.25 O	HW Width (r	n): 6.00		
Assessment Results						
Barrier: Yes		ssability (%):	33	Metho		IA
Reason: Slop	e Fis	shway Present:	No	Rech	eck:	
Comments						
Culvert empties into	private pasture	Plunge pool ap	nears to be y	wallow and water s	source for livestock	
		r lange poor ap				
Species						
Sockeye Pink	🔲 Chum 📃 Chir	nook 🖌 Coho 🖌	Steelhead	Sea Run Cutthroa	at 🖌 Resident Trout	Bull Trout
Potential Habitat Ga	in					
Survey Type:	RSFS	Snawni	ng (sq m):	0	Length (m):	579
	I		, _		č ()	
Significant Reach:	Yes	Rearing	g (sq m):	313	PI Total	7.91

313

• •

		Level	A Culvert	Assess	sment R	eport			
Site ID: 940	106	F	acility						
Latitude: 46.6	637060496	S	tream:	unna	med		W	RIA:	23
Longitude: -12	3.232071643	Т	ributary To	o: Cheł	nalis R		Fis	sh Use Potential:	Yes
Location									
Willipa Hills Tra	ail N. of Rainb	ow Falls St	ate Park.						
Data Source									
Organization:	Washington	Departmer	t of Fish a	nd Wildl	ife				
Field Crew:	Romero;Tho	mpson		Survey	Date:	04/02/2012			
	Culvert	Details -				Lev	el A Para	meters	
ID Shape Mat	<u>erial</u> <u>Span</u>	Rise Leng	<u>gth WDIC</u>	<u>Apron</u>	WSDrop	Location	<u>Countersu</u>	nk Backwater S	<u>lope (%)</u>
1.1 RND P	VC 0.91	0.91 6.7	0 0.12	NO	0.00		No	No	0.89
All dimensions in m	eters								
Channel Descri	ntion			lunge P				Road	
·				-			7		
Toe Width (m):		0.9		Length (,	0.00		Fill Depth (m):	1.00
Average Width	(m):	3.60		Max De	pth (m):	-99.99			
Culvert/Stream	Width Ratio:	0.25		OHW W	idth (m):	-999.99			
Assessment Re	sults								
Barrier:	No	Passa	bility (%):	1	00	Ν	lethod:	Professional .	Judgment
Reason:	N/A	Fishw	ay Present	t: N	No	R	echeck:		

Comments

Thin-walled flange at DS end. Unable to perform LVL B due to culvert 9m DS. Artificial channel width (ditched)	
overstates culvert/stream ratio. Not a velocity barrier at seasonal high flow.	

Species

🔲 Sockeye 🔲 Pink 🔄 Chum 📄 Chinook 🖌 Coho 📄 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout	
Potential Habitat Gain	

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

				•		
Site ID: 940108		Facility				
Latitude: 47.27340)3368	Stream:	unnamed		/RIA:	09
Longitude: -122.020	07694	Tributary To:	Green R	F	ish Use Potential	: Yes
Location Flaming Geyser Stat	e Park					
Data Source						
Organization: Was	shington Departn	nent of Fish and	d Wildlife			
Field Crew: Ger	oux;Romero		Survey Date: (03/13/2007		
	Culvert Details			Level A Para	ameters	
<u>ID</u> <u>Shape</u> <u>Material</u> 1.1 RND PCC All dimensions in meters	<u>Span Rise L</u> 0.31 0.31	<u>ength WDIC</u> 7.90 0.19	Apron <u>WSDrop</u> NO -99.99	Location Counters No	unk Backwater	<u>Slope (%)</u> 5.80
Channel Description		Plu	nge Pool		Road	
Toe Width (m):			ength (m):	-999.99	Fill Depth (m)	1.00
Average Width (m):	-99.	.99 M	ax Depth (m):	-99.99		
Culvert/Stream Wid	h Ratio: 0.	31 O	HW Width (m):	-999.99		
Assessment Results						
Barrier: Yes	Pa	ssability (%):	33	Method:	Leve	el A
Reason: Slop	e Fis	hway Present:	No	Recheck:		
Comments						
Species						
Sockeye 🔲 Pink [Chum 🔲 Chir	ook 🖌 Coho 📃	Steelhead 🖌 S	ea Run Cutthroat 🖌	Resident Trout	Bull Trout
Potential Habitat Gai	n					
Survey Type:		Spawni	ng (sq m):		Length (m):	
Significant Reach:	Yes	Rearing	ı (sq m):		PI Total	

Level A Culvert Assessment Report

Site ID:	940110	Facility			
Latitude:	46.627767678	Stream:	unnamed	WRIA:	23
Longitude:	-123.231352608	Tributary To:	Chehalis R	Fish Use Potential:	Yes

Location

Rainbow Falls State Park. Main S Trail to Upper Hemlock Trail. First stream crossing.

Data Source

Organization:	Washington Department of Fish a	and Wildlife		
Field Crew:	Dhunadale;Geroux	Survey Date:	02/12/2007	
	Culvert Details		Leve	I A Parameters

<u>ID</u>	<u>Shape</u>	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1	RND	CST	0.61	0.61	9.10	0.07	NO	0.30	Inlet	No		10.30
All din	nensions	in meters										

Channel Description		Plunge Pool		_	Road	
Toe Width (m):	1.4	Length (m):	-999.99		Fill Depth (m):	-999.90
Average Width (m):	-99.99	Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	0.44	OHW Width (m):	-999.99			

Assessment Results

Barrier:	Yes	Passability (%): 0	Method:	Level A
Reason:	Slope	Fishway Present: No	Recheck:	

Comments

Outlet onto bedrock. Culvert is rusted out on DS end.
Species
Species
🔲 Sockeye 🔄 Pink 🗐 Chum 📄 Chinook 📄 Coho 📄 Steelhead 📄 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout

Potential Habitat Gain

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

Latitude: 47.2 Longitude: -12	116 273587249 2.020435922	St	acility ream: ibutary To:	unnamed Green R		WRIA Fish	A: Use Potential:	09 Yes
Location								
Data Source								
Organization:	Washingtor	Department	of Fish and	d Wildlife				
Field Crew:	Geroux;Ror	mero	\$	Survey Date:	03/13/2007]		
	Culver	t Details			Leve	I A Parame	eters	
<u>ID Shape Mat</u>	<u>erial</u> <u>Span</u>	<u>Rise</u> Leng	th <u>WDIC</u>	Apron WSDro	op Location C	Countersunk	Backwater	<u>Slope (%)</u>
1.1 RND C	ST 0.31	0.31 4.40	0.18	NO -99.9	9	No		5.20
All dimensions in m	eters							
Channel Descri	ntion		Plu	nge Pool		P	oad	
Toe Width (m):		1		ength (m):	-999.99		Fill Depth (m):	-999.90
Average Width		-99.99		ax Depth (m):			in Deptir (iii).	-333.30
Culvert/Stream	. ,			HW Width (m				
		0.01			,			
Assessment Re	sults							
Barrier:	Yes	Passa	oility (%):	33	M	ethod:	Leve	IA
Reason:	Slope	Fishwa	y Present:	No	Re	echeck:		
Comments								
Species								
Sockeye	Pink 📃 Chur	n 🔲 Chinook	🖌 Coho 🗌	Steelhead 🗸	Sea Run Cutt	hroat 🖌 Re	sident Trout	Bull Trout
Potential Habita	t Gain							
Survey Type:			Spawni	ng (sq m):		L	ength (m):	
Significant Rea	ich: Y	es	Rearing	g (sq m):		F	PI Total	

	Level A Cuive	rt Assessment Re	port		
Site ID: 940119	Facility				
Latitude: 47.27299586	Stream:	unnamed	W	RIA:	09
Longitude: -122.027994	Tributary 1	To: Green R	Fis	sh Use Potential:	Yes
Leastion					
Location					
Data Source					
Organization: Washington	Department of Fish	and Wildlife			
Field Crew: Cierebiej		Survey Date: 1	2/14/2007		
Culvert	Details		Level A Para	meters	
		-	Location Countersu		ope (%)
1.1 RND CST 0.61	0.61 22.60 0.61	1 NO 0.00	No		0.20
All dimensions in meters					
	_				
Channel Description		Plunge Pool]	Road	
Toe Width (m):	-99.99	Length (m):	-999.99	Fill Depth (m):	0.50
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99		
Accomment Deculto				L	
Assessment Results			NA - (h)		
Barrier: No	Passability (%)		Method:	Professional J	udgment
Reason: N/A	Fishway Prese	nt: No	Recheck:		
Comments					
Level B not possible; ponded	I DS 7 US of site; roa	ad impounded wetla	and. Culvert may be	e undersized, but a	appears
passable; no signs of velocity	y or depth problems,	doesn't look plugge	ed. 11/15/11 Ciereb	iej;Barber site visi	t; culvert is
submerged, no velocity.					
Species					
•				.	
Sockeye Pink Chum	Chinook 🖌 Coho	Steelhead 🖌 S	ea Run Cutthroat 🖌	Resident Trout	Bull Trout
Potential Habitat Gain					
Survey Type:	Spav	wning (sq m):		Length (m):	
Significant Reach: Ye	Real	ring (sq m):		PI Total	

	126	Facility					
	273827767	Stream		amed		WRIA:	09
Longitude: -12	2.030449459	l ributa	ry To: Gre	en R		Fish Use Potentia	: Yes
Location							
Flaming Geyse	er State Park.						
Data Source							
Organization:	Washington	Department of Fi	sh and Wil	dlife			
Field Crew:	Cierebiej;Bar	ber	Surve	y Date: 11	/15/2011		
	Culvert	Notaile ———				arameters	
<u>ID</u> Shape Mat			VDIC Apror	WSDrop			Slope (%)
	-		0.33 NO	0.00		lo	1.39
All dimensions in m		10.00	5.00	0.00	•		1.00
Channel Descri	ption		Plunge I	Pool		Road	
Toe Width (m)	:	1	Length	(m):	0.00	Fill Depth (m)	: 1.00
Average Width	ı (m):	1.25	Max D	epth (m):	-99.99		
Culvert/Stream		0.49		Nidth (m):	-999.99		
			_				
Assessment Re	sults						
Barrier:	Yes	Passability ((%):	67	Method	l: Leve	el A
Reason:	Slope	Fishway Pre	esent:	No	Recheo	sk:	
Comments							
	x.Romero eval	uated culvert as	Level B na	ssable: there	was ponded h	abitat DS & US of t	he culvert
		aluated culvert a					
Species							
	D : 1 [] 01						
Sockeye	PINK 🔄 Chum	Chinook 🖌 C	ono 📃 Stee	einead 🖌 Se	a Run Cutthroat	Resident Trout	Bull I rout
Potential Habita	at Gain						
Survey Type:		S	spawning (s	q m):		Length (m):	
Significant Rea	ach: Ye		Rearing (sq	、		PI Total	

Site ID: 940127		Facility		-		
Latitude: 47.27426	3522	Stream:	unnamed		WRIA:	09
Longitude: -122.030		Tributary To:			Fish Use Potential:	Yes
	00-00-		Creente			100
Location						
Data Source						
Organization: Was	shington Depai	rtment of Fish and	d Wildlife			
Field Crew: Ger	oux;Romero		Survey Date: 0)3/14/2007		
] 		
	Culvert Detai				Parameters	
ID Shape Material	<u>Span</u> <u>Rise</u>		-			lope (%)
1.1 RND SST	0.76 0.76	9.10 0.61	NO -99.99	Г	No	3.06
All dimensions in meters						
Channel Description		Plu	nge Pool		Road	
Toe Width (m):			ength (m):	-999.99	Fill Depth (m):	2.00
Average Width (m):			lax Depth (m):	-99.99	· ··· – •F ··· (···)	2.00
Culvert/Stream Widt			HW Width (m):	-999.99		
Assessment Results						
Barrier: Yes	F	Passability (%):	33	Method		Α
Reason: Slope	e F	Fishway Present:	No	Reche	ck:	
Comments						
US invert being unde	ercut by flow.	DS end is in the C	Green R			
Species						
-			Steelhead 🔽 S	ea Run Cutthroat	Resident Trout	Bull Trout
			J Gleenieau w G			
Potential Habitat Gai	n					
Survey Type:		Spawni	ing (sq m):		Length (m):	
-					_	

Site ID: 940130	Facility				
Site ID: 940130 Latitude: 47.894203726	Facility Stream:	unnamed	١٨/١	RIA:	20
Longitude: -124.358785373		Bogachiel R		h Use Potential:	Yes
		Boguomerra			105
Location					
Bogachiel State Park, east er	nd of campground.				
Data Source	Department of Fish as				
	Department of Fish ar				
Field Crew: Geroux;Rom	ero	Survey Date: 03	3/15/2007		
Culvert	Details		Level A Para	meters	
ID Shape Material Span	<u>Rise Length WDIC</u>	Apron WSDrop	Location Countersu	<u>nk Backwater Slo</u>	pe (%)
1.1 RND CST 0.61	0.61 7.00 0.05	NO 0.00	No	7	7.15
All dimensions in meters					
Channel Description	PI	unge Pool		Road	
Toe Width (m):	0.9	Length (m):	-999.99	Fill Depth (m):	1.00
Average Width (m):		Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:		OHW Width (m):	-999.99		
• • • • • • • • • • • • • • • • • • •					
Assessment Results			Marth and		
Barrier: Yes	Passability (%):	0	Method:	Level A	\
Reason: Slope	Fishway Present	: No	Recheck:		
Comments					
DS and US invert are rusted	out 1m into pipe. Stre	eam is NFB US of	site 997088, ~100n	n US.	
Species					
Sockeye Pink Chum	Chinook 🖌 Coho 🖸	Steelhead See	ea Run Cutthroat 🖌	Resident Trout 🔳 E	Bull Trout
Potential Habitat Gain					

Survey Type:	RSFS	Spawning (sq m):	34	Length (m):	93
Significant Reach:	No	Rearing (sq m):	27	PI Total	6.37

Site ID: 940142						
		Facility				
Latitude: 47.8751		Stream:	unnamed		WRIA:	07.0000
Longitude: -121.676	6670305	Tributary To:	Wallace R		Fish Use Potentia	l: Yes
ocation						
Wallace Falls State	Park. "Old RailF	Road Grade" Tra	ail.			
Data Source						
Organization: Wa	shington Departr	nent of Fish and	d Wildlife			
Field Crew: Ger	roux;Romero	Ş	Survey Date: (04/10/2007		
	Culvert Details			Level A F	Parameters	
ID Shape Material	<u>Span Rise L</u>	ength WDIC	Apron WSDrop	Location Count	ersunk Backwater	<u>Slope (%)</u>
1.1 RND CST	1.22 1.22	7.90 0.13	NO 0.28	Outlet N	No	1.27
All dimensions in meters						
Channel Description	า	Plu	nge Pool		Road	
Toe Width (m):		1.3 Le	ength (m):	3.20	Fill Depth (m)	: 1.00
Average Width (m):	-99	.99 M	lax Depth (m):	0.50		
Culvert/Stream Wid			HW Width (m):			
Assessment Results						
		acchility(0/)	07	Metho	d: Lov	
Barrier: Yes		ssability (%):	67	Reche		el A
Reason: WS D	Prop Fis	shway Present:	No	Reche	CK.	
Comments						
Species						
-						
Sockeye Pink	Chum Chir	iook 📃 Coho 🖌	Steelhead 🖌 S	Sea Run Cutthroat	Resident Trout	Bull Trout
Potential Habitat Ga	iin					
Survey Type:	RSFS	Spawni	ng (sq m):	1,670	Length (m):	2,123
Significant Reach:	Yes	Rearing	g (sq m):	3,928	PI Total	9.77

	143		Facility				
	874706101		Stream:	unnamed		WRIA:	07
Longitude: -12	1.674037268		Tributary To:	Wallace R		Fish Use Potential	: Yes
Location							
Wallace Falls S	State Park						
Data Source							
Organization:	Washington	Departm	nent of Fish an	d Wildlife			
Field Crew:	Geroux;Ron		1	Survey Date:	04/10/2007		
	Ocroux, Non			ourrey Date.	04/10/2001		
	Culvert	Details			Level A	Parameters	
<u>ID Shape Mat</u>	erial <u>Span</u>	<u>Rise</u> L	ength WDIC	Apron WSDr	op Location Cour	ntersunk Backwater	<u>Slope (%)</u>
1.1 RND C	ST 0.76	0.76	8.30 0.08	NO 0.00		No No	1.40
All dimensions in m	eters						
Channel Descri	ption		Plu	inge Pool		Road	
Toe Width (m)	:	1	.3 L	ength (m):	0.00	Fill Depth (m)	3.00
Average Width	(m):	2.	90 N	lax Depth (m)	: -99.99		
Culvert/Stream	Width Ratio:	0.	26 C	OHW Width (m	ı): -999.99		
		L					
Assessment Re	sults						
Barrier:	Yes	Pa	ssability (%):	67	Metho	od: Leve	el A
Reason:	Slope	Fis	hway Present:	No	Rech	eck:	
•							
Comments Culvert passes	under old DE	arada	now porko troil				
Cuiven passes		k graue, i	now parks trail				
Species							
Sockeye	Pink 📃 Churr	Chin	ook 🔳 Coho 🗸	Steelhead 🗸	Sea Run Cutthroa	at 🖌 Resident Trout 🗸	Bull Trout
	_						
Potential Habita	-			. ,		• • • • •	
Survey Type:	RS	FS	Spawn	ing (sq m):	300	Length (m):	867

Survey Type:	RSFS	Spawning (sq m):	300	Length (m):	867
Significant Reach:	Yes	Rearing (sq m):	617	PI Total	6.23

Site ID: 940144 Latitude: 47.87439 Longitude: -121.670 Location Wallace Falls State	345629	Facility Stream: Tributary To:	unnamed Wallace R		WRIA: Fish Use Potential:	07 Yes
Data Source						
Organization: Was	shington Departn	nent of Fish and	d Wildlife			
Field Crew: Ger	oux;Romero	S	Survey Date:	04/10/2007		
[Culvert Details			Level A	Parameters	
<u>ID</u> <u>Shape</u> <u>Material</u> 1.1 RND CST All dimensions in meters	-	<u>ength</u> <u>WDIC</u> 5.70 0.07	Apron <u>WSDrc</u> NO 0.30		<u>ntersunk</u> <u>Backwater</u> <u>S</u> Yes	<u>lope (%)</u> 9.54
Channel Description		Plu	nge Pool		Road	
Toe Width (m): Average Width (m): Culvert/Stream Widt	-99.	99 M	ength (m): ax Depth (m): HW Width (m		Fill Depth (m):	1.00
Assessment Results						
Barrier: Yes Reason: WS Dr		ssability (%): hway Present:	0 No	Metho Rech		A
Comments						
Species						
Sockeye 🔲 Pink [Chum 🔲 Chin	ook 🔲 Coho 📃	Steelhead	Sea Run Cutthroa	at 🗹 Resident Trout 🔲	Bull Trout
Potential Habitat Gai	n					
Survey Type:		Spawni	ng (sq m):		Length (m):	
Significant Reach:	Yes	Rearing	y (sq m):		PI Total	

Level A Culvert Assessment Report

Site ID:	940206	Facility			
Latitude:	47.38409691	Stream:	Humpback Cr	WRIA:	07.0512
Longitude:	-121.472709823	Tributary To:	SF Snoqualmie R	Fish Use Potentia	l: Yes

Location

Iron Horse State Park Trail.

Data Source

Organization:	Washington Department of Fish a				
Field Crew:	Romero;Schmidt	Survey Date:	10/23/2007]	
	Culvert Details			A Parameters	

Culvert Details				Level A Parameters								
ID Shape	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>	
1.2 ARCH	OTH	3.11	2.75	-999.90	0.22	BE	1.40	Outlet	No		7.00	
2.2 ARCH	OTH	3.11	2.75	-999.90	0.22	BE	1.40	Outlet	No		7.00	
All dimensions	All dimensions in meters											

Channel Description

Toe Width (m):	-99.99
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	-99.99

Plunge Pool								
Length (m):	10.00							
Max Depth (m):	2.00							
OHW Width (m):	15.00							

Fill Depth (m):	-999.90

Road

Assessment Results

Barrier:	Yes	Passability (%): 0	Method:	Level A
Reason:	Slope	Fishway Present: No	Recheck:	

Comments

Masonry (brick) w/C	PC cladding. Hi	gh velocity sheet flow.		
Species				
Sockeye Pink	Chum Chir	nook 🔲 Coho 📄 Steelhead 🛄	Sea Run Cutthroat 🗹 Re	sident Trout 🔲 Bull Trout
Potential Habitat Ga	in			
Survey Type:		Spawning (sq m):	L	.ength (m):
Significant Reach:	Yes	Rearing (sq m):	F	PI Total

	201					
Site ID: 940		Facility				
	96125963		arris Cr			07.0502
Longitude: -121	1.57168888	Tributary To: S	F Snoqualmie	R Fis	sh Use Potential:	Yes
Location						
Iron Horse State	e Park Trail					
Data Source						
Organization:	Washington Departm	ent of Fish and V	Vildlife			
Field Crew:	Romero;Schmidt			24/2007		
	Romero, Ochimat			24/2007		
	Culvert Details			Level A Para	meters	
ID Shape Mate	<u>erial Span Rise L</u>	<u>ength WDIC Ap</u>	ron <u>WSDrop Le</u>	ocation Countersu	nk Backwater S	<u> Slope (%)</u>
1.1 ARCH CI	PC 2.38 2.38 -9	99.90 0.04 E	3E 2.15	Outlet No		-99.99
All dimensions in me	eters					
	_				_	
Channel Descrip			e Pool		Road	
Toe Width (m):	-99.	99 Leng	gth (m):	16.00	Fill Depth (m):	15.00
Average Width	(m): -99.	99 Max	Depth (m):	1.60		
Culvert/Stream	Width Ratio: -99.	99 OHV	V Width (m):	9.00		
Assessment Re	sults					
Barrier:	Yes Pas	sability (%):	0	Method:	Level	Α
Reason: W		nway Present:	No	Recheck:		
		- <u> </u>				
Comments						
CC bottomed a	rch					
Species						
Sockeye	Pink 🔳 Chum 🔳 Chin	ook 🔲 Coho 🔲 S	steelhead 🔳 Sea	Run Cutthroat 🖌	Resident Trout	Bull Trout
Potential Habita	t Gain					
Survey Type:		Spawning	(sq m):		Length (m):	
Significant Rea	ch: Yes	Rearing (s	sq m):		PI Total	
	<u> </u>		L			

Site ID: 940210						
Site ID: 940210 Latitude: 47.40107	72444	Facility Stream:	Rock Cr		WRIA:	07.0501
Longitude: -121.581			SF Snoqualr	nio P	Fish Use Potentia	
	003700	Thoulary TO.	SF Shoquali		FISH USE FUIEIIlla	i. 165
Location Iron Horse State Pa	rk Trail					
Data Source						
Organization: Was	shington Departn	nent of Fish and	d Wildlife			
Field Crew: Ron	nero;Schmidt	5	Survey Date:	10/24/2007		
[Culvert Detaile				Deremotore	
	Culvert Details					
<u>ID</u> <u>Shape</u> <u>Material</u> 1.1 ARCH CPC	-	<u>ength</u> <u>WDIC</u> 999.90 0.05	Apron <u>WSDro</u> BE 1.70	<u>D</u> Location Col	<u>untersunk</u> <u>Backwater</u> No	<u>Slope (%)</u> -99.99
All dimensions in meters	2.50 2.00 -	0.05	DE 1.70	Outlet	NO	-99.99
All dimensions in meters						
Channel Description		Plu	nge Pool		Road	
Toe Width (m):	<u> </u>		ength (m):	4.20	Fill Depth (m)	: 11.00
Average Width (m):	-99.		ax Depth (m):	0.50		. 11.00
Culvert/Stream Wid			HW Width (m)			
Culvert/Stream vilu		62 O		: 6.50		
Assessment Results	6					
Barrier: Yes	Pa	ssability (%):	0	Meth	nod: Leve	el A
Reason: WS D	rop Fis	hway Present:	No	Rec	heck:	
Comments						
Species						
-	Chum 🔲 Chir	ook 🔲 Coho 🗖	Steelhead	Sea Run Cutthro	oat 🖌 Resident Trout	Bull Trout
Potential Habitat Ga	in	1				
Survey Type:	L	Spawni	ng (sq m):		Length (m):	
Significant Reach:	Yes	Rearing	(sq m):		PI Total	

Site ID: 940	226	Fac	cility						
	255996809		eam:	unnan	ned		WRIA	٨:	19
Longitude: -124			outary To:					Use Potentia	
Location Hoko R/Cowan	Ranch State	Park							
Data Source									
Organization:	Washington	Department o	of Fish and	d Wildlif	е				
Field Crew:	Romero;Sch	nmidt		Survey [Date: 1	0/07/2007			
	Culvert	t Details				Level	A Parame	ters	
<u>ID</u> Shape Mat	<u>erial Span</u>	Rise Length		Apron		Location Co	<u>ountersunk</u>	Backwater	Slope (%)
1.1 RND C	ST 0.61	0.61 8.90	0.02	NO	1.20	Outlet	No		7.17
All dimensions in m	eters								
Channel Descri	ption		Plu	inge Po	ol		Ro	bad	
Toe Width (m):		0.4	Lŧ	ength (n	n):	1.60	F	ill Depth (m)	: 2.00
Average Width	(m):	-99.99	М	lax Dept	th (m):	0.27			
Culvert/Stream	Width Ratio:	: 1.53	0	HW Wi	dth (m):	1.40			
Assessment Re	sults								
Barrier:	Yes	Passabi	lity (%):	0)	Me	ethod:	Leve	el A
Reason: W	VS Drop	Fishway	Present:	No	0	Re	check:		
Comments									
Also has an inte	erior slope br	eak.							
Species									
Sockeye	Pink 📃 Chum	n 📃 Chinook 🗌	📕 Coho 📃	Steelhe	ead 🔳 S	ea Run Cutth	iroat 🖌 Res	sident Trout	Bull Trout
Potential Habita	at Gain								
Survey Type:		SFS	Snawni	ing (sq r	n):	126	L	ength (m):	435

Survey Type:	RSFS	Spawning (sq m):	126	Length (m):	435
Significant Reach:	Yes	Rearing (sq m):	207	PI Total	2.02

Level A Culvert Assessment Report

Site ID: 940)231	Faci	lity					
Latitude: 48.	255334506	Strea	am:	unnamed		WF	RIA:	19
Longitude: -12	4.350315747	Tribu	utary To	: Little Hoko	R	Fis	h Use Potential:	No
ocation								
Hoko R/Cowar	Ranch State	Park						
Data Source								
Organization:	Washington	Department of	Fish ar	nd Wildlife				
Field Crew:	Romero;Sch	midt		Survey Date:	11/14/2007			
	Culvert	Details			Lev	el A Para	meters	
<u>ID Shape Ma</u> 1.1 RND C All dimensions in m	ST 0.46	<u>Rise</u> <u>Length</u> 0.46 -999.90		<u>Apron</u> <u>WSDr</u> -99.9		<u>Countersu</u> Unknowr		<u>ope (%)</u> 99.99
hannel Descri	ption		Pl	unge Pool			Road	
Toe Width (m)	:	-99.99	l	_ength (m):	-999.99		Fill Depth (m):	-999.90
Average Width	n (m):	-99.99	Г	Max Depth (m)	-99.99			
Culvert/Stream	n Width Ratio:	-99.99	(OHW Width (m): -999.99			
ssessment Re	esults							
Barrier:	N/A	Passabili	ty (%):	N/A	Ν	lethod:	N/A	
Reason:	N/A	Fishway	Present	No	F	lecheck:		
Comments								
species								
-								

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: 940	1722	Eccil	it. /		•			
)232 039252969	Facil Strea	•	unnamed		WRIA	<u>\</u> .	17
Longitude: -12				unnamed			Use Potential:	No
	0.0000001104		itary 10.			1 1311		
Location								
Sequim Bay St	ate Park							
Data Source								
Organization:	Washingtor	Department of	Fish and	l Wildlife				
Field Crew:	Romero;Sc	hmidt	S	Survey Date:	11/13/2007			
		t Details				A Parame		
ID Shape Mat		<u>Rise</u> Length	WDIC /		<u>b</u> Location Co			<u>ope (%)</u>
	ST 0.30	0.30 -999.90	-99.99	-99.99		Unknown	-!	99.99
All dimensions in m	ieters							
Channel Descri	ption		Plur	nge Pool		R	bad	
Toe Width (m)	:	-99.99	Le	ength (m):	-999.99	F	Fill Depth (m):	-999.90
Average Width	ı (m):	-99.99	Ma	ax Depth (m):	-99.99			
Culvert/Stream				HW Width (m)				
				()				
Assessment Re	sults							
Barrier:	N/A	Passabilit	y (%):	N/A	Me	thod:	N/A	
Reason:	N/A	Fishway F	Present:	No	Re	check:		
Comments								
Species								
Dotontial Uakita	of Coin							
Potential Habita								

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 940234	Facility					
Latitude: 48.248790519	Stream:	unnamed	V	/RIA:	19	
Longitude: -124.340778918	Tributary To:	Little Hoko R	F	Fish Use Potential: No		
Location						
Hoko R/Cowan Ranch State	Park					
Data Source						
Organization: Washington	Department of Fish and	Wildlife				
Field Crew: Romero;Sch	midt S	Survey Date: 1	1/14/2007			
Culvert	Details		Level A Par	ameters		
	<u>Rise Length WDIC 4</u> 0.46 -999.90 -99.99	Apron <u>WSDrop</u> -99.99	Location Counters Unknor		ope <u>(%)</u> 99.99	
Channel Description	Plur	nge Pool		Road		
Toe Width (m):	-99.99 Le	ength (m):	-999.99	Fill Depth (m):	-999.9	
Average Width (m):	-99.99 Ma	ax Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99 OI	HW Width (m):	-999.99			
Assessment Results						
Barrier: N/A	Passability (%):	N/A	Method:	N/A		
Reason: N/A	Fishway Present:	No	Recheck:			
Comments						
Species						
· I. · · · · · · · · ·						

Potential Habitat Gain Survey Type: Spawning (sq m): Significant Reach: N/A Rearing (sq m): PI Total

Level A Culvert Assessment Report

Site ID: 9402;	25	Ecol	ity .					
	35 0118167	Facil Strea	•	unnamed		\\/[RIA:	19
Longitude: -124.				Little Hoko	R		sh Use Potential:	No
					<u> </u>			
ocation								
Hoko R/Cowan F	Ranch State	Park						
Data Source								
Organization:	Vashington	Department of	Fish and	d Wildlife				
Field Crew:	Romero;Sch	midt	S	Survey Date:	11/14/2007			
	Culvert	Details			Leve	el A Para	meters	
ID Shape Mater	<u>ial Span</u>	Rise Length	<u>WDIC</u>	Apron WSDr	op Location (Countersu	nk Backwater Slo	<u>ope (%)</u>
1.1 RND CS	T 0.46	0.46 -999.90	-99.99	-99.9	9	Unknow	n -	99.99
All dimensions in met	ers							
hannel Descript	ion		Plu	nge Pool			Road	
Toe Width (m):		-99.99	Le	Length (m): -999.99			Fill Depth (m):	-999.90
Average Width (m):	-99.99	М	ax Depth (m)	: -99.99			
Culvert/Stream V	Vidth Ratio:	-99.99	0	HW Width (m	n): -999.99			
ssessment Resi	ults							
Barrier:	N/A	Passabili	ty (%):	N/A	М	ethod:	N/A	
Reason:	N/A	Fishway I	Present:	No	R	echeck:		
				L				
Comments								
Species								

Survey Type: Spawning (sq m): Length (m): Significant Reach: N/A Rearing (sq m): PI Total

Site ID: 940236		Facility				
Latitude: 48.2507	69528	Stream:	unnamed	V	/RIA:	19
Longitude: -124.34	4518632	Tributary To:	Little Hoko R	F	ish Use Potential:	No
Location						
Data Source						
Organization: Wa	shington Departr	nent of Fish and	d Wildlife			
Field Crew: Ro	mero;Schmidt		Survey Date: 1	1/14/2007		
	-Culvert Details			Level A Par	ameters	
<u>ID</u> Shape Material 1.1 RND CST All dimensions in meters	0.61 0.61 -	<u>ength</u> <u>WDIC</u> 999.90 -99.99	Apron WSDrop -99.99	Location Counters Unknow		<u>lope (%)</u> -99.99
Channel Description	n	Plu	nge Pool		Road	
Toe Width (m):	-99	.99 Le	ength (m):	-999.99	Fill Depth (m):	-999.90
Average Width (m)	: -99	.99 M	lax Depth (m):	-99.99		
Culvert/Stream Wid	dth Ratio: -99	.99 O	HW Width (m):	-999.99		
Assessment Result	S					
Barrier: N//	A Pa	ssability (%):	N/A	Method:	N/A	
Reason: N//	۹ Fis	shway Present:	No	Recheck:		
Comments						
Species						
Potential Habitat Ga	ain					
Survey Type:	-	Spawni	ng (sq m):		Length (m):	
Significant Reach:	N/A	Rearing	g (sq m):		PI Total	

Site ID: 940	237	Facility				
Latitude: 48.2	25137717	Stream:	unnamed		WRIA:	19
Longitude: -12	4.344919168	Tributary To:	Little Hoko R		Fish Use Potential:	No
Location						
Data Source						
Organization:	Washington Dep	artment of Fish and	d Wildlife			
Field Crew:	Romero;Schmidt		Survey Date: 1	1/14/2007		
	Culvert Deta	nils		Level A Pa	irameters	
	<u>erial Span Rise</u> ST 0.61 0.61 ^{eters}	Length WDIC -999.90 -99.99	<u>Apron</u> <u>WSDrop</u> -99.99	Location Counter Unkn		<u>ope (%)</u> 99.99
Channel Descri	ption	Plu	nge Pool		Road	
Toe Width (m)	:	-99.99 Le	ength (m):	-999.99	Fill Depth (m):	-999.90
Average Width	(m):	-99.99 M	lax Depth (m):	-99.99		
Culvert/Stream	Width Ratio:	·99.99 O	HW Width (m):	-999.99		
Assessment Re	sults					
Barrier:	N/A	Passability (%):	N/A	Method:	N/A	
Reason:	N/A	Fishway Present:	No	Rechecl	k:	
Comments						
Species						
Potential Habita Survey Type:	it Gain	Snawni	ng (sq m):		Length (m):]
Significant Rea	ich: N/A		g (sq m):		PI Total	
Signingant Rea	IUTI. N/A	Realing	y (sy m).		FIIUldi	

Site ID: 940		Facility				40	
Latitude: 48.254206764 Longitude: -124.347922271		Stream			VRIA:	19	
Longitude: -124	4.347922271	I ributa	ry To: Little Hoko R	F	ish Use Potential:	No	
Location							
Data Source							
Organization:	Washington I	Department of Fi	sh and Wildlife				
Field Crew:	Romero;Schr	•		11/14/2007			
	Culvert I	Details		Level A Par	ameters		
<u>ID</u> Shape Mat	<u>erial Span I</u>	<u>Rise Length V</u>	VDIC Apron WSDrop	Location Counters	sunk Backwater Slo	ope (%)	
1.1 RND C	ST 0.46 (0.46 -999.90 -9	99.99 -99.99	Unkno	wn -9	99.99	
All dimensions in m	eters						
Channel Descri	·		Plunge Pool		Road		
Toe Width (m):		-99.99	Length (m):	-999.99	Fill Depth (m):	-999.90	
Average Width	(m):	-99.99	Max Depth (m):	-99.99			
Culvert/Stream	Width Ratio:	-99.99	OHW Width (m):	-999.99			
Assessment Re	sults						
Barrier:	N/A	Passability ((%): N/A	Method:	N/A		
Reason:	N/A	Fishway Pre	esent: No	Recheck			
Comments							
Species							
	(O - 1 - 1						
Potential Habita	t Gain	~					
Survey Type:			Spawning (sq m):		Length (m):		
Significant Rea	ich: N//	A R	Rearing (sq m):		PI Total		

Level A Culvert Assessment Report

Site ID: 940244	Facility		
Latitude: 47.553198447	Stream: unnamed ditch	WRIA: 08	
Longitude: -122.067695935	Tributary To: Tibbitts Cr	Fish Use Potential: Yes	
Location			
Lake Sammamish State Park. M	lain park entrance road.		

Data Source

Organization:	n: Washington Department of Fish and Wildlife									
Field Crew:	w: Romero;Schmidt Survey Date: 11/28/2007						7			
Culvert Details Level A Parameters										
ID Shape Mat	terial <u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDro	p Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>

NO

0.55

0.00

Yes

1.1 BOX CPC 3.05 1.85 17.80 All dimensions in meters

Channel Description	Plung	e Pool		Road			
Toe Width (m):	2.3	Leng	gth (m):	-999.99		Fill Depth (m):	1.00
Average Width (m):	-99.99	Max	Depth (m):	-99.99			
Culvert/Stream Width Ratio:	1.33	OHV	V Width (m):	-999.99			

Assessment Results

Barrier:	No	Passability (%):	100	Method:	Level A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Spec	cies
	Sockeye 🔲 Pink 🔲 Chum 📄 Chinook 🖌 Coho 🖌 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 🔲 Bull Trout

Potential Habitat Gain

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

-0.07

Level A Culvert Assessment Report

Site ID:	940248	Facility			
Latitude:	47.556740916	Stream:	isolated wetland	WRIA:	08
Longitude:	-122.063441396	Tributary To:		Fish Use Potential:	No

Location

Lake Sammamish State Park. Beach parking lot.

Data Source

Organization: Washington Department of Fish and Wildlife											
Field Crew:	Rom	ero;Sc	hmidt			Survey	Date: 1	1/28/200	7		
	(Culver	t Detai	ls				Lev	el A Parame	ters	
<u>ID Shape Ma</u>	terial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND F	20°	0.61	0.61	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description			Plunge Pool			Road	
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	-999.90
Average Width (m):	-99.99		Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

photo taken US end.		

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Latitude: 47.319703577 Stream: unnamed WRIA: 10 Longitude: -122.413715082 Tributary To: Puget Sound Fish Use Potential: Yes Location	Site ID: 940254	Equility (·		
Longitude: -122.413715082 Tributary To: Puget Sound Fish Use Potential: Yes Location Dash Point State Park Dash Point State Park Data Source Organization: Washington Department of Fish and Wildlife		•	unnamed	V	RIA	10
Location Dash Point State Park Data Source Organization: Washington Department of Fish and Wildlife Field Crew: Romero;Schmidt Survey Date: 11/29/2007 Data Source Culvert Details Level A Parameters DShape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 ARCH CPC 6.10 2.32 14.60 0.12 NO 0.00 Yes 1.17 Alt dimensions in meters Channel Description Plunge Pool Road Fill Depth (m):999.99 Culvert/Stream Width Ratio:3.59 OHW Width (m):999.99 Culvert/Stream Width Ratio:3.59 OHW Width (m):999.99 Culvert/Stream Width Ratio:3.59 Assessment Results Barrier: No Passability (%):0 Method:Resident TroutReason:NA Fishway Present: No Recheck:Comments Species Species Species Sockeye [Pink Chum Chinock [v] CohoSteelhead Sea Run Cutthroat [v] Resident TroutBull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):						-
Dash Point State Park Data Source Organization: Washington Department of Fish and Wildlife Field Crew: Romero;Schmidt Survey Date: 11/29/2007 Culvert Details Level A Parameters	Longitude122.413713002	Thouary To.	Fuget Sound			163
Data Source Organization: Washington Department of Fish and Wildlife Field Crew: Romero;Schmidt Survey Date: 11/29/2007 Culvert Details Level A Parameters JD Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 ARCH CPC 6.10 2.32 14.60 0.12 NO 0.00 Yes 1.17 Ald dimensions in meters Plunge Pool Road Road Fill Depth (m): 1.00 Toe Width (m): 1.7 Average Width (m): -99.99 OHW Width (m): -99.99 Fill Depth (m): 1.00 Average Width (m): 9.99.99 OHW Width (m): -99.99 OHW Width (m): 1.00 Average Width (m): 1.7 Average Night (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck: Image: Comments Species Species Sockeye Pink Chum Chincok C Coho Steelhead Sea Run Cuthroat [2] Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m): Length (m): Length (m): Length (m):	Location					
Organization: Washington Department of Fish and Wildlife Field Crew: Romero;Schmidt Survey Date: 11/29/2007 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 ARCH CPC 6.10 2.32 14.60 0.12 NO 0.00 Yes 1.17 All dimensions in meters Image Pool Road Road Fill Depth (m): 1.00 Toe Width (m): 1.7 Average Width (m): -99.99 OHW Width (m): -99.99 OHW Width (m): -99.99 Culvert/Stream Width Ratio: 3.59 OHW Width (m): -99.99 OHW Width (m): 1.00 Assessment Results Barrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck:	Dash Point State Park					
Organization: Washington Department of Fish and Wildlife Field Crew: Romero;Schmidt Survey Date: 11/29/2007 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 ARCH CPC 6.10 2.32 14.60 0.12 NO 0.00 Yes 1.17 All dimensions in meters Image Pool Road Road Fill Depth (m): 1.00 Toe Width (m): 1.7 Average Width (m): -99.99 OHW Width (m): -99.99 OHW Width (m): -99.99 Culvert/Stream Width Ratio: 3.59 OHW Width (m): -99.99 OHW Width (m): 1.00 Assessment Results Barrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck:						
Field Crew: Romero; Schmidt Survey Date: 11/29/2007	Data Source					
Field Crew: Romero; Schmidt Survey Date: 11/29/2007	Organization: Washington De	partment of Fish and	d Wildlife			
Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Stope (%) 1.1 ARCH CPC 6.10 2.32 14.60 0.12 NO 0.00 Yes 1.17 All dimensions in meters Plunge Pool Road Road Fill Depth (m): 1.00 Toe Width (m): 1.7 Average Width (m): -999.99 Max Depth (m): -999.99 Fill Depth (m): 1.00 Average Width (m): -99.99 OHW Width (m): -999.99 OHW Width (m): 1.00 Assessment Results Barrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck: Seccees Species Species Seckeye Pink Chum Chinook V Coho Steelhead Sea Run Cutthroat V Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m): Length (m): Length (m):				1/20/2007		
ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 ARCH CPC 6.10 2.32 14.60 0.12 NO 0.00 Yes 1.17 All dimensions in meters Channel Description Plunge Pool Road Fielder (M): 1.00 Toe Width (m): 1.7 Average Width (m): -99.99 OHW Width (m): -99.99 OHW Width (m): -99.99 OHW Width (m): -999.99 OHW Width (m): 1.00 Method: Level A Reason: NA Fishway Present: No Recheck: Comments Comments Comments Comments Comments Comments Cohe is Steelhead is Sea Run Cuthroat is Resident Trout is Bull Trout Bull Trout Potential Habitat Gain Spawning (sq m): Length (m): Length (m):	Romero;Schmid		Survey Date.	1/29/2007		
ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 ARCH CPC 6.10 2.32 14.60 0.12 NO 0.00 Yes 1.17 All dimensions in meters Channel Description Plunge Pool Road Fielder (M): 1.00 Toe Width (m): 1.7 Average Width (m): -99.99 OHW Width (m): -99.99 OHW Width (m): -99.99 OHW Width (m): -999.99 OHW Width (m): 1.00 Method: Level A Reason: NA Fishway Present: No Recheck: Comments Comments Comments Comments Comments Comments Cohe is Steelhead is Sea Run Cuthroat is Resident Trout is Bull Trout Bull Trout Potential Habitat Gain Spawning (sq m): Length (m): Length (m):	Culvert De	tails		Level A Par	ameters	
1.1 ARCH CPC 6.10 2.32 14.60 0.12 NO 0.00 Yes 1.17 All dimensions in meters Channel Description Plunge Pool Road Toe Width (m): 1.7 .99.99 Max Depth (m): -99.99 Average Width (m): -99.99 Max Depth (m): -99.99 Fill Depth (m): 1.00 Average Width Ratio: 3.59 Max Depth (m): -99.99 OHW Width (m): -99.99 OHW Width (m): -99.99 Culvert/Stream Width Ratio: 3.59 OHW Width (m): -999.99 OHW Width (m): -999.99 Assessment Results Earrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck: Comments Species Species Sockeye Pink © Chum © Chinook 🗹 Coho © Steelhead © Sea Run Cutthroat 🖉 Resident Trout © Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):			Apron WSDrop			lope (%)
All dimensions in meters All dimensions in meters Plunge Pool Road Toe Width (m): 1.7 Length (m): -99.99 Average Width (m): -99.99 Max Depth (m): -99.99 Culvert/Stream Width Ratio: 3.59 OHW Width (m): -999.99 Assessment Results Barrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck:						
Channel Description Plunge Pool Road Toe Width (m): 1.7 Average Width (m): -99.99 Culvert/Stream Width Ratio: 3.59 Assessment Results Barrier: No Passability (%): 100 Method: Level A Reason: N/A Pishway Present: No Recheck:						
Toe Width (m): 1.7 Average Width (m): -99.99 Average Width (m): -99.99 Culvert/Stream Width Ratio: 3.59 Assessment Results Barrier: Barrier: No Passability (%): 100 Max Depth (m): -999.99 Assessment Results Barrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck:						
Average Width (m):	Channel Description	Plu	nge Pool		Road	
Culvert/Stream Width Ratio: 3.59 OHW Width (m): -999.99 Assessment Results Barrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck:	Toe Width (m):	1.7 Le	ength (m):	-999.99	Fill Depth (m):	1.00
Culvert/Stream Width Ratio: 3.59 OHW Width (m): -999.99 Assessment Results Barrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck:	Average Width (m):	-99.99 M	ax Depth (m):	-99.99		
Assessment Results Barrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck: Comments Species Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):			• • • •			
Barrier: No Passability (%): 100 Method: Level A Reason: N/A Fishway Present: No Recheck: Comments Species Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):						
Reason: N/A Fishway Present: No Recheck: Comments Species Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):	Assessment Results					
Reason: N/A Fishway Present: No Recheck: Comments Species Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):	Barrier: No	Passability (%):	100	Method:	Level	A
Comments Species Sockeye Pink Chum Coho Sockeye Pink Chum Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m): Length (m):	Reason: N/A		No	Recheck:		
Species Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):		•				
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):	Comments					
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):						
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):						
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):						
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat Resident Trout Bull Trout Potential Habitat Gain Survey Type: Spawning (sq m): Length (m):	Snecies					
Potential Habitat Gain Survey Type:						
Survey Type: Spawning (sq m): Length (m):	Sockeye Pink Chum	Chinook 🖌 Coho 🔳	Steelhead 🔲 S	ea Run Cutthroat 🖌	Resident Trout	Bull Trout
Survey Type: Spawning (sq m): Length (m):						
	Potential Habitat Gain					
Significant Reach: Yes Rearing (sg m): PI Total	Survey Type:	Spawni	ng (sq m):		Length (m):	
	Significant Reach: Yes	Rearing	a (sa m):		PI Total	

Level A Culvert Assessment Report

Site ID:	940257	Facility			
Latitude:	47.319329403	Stream:	unnamed	WRIA:	10
Longitude:	-122.413368226	Tributary To:	unnamed	Fish Use Potential:	No

Location

Dash Point State Park. Trail from parking lot to beach.

Data Source

Organization:	Washington								
Field Crew: Romero;Schmidt Survey Date: 11/29/2007									
	Culvert Details Level A Parameters								
<u>ID Shape Ma</u>	terial <u>Span</u>	Rise Length	WDIC Apror	WSDrop Location	Countersunk	Backwater	<u>Slope (%)</u>		
1.1 RND C	CAL 0.30	0.30 -999.90	-99.99 NO	-99.99	Unknown		-99.99		

All dimensions in meters

Channel Description		Plunge Pool		_	Road	
Toe Width (m):	-99.99	Length (m):	-999.99		Fill Depth (m):	-999.90
Average Width (m):	-99.99	Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

submerged at DS end		

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940258	Facility			
Latitude:	47.318475969	Stream:	unnamed	WRIA:	10
Longitude:	-122.413406157	Tributary To:	Puget Sound	Fish Use Potential:	Yes

Location

Dash Point State Park. Culvert under road to beach access parking lot.

Data Source

Organization:	rganization: Washington Department of Fish and Wildlife										
Field Crew: Romero;Schmidt Survey Date: 11/29/2007							•				
Culvert Details Level A Parameters											
<u>ID</u> Shape Ma	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
11 ARCH (CPC	6 1 1	1 27	11 70	0 10	NO	0.00		Yes		-1 10

All dimensions in meters

Channel Description		Plunge Pool		Road	
Toe Width (m):	1.7	Length (m):	-999.99	Fill Depth (m):	0.00
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	3.59	OHW Width (m):	-999.99		

Assessment Results

Barrier:	No	Passability (%):	100	Method:	Level A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species	
Sockeye Pink Chum Chinook 🗸 Coho Steelhead Sea Run Cutthroat 🖌 Resident Trout Bull Trout	
Potential Habitat Gain	

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

Site ID:	940259		Facil	it.		•			
Latitude:	940259 47.31831846		Strea	•	unnamed		WR	۱۵۰	10
	-122.4135697				unnamed			Use Potential:	No
Longitudo	122.410000		11100	itary ro.	annanica				
Location									
Dash Poir	t State Park								
Data Sourc	e								
Organizat	ion: Washing	ton Depa	rtment of	Fish and	Wildlife				
Field Crev	v: Romero	Schmidt		S	Survey Date:	11/29/2007			
	Culv	vert Detai	le				el A Param	otors	
ID Shape			Length	WDIC A	Apron WSDr	op Location			lope (%)
1.1 RND	CST 0.6		-999.90	-99.99	-99.9	•	Unknown		-99.99
All dimensior	is in meters								
Channel De	escription			Plur	nge Pool		F	Road	
Toe Width	ו (m):	-9	99.99	Le	ngth (m):	-999.99		Fill Depth (m):	-999.90
Average \	Vidth (m):	-9	99.99	Ma	ax Depth (m)	: -99.99			
Culvert/St	ream Width Ra	atio: -9	99.99	OF	HW Width (m	n): -999.99			
Assessme	nt Results								
Barrier:	N/A		Passabilit	v (%):	N/A	N	lethod:	N/A	
Reason:	N/A		Fishway F	• • •	No		echeck:		
			-				L		
Comments	j								
·									
Species									
Potential H	abitat Gain								

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940267	Facility			
Latitude:	47.275466353	Stream:	Deep Cr	WRIA:	09.0142
Longitude:	-121.937435977	Tributary To:	Deep Lk	Fish Use Potentia	l: Yes

Location

Nolte State Park. At NE section of trail around lake.

Data Source

Organization:	rganization: Washington Department of Fish and Wildlife										
Field Crew: Romero;Schmidt Survey Date: 12/04/2007					7						
Culvert Details Level A Parameters											
ID Shape Ma	terial Sr	ban	Rise	Lenath	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)

שו	<u>Snape</u>	Material	<u>Span</u>	<u>Rise</u>	Length	<u>vvDiC</u>	<u>Apron</u>	<u>WSDrop</u> L	ocation	Countersunk	Backwater	<u>Slope (%)</u>	
1.1	RND	SST	1.91	1.72	4.30	0.40	NO	0.00		No		3.02	
All dir	nensions	in meters											

Channel Description			Plunge Pool			Road		
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	-999.90	
Average Width (m):	-99.99		Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99				

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

dangerously high flow, velocity at time of visit. Need to get channel measurements and photo.
Species
🔲 Sockeye 🔲 Pink 🔳 Chum 📄 Chinook 🔳 Coho 📄 Steelhead 📄 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940277	Facility			
Latitude:	48.092442371	Stream:	unnamed	WRIA:	17
Longitude:	-122.694951912	Tributary To:	unnamed	Fish Use Potential:	No

Location

Fort Flagler State Park, road to gun emplacement/beach trail at eastern shore.

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife									
Field Crew: Romero;Schmidt Survey Date: 12/13/2007						7				
	Culver	t Detai	ls —				Lev	vel A Parame	ters	
<u>ID Shape Ma</u>	aterial <u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND (CST 0.46	0.46	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description		Plunge Pool		Road	Road		
Toe Width (m):	-99.99	Length (m):	-999.99	Fill Depth (m):	-999.90		
Average Width (m):	-99.99	Max Depth (n	n): -99.99				
Culvert/Stream Width Ratio:	-99.99	OHW Width (m): -999.99				

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940278	Facility			
Latitude:	48.093159146	Stream:	unnamed	WRIA:	17
Longitude:	-122.696397918	Tributary To:	unnamed	Fish Use Potential:	No

Location

Fort Flagler State Park, road to gun emplacement, beach trail at eastern shore

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife								
Field Crew:	Romero;S	chmidt			Survey	Date: 12/13/200	7		
Culvert Details Level A Parameters									
<u>ID</u> <u>Shape</u> <u>Ma</u>	terial Span	Rise	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>

Channel Description

All dimensions in meters

Toe Width (m):	-99.99
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	-99.99

	Plunge Pool
9.99	Length (m):
9.99	Max Depth
9.99	OHW Widtl

•	
Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Road Fill Depth (m): -999.90

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 940	302	Facili	ty					
Latitude: 47.2	257393955	Strea	im:	unnamed		WRIA:		15
Longitude: -122	2.749492243	Tribu	tary To:	Puget Sound		Fish Use F	Potential:	No
Location								
Penrose Point	State Park, ca	mpground loop	road.					
Data Source								
Organization:	Washington	Department of	Fish an	d Wildlife				
Field Crew:	Romero			Survey Date: 0	3/01/2012			
	Culvert					Parameters		
ID Shape Mat	-	<u>Rise</u> Length		Apron WSDrop				<u>ope (%)</u>
1.1 RND O	TH 0.30	0.30 -999.90	-99.99	-99.99	U	nknown	-(99.99
All dimensions in m	eters							
Channel Descri	ption		Plu	inge Pool		Road		
Toe Width (m):		-99.99	L	ength (m):	-999.99	Fill De	epth (m):	-999.90
Average Width	(m):	-99.99	Ν	lax Depth (m):	-99.99			
Culvert/Stream	Width Ratio:	-99.99	C	HW Width (m):	-999.99			
Assessment Re			(2())		• • •			
Barrier:	N/A	Passabilit		N/A	Meth		N/A	
Reason:	N/A	Fishway F	Present:	No	Rech	neck:		
Comments								
US end is RND	PCC, DS en	d is RND CAL						
	,							
Species								

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 940303	Facility				
Latitude: 47.256680226	Stream:	unnamed	W	RIA:	15
Longitude: -122.75012279	7 Tributary	To: Puget Sound	Fis	sh Use Potential:	Νο
Location					
Penrose Point State Park,	campground loop roa	d			
Data Source					
Organization: Washington	on Department of Fish	and Wildlife			
Field Crew: Romero		Survey Date: 0	3/01/2012		
Culve	ert Details		Level A Para	meters	
<u>ID Shape Material Span</u>	<u>Rise Length WD</u>	IC Apron WSDrop	Location Countersu	ink <u>Backwater</u> Sl	<u>ope (%)</u>
1.1 RND CAL 0.30	0.30 -999.90 -99.	99 -99.99	Unknow	n -	99.99
All dimensions in meters					
Channel Description		Plunge Pool		Road	
Toe Width (m):	-99.99	Length (m):	-999.99	Fill Depth (m):	-999.90
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Rat	o: -99.99	OHW Width (m):	-999.99		
Assessment Results					
Barrier: N/A	Passability (%): N/A	Method:	N/A	
Reason: N/A	Fishway Prese	ent: No	Recheck:		
Comments					
comments					
Species					

Survey Type:	Spawning (sq m):	Length (m):
Significant Reach: N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940304	Facility			
Latitude:	47.25674662	Stream:	unnamed	WRIA:	15
Longitude:	-122.750018744	Tributary To:	Puget Sound	Fish Use Potential:	No

Location

Penrose Point State Park. Campground loop road. Culvert under camp site #17. *m DS of 940303.

Data Source

Organizatio	Organization: Washington Department of Fish and Wildlife									
Field Crew	Ron	Romero Survey Date: 03/01/2012						012		
-										
		Culver	t Detai	ls		<u> </u>	Level A Parameters			
ID Shape	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Locati	on <u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	PCC	0.30	0.30	-999.90	-99.99	NO	-99.99	Unknown		-99.99
All dimensions in meters										

Channel Description

Toe Width (m):	-99.99
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	-99.99

	Plunge Pool
9.99	Length (m):
9.99	Max Depth
9.99	OHW Widtl

0	
Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Road Fill Depth (m): -999.90

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940305	Facility			
Latitude:	47.257886621	Stream:	unnamed	WRIA:	15
Longitude:	-122.748902947	Tributary To:	Puget Sound	Fish Use Potential:	Yes

Location

Penrose Point State Park. Enter park on 158th Ave KP S. Follow 158th to end. Culvert is 30m to the left on road to parking lot.

Data Source

Organization: Washington Department of Fish and Wildlife										
Field Crew:	Romero Survey Date: 03/01/2012						2			
Culvert Details							vel A Parame	ters —		
	ount	Tt Dota								
<u>ID Shape M</u>	aterial Span			<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>		<u>Countersunk</u>		Slope (%)

All dimensions in meters

Channel Description	Plunge Pool				Road		
Toe Width (m):	0.55	Length	ı (m):	3.10		Fill Depth (m):	1.50
Average Width (m):	1.95	Max D	epth (m):	0.16			
Culvert/Stream Width Ratio:	0.15	OHW	Width (m):	2.00			

Assessment Results

Barrier:	Yes	Passability (%):	67	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

Species
🔲 Sockeye 🔲 Pink 🔄 Chum 📄 Chinook 📄 Coho 📄 Steelhead 🔲 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout

Survey Type:	RSFS	Spawning (sq m):	4	Length (m):	74
Significant Reach:	No	Rearing (sq m):	98	PI Total	1.07

Level A Culvert Assessment Report

Site ID:	940306	Facility			
Latitude:	47.258309919	Stream:	unnamed	WRIA:	15
Longitude:	-122.748715205	Tributary To:	Puget Sound	Fish Use Potential:	Yes

Location

Penrose Point State Park. Culvert under trail that connects mooreage dock and day-use area.

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife										
Field Crew:	Rom	nero				Survey	Date:	03/01/2012	2		
Culvert Details Level A Parameters											
<u>ID</u> Shape Ma	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	<u>Location</u>	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND (CAL	0.30	0.30	6.10	0.18	NO	0.00		No	Yes	1.39

Channel Description

All dimensions in meters

-	
Toe Width (m):	0.75
Average Width (m):	1.95
Culvert/Stream Width Ratio:	0.15

	Plunge Pool
0.75	Length (m):
1.95	Max Depth
0.15	OHW Width

Road

0.00

-99.99

-999.99

Fill Depth (m):	1.00

Assessment Results

Barrier:	Unknown	Passability (%):	Unknown	Method:	Level A
Reason:	Level B Required	Fishway Present:	No	Recheck:	

Max Depth (m):

OHW Width (m):

Comments

Pipe is backwatered by a fallen tree across the channel. Level B not possible under current conditions.
Species
🔲 Sockeye 🔲 Pink 🔲 Chum 📄 Chinook 🔲 Coho 📄 Steelhead 📄 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout
Potential Habitat Gain

Survey Type:	RSFS	Spawning (sq m):	1	Length (m):	37
Significant Reach:	No	Rearing (sq m):	40	PI Total	1.01

Level A Culvert Assessment Report

Site ID: 940307	Facility			
Latitude: 47.258815053	Stream: u	nnamed	WRIA:	15
Longitude: -122.740788811	Tributary To: P	uget Sound	Fish Use Potential:	No
Location				
Penrose Point State Park. Culver	t under trail to Penro	se Point.		
Data Source				
Organization: Washington Depa	artment of Fish and V	Vildlife		
Field Crew: Romero	Sur	rvey Date: 03/01/201	2	
Culvert Deta	ils —	Le	vel A Parameters	
ID Shape Material Span Rise	Length WDIC Ap	ron WSDrop Location	Countersunk Backwater	<u> Slope (%)</u>
1.1 RND PCC 0.46 0.46		IO -99.99	Unknown	-99.99
All dimensions in meters				
Okannal Decemintian	Diama	- De el	Road	
Channel Description	Plung	e Pool	Kudu	
Channel Description Toe Width (m):		gth (m): -999.9		-999.90
Toe Width (m):	99.99 Lenç	gth (m): -999.9	Fill Depth (m):	-999.90
Toe Width (m):	99.99 Leng 99.99 Max		Fill Depth (m):	-999.90
Toe Width (m): - Average Width (m): - Culvert/Stream Width Ratio: -	99.99 Leng 99.99 Max	gth (m): -999.9 Depth (m): -99.9	Fill Depth (m):	-999.90
Toe Width (m):	99.99 Leng 99.99 Max	gth (m): -999.9 Depth (m): -99.9	Fill Depth (m):	

Comments

DS end section broken and disconnected.	ĺ						

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

	308	Facility						
Latitude: 47.	480008599	Stream:		unnamed		WF	RIA:	15
Longitude: -12	2.68711889	Tributary	To:	Square Lk		Fis	h Use Potential:	No
ocation								
Square Lake S	tate Park. Culve	ert under trail at S	South	end of Lake.				
Data Source								
Organization:	Washington D	epartment of Fish	n and	Wildlife				
Field Crew:	Erkel;Romero		S	urvey Date: 0	1/15/2008			
	Culvert D	etails			Level	A Para	neters	
<u>ID</u> Shape Ma	<u>terial Span Ri</u>	<u>se Length WD</u>	DIC A	pron WSDrop	Location C	ountersu	nk <u>Backwater</u> <u>Sl</u>	ope (%)
1.1 RND C	ST 0.38 0.	38 -999.90 -99	.99	NO -99.99		Unknowr	n -	99.99
All dimensions in m	ieters							
Channel Descri	ption		Plun	ige Pool			Road	
Toe Width (m)	:	-99.99	Le	ngth (m):	-999.99		Fill Depth (m):	-999.90
	ı (m):	-99.99	Ма	ax Depth (m):	-99.99			
Average Width				,				
Average Width Culvert/Stream	Width Ratio:	-99.99	OF	IW Width (m):	-999.99			
e		-99.99	OF	IW Width (m):	-999.99			
Culvert/Stream		-99.99 Passability (%		IW Width (m):		thod:	N/A	

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940310	Facility			
Latitude:	47.608140184	Stream:	unnamed	WRIA:	16
Longitude:	-122.985590834	Tributary To:	Hood Canal	Fish Use Potential:	No

Location

Triton Cove State Park. Culvert runs from shoulder of US101 to shoreline, under entrance road.

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife										
Field Crew:	Erkel;	Erkel;Romero Survey Date: 01/07/2008						3			
Culvert Details Leve								vel A Parame	ters		
<u>ID</u> <u>Shape</u> <u>Ma</u>	atorial S	Span	Rise	l enath	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
	<u>ateriai</u> <u>c</u>	pan	1100	<u>congai</u>		<u>p. o</u>		Looution	Counterballic	Buokwater	

Channel Description

All dimensions in meters

Toe Width (m):	-99.99
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	-99.99

Plunge Pool	
Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Road Fill Depth (m): -999.90

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

US end is in collection box at DS end of 999583	

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

					-			
)311 665122014	Facility		un un a un a d		WRI	۸.	16
		Strean		nnamed				-
Longitude: -12	2.912923184		ary to. F	lood Canal		FISH	Use Potential:	No
_ocation								
Pleasant Harb	or State Park.							
Data Source								
Organization:	Washington	Department of F	ish and V	Vildlife				
Field Crew:	Erkel;Romer	0	Su	rvey Date: 0	1/07/2008			
	Culvert	Details			Level	A Param	eters	
ID Shape Ma	terial <u>Span</u>	Rise Length	<u>WDIC</u> Ap	oron WSDrop	Location Co	ountersunk	Backwater SI	<u>ope (%)</u>
1.1 RND F	PCC 0.61	0.61 -999.90 -	-99.99 N	NO -99.99		Unknown	-	99.99
All dimensions in m	neters							
Channel Descri	ption		Plunc	e Pool		R	oad	
Toe Width (m)	•	-99.99		gth (m):	-999.99		Fill Depth (m):	-999.90
Average Width	n (m):	-99.99	Max	Depth (m):	-99.99			
Culvert/Stream				Width (m):	-999.99			
Assessment Re	esults							
Barrier:	N/A	Passability	(%):	N/A	Ме	thod:	N/A	
Reason:	N/A	Fishway Pr	esent:	No	Re	check:		
Comments								
Species								
10000								
Potential Habita	at Gain							

Survey Type:	Spawning (sq m):	Length (m):
Significant Reach: N//	A Rearing (sq m):	PI Total

	Le	ver A Guivert AS	sessment Rep	Jon		
Site ID: 940312 Latitude: 47.6644 Longitude: -122.91	4797	Facility Stream: u Tributary To: H	innamed Iood Canal		VRIA: Fish Use Potential:	16 Yes
Location Pleasant Harbor St	ate Park. Culvert	under road to do	ck, NE of hairpi	in turn.		
Data Source						
Organization: Wa	ashington Departr	nent of Fish and \	Wildlife			
Field Crew: Erk	kel;Romero	Su	rvey Date: 01	1/07/2008		
	Culvert Details			Level A Pa	rameters	
<u>ID Shape Material</u> 1.1 RND CST All dimensions in meters	0.46 0.46	·	oron <u>WSDrop</u> NO 1.70	<u>Location</u> <u>Counter</u> Outlet No		<u>ope (%)</u> 22.51
Channel Description	n	Plung	ge Pool		Road	
Toe Width (m): Average Width (m) Culvert/Stream Wid	: -99	.99 Max	gth (m): < Depth (m): W Width (m):	-999.99 -99.99 -999.99	Fill Depth (m):	1.00
Assessment Result						
Barrier: Ye Reason: WS I		ssability (%): shway Present:	0 No	Method: Recheck	Level .	A
Comments						
Species						
Sockeye Pink	Chum 🔲 Chir	nook 🔲 Coho 🔲 S	Steelhead 🖌 Se	ea Run Cutthroat 🖌	Resident Trout	Bull Trout
Potential Habitat Ga	ain					
Survey Type:		Spawning	g (sq m):		Length (m):	
Significant Reach:	No	Rearing (sq m):		PI Total	

Level A Culvert Assessment Report

Site ID:	940313	Facility			
Latitude:	48.134177289	Stream:	unnamed wetland	WRIA:	17
Longitude:	-122.773524685	Tributary To:	unnamed pond	Fish Use Potential:	No

Location

30m E of "West Gate" where Admiralty St. becomes Eisenhower Ave.

Data Source

Organization	: Was	Vashington Department of Fish and Wildlife								
Field Crew:	Erke	el;Rome	ero			Survey	Date: 01/07/2008	3		
		Culver	t Detai	ls —			Lev	vel A Parame	ters	
<u>ID</u> <u>Shape</u> <u>N</u>	<u>laterial</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	OTH	0.46	0.46	-999.90	-99.99		-99.99	Unknown		-99.99
All dimensions in	meters									

Channel Description			Plunge Pool			Road	
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	-999.90
Average Width (m):	-99.99		Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Red brick/ceramic pipe.	Concrete headwall US and DS.
-------------------------	------------------------------

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

			Ourvent A	ssessment iv	cpon			
Site ID: 940	314	Fac	ility					
Latitude: 47.	577158112	Stre	eam:	unnamed		WRIA:		15
Longitude: -12	2.555389375	Trib	utary To:	Beaver Cr		Fish Use	Potential:	Yes
Location								
Manchester Sta	ate Park at pa	rk entrance ro	ad from E	. Hilldale Rd.				
Data Source								
Organization:	Washington	Department of	of Fish and	l Wildlife				
Field Crew:	Erkel;Rome	ro	S	Survey Date:	01/08/2008			
	Culvert	Details			Level	A Parameter	s	
<u>ID</u> Shape Mat	terial <u>Span</u>	Rise Length	WDIC /	Apron WSDrop	<u>Location</u> Co	untersunk Ba	ckwater S	lope (%)
1.1 RND C	ST 0.61	0.61 36.40	0.12	NO 0.00		No		1.37
All dimensions in m	eters							
Channel Descri	ption		Plur	nge Pool		Road		
Toe Width (m)	:	2.6	Le	ength (m):	3.60	Fill D	Depth (m):	1.50
Average Width	ı (m):	-99.99	Ma	ax Depth (m):	0.46			
Culvert/Stream	Width Ratio:	0.23	O	HW Width (m):	2.80			
Assessment Re	sults		L					
Barrier:	Yes	Passabi	lity (%):	33	Met	hod:	Level	A
Reason:	Slope	Fishway	Present:	No	Rec	heck:		
Comments								
Species								
-	Pink 🖌 Chum	n 🔲 Chinook 🕟	Coho 🔳	Steelhead 🖌	Sea Run Cutthr	oat 🖌 Reside	nt Trout	Bull Trout
Potential Habita	at Gain							
Survey Type:	RS	FS	Spawnir	ng (sq m):	38	Leng	gth (m):	858

Rearing (sq m):

2,389

PI Total

Significant Reach:

Yes

15.30

Level A Culvert Assessment Report

Site ID: 940	316	Fa	cility					
	573703886		eam:	unnamed		WRIA	A:	15
Longitude: -122	2.55533546	Tri	outary To:	Beaver Cr		Fish l	Use Potential:	Yes
Location Manchester Sta	ate Park servi	ce road to gr	oup camp					
Data Source								
Organization:	Washington	Department	of Fish an	d Wildlife				
Field Crew:	Erkel;Romer	0		Survey Date:	01/08/2008			
	Culvert	Details			Leve	I A Parame	eters	
<u>ID Shape Mat</u> 1.1 RND P [*] All dimensions in m	VC 0.91	<u>Rise</u> <u>Length</u> 0.91 5.80	<u>WDIC</u> 0.12	Apron WSD NO 0.0	rop <u>Location</u> <u>C</u> 0	Countersunk No	Backwater	<u>Slope (%)</u> 3.48
Channel Descri	otion		Plu	unge Pool		Ro	bad	
Toe Width (m):		2.2	L	.ength (m):	-999.99	F	ill Depth (m):	1.00
Average Width	(m):	-99.99	N	/lax Depth (m): -99.99			
Culvert/Stream	Width Ratio:	0.41	C	OHW Width (m): -999.99			
Assessment Re	sults							
Barrier:	Yes	Passab	ility (%):	33	Me	ethod:	Leve	IA
Reason:	Slope	Fishway	/ Present:	No	Re	echeck:		
Comments								
Species	Pink 🖌 Chum	Chinook [✔ Coho	Steelhead	✓ Sea Run Cuttl	nroat 🖌 Re	sident Trout	Bull Trout
	4 O oin							
Potential Habita Survey Type:	RS			ing (sq m):			ength (m):	

Rearing (sq m):

2,976

PI Total

Significant Reach:

Yes

17.53

Level A Culvert Assessment Report

Site ID:	940321	Facility			
Latitude:	47.574446918	Stream:	unnamed	WRIA:	15
Longitude:	-122.55644298	Tributary To:	unnamed	Fish Use Potential:	No

Location

Manchester State Park. Culvert located on dirt road to Group camp along Western boundary.

Data Source

Organization:	Washington Department of Fish and Wildlife									
Field Crew:	Erkel;Ro	mero			Survey	Date: 0	1/08/2008	3		
Culvert Details Level A Parameters										
ID Shape Ma	tarial Cra		Length	WDIC	Anron	WSDrop	Location	Countersunk	Backwater	Slope (%)
	<u>iterial Spa</u>	<u>n Rise</u>	Lengin	11010	Apron	wobiop	LUCATION	Countersunk	Dackwaler	<u>Olope (70)</u>

Channel Description

All dimensions in meters

Toe Width (m):	-99.99	
Average Width (m):	-99.99	
Culvert/Stream Width Ratio:	-99.99	

Plunge Pool							
Length (m):	-999.99						
Max Depth (m):	-99.99						
OHW Width (m):	-999.99						

Road Fill Depth (m): -999.90

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940323	Facility			
Latitude:	47.539908899	Stream:	unnamed	WRIA:	15
Longitude:	-122.484934003	Tributary To:	Puget Sound	Fish Use Potential:	Νο

Location

Blake Island State Park. Stream is located West of camp area at NE tip of island (near Tillicum village)

Data Source

Organization	Drganization: Washington Department of Fish and Wildlife										
Field Crew: Ingram;Romero Survey Date: 12/08/2011											
	Culvert Details Level							vel A Parame	ters		
ID Shape Material Span Rise Length WDIC Apron WSDrop Location							<u>Countersunk</u>	Backwater	<u>Slope (%)</u>		
1.1 RND	CST	0.61	0.61	-999.90	-99.99	NO	0.00		Unknown		-99.99

All dimensions in meters

Channel Description	Plunge Pool		Road			
Toe Width (m): 0.9		Length (m):	-999.99		Fill Depth (m):	-999.90
Average Width (m):	-99.99	Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species	
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat 🖌 Resident Trout Bull Trout	
Potential Habitat Gain	

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940325	Facility			
Latitude:	47.54198873	Stream:	unnamed	WRIA:	15
Longitude:	-122.484971457	Tributary To:	Puget Sound	Fish Use Potential:	No

Location

Blake Island State Park. Culvert located on "authorized vehicle only" road to ranger residences behind Tillicum village.

Data Source

Organization	Organization: Washington Department of Fish and Wildlife										
Field Crew:	Field Crew: Ingram;Romero Survey Date: 12/08/2011							1			
	Culvert Details Level							vel A Parame	ters	<u>.</u>	
ID Shape Material Span Rise Length WDIC Apron WSDrop Location C						<u>Countersunk</u>	Backwater	<u>Slope (%)</u>			
1.1 RND	CST	-99.99	-99.99	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description	Plunge Pool		Road		
Toe Width (m):	0.75	Length (m):	-999.99	Fill Depth ((m): 1.00
Average Width (m):	-99.99	Max Depth	(m): -99.99		
Culvert/Stream Width Ratio:	0.40	OHW Width	(m): -999.99		

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

📄 Sockeye 📄 Pink 🔄 Chum 📄 Chinook 📄 Coho 📄 Steelhead 📄 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout
Potential Habitat Gain

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 940327	Facility				
Latitude: 47.5416926	08 Stream	unnamed	WI	RIA:	15
Longitude: -122.48318	3743 Tributa	ry To: Puget Sound	Fis	h Use Potential:	No
ocation					
Blake Island State Park	, day use area.				
Data Source					
Organization: Washir	ngton Department of Fi	ish and Wildlife			
Field Crew: Erkel;R	omero	Survey Date: 02	1/08/2008		
Cu	Ivert Details		Level A Para	meters	
-			Location Countersu		ope (%)
	33 0.33 -999.90 -9	99.99 NO -99.99	Unknow	n -	99.99
All dimensions in meters					
Channel Description		Plunge Pool		Road	
Toe Width (m):	-99.99	Length (m):	-999.99	Fill Depth (m):	-999.90
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width F	Ratio: -99.99	OHW Width (m):	-999.99		
ssessment Results					
Barrier: N/A	Passability	(%): N/A	Method:	N/A	
Reason: N/A	Fishway Pre	esent: No	Recheck:		
Comments					
pecies					
-					

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940328	Facility			
Latitude:	47.539356251	Stream:	unnamed	WRIA:	15
Longitude:	-122.48642006	Tributary To:	Puget Sound	Fish Use Potential:	Νο

Location

Blake Island State Park. Culvert under road to sewage ponds.

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife										
Field Crew: Ingraml;Romero			Survey	Date:	12/08/201	1					
Culvert Details Leve								vel A Parame	ters		
<u>ID Shape Ma</u>	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDro</u>	<u>p</u> Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND (CST	0.61	0.61	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description		Plunge Pool			Road		
Toe Width (m):	0.9		Length (m):	-999.99	Fill Depth (m):	-999.90	
Average Width (m):	-99.99		Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	0.68		OHW Width (m):	-999.99			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species	
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat 🖌 Resident Trout Bull Trou	ıt
Potential Habitat Gain	

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 940	220	Ecci	lity		· · · · ·		
	330 648793908	Faci Strea	•	unnamed		WRIA:	15
Longitude: -12				Hood Canal		Fish Use Potential:	No
	2.040007071						
Location							
Scenic Beach S	State Park. O	n single lane d	lirt road to	o "Emil House".			
Data Source							
Organization:	Washington	Doportmont of	Eich on	d Wildlife			
Ū		Department of					
Field Crew:	Erkel;Romer	0		Survey Date: 0	1/09/2008		
	Culvert	Details			Level A	Parameters	
<u>ID Shape Mat</u>	terial <u>Span</u>	Rise Length	<u>WDIC</u>	Apron WSDrop	Location Coun	tersunk Backwater S	lope (%)
1.1 RND P	CC 0.26	0.26 -999.90	-99.99	NO -99.99	Unl	known	-99.99
All dimensions in m	eters						
Channel Descri	ption		Plu	nge Pool		Road	
Toe Width (m)	•	-99.99	Le	ength (m):	-999.99	Fill Depth (m):	-999.90
Average Width	(m):	-99.99	М	lax Depth (m):	-99.99		
Culvert/Stream	Width Ratio:	-99.99	0	HW Width (m):	-999.99		
Assessment Re	sults						
Barrier:	N/A	Passabili	ty (%):	N/A	Metho	od: N/A	
Reason:	N/A	Fishway	Present:	No	Reche	eck:	
Comments							
Species							

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: 94	0331	Facil	itv					
Latitude: 47.648566074		-		unnamed		WRIA:		15
Longitude: -12		Tributary To:					Jse Potential:	-
			-					
Location								
Scenic Beach	State Park							
Data Source								
Organization: Washington Department of Fish and Wildlife								
Field Crew:	Erkel;Rome	ro	5	Survey Date:	01/09/2008			
	Culver	Details				A Parame	tore	
<u>ID</u> Shape Ma		Rise Length	<u>WDIC</u>	Apron WSDrc	p Location Co			Slope (%)
	CST 0.46	0.46 -999.90	-99.99	NO 0.00		No	<u>Buokwator</u>	-99.99
All dimensions in n	neters							
Channel Descr	iption		Plu	nge Pool		R	bad	
Toe Width (m)):	-99.99	Le	ength (m):	-999.99	F	ill Depth (m):	-999.90
Average Width	h (m):	-99.99	М	lax Depth (m):	-99.99			
Culvert/Stream	n Width Ratio	-99.99	0	HW Width (m): -999.99			
Assessment Ro	esulte							
Barrier:	N/A	Passabili	tv (%)·	N/A	Me	thod:	N/A	
Reason:	N/A	Fishway I		No		check:	11/7	\
				110				
Comments								
Species								
Potential Habit	at Gain							
	ai Ualli							

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940337	Facility			
Latitude:	47.307266831	Stream:	unnamed	WRIA:	09
Longitude:	-122.198656632	Tributary To:	Green R	Fish Use Potential:	No

Location

Lower Green River (property owned by State Parks). Culvert under trail which continues from 104th PI SE, Auburn.

Data Source

Organizat	on: Wa	ashingto	n Depa								
Field Crev	v: Erl	Erkel;Romero Survey Date: 01/10/2008						3			
		-Culver	t Detai	ls —				Lev	vel A Parame	ters	
ID Shape	Materia	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	CST	0.46	0.46	-999.90	-99.99	NO	-99.99		Unknown		-99.99
All dimension	s in meters										

Channel Description			Plunge Pool			Road		
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	-999.90	
Average Width (m):	-99.99		Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99				

Assessment Results

Barrier:	N/A	Passability (%): N/A	A Method:	N/A
Reason:	N/A	Fishway Present: No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

					•			
Site ID: 940)339	Facility	y					
Latitude: 47.	375573587	Stream	n: u	innamed		WRIA	\ :	14
Longitude: -12	2.972492214	Tributa	ary To: T	wanoh Cr		Fish l	Jse Potential:	No
Location Twanoh State	Dorl							
I wanon State	Park.							
Data Source								
Organization:	Washington	Department of F	Fish and N	Vildlife				
Field Crew:	Erkel;Rome	ro	Su	rvey Date:)1/17/2008			
	-, -	-						
	Culvert	Details			Level A	Parame	ters	
<u>ID</u> <u>Shape</u> <u>Mar</u>	terial <u>Span</u>	Rise Length	<u>WDIC</u> Ap	oron WSDrop	Location Cou	<u>intersunk</u>	Backwater Sl	<u>ope (%)</u>
1.1 RND P	CC 0.23	0.23 -999.90 -	-99.99 1	NO -99.99	U	nknown	-	99.99
All dimensions in m	neters							
<u>L</u>								
Channel Descri	ption		Plung	ge Pool		Ro	bad	
Toe Width (m)	:	-99.99	Len	gth (m):	-999.99	F	ill Depth (m):	-999.90
Average Width	n (m):	-99.99	Max	c Depth (m):	-99.99			
Culvert/Stream	Width Ratio	-99.99	OH	W Width (m):	-999.99			
				. ,				
Assessment Re	sults							
Barrier:	N/A	Passability	(%):	N/A	Meth	od:	N/A	
Reason:	N/A	Fishway Pr	esent:	No	Rech	neck:		
Comments								
Species								
•								
Potential Habita	at Gain							

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940341	Facility			
Latitude:	46.545456993	Stream:	unnamed	WRIA:	23
Longitude:	-123.399416185	Tributary To:	unnamed to Salmon CR	Fish Use Potential:	No

Location

Willapa Hills Trail State Park, 175m W of Salmon Cr crossing.

Data Source

Organization:	Drganization: Washington Department of Fish and Wildlife									
Field Crew:	Dierker;Romero Survey			Date:	02/12/2008	3				
Culvert Details Lev							vel A Parame	ters		
<u>ID Shape Ma</u>	terial <u>Spa</u>	<u>n Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDro</u>	p Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND F	PCC 0.6	I 0.61	-999.90	-99.99		-99.99	1	Unknown		-99.99
All dimensions in m	neters									

Channel Description			Plunge Pool			Road		
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	-999.90	
Average Width (m):	-99.99		Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99				

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940342	Facility				
Latitude:	46.545005359	Stream:	Salmon Cr	WRIA:	23.1	166
Longitude:	-123.397255922	Tributary To:	Rock Cr	Fish Use Potential	:	Yes

Location

Willapa Hills Trail State Park. Site is 10m DS of 990735, which is at MP 22.64 on SR6.

Data Source

Organization:	Washington Department of Fish a	Washington Department of Fish and Wildlife						
Field Crew:	Ponder	Survey Date: (05/29/2012					

Culvert Details							Level A Parameters					
ID Shape Material Span Rise Length WDIC Apron				<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>				
1.3	RND	PCC	1.22	1.22	10.00	0.26	NO	0.00		No		4.30
2.3	RND	PCC	1.22	1.22	9.80	0.05	NO	0.00		No		3.98
3.3	RND	PCC	1.22	1.22	10.60	0.05	NO	0.00		No		4.27
All dimensions in meters												

Channel Description	Plunge Pool	Road
Toe Width (m): 2.8	Length (m): 5.60	Fill Depth (m): 0.50
Average Width (m): 5.00	Max Depth (m): 1.40	
Culvert/Stream Width Ratio: 0.73	OHW Width (m): 9.00	
Assessment Results		

Barrier:	Yes	Passability (%):	33	Method:	Level B
Reason:	Velocity	Fishway Present:	No	Recheck:	

Comments

US end plugged w/ debris. Flow is mostly through LB w/high velocity. LB is 1.3, center is 2.3, RB is 3.3. 5/29/12-Ponder evaluated; exceeds velocity & depth criteria.

Species

Survey Type:	RSFS	Spawning (sq m):	7,562	Length (m):	6,085
Significant Reach:	Yes	Rearing (sq m):	7,730	PI Total	17.16

Level A Culvert Assessment Report

Site ID:	940343	Facility			
Latitude:	46.544727019	Stream:	unnamed	WRIA:	23
Longitude:	-123.391451447	Tributary To:	Salmon Cr	Fish Use Potential:	Yes

Location

Willapa Hills Trail State Park. 10m DS of 990736 which is at MP 22.94 on SR 6.

Data Source

Organization:	Washington Department of Fish a	nd Wildlife
Field Crew:	Romero;Thompson	Survey Date: 03/22/2012
	Culvert Details	Level A Parameters
ID Shana Ma	tarial Span Diag Langth WDIC	Aprop MCDrop Lagotion Counterpubly Realizator Clans (0)

שו	<u>Snape</u>	Material	<u>Span</u>	<u> Rise</u>	Length	<u>vvdic</u>	Apron	<u>wsDrop</u>	Location	Countersunk	Backwater	<u>Slope (%)</u>	
1.1	RND	PVC	0.91	0.91	12.50	0.11	NO	0.10	Outlet	No	No	4.47	
All di	mensions	in meters											

Channel Description	Plunge Pool		Road		
Toe Width (m):	1.1	Length (m):	7.55	Fill Depth (m):	2.00
Average Width (m):	3.55	Max Depth (m):	0.51		
Culvert/Stream Width Ratio:	0.26	OHW Width (m):	3.72		

Assessment Results

Barrier:	Yes	Passability (%):	0	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

Washout RND 0.61 PCC replaced with 1' larger diameter PVC pipe.								

Species

Sockeye Pink	Chum 📃 Chinook 🖌	Coho 🖌 Steelhea	d ✔ Sea Run Cutthroat 🖌	Resident Trout	Bull Trout
Potential Habitat Gain					

Survey Type:	RSFS	Spawning (sq m):	2,402	Length (m):	1,789
Significant Reach:	Yes	Rearing (sq m):	1,944	PI Total	11.43

Level A Culvert Assessment Report

Site ID:	940345	Facility			
Latitude:	46.548981039	Stream:	unnamed	WRIA:	23
Longitude:	-123.381393599	Tributary To:	Rock Cr	Fish Use Potential:	Yes

Location

Willapa Hills Trail State Park. 10m DS of 990737 which is at MP 23.49 on SR 6.

Data Source

Organization:	anization: Washington Department of Fish and Wildlife										
Field Crew:	Dier	Dierker;Romero Sur			Survey	Date: 0	2/12/2008	3			
Culvert Details Level A Parameters											
		Cuivei		15				Lev		1015	
<u>ID</u> <u>Shape</u> <u>N</u>	laterial	<u>Span</u>	<u>Rise</u>	<u>Length</u>	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	PCC	0.91	0.91	11.80	0.06	NO	0.45	Outlet	No		3.40
All dimensions in	meters										

Channel Description	Plunge Pool		Road		
Toe Width (m):	0.8	Length (m):	5.10	Fill Depth (m):	1.80
Average Width (m):	1.75	Max Depth (m):	0.80		
Culvert/Stream Width Ratio:	0.52	OHW Width (m):	4.30		

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	WS Drop	Fishway Present:	No	Recheck:	

Comments

<u> </u>	n	^	^		~~
0	IJ	c	L	I	es
-	r	-	-	-	

Potential Habitat Gain	
🔲 Sockeye 🔲 Pink 🔄 Chum 📄 Chinook 🖌 Coho 🖌 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout	

Survey Type:	RSFS	Spawning (sq m):	261	Length (m):	560
Significant Reach:	Yes	Rearing (sq m):	429	PI Total	8.43

Level A Culvert Assessment Report

Site ID: 940:	346	Fac	ility					
Latitude: 46.5	52066149	Stre	eam:	unnamed		WR	IA:	23
Longitude: -123	3.375237	Trib	utary To:	Rock Cr		Fish	Use Potential:	No
ocation								
Willapa Hills Tra	ail State Parl	c. Parallel to S	SR 6 at ap	prox. MP 23.8	32			
Data Source								
Organization:	Washington	Department of	of Fish and	d Wildlife				
Field Crew:	Erkel;Rome	ro		Survey Date:	02/19/2008			
	Culvert	Details			Leve	el A Param	neters	
ID Shape Mate	erial <u>Span</u>	Rise Length	<u>WDIC</u>	Apron WSDr	op Location	Countersun	<u>k Backwater S</u>	lope (%)
1.1 RND PC	CC 0.61	0.61 -999.90	-99.99	NO -99.9	9	Unknown		-99.99
All dimensions in me	eters							
hannel Descrip	otion		Plu	nge Pool		F	Road	
Toe Width (m):		-99.99	L	ength (m):	-999.99		Fill Depth (m):	-999.90
Average Width	(m):	-99.99	M	lax Depth (m)	: -99.99			
Culvert/Stream	Width Ratio	-99.99	0	HW Width (m	n): -999.99			
ssessment Res	sults							
Barrier:	N/A	Passabi	lity (%):	N/A	Ν	lethod:	N/A	
Reason:	N/A	Fishway	Present:	No	R	echeck:		
Comments								
pecies								
•								

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940347	Facility			
Latitude:	46.552269179	Stream:	unnamed	WRIA:	23
Longitude:	-123.365376808	Tributary To:	Rock Cr	Fish Use Potential:	Yes

Location

Willapa Hills Trail State Park. 12m DS of 991654 which is at Mp24.30 of SR6. Also 990079 is US.

Data Source

Organization	Was	Washington Department of Fish and Wildlife									
Field Crew:	Erke	Erkel;Romero Survey			Date: 0	2/19/2008	3				
		Culver	t Detai	ls			Level A Parameters				
<u>ID</u> <u>Shape</u> <u>N</u>	laterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	SST	0.76	0.76	15.20	0.07	NO	0.71	Outlet	No		4.95
All dimensions in	All dimensions in meters										

Channel Description		Plunge Pool		Road	
Toe Width (m):	1.5	Length (m):	4.80	Fill Depth (m):	4.00
Average Width (m):	1.95	Max Depth (m):	0.44		
Culvert/Stream Width Ratio:	0.51	OHW Width (m):	3.00		

Assessment Results

Barrier:	Yes	Passability (%):	0	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

rootwad at US end creates 0.47m infall		
Species		

🔲 Sockeye 🔲 Pink 🔄 Chum 📄 Chinook 🔲 Coho 🖌 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 🔲 Bull	Trout
Potential Habitat Gain	

Survey Type:	RSFS	Spawning (sq m):	379	Length (m):	793
Significant Reach:	Yes	Rearing (sq m):	505	PI Total	6.88

Level A Culvert Assessment Report

Site ID:	940348	Facility			
Latitude:	46.552569274	Stream:	unnamed	WRIA:	23
Longitude:	-123.361249146	Tributary To:	Rock Cr	Fish Use Potential:	No

Location

Willapa Hills Trail State Park. At E. edge of Wallville Cr Rd intersection w/ trail.

Data Source

Organization:	Washingto	n Depa							
Field Crew:	Erkel;Romero Survey Date: 02/19/2008								
Culvert Details Level A Parameters									
·	Culve	rt Detai	ls —				—Level A Paramet	ters	
ID Shape Ma	Culve	r t Detai <u>Rise</u>	Is Length	WDIC	Apron	WSDrop Loc	Level A Paramet <u>cation</u> Countersunk		<u>Slope (%)</u>

Channel Description

All dimensions in meters

Toe Width (m):	-99.99
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	-99.99

Plunge Pool	
Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Road	
Fill Depth (m):	-999.90

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

US end buried by sediment from flood event 12/2007. Drainage water flows through county road culvert and is ditched to bypass this culvert.

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: 940	350	Facil	ity					
Latitude: 46.	549140675	Strea	am:	unnamed		WRIA	\ :	23
Longitude: -12	3.340009041	Tribu	utary To:	Rock Cr		Fish I	Jse Potential:	No
Location								
Willapa Hills St	tate Park							
Data Source								
Organization:	Washington	Department of	Fish and	Wildlife				
Field Crew:	Erkel;Rome	ro	S	Survey Date:	02/19/2008			
	Culvert	Details			Level	A Parame	ters	
ID Shape Mat		Rise Length	WDIC A	Apron WSDrop	<u>Location</u> Co			<u>Slope (%)</u>
1.1 RND P	CC 0.61	0.61 -999.90	-99.99	NO -99.99		Unknown		-99.99
All dimensions in m	neters							
Channel Descri	ption		Plun	nge Pool		R	bad	
Toe Width (m)	:	-99.99	Le	ength (m):	-999.99	F	ill Depth (m):	-999.90
Average Width	n (m):	-99.99	Ma	ax Depth (m):	-99.99			
Culvert/Stream	Width Ratio	-99.99	OF	HW Width (m):	-999.99			
Assessment Re	sults							
Barrier:	N/A	Passabili	ty (%):	N/A	Me	thod:	N/A	4
Reason:	N/A	Fishway I	Present:	No	Red	check:		
Comments	washad out	by flood event	12/2007					
Do ena section	i washeu uu	by nood event	12/2007					
Species								
Potential Habita	ot Gain							

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940352	Facility				
Latitude:	46.547661414	Stream:	unnamed	WRIA:	23.1 [°]	159
Longitude:	-123.334452525	Tributary To:	Rock Cr	Fish Use Potential	: `	Yes

Location

Willapa Hills Trail State Park. Trail diverges from SR 6 between MP 25.5 and 26.1. Site is in this section, 290m E of trestle bridge 940351 and 310m W of pond site 125 1205W05B.

Data Source

Organization:	Washington Department of Fish a	Washington Department of Fish and Wildlife					
Field Crew:	Ingram;Romero	Survey Date:	02/22/2012				
	Culvert Details		Leve	I A Parameters			

<u>ID</u>	<u>Shape</u>	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1	RND	PCC	0.61	0.61	9.50	0.05	NO	0.26	Outlet	No	No	2.74
All din	nensions	in meters										

Channel Description		Plunge Pool		Road	
Toe Width (m):		Length (m):	2.00	Fill Depth (m):	1.00
Average Width (m):	2.80	Max Depth (m):	0.32		
Culvert/Stream Width Ratio:	0.22	OHW Width (m):	2.50		

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	WS Drop	Fishway Present:	No	Recheck:	

Comments

In 2008 the culvert was buried by sediment and the stream was flowing over the road bed, creating a barrier headcut. The culvert has since been excavated and the stream is now flowing through the pipe.
Species
🔲 Sockeye 🔄 Pink 🔲 Chum 🔄 Chinook 🔲 Coho 📄 Steelhead 📄 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout

Survey Type:	RSFS	Spawning (sq m):	462	Length (m):	394
Significant Reach:	Yes	Rearing (sq m):	415	PI Total	2.17

Level A Culvert Assessment Report

Site ID:	940353	Facility			
Latitude:	46.551109116	Stream:	unnamed	WRIA:	23
Longitude:	-123.330587154	Tributary To:	Rock Cr	Fish Use Potential:	No

Location

Willapa Hills Trail State Park. Approx 200m W of trail divergence w/SR 6 at SR 6 bridge 990192 at MP 26.08.

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife									
Field Crew:	Ingraml;Romero Survey Date: 02/21/2008						3			
Culvert Details Level A Parameters										
	Culver	t Details					Lev	vel A Parame	ters	
ID Shape Ma	Culver terial Span			<u>WDIC</u>	<u>Apron</u>	WSDrop		vel A Parame		<u>Slope (%)</u>

Channel Description

All dimensions in meters

Toe Width (m):	0.4
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	1.53

Plunge Pool							
Length (m):	0.00						
Max Depth (m):	-99.99						
OHW Width (m):	-999.99						

-999.90

Deed

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:	TD	Spawning (sq m):	-999	Length (m):	91
Significant Reach:	N/A	Rearing (sq m):	-999	PI Total	

Level A Culvert Assessment Report

Site ID:	940354	Facility			
Latitude:	46.552787133	Stream:	unnamed	WRIA:	23
Longitude:	-123.32086103	Tributary To:	Rock Cr	Fish Use Potential:	No

Location

Willapa Hills Trail State Park. Site is within sight of SR6 bridge 990212 over Rock Cr at MP 26.55.

Data Source

Organization:	n: Washington Department of Fish and Wildlife										
Field Crew:	Erke	Erkel;Romero Survey Date: 02/20/2008							3		
		Culver	t Detai	ls				Lev	el A Parame	ters	
<u>ID</u> Shape <u>M</u>	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	PCC	0.46	0.46	-999.90	-99.99	NO	-99.99		Unknown		-99.99
All dimensions in	All dimensions in meters										

Channel Description

Toe Width (m):	-99.99
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	-99.99

	Plung
9.99	Lenç
9.99	Max
9.99	OHV

lunge Pool							
Length (m):	-999.99						
Max Depth (m):	-99.99						
OHW Width (m):	-999.99						

Road	
Fill Depth (m):	-999.90

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: 9403	55	Facility				
Latitude: 46.55	2708543	Stream:	unnamed		WRIA:	23
Longitude: -123.	319804729	Tributary To:	Rock Cr		Fish Use Potential:	Yes
Location						
	I State Park. 80m	E of 940354				
Data Source						
Organization:	Nashington Depart	ment of Fish and	d Wildlife			
Field Crew:	Romero;Thompson	Ş	Survey Date: (3/22/2012		
	Culvert Details		• • • • • • • • • • • • • • • • • • • •	Level A Pa		
ID Shape Mate		Length WDIC	· · ·	Location Counter		<u>Slope (%)</u>
1.1 RND OT		5.60 0.11	NO 0.00	Ye	s No	5.35
All dimensions in met	ers					
Channel Descript	ion	Plu	nge Pool		Road	
Toe Width (m):			ength (m):	0.00	Fill Depth (m):	1.00
Average Width (ax Depth (m):	-99.99	Tin Doput (iii).	1.00
Culvert/Stream \	·		HW Width (m):			
Cuivent Stream		0.34 O		-999.99		
Assessment Res	ults					
Barrier: Un	known Pa	assability (%):	Unknown	Method:	Leve	IA
Reason: Level E	3 Required Fi	shway Present:	No	Recheck		
Comments						
	h ends, appears to possibly due to LW		idlength section	. Unusually count	ersunk for an unde	ersized pipe
at high gradient,						
Species						
Sockeye P	ink 🔲 Chum 🔲 Chi	nook 🔳 Coho 🔳	Steelhead	ea Run Cutthroat 🖡	Resident Trout	Bull Trout
,						
Potential Habitat	Gain					
Survey Type:	TD	Spawni	ng (sq m):	-999	Length (m):	-999
Significant Reac	h: Unknown	Rearing	g (sq m):	-999	PI Total	

Level A Culvert Assessment Report

Site ID:	940356	Facility			
Latitude:	46.553112884	Stream:	unnamed	WRIA:	23
Longitude:	-123.317361004	Tributary To:	Rock Cr	Fish Use Potential:	Yes

Location

Willapa Hills Trail State Park. Approx 285m E of trail divergence from SR 6, at bridge 990212 MP 26.55

Data Source

Organization: Washington Department of Fish and Wildlife											
Field Crew:	ield Crew: Erkel;Romero Survey Date: 02/20/2008					3					
		Culver	t Detai	IS				Le	vel A Parame	ters	
<u>ID</u> Shape <u>N</u>	<u>laterial</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	Countersunk	Backwater	<u>Slope (%)</u>
1.1 RND PCC 0.61 0.61 11.90 0.04 NO 0.59 Outlet								No		4.52	
All dimensions ir	All dimensions in meters										

Channel Description	Plunge Pool			Road		
Toe Width (m):	0.7	Length (m):	0.00		Fill Depth (m):	1.50
Average Width (m):	-99.99	Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	0.87	OHW Width (m):	-999.99			

Assessment Results

Barrier:	Yes	Passability (%):	0	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

~			
S	ne	CI	es
-	$\mathbf{P}\mathbf{C}$		60

Sockeye 🔳 Pi	nk 📃 Chum 🛛	Chinook 🗸	Coho 🖌	Steelhead 🖌	Sea Run	Cutthroat 🖌	Resident Trout	Bull Tr	out
Potential Habitat	Gain								
	ТП		Snawnii		0	00	Longth (m):		100

Survey Type:	TD	Spawning (sq m):	-999	Length (m):	109
Significant Reach:	No	Rearing (sq m):	-999	PI Total	

Level A Culvert Assessment Report

Site ID:	940357	Facility			
Latitude:	46.556671652	Stream:	unnamed	WRIA:	23
Longitude:	-123.311952747	Tributary To:	Rock Cr	Fish Use Potential:	Yes

Location

Willapa Hills Trail State Park. 600m W, by trail, from Chehalis R. bridge. E. of cattle barn, thin riparian zone through pasture.

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife										
Field Crew:	Erke	Erkel;Romero			Survey	Date: 0)2/20/2008	3			
Culvert Details											
<u>ID</u> <u>Shape</u> <u>Ma</u>	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND F	PCC	0.91	0.91	14.30	0.05	NO	0.45	Outlet	No	No	4.13

All dimensions in meters

Channel Description		Plunge Pool		Road	
Toe Width (m):	1.2	Length (m):	3.30	Fill Depth (m): 3.0	00
Average Width (m):	3.12	Max Depth (m):	0.32		
Culvert/Stream Width Ratio:	0.29	OHW Width (m):	2.20		

Assessment Results

Barrier:	Yes	Passability (%): 0	Method:	Level A
Reason:	Slope	Fishway Present: No	Recheck:	

Comments

RND PCC pipe is extra thick walled casting, typical of this former railroad.						

Species

Sockeye Pi	nk 📃 Chum 📃 Chinook	Coho 🗸 Steelhead 🗸 Se	ea Run Cutthroat 🔽 R	esident Trout 🔳 Bull Tro	out
Potential Habitat	Gain				
O	5050		22		0.40

Survey Type:	RSFS	Spawning (sq m):	96	Length (m):	949
Significant Reach:	Yes	Rearing (sq m):	519	PI Total	9.43

Level A Culvert Assessment Report

Site ID:	940361	Facility			
Latitude:	46.600008728	Stream:	unnamed	WRIA:	23
Longitude:	-123.276923069	Tributary To:	Chehalis R	Fish Use Potential:	Yes

Location

Willapa Hills Trail State Park. Trail runs parallel w/SR 6. Site is at MP 30.67

Data Source

Organization:	Washington Department of Fish and Wildlife					
Field Crew:	Erkel;Romero	Survey Date: 02/20/2008				

	Culvert Details						Lev	el A Parame	ters			
ID	<u>Shape</u>	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.2	RND	CAL	0.91	0.91	11.10	0.01	NO	0.00		No		1.71
2.2	RND	CST	0.91	0.91	14.40	0.19	NO	0.00		No		0.76
All d	All dimensions in meters											

Channel Description

Toe Width (m):	1.4
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	1.30

Plunge Pool						
Length (m):	6.40					
Max Depth (m):	0.63					
OHW Width (m):	3.00					

Road					
Fill Depth (m):	2.00				

Assessment Results

Barrier:	Yes	Passability (%):	67	Method:	Level B
Reason:	Depth	Fishway Present:	No	Recheck:	

Comments

plunge pool measu	rements are from	RB scour pool. LB is 1.2, RB is 2.	2
Species			
Sockeye Pink	🔲 Chum 📃 Chin	ook 🔲 Coho 🔳 Steelhead 🔳 Sea F	Run Cutthroat 🗹 Resident Trout 🔲 Bull Trout
Potential Habitat Ga	in		
Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	No	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940362	Facility			
Latitude:	46.618705481	Stream:	unnamed	WRIA:	23
Longitude:	-123.274587543	Tributary To:	Chehalis	Fish Use Potential:	Yes

Location

Willapa Hills Trail, upstream WSDOT site is 990749, SR6 milepost 32.00

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife									
Field Crew:	Tield Crew: Romero;Thompson Survey Date: 02/28/2)2/28/2012	2					
Culvert Details Level A Parameters										
<u>ID Shape</u> Ma	terial Span	Rise	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop	Location	Countersunk	Backwater	Slope (%)

	Shape	Material	Span	RISE	Lengin			WSDIOP LOCATION	Countersunk	Dackwaler	Sibpe (%)	
1.1	RND	CST	0.91	0.91	15.10	0.91	NO	0.00	No	No	0.34	
All dir	mensions	in meters										

Channel Description		Plunge Pool		Road	
Toe Width (m):	1.1	Length (m):	7.50	Fill Depth (m):	2.50
Average Width (m):	3.40	Max Depth (m):	1.00		
Culvert/Stream Width Ratio:	0.27	OHW Width (m):	4.10		

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Professional Judgment
Reason:	Undersized	Fishway Present:	No	Recheck:	

Comments

Overflow pipe on LB, 0.91 CAL. Both ends submerged, water flowing through overflow on 02/28,2012.	Deep scour
pool DS end indicates high velocity. Beaver activity US end.	

Species

🔲 Sockeye 🔲 Pink 🔲 Chum 🔄 Chinook 🖌 Coho 🖌 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 🔲 Bull Trout

Survey Type:	RSFS	Spawning (sq m):	0	Length (m):	839
Significant Reach:	Yes	Rearing (sq m):	1,856	PI Total	12.36

Site ID: 940	363	Facil	ity					
Latitude: 46.	622138183	Strea	am:	unnamed		WRIA	۹:	23
Longitude: -12	3.275594973	Tribu	utary To:	Chehalis R		Fish	Use Potential:	No
Location								
Willapa Hills Ti	rail							
Data Source								
Organization:	Washingtor	Department of	Fish and	Wildlife				
Field Crew:	Erkel;Rome	ero	S	Survey Date:	02/21/2008			
	Culver	t Details			Level	A Parame	eters	
<u>ID</u> <u>Shape</u> <u>Ma</u>	<u>terial</u> <u>Span</u>	Rise Length	WDIC A	Apron <u>WSDro</u> p	<u> Location</u> <u>C</u>	<u>ountersunk</u>	Backwater Slo	ope (%)
1.1 RND C	ST 0.30	0.30 -999.90	-99.99	NO -99.99		Unknown	-1	99.99
All dimensions in m	eters							
Channel Descri	ption		Plur	nge Pool		R	oad	
Toe Width (m)	:	-99.99	Le	ngth (m):	-999.99	F	Fill Depth (m):	-999.90
Average Width	ı (m):	-99.99	Ma	ax Depth (m):	-99.99			
Culvert/Stream	n Width Ratio	: -99.99	OF	HW Width (m)	-999.99			
Assessment Re	sults							
Barrier:	N/A	Passabili	ty (%):	N/A	Me	ethod:	N/A	
Reason:	N/A	Fishway I	Present:	No	Re	check:		
Comments								
Species								
Potential Habita	at Gain							

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940367	Facility			
Latitude:	46.637240937	Stream:	unnamed	WRIA:	23
Longitude:	-123.199435765	Tributary To:	Chehalis R	Fish Use Potential:	Yes

Location

Willapa Hills Trail. From SR 6, North on Chandler Rd then East on Leudinghaus Rd, then North on Labarre Rd. Site is located on Trail, approx 585m East of Labarre Rd.

Data Source

Organization:	Washington Department of Fish a						
Field Crew:	Ponder	Survey Date: 05/29/2012]				
Culvert Details Level A Parameters							

<u>ID</u>	<u>Shape</u>	<u>Material</u>	<u>Span</u>	<u>Rise</u>	<u>Length</u>	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	<u>Backwater</u>	<u>Slope (%)</u>	
1.1	RND	PCC	0.61	0.61	9.80	0.27	NO	0.00		No	No	0.72	
All dir	All dimensions in meters												

Channel Description			Plunge Pool			Road		
Toe Width (m):	0.85		Length (m):	0.00		Fill Depth (m):	1.00	
Average Width (m):	2.15		Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	0.28		OHW Width (m):	-999.99				

Assessment Results

Barrier:	Yes	Passability (%):	67	Method:	Level B
Reason:	Velocity	Fishway Present:	No	Recheck:	

Comments

DS livestock pasture with additional culvert; stream flows over grass and vegetation- no scour DS; low gradient. 5/29/12 Don Ponder evaluated as barrier; does not meet velocity or depth criteria.

Species

Potential Habitat Gain
🔲 Sockeye 🔲 Pink 🔲 Chum 🔲 Chinook 🖌 Coho 🖌 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 🔲 Bull Trout

Survey Type:TDSpawning (sq m):-999Significant Reach:NoRearing (sq m):-999

146

Length (m):

PI Total

Site ID: 940368		Facility	_		
Latitude: 46.6373		Stream:	unnamed	WRIA:	23
Longitude: -123.182299173 Tributary T			Chehalis R	Fish Use Pote	ential: Yes
ocation					
Willapa Hills Trail					
Data Source					
Organization: Wa	shington Depar	tment of Fish and	d Wildlife		
Field Crew: Erk	el;Romero	Ş	Survey Date: 02/21	/2008	
	-Culvert Detail			-Level A Parameters -	
<u>ID Shape Material</u> 1.2 RND PCC	<u>Span</u> <u>Rise</u> 0.91 0.91	Length WDIC 12.40 0.15	<u>Apron WSDrop Loc</u> NO 0.00	<u>ation Countersunk</u> <u>Backwa</u> No	ter <u>Slope (%)</u> 0.08
2.2 RND PCC	0.91 0.91	12.20 0.21	NO 0.00	Yes	0.00
All dimensions in meters	0.01				0.00
hannel Descriptio	n	Plu	nge Pool	Road	
Toe Width (m):		1.2 Le	ength (m):	3.70 Fill Depth	(m): 2.0
Average Width (m)	:	7.68 M	ax Depth (m):	0.48	
Culvert/Stream Wie	th Ratio:	0.24 O	HW Width (m):	4.20	
Assessment Result			400		
Barrier: No		Passability (%):	100		Level A
Reason: N/	<u>↓</u> F	Fishway Present:	No	Recheck:	
Comments					
1.2 RB; 2.2 LB. 5/2	9/12- Don Pond	ler evaluated as p	assable, due to bacl	kwater.	
pecies					
Sockeye Pink	Chum 🖌 Cł	ninook 🖌 Coho 🗸	Steelhead 🗹 Sea R	un Cutthroat 🖌 Resident Tro	out 🔲 Bull Trout
otential Habitat Ga	ain				
		Spawni	ng (sq m):	Length (n	n):
Survey Type:					·

				•		
Site ID: 940370		Facility				
Latitude: 46.6229	02223	Stream:	unnamed	W	RIA:	23
Longitude: -123.16	6036025	Tributary To:	Chehalis R	Fi	sh Use Potential:	No
Location Willapa Hills Trail						
Data Source						
Organization: Wa	shington Depa	rtment of Fish an	d Wildlife			
Field Crew: Erk	el;Romero		Survey Date: 02	2/25/2008		
	Culvert Detai	ls		Level A Para	imeters	
IDShapeMaterial1.1RNDPCCAll dimensions in meters	<u>Span</u> <u>Rise</u> 0.76 0.76	Length WDIC -999.90 -99.99	Apron WSDrop NO -99.99	Location Countersu Unknow		<u>ope (%)</u> 99.99
Channel Description	า	Plu	inge Pool		Road	
Toe Width (m):	-(99.99 L	.ength (m):	-999.99	Fill Depth (m):	-999.90
Average Width (m):	(99.99 N	/lax Depth (m):	-99.99		
Culvert/Stream Wic	th Ratio:	99.99 C	OHW Width (m):	-999.99		
Assessment Results	S					
Barrier: N/A	4	Passability (%):	N/A	Method:	N/A	
Reason: N/A	4	Fishway Present:	No	Recheck:		
Comments Species						
Potential Habitat Ga	in					

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: 940371	Facility				
Latitude: 46.617252469	Stream:	unnamed	\\//	RIA:	23
Longitude: -123.168437589	Tributary To:			sh Use Potential:	No
	Thouary Fo.				
Location					
Willapa Hills Trail					
Data Source					
Organization: Washington	Department of Fish and	Wildlife			
Field Crew: Hird;Romero	S	urvey Date: 02	2/25/2008		
Culvert					(0()
-	<u>Rise Length WDIC /</u> 0.76 -999.90 -99.99	NO -99.99	Location Countersu Unknow		<u>pe (%)</u>)9.99
All dimensions in meters	0.70 -333.30 -33.33	NO -99.99	Olikilow	··· -·	59.99
Channel Description	Plur	nge Pool		Road	
Toe Width (m):	-99.99 Le	ngth (m):	-999.99	Fill Depth (m):	-999.90
Average Width (m):	-99.99 Ma	ax Depth (m):	-99.99		
Culvert/Stream Width Ratio:	-99.99 OH	HW Width (m):	-999.99		
Assessment Results			Mathadi	N1/A	
Barrier: N/A	Passability (%):	N/A	Method:	N/A	
Reason: N/A	Fishway Present:	No	Recheck:		
Comments					
Species					
epono					
Potential Habitat Gain					

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

				-			
Site ID: 940372		Facility	_				
Latitude: 46.6079		Stream:	unnamed		WRIA:		23
Longitude: -123.15	1178122	Tributary To:	Chehalis F	8	Fish Use	Potential:	Yes
Location							
Willapa Hills Trail							
Data Source							
Organization: Wa	shington Departr	nent of Fish and	d Wildlife				
Field Crew: Ing	ram;Romero		Survey Date	02/16/2012			
	,		-				
	Culvert Details			Level	A Parameters	;	
ID Shape Material	<u>Span Rise I</u>	<u>ength</u> WDIC	Apron WSD	Prop Location Co	ountersunk Bad	<u>ckwater</u> S	lope (%)
1.1 RND PCC	0.91 0.91	11.40 0.20	NO 0.0	00	No	No	2.10
All dimensions in meters							
Channel Description	ו	Plu	nge Pool		Road		
Toe Width (m):	0	.85 Le	ength (m):	0.00	Fill D	epth (m):	3.00
Average Width (m):	2	.20 M	ax Depth (m	n): -99.99			
Culvert/Stream Wid			HW Width (
Assessment Results	6						
Barrier: Yes	s Pa	ssability (%):	33	Me	thod:	Level	Α
Reason: Slop	e Fis	shway Present:	No	Red	check:		
· · ·		-					
Comments							
Channel width is ap	proximate, strea	m is ponded US	s, ditched DS	S.			
Species							
•	🔲 Chum 🔳 Chir		Steelbood	A Sea Run Cutth	roat 🖌 Posidor	nt Trout 🔲	Bull Trout
Potential Habitat Ga	in						
Survey Type:	TD	Spawni	ng (sq m):	-999	Leng	th (m):	188
Significant Reach:	No	Rearing	g (sq m):	-999	PI To	tal	

Site ID: 940 Latitude: 46.0 Longitude: -12	609596717	:	Facility Stream: Fributary To	unna : Cheh				RIA: h Use Potential:	23 Yes
Willapa Hills Tr	ail								
Data Source									
Organization:	Washingto	n Departme	nt of Fish ar	nd Wildl	ife				
Field Crew:	Hird;Rome	ro		Survey	Date:	02/25/2008			
[Culve	rt Details -			·	Lev	el A Para	neters	
ID Shape Mat	erial <u>Span</u>	<u>Rise Ler</u>	gth WDIC	<u>Apron</u>	<u>WSDrop</u>	<u>Location</u>	Countersu	<u>nk Backwater S</u>	lope (%)
1.1 RND P	CC 0.61	0.61 15	.60 0.01	NO	0.75	Outlet	No		5.60
All dimensions in m	eters								
Channel Descri	ption		Pl	unge Po	ool			Road	
Toe Width (m):	·	0.7		_ength (2.10]	Fill Depth (m):	4.00
Average Width	(m):	-99.99	1	Max Dep	oth (m):	0.29			
Culvert/Stream	Width Ratio	o: 0.87		онм м	idth (m):	3.30			
Assessment Re	sults								
Barrier:	Yes	Pass	ability (%):		0	Ν	lethod:	Level	A
Reason: V	VS Drop	Fishv	vay Present	: 1	١o	R	lecheck:		
Comments									
Limited gain. C	Gradient incr	eases to >2	0% upstrea	m.					
Species									
Sockeye	Pink 📃 Chu	m 📃 Chinoc	k 🔳 Coho 🛛	Steell	nead 🗹 🤅	Sea Run Cut	throat 🖌	Resident Trout	Bull Trout
Potential Habita	t Gain								
Survey Type:			Spawr	ning (sq	m):			Length (m):	
Significant Rea	ich:	No	Rearin	ng (sq m):			PI Total	

					•			
Site ID: 940	374	Facili	ity					
Latitude: 46.	611246389	Strea	ım:	unnamed		WRIA	.:	23
Longitude: -12	3.120349965	Tribu	tary To:	Chehalis R		Fish l	Jse Potential:	Νο
Location								
Willapa Hills Ti	ail							
Data Source								
Organization:	Washingtor	Department of	Fish and	Wildlife				
Field Crew:	Romero;The	ompson	S	urvey Date: (02/28/2012			
		Details				A Parame	tors	
<u>ID</u> <u>Shape</u> <u>Ma</u> t		Rise Length	WDIC A	Noron WSDrop	Location Co			ope (%)
	CC 0.83	0.83 -999.90		NO -99.99		Unknown		99.99
All dimensions in m								
Channel Descri	ption		Plun	ge Pool		Ro	bad	
Toe Width (m)	:	-99.99	Ler	ngth (m):	-999.99	F	ill Depth (m):	-999.90
Average Width	ı (m):	-99.99	Ma	ax Depth (m):	-99.99			
Culvert/Stream	width Ratio	-99.99	OF	IW Width (m):	-999.99			
Assessment Re	sults							
Barrier:	N/A	Passabilit	v (%):	N/A	Me	thod:	N/A	
Reason:	N/A	Fishway F	[No		check:		
	,, .				-			
Comments								
L								
Species								
opooloo								
Potential Habita	at Gain							

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: 940375		Facility				
Latitude: 46.6126	10939	Stream:	unnamed		WRIA:	23
Longitude: -123.117	7659882	Tributary To:	Chehalis R		Fish Use Potential:	Yes
Location Willapa Hills Trail						
Data Source						
Organization: Wa	shington Departm	ent of Fish and	d Wildlife			
Field Crew: Hird	l;Romero		Survey Date:	02/25/2008		
	Culvert Details			Level A	A Parameters	
ID Shape Material	<u>Span Rise Le</u>	ength WDIC	Apron WSDro	p Location Cou	untersunk Backwater S	lope (%)
1.1 RND PCC	0.91 0.91 1	7.90 0.03	NO 0.88	Outlet	No	3.30
All dimensions in meters						
Channel Description	1	Plu	nge Pool		Road	
Toe Width (m):	0	.8 Le	ength (m):	-999.99	Fill Depth (m):	4.00
Average Width (m):			lax Depth (m):			
Culvert/Stream Wid			HW Width (m)			
Assessment Results	6					
Barrier: Yes	s Pas	sability (%):	0	Meth	nod: Level	A
Reason: WS D		nway Present:	No	Rec	heck:	
Comments						
Species						
Sockeye Pink	Chum 🔲 Chine	ook 📃 Coho 📃	Steelhead	Sea Run Cutthro	pat 🗹 Resident Trout 🔲	Bull Trout
Potential Habitat Ga	in					
Survey Type:	TD	Spawni	ing (sq m):	-999	Length (m):	40
Significant Reach:	No	Rearing	g (sq m):	-999	PI Total	

Site ID:940Latitude:47.8Longitude:-121	68221531	Facility Stream: Tributary To:	unnamed Wallace R		RIA: sh Use Potential:	07 Yes
Location Wallace Falls S	tate Park					
Data Source						
Organization:	Washington Depar	tment of Fish and	Wildlife			
Field Crew:	Erkel;Romero	S	urvey Date: 12	2/13/2011		
L	Culvert Detail	s		Level A Para	ameters	
<u>ID Shape Mate</u> 1.1 RND CS All dimensions in me	ST 0.30 0.30	Length WDIC 4 5.90 0.03	Apron <u>WSDrop</u> NO 0.31	Location Countersu Outlet No		<u>pe (%)</u> 2.54
Channel Descrip	otion	Plun	nge Pool		Road	
Toe Width (m): Average Width Culvert/Stream	(m):	1.10 Ma	ngth (m): ax Depth (m): HW Width (m):	1.40 0.12 1.10	Fill Depth (m):	1.00
Assessment Res	sults					
Barrier: Reason: W		assability (%): ishway Present:	33 No	Method: Recheck:	Level A	
Comments						
Species						
Sockeye	Pink 🔲 Chum 🔲 Ch	inook 📃 Coho 🖌	Steelhead 🖌 Se	a Run Cutthroat 🖌	Resident Trout 🖌 E	Bull Trout
Potential Habita	t Gain					
Survey Type: Significant Rea	RSFS ch: No	Spawnir Rearing	ng (sq m): (sq m):	0 46	Length (m):	171 3.96

Site ID: 940394		Facility	-		
Latitude: 47.26148	32872	Stream:		WRIA:	14
Longitude: -122.874		Tributary To:		Fish Use Potentia	
_					
Location					
Deta Sauraa					
Data Source	ahinatan Danasta				
	· ·	nent of Fish and Wildlife		-	
Field Crew: Erke	el;Romero	Survey D	Date: 03/26/2008		
	Culvert Details		Leve	I A Parameters	
ID Shape Material	<u>Span Rise L</u>	ength WDIC Apron	NSDrop Location C	Countersunk Backwater	<u>Slope (%)</u>
1.1 RND CST	0.38 0.38 -9	999.90 -99.99 NO	-99.99	Unknown	-99.99
All dimensions in meters					
Channel Description	I	Plunge Poo	bl	Road	
Toe Width (m):	-99.	99 Length (m	ı): -999.99	Fill Depth (m	n): -999.90
Average Width (m):	-99.	99 Max Dept	h (m): -99.99		
Culvert/Stream Widt	th Ratio: -99.	99 OHW Wid	Ith (m): -999.99		
Assessment Results					
Barrier: N/A	Pa	ssability (%): N/A	A M	ethod:	I/A
Reason: N/A		hway Present: No		echeck:	
		-			
Comments					
Species					
Potential Habitat Gai	in				
Survey Type:		Spawning (sq n	ו): [Length (m):	
Significant Reach:	N/A	Rearing (sq m):		PI Total	
orginineant reach.	IN/A	iseanny (sy m).		FIIViai	

	20					
Site ID: 940399		Facility				
Latitude: 47.88698		Stream:	unnamed		WRIA:	17
Longitude: -122.639	601971	Tributary To:	Bywater Ba	y	Fish Use Potential	: Yes
Location						
Wolfe Property. Apr	prox 215m DS fro	om Paradise Ba	ay Rd.			
Data Source						
	shington Departr	nent of Fish and	d Wildlife			
Field Crew: Erke	el;Romero		Survey Date:	09/13/2011		
				00/10/2011		
	Culvert Details			Level A	Parameters	
ID Shape Material	<u>Span</u> <u>Rise</u> <u>L</u>	ength WDIC	Apron WSDro	op Location Coun	ntersunk Backwater	<u>Slope (%)</u>
1.1 RND CST	0.46 0.46	5.80 0.03	NO 0.45	Outlet	No No	3.47
All dimensions in meters						
Channel Description		Plu	nge Pool		Road	
Toe Width (m):		D.6	ength (m):	2.10	Fill Depth (m):	1.50
Average Width (m):	1.	.90 M	lax Depth (m):	0.52		
Culvert/Stream Wid	th Ratio: 0	.24 0	HW Width (m): 1.40		
Assessment Results	i					
Barrier: Yes	Pa	ssability (%):	33	Metho	od: Leve	el A
Reason: WS D	rop Fis	hway Present:	No	Reche	eck:	
Comments						
Species						
Sockeye Pink	📄 Chum 📄 Chir	nook 🖌 Coho 🗌	Steelhead 🗸	Sea Run Cutthroa	at 🖌 Resident Trout	Bull Trout
Potential Habitat Gai	in					
Survey Type:	RSFS	Spawni	ing (sq m):	0	Length (m):	110
					2 . ,	
Significant Reach:	No	Rearing	g (sq m):	33	PI Total	3.86

Level A Culvert Assessment Report

Site ID:	940401	Facility			
Latitude:	46.859335313	Stream:	unnamed	WRIA:	11
Longitude:	-122.340079682	Tributary To:	Ohop Cr	Fish Use Potential:	No

Location

Nisqually-Mashel State Park. From SR 7, south on Mashel Prairie Rd. for 1.03 miles to gated road on W. side of road, past gate for 145 meters, then NE. for 475 meters. Road bends to N., culvert is 70m further.

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife									
Field Crew:	Field Crew: Erkel;Romero Survey Date: 03/25/2008									
Culvert Details Level A Parameters										
<u>ID</u> Shape Ma	<u>iterial</u> <u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>

Channel Description

All dimensions in meters

Toe Width (m):	-99.99	
Average Width (m):	-99.99	
Culvert/Stream Width Ratio:	-99.99	

Plunge Pool	
Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Road Fill Depth (m): -999.90

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

	Level A Culvert A	ssessment Rep	port		
Site ID: 940402	Facility				
Latitude: 46.860229318	Stream:	unnamed	WF	RIA:	11
Longitude: -122.342916783	Tributary To:	Ohop Cr	Fis	h Use Potential:	Yes
ocation					
Nisqually-Mashel State Park.	NW of site 940401 alc	ong road 250m.			
Data Source					
Organization: Washington	Department of Fish and	d Wildlife			
Field Crew: Erkel;Romer	٥ ٤	Survey Date: 03	3/25/2008		
Culvert	Details		Level A Parar	neters	
<u>ID Shape Material Span</u>	Rise Length WDIC	Apron WSDrop	Location Countersur	n <u>k</u> <u>Backwater</u> <u>Sl</u>	ope (%)
1.1 RND CAL 0.61	0.61 11.50 0.16	NO 0.00	No		4.40
All dimensions in meters					
Channel Description	Plu	nge Pool		Road	
Toe Width (m):	0.6 Le	ength (m):	-999.99	Fill Depth (m):	2.50
Average Width (m):	-99.99 M	ax Depth (m):	-99.99		
Culvert/Stream Width Ratio:	1.02 O	HW Width (m):	-999.99		
Assessment Results					
Barrier: Yes	Passability (%):	0	Method:	Level	٩
Reason: Slope	Fishway Present:	No	Recheck:		
Comments					
US end has rip rap blocking i	nlet. US end ponded.	10m DS of pipe g	gradient increases to	35%.	
pecies					
Sockeye Pink Chum	Chinook Coho	Steelhead 🔲 Se	ea Run Cutthroat 🔽 F	Resident Trout	Bull Trout
Potential Habitat Gain					

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940403	Facility			
Latitude:	46.908524965	Stream:	unnamed	WRIA:	23
Longitude:	-122.918295529	Tributary To:	Allen Cr	Fish Use Potential:	Yes

Location

Millersyvania State Park, ELC Rd. 150m W of site 125 1702W34A

Data Source

	Organi	ization:	Washington Department of Fish and Wildlife			
Field Crew: Erkel;Romero Survey Date: 12/06/2011	Field C	Crew:	Erkel;Romero	Survey Date:	12/06/2011	

	Culvert Details						Lev	vel A Parame	ters			
	<u>Shape</u>	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	Countersunk	Backwater	<u>Slope (%)</u>
1.3	RND	CAL	0.30	0.30	7.50	0.11	NO	0.00		No	Yes	-0.80
2.3	RND	CAL	0.30	0.30	7.40	0.08	NO	0.00		No	Yes	-1.36
3.3	RND	PCC	0.30	0.30	7.90	0.07	NO	0.00		No	Yes	1.00
All d	imensions	in meters										

Channel Description

Toe Width (m):	0.85	
Average Width (m):	3.10	
Culvert/Stream Width Ratio:	0.29	

Plunge Pool	
Length (m):	0.00
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Road				
0.50				

Assessment Results

Barrier:	No	Passability (%):	100	Method:	Level B
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

LB is 1.3, center is 2.3, RB is 3.3. Depth for Level B barrier status not being taking into consideration. Culvert lies in off-channel rearing habitat for Allen Creek and will only be utilized by juveniles.

Species

Sockeye Pink Chum	Chinook 🖌 Coho 🔳 Steelhead 🖌] Sea Run Cutthroat 🖌 Resident Trout 🔲 Bull Trout	

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940404	Facility			
Latitude:	46.914718178	Stream:	unnamed	WRIA:	23
Longitude:	-122.919500021	Tributary To:	Allen Cr	Fish Use Potential:	Yes

Location

Millersylvania State Park. Park Service Rd/Private Drive. 0.36 miles N of main park entrance on SR121, across from Parks regional office. 0.6 miles W of SR 121. WSW of 940383 on road 0.1mi.

Data Source

Organization	: Wa	shingtor									
Field Crew: Erkel;Romero Survey Date: 03/27/2008									8		
		Culver	t Detai	ls —				Lev	/el A Parame	ters	
ID Chana A	Actorial.	Snon	Rise	Length	WDIC	Anron	WSDrop	Location	<u>Countersunk</u>	Backwator	Slope (%)
<u>ID</u> Shape <u>N</u>	laterial	<u>Span</u>	RISE	Lengin	<u> 11010</u>	<u>Apron</u>	<u>wobiop</u>	LUCATION	Countersuik	Dackwaler	<u>Siope (//)</u>

All dimensions in meters

Channel Description			Plunge Pool		_	Road	
Toe Width (m):	-99.99		Length (m):	0.00		Fill Depth (m):	0.20
Average Width (m):	-99.99		Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99			

Assessment Results

Barrier:	Yes	Passability (%):	67	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

1.6% average slope. I	Interior slope break,	pipe is hump shap	ed at road bed.	Wetland, bankfull width not measured.
Beaver deceiver device	e on outlet.			

Species

Sockeye Pink	Chum 🔳 C	hinook 🖌 Coho	Steelhead 🗸	Sea Run Cutthroat 🖌	Resident Trout 🔲 Bull Trout
Potential Habitat Gain					

Survey Type:	RSFS	Spawning (sq m):	0	Length (m):	737
Significant Reach:	Yes	Rearing (sq m):	35,130	PI Total	18.54

Level A Culvert Assessment Report

						,poi (
Site ID: 940405		Facil	ity						
Latitude: 47.8857	85683	Strea	am:	unnan	ned		WR	IA:	17
Longitude: -122.639	9316708	Tribu	itary To:	Bywat	er Bay		Fish	Use Potentia	al: Yes
Location									
Location Wolfe Property. 180	om due E of	Daradiso B	av Pd	130m S	of 04030	0 on aband	oned road	4	
wolle Floperty. Tot		- al aulse D	ay Ku.	13011 3	01 94038	9 UN ADANU	uneu ruat	J.	
Data Source									
Organization: Was	shington Dep	artment of	Fish and	d Wildlife	Э				
Field Crew: Erke	el;Romero			Survey [Date: 0	9/13/2011			
	- ,			,					
	Culvert Det	ails —				Level	A Param	neters	
ID Shape Material	<u>Span</u> <u>Rise</u>	<u>Length</u>	<u>WDIC</u>	<u>Apron</u>	WSDrop	Location C	ountersun	k Backwater	<u>Slope (%)</u>
1.1 RND CST	0.30 0.30	5.80	0.03	NO	0.89	Outlet	No	No	8.87
All dimensions in meters									
Channel Description	1		Plu	inge Po	ol		, F	Road	
Toe Width (m):		0.6	L	ength (m	n):	2.40		Fill Depth (m): 1.50
Average Width (m):		1.40	M	lax Dept	h (m):	0.15			
Culvert/Stream Wid	th Ratio:	0.21	0	OHW Wid	dth (m):	1.50			
Assessment Results	5								
Barrier: Yes	6	Passabilit	ty (%):	0		Me	ethod:	Lev	vel A
Reason: WS D	rop	Fishway F	Present:	No)	Re	check:		
Comments									
Species									
Sockeye Pink	Chum	Chinook 🗸	Coho 🔳	Steelhe	ead 🗸 S	ea Run Cutth	nroat 🖌 R	esident Trout	Bull Trout
								·	
Potential Habitat Ga	1								
Survey Type:	RSFS		Spawni	ing (sq n	n):	0		Length (m):	175

Rearing (sq m):

44

PI Total

Significant Reach:

No

4.60

Site ID: 940 Latitude: 47.2 Longitude: -122	297016585	St	acility ream: ibutary To:	unnamed Hood Cana	I	WRIA Fish L	: Ise Potential:	15 Yes
Location Haley Property								
Data Source								
Organization:	Washingtor	Department	of Fish an	d Wildlife]		
Field Crew:	Erkel;Rome	ro		Survey Date:	03/27/2008			
	Culver	t Details —			Leve	el A Parame	ters	
ID Shape Mat	<u>erial</u> <u>Span</u>	<u>Rise</u> Leng	th <u>WDIC</u>	Apron WSD	op Location (<u>Countersunk</u>	Backwater S	lope (%)
1.1 RND P	CC 0.30 eters	0.30 7.80	0.03	NO 1.10) Outlet	No		8.40
Channel Descri	ption		Plu	inge Pool		Ro	ad	
Toe Width (m): Average Width Culvert/Stream	(m): Width Ratio	0.5 -99.99 : 0.60	N	ength (m): lax Depth (m) DHW Width (n			ll Depth (m):	1.50
Barrier:	Yes	Passal	oility (%):	0	M	ethod:	Level	A
Reason:	Slope	Fishwa	y Present:	No] R	echeck:		
Comments								
Species								
Sockeye	Pink 🔲 Chun	n 🔲 Chinook	🖌 Coho 🗌	Steelhead	Sea Run Cutt	hroat 🖌 Res	ident Trout 📃	Bull Trout
Potential Habita	t Gain							
Survey Type:	1	D	Spawn	ing (sq m):	-999] Le	ength (m):	115
Significant Rea	ich: N	No	Rearing	g (sq m):	-999	P	l Total	

Latitude: 47.297672027 Stream: unnamed WRIA: 15 Longitude: -122.787734302 Tributary To: Puget Sound Fish Use Potential: No Docation	Site ID:	940407	Facility			-			
Longitude: -122.787734302 Tributary To: Puget Sound Fish Use Potential: No Docation				un	named		WRI	A٠	15
Decation Haley Property ata Source Organization: Washington Department of Fish and Wildlife Field Crew: Erkel;Romero Survey Date: 03/27/2008 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown -99.99 uld imensions in meters hannel Description Plunge Pool Toe Width (m): -99.99 Outvert/Stream Width Ratio: -99.99 OHW Width (m): -99.99 Sessment Results Barrier: N/A Fishway Present: N/A Reason: N/A						d			-
Haley Property ata Source Organization: Washington Department of Fish and Wildlife Field Crew: Erkel;Romero Survey Date: 03/27/2008 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown -99.99 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown -99.99 Jul dimensions in meters Interest Road Fill Depth (m): -999.90 Average Width (m): -99.99 OHW Width (m): -999.99 OHW Width (m): -999.99 Culvert/Stream Width Ratio: -99.99 OHW Width (m): -999.99 Seessment Results Barrier: N/A Fishway Present: No Recheck: M/A				, 	<u>get eeun</u>	~			
ata Source Organization: Washington Department of Fish and Wildlife Field Crew: Erkel;Romero Survey Date: 03/27/2008 Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown -99.99 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown -99.99 1.1 RND PCC 0.30 0.30 -99.99 NO -99.99 Unknown -99.99 1.1 RND PCC 0.30 0.30 -99.99 NO -99.99 Unknown -99.99 1.1 RND PCC 0.30 0.30 -99.99 NO -99.99 Inknown -99.99 Average Width (m): -99.99 Max Depth (m): -999.99 OHW Width (m): -999.99 OHW Width (m): <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
Organization: Washington Department of Fish and Wildlife Field Crew: Erkel;Romero Survey Date: 03/27/2008 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown -99.99 All dimensions in meters Plunge Pool Road Fill Depth (m): -999.90 Average Width (m): -99.99 OHW Width (m): -999.99 GHW Width (m): -999.99 Sesessment Results Barrier: N/A Passability (%): N/A Method: N/A Reason: N/A Fishway Present: No Recheck:	Haley Prope	erty							
Organization: Washington Department of Fish and Wildlife Field Crew: Erkel;Romero Survey Date: 03/27/2008 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown -99.99 All dimensions in meters Plunge Pool Road Fill Depth (m): -999.90 Average Width (m): -99.99 OHW Width (m): -999.99 GHW Width (m): -999.99 Sesessment Results Barrier: N/A Passability (%): N/A Method: N/A Reason: N/A Fishway Present: No Recheck:									
Field Crew: Erkel;Romero Survey Date: 03/27/2008 Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND PCC 0.30 0.30 -99.99 NO -99.99 Unknown -99.99 Auterial Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) Road Field Crew ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) Road 1.1 RND PCC 0.30 0.30 -99.99 NO -99.99 Unknown -99.99 Auterial Material Span Rise Length Plunge Pool Road Road Fill Depth (m): -999.99 Average Width (m): -99.99 OHW Width (m): -999.99 OHW Width (m): -999.99 OHW Width (m): -999.99 Ssessment Results Barrier: N/A Passability (%): N/A Method: N/A Barrier: N/A Fishway Present: No Recheck: Material Material	Data Source								
Culvert Details Level A Parameters ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown Average Width (m): -99.99 Average Width (m): -99.99 Culvert/Stream Width Ratio: -99.99 Ssessment Results Barrier: N/A N/A Passability (%): N/A Fishway Present: No Recheck:	Organizatio	n: Washingto	n Department of Fis	sh and Wi	Idlife				
ID Shape Material Span Rise Length WDIC Apron WSDrop Location Countersunk Backwater Slope (%) 1.1 RND PCC 0.30 0.30 -999.90 -99.99 NO -99.99 Unknown -99.99 All dimensions in meters Plunge Pool Road Fill Depth (m): -999.90 -999.90 Average Width (m): -99.99 Max Depth (m): -999.99 OHW Width (m): -999.99 OHW Width (m): -999.99 Guivert/Stream Width Ratio: -99.99 OHW Width (m): -999.99 OHW Width (m): -999.99 Max ssessment Results Barrier: N/A Passability (%): N/A Method: N/A Reason: N/A Fishway Present: No Recheck:	Field Crew:	Erkel;Rom	ero	Surv	ey Date:	03/27/2008]		
1.1 RND PCC 0.30 -999.90 -99.99 NO -99.99 Unknown -99.99 Automatic and the state of the state		Culve	rt Details			Leve	I A Param	eters	
Mannel Description Plunge Pool Road Toe Width (m): -99.99 Length (m): -999.99 Average Width (m): -99.99 Max Depth (m): -99.99 Culvert/Stream Width Ratio: -99.99 OHW Width (m): -999.99 ssessment Results Barrier: N/A Passability (%): N/A Method: N/A Reason: N/A Fishway Present: No Recheck:	ID Shape	Material Span	<u>Rise Length W</u>	<u>DIC</u> Apro	<u>m</u> WSDro	p Location C	Countersunk	Backwater S	Slope (%)
hannel DescriptionPlunge PoolRoadToe Width (m):-99.99Average Width (m):-99.99Average Width (m):-99.99Culvert/Stream Width Ratio:-99.99OHW Width (m):-999.99Sessment ResultsBarrier:N/AN/APassability (%):N/AMethod:N/AFishway Present:NoRecheck:	1.1 RND	PCC 0.30	0.30 -999.90 -9	9.99 NC	-99.9	9	Unknown		-99.99
Toe Width (m):-99.99Average Width (m):-99.99Average Width (m):-99.99Culvert/Stream Width Ratio:-99.99OHW Width (m):-999.99Ssessment ResultsBarrier:N/APassability (%):N/AMax Present:NoN/AFishway Present:NoReason:N/A	All dimensions i	in meters							
Toe Width (m):-99.99Average Width (m):-99.99Average Width (m):-99.99Culvert/Stream Width Ratio:-99.99OHW Width (m):-999.99Ssessment ResultsBarrier:N/APassability (%):N/AMax Present:NoN/AFishway Present:NoReason:N/A									
Average Width (m): -99.99 Max Depth (m): -99.99 Culvert/Stream Width Ratio: -99.99 OHW Width (m): -999.99 ssessment Results Barrier: N/A Passability (%): N/A Method: N/A Reason: N/A Fishway Present: No Recheck:	Channel Des	scription		Plunge	Pool		R	oad	
Culvert/Stream Width Ratio: -99.99 OHW Width (m): -999.99 ssessment Results Barrier: N/A Passability (%): N/A Method: N/A Reason: N/A Fishway Present: No Recheck:	Toe Width ((m):	-99.99	Lengt	h (m):	-999.99		Fill Depth (m):	-999.90
ssessment Results Barrier: N/A Passability (%): N/A Method: N/A Reason: N/A Fishway Present: No Recheck:	Average Wi	idth (m):	-99.99	Max E	Depth (m)	-99.99			
Barrier:N/APassability (%):N/AMethod:N/AReason:N/AFishway Present:NoRecheck:	Culvert/Stre	eam Width Ratio	p: -99.99	OHW	Width (m): -999.99			
Barrier:N/APassability (%):N/AMethod:N/AReason:N/AFishway Present:NoRecheck:	Assassment	Rosults							
Reason: N/A Fishway Present: No Recheck:		1	Paccability (D/)•	NI/A	N/A	othod:	N1/A	
				· _				IN/P	<u> </u>
omments	Reason.	IN/A	FISHWay FIE	sent.	INO		echeck.		
	Comments								
necies	Species								
	pecies								
otential Habitat Gain	Potential Hal	bitat Gain							

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

	Level A Cuivert A	Assessment Repo		
Site ID: 940412	Facility			
Latitude: 46.836290695	Stream:	unnamed	WRIA:	11.0000
Longitude: -122.337658938	B Tributary To:	Nisqually	Fish Use Pote	ential: No
Location				
Nisqually-Mashel State Par	k. Acces via Weyerhaus	er Rd.		
Data Source				
Organization: Washington	n Department of Fish and	d Wildlife		
Field Crew: Ingram;Ror	mero	Survey Date: 04/0	8/2008	
Culver	rt Details ———		—Level A Parameters —	
ID Shape Material Span	Rise Length WDIC	Apron WSDrop Lo	cation Countersunk Backwa	ter Slope (%)
1.1 RND CST 0.61	0.61 -999.90 -99.99	-99.99	Unknown	-99.99
All dimensions in meters				
Channel Description	Plu	inge Pool	Road	
Toe Width (m):	-99.99 L	ength (m):	-999.99 Fill Depth	(m): -999.90
Average Width (m):	-99.99 N	lax Depth (m):	-99.99	
, trendige triadit ().				
Culvert/Stream Width Ratio	p: -99.99 C	HW Width (m):	-999.99	
G ()	o: -99.99 C	OHW Width (m):	-999.99	
Culvert/Stream Width Ratio	D: -99.99 C Passability (%):	DHW Width (m):	-999.99 Method:	N/A

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 940413	Facility				
Latitude: 46.836364162	Stream:	unnamed	,	WRIA:	11.0000
Longitude: -122.339197211	Tributary To:	Nisqually		Fish Use Poten	tial: No
ocation					
Nisqually-Mashel State Park. Acco	ess via Weyerhau	ser Rd.			
Data Source					
Organization: Washington Depa	rtment of Fish and	d Wildlife			
Field Crew: Ingram;Romero	Ş	Survey Date: 0	4/08/2008		
Culvert Detai			Level A Pa	romotoro	
<u>ID Shape Material Span</u> <u>Rise</u> 1.1 RND CST 0.61 0.61	Length WDIC -999.90 -99.99	NO -99.99	Location Counter		<u>r Slope (%)</u> -99.99
All dimensions in meters	-999.90 -99.99	NO -99.99	UTKI	JWII	-99.99
Channel Description	Plu	nge Pool		Road	
Toe Width (m):	99.99 Le	ength (m):	-999.99	Fill Depth (m): -999.90
Average Width (m): -99.99		Max Depth (m): -99.99			
Culvert/Stream Width Ratio:	99.99 O	HW Width (m):	-999.99		
Assessment Results					
Barrier: N/A	Passability (%):	N/A	Method:		N/A
Reason: N/A	Fishway Present:	No	Recheck	<:	
Comments					
, viniments					

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

	Le	ver A Curvert Asse	ssment Report		
Site ID: 940414		Facility			
Latitude: 46.8372	15304	Stream: uni	named	WRIA:	11.0000
Longitude: -122.334	892305	Tributary To: Nis	qually R	Fish Use Poter	ntial: Yes
Location					
Nisqually-Mahsel St	ate Park. Acces	s via Weyerhauser r	d.		
Data Source					
Organization: Was	shington Departr	nent of Fish and Wil	dlife		
Field Crew: Ingr	am;Romero	Surve	ey Date: 04/08/2008	8	
	Culvert Details		Lev	vel A Parameters	
ID Shape Material	<u>Span Rise L</u>	ength WDIC Apro	n WSDrop Location	Countersunk Backwate	er <u>Slope (%)</u>
1.1 RND CST	0.76 0.76	20.90 0.04 NO	1.20 Outlet	No	8.88
All dimensions in meters					
Channel Description	1	Plunge	Pool	Road	
Toe Width (m):		.95 Length		0 Fill Depth ((m): 2.00
Average Width (m):	-99		epth (m): -99.9		2.00
Culvert/Stream Wid			Width (m): -999.9		
A					
Assessment Results				Mathadi	
Barrier: Yes		ssability (%):	-		evel A
Reason: WS D	rop Fis	shway Present:	No	Recheck:	
Comments					
Outfall onto boulder					
Species					
Sockeye Dink	Chum 🔲 Chir	nook 🖌 Coho 🖌 Ste	elhead 🖌 Sea Run Cu	utthroat 🖌 Resident Trou	ut 🖌 Bull Trout
Potential Habitat Ga	in				
Survey Type:		Spawning (s	sq m):	Length (m)):
Significant Reach:	No	Rearing (sq	m):	PI Total	

Level A Culvert Assessment Report

Site ID:	940420	Facility			
Latitude:	47.032295659	Stream:	unnamed	WRIA:	21.0000
Longitude:	-124.169045467	Tributary To:	unnamed	Fish Use Potential	: Yes

Location

Seashore Conservation Area adjacent to Ocean City State Park day use beach access trail. S side of trail.

Data Source

Organizatio	Organization: Washington Department of Fish and Wildlife										
Field Crew:	Ingr	am;Ror	nero			Survey	Date: C	04/10/2008	3		
		Culver	t Detai	ls —				Lev	vel A Parame	ters	
ID Shape	<u>Material</u>	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	PVC	0.91	0.91	2.00	0.12	NO	0.00		No		0.50

All dimensions in meters

Channel Description		Plur	nge Pool		_	Road	
Toe Width (m):	1.05	Le	ength (m):	0.00		Fill Depth (m):	0.00
Average Width (m):	-99.99	Ma	ax Depth (m):	-99.99			
Culvert/Stream Width Ratio:	0.87	O	HW Width (m):	-999.99			

Assessment Results

Barrier:	No	Passability (%): 100	Method:	Professional Judgment
Reason:	N/A	Fishway Present: No	Recheck:	

Comments

LVLB not possible. Ponded DS and confluence w/ other trib, no DS control.
Species
Species
🔲 Sockeye 🔲 Pink 📄 Chum 📄 Chinook 📄 Coho 📄 Steelhead 📄 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Unknown	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940421	Facility			
Latitude:	47.032321111	Stream:	unnamed	WRIA:	21.0000
Longitude:	-124.169122142	Tributary To:	unnamed	Fish Use Potential	: Yes

Location

Seashore Conservation Area adjacent to Ocean City State Park day use beach access trail.

Data Source

Organization: Washington Department of Fish and Wildlife										
Field Crew:	Ingram;Romero Surve				Survey	Date:	04/10/2008	3		
	Culver	t Detai	ls —				Lev	vel A Parame	ters	
<u>ID Shape Ma</u>	<u>terial Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDro</u>	<u> Location</u>	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>

Channel Description		Plunge Pool		Road	
Toe Width (m):	1.3	Length (m):	0.00	Fill Depth (m):	0.10
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	0.70	OHW Width (m):	-999.99		

Assessment Results

Barrier:	No	Passability (%):	100	Method:	Professional Judgment
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

_VLB not possible. Pipe is backwatered. Stream is pondedand has confluece w/other channel at DS end.
pecies
📄 Sockeye 📄 Pink 📄 Chum 📄 Chinook 📄 Coho 📄 Steelhead 📄 Sea Run Cutthroat ✔ Resident Trout 📄 Bull Trout

Potential Habitat Gain

Survey Type:	Spawning (sq m):	Length (m):
Significant Reach: Unknown	Rearing (sq m):	PI Total

1.80

Yes

Level A Culvert Assessment Report

Site ID:	940422	Facility			
Latitude:	47.033219808	Stream:	unnamed wetland	WRIA:	21.0000
Longitude:	-124.163046655	Tributary To:	unnamed wetland	Fish Use Potential	: Yes

Location

Ocean City State Park main campground road. W. of RV pumpout station.

Data Source

Organization: Washington Department of Fish and Wildlife										
Field Crew: Ingram;Romero Survey Date: 04/10/						4/10/2008	3			
	Culver	rt Detai	ls —				Lev	vel A Parame	ters	<u></u>
<u>ID</u> <u>Shape</u> <u>Ma</u>	terial <u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND C	ST 0.61	0.61	11.20	0.61	NO	0.00		No		0.80

All dimensions in meters

Channel Description		Plunge Pool		Road	
Toe Width (m):	-99.99	Length (m):	0.00	Fill Depth (m):	0.50
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99		

Assessment Results

Barrier:	No	Passability (%):	100	Method:	Professional Judgment
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

LVLB not possible. Ponded and submerged US and DS.
Species
📄 Sockeye 📄 Pink 📄 Chum 📄 Chinook 📄 Coho 📄 Steelhead 📄 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Unknown	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940423	Facility			
Latitude:	47.033288431	Stream:	unnamed	WRIA:	21.0000
Longitude:	-124.160504927	Tributary To:	unnamed	Fish Use Potentia	l: No

Location

Ocean City State Park main campground road. W. of entrance office.

Data Source

Organization:	zation: Washington Department of Fish and Wildlife										
Field Crew:	Tield Crew: Ingram;Romero Survey Date: 04/10/2006						8				
	Culvert Details Level A Parameters										
	•	Guiven	Detai	13				LC			
<u>ID</u> Shape <u>Ma</u>	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND (CST	0.30	0.30	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description	Plunge Pool			Road		
Toe Width (m):	-99.99	Length (m):	-999.99		Fill Depth (m):	-999.90
Average Width (m):	-99.99	Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99			

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940424	Facility			
Latitude:	47.031421353	Stream:	unnamed pond	WRIA:	22.0000
Longitude:	-124.157568053	Tributary To:	unnamed pond	Fish Use Potentia	l: Yes

Location

Ocean City State Park main entrance road 50m W. of SR 109

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife								
Field Crew: Ingram;Romero Survey Date: 04/10/2008									
Culvert Details Level								1	
	Culver	t Details	5				Level A Parame	ters	
<u>ID Shape Ma</u>	•••••			WDIC	Apron				<u>Slope (%)</u>

All dimensions in meters

Channel Description		Plunge Pool		Road	
Toe Width (m):	-99.99	Length (m):	0.00	Fill Depth	(m): 1.00
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99		

Assessment Results

Barrier:	No	Passability (%):	100	Method:	Professional Judgment
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Culvert connects two ponds separated by road. Pipe is backwatered w/ little to no velocity.						
Species						
🔲 Sockeye 🔲 Pink 🔳 Chum 🔳 Chinook 🔳 Coho 📄 Steelhead 📄 Sea Run Cutthroat 🖌 Resident Trout 📄 Bull Trout						

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	Yes	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940426	Facility			
Latitude:	47.874162886	Stream:	unnamed	WRIA:	07
Longitude:	-121.672067146	Tributary To:	unnamed	Fish Use Potential:	Yes

Location

Wallace Falls State Park, "Old Railroad Grade" trail. Equidistant on trail between sites 940143 and 940144.

Data Source

Organizatior	ation: Washington Department of Fish and Wildlife										
Field Crew: Ingram;Romero Survey Date: 04/17/2008											
	Culvert Details Level A Parameters										
		ourrei	Dotai					LU			
		~	D .	т <u>а</u>		Anron		1	Counterround	Destaur	$O(x) = \frac{1}{2} \left(\frac{1}{2} \right)^{2}$
<u>ID</u> Shape I	Material	<u>Span</u>	<u>Rise</u>	<u>Length</u>		Apron	<u>wsbrop</u>	Location	<u>Countersunk</u>	<u>Backwater</u>	<u>Slope (%)</u>

All dimensions in meters

Channel Description		Plunge Pool		Road		
Toe Width (m):	0.6	Length (m):	1.10	Fill Depth (m):	1.00	
Average Width (m):	-99.99	Max Depth (m):	0.24			
Culvert/Stream Width Ratio:	0.50	OHW Width (m):	1.20			

Assessment Results

Barrier:	Yes	Passability (%):	67	Method:	Level A
Reason:	WS Drop	Fishway Present:	No	Recheck:	

Comments

Culvert invert rusted out DS end
Species
🔲 Sockeye 📄 Pink 📄 Chum 📄 Chinook 📄 Coho 🖌 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 🖌 Bull Trout

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	No	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940433	Facility			
Latitude:	46.996834727	Stream:	unnamed	WRIA:	22.0000
Longitude:	-123.597874136	Tributary To:	Sylvia Lk	Fish Use Potential	l: Yes

Location

Lk Sylvia State Park. On trail that leads N from dam then E to parking lot.

Data Source

Organization:	Was	Washington Department of Fish and Wildlife									
Field Crew:	Field Crew: Ingram;Romero Survey Date: 04/22/2008						3				
Culvert Details Level A Parameters											
<u>ID</u> Shape <u>M</u>	laterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND	PVC	0.61	0.61	21.60	0.04	NO	0.55	Outlet	No		2.83

.

All dimensions in meters

Channel Description		Plunge Pool		_	Road	
Toe Width (m):	0.9	Length (m):	0.00		Fill Depth (m):	3.50
Average Width (m):	-99.99	Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	0.68	OHW Width (m):	-999.99			

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	WS Drop	Fishway Present:	No	Recheck:	

Comments

Species	
Sockeye Pink Chum Chinook Coho Steelhead Sea Run Cutthroat 🖌 Resident Trout Bull Trout	
Potential Habitat Gain	

Survey Type:	Spawning (sq m):	Length (m):
Significant Reach: Unknown	Rearing (sq m):	PI Total

			U					•			
Level A Culvert Assessment Report											
Site ID:	940434		Faci	lity							
Latitude:	46.997563721		Strea	am:	unna	amed		WRI	۹:	22.000	0
Longitude:	-123.58952509		Tribu	utary To	: Sylv	ia Lk		Fish	Use Potenti	al: Ye	S
_ocation											
Lk Sylvia S	State Park, main	road to	campgro	ound.							
,											
	_										
Data Sourc	:e										
Organizati	ion: Washingto	n Depa	rtment of	f Fish ar	nd Wild	life					
Field Crew	v: Ingram;Ro	mero			Survey	/ Date:	04/22/2008				
	Culve	rt Detai	ils				Lev	el A Parame	eters		
ID Shape	<u>Material</u> <u>Span</u>	<u>Rise</u>	<u>Length</u>	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	<u>Location</u>	<u>Countersunk</u>	Backwater	<u>Slope (%</u>	<u>5)</u>
1.1 RND	CST 0.91	0.91	18.00	0.36	NO	0.00		No		1.55	
All dimension	s in meters										
Channel De	escription			Plu	unge P	ool		R	oad		
Toe Width	n (m):		1.7	L	ength	(m):	0.00	F	Fill Depth (m	ı):	2.00
Average V	Vidth (m):	-!	99.99	n	Max De	pth (m):	-99.99				
Culvert/St	ream Width Ratio):	0.54	(онм м	/idth (m):	-999.99				
						. ,					
Assessmer	nt Results										
Barrier [.]	Vec	1	Passahili	tv (%)·		67	N	lethod:			

Barrier:	Yes	Passability (%):	67	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

Species										
Sockeye	Pink 📃	Chum 📃	Chinook 📃	Coho 🔳	Steelhead	Sea Run (Cutthroat 🖌	Resident Tro	out 🔲 Bull T	Frout
Potential Habita	at Gain									
Survey Type				Snawnin	na (sa m).			Length (n	n).	

Survey Type:	Spawning (sq m):	Length (m):
Significant Reach: Unknor	wn Rearing (sq m):	PI Total

		Level A Cu	Ivert Asse	essment	Report			
Site ID: 940)435	Facility	1					
Latitude: 46.	996277373	Stream	n: un	named		WF	RIA:	22.0000
Longitude: -12	3.591305885	Tributa	ary To: Sy	vlvia Lk		Fisl	h Use Potentia	al: Yes
Location Lk Sylvia State	Park. Main c	ampgroud road	on E side c	of lake.				
Data Source								
Organization:	Washington	Department of F	ish and W	ildlife				
Field Crew:	Ingram;Rom	iero	Surv	vey Date:	04/22/2008]		
	Culvert	Details			Leve	A Parar	neters —	
	terial <u>Span</u> PCC 0.30 neters		<u>NDIC Apro</u> 0.12	on <u>WSDr</u> 0.00	op Location C	Countersur No	nk <u>Backwater</u>	<u>Slope (%)</u> 1.33
Channel Descri	ption		Plunge	e Pool			Road	
Toe Width (m) Average Width Culvert/Stream	n (m):	0.7 -99.99 0.43	Max I	th (m): Depth (m) ′ Width (m			Fill Depth (m): 1.50
Assessment Re	esults							
Barrier:	Yes Slope	Passability Fishway Pr		67 No		ethod: echeck:	Lev	el A
Comments								
Species								
Sockeye	Pink 🔲 Chum	Chinook 🔲 🤇	Coho 🔲 Ste	eelhead 🔳	Sea Run Cuttl	hroat 🖌 F	Resident Trout [Bull Trout
Potential Habita	at Gain							
Survey Type:			Spawning ((sq m):			Length (m):	
	1	J		L				·

Rearing (sq m):

Significant Reach:

No

PI Total

Level A Culvert Assessment Report

Site ID:	940439	Facility			
Latitude:	47.003564887	Stream:	unnamed	WRIA:	22.0000
Longitude:	-123.589691368	Tributary To:	Sylvia Lk	Fish Use Potentia	l: No

Location

Lake Sylvia State Park. Trail on W side of Sylvia Lk.

Data Source

Organization:	Drganization: Washington Department of Fish and Wildlife									
Field Crew:	v: Ingram;Romero Survey Date: 04/22/2008					3				
	(Culvert	t Detai	ls —			Lev	el A Parame	ters	
<u>ID Shape Ma</u>	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND \$	SST	0.25	0.25	-999.90	-99.99		-99.99	Unknown		-99.99
All dimensions in r	neters									

Channel Description			Plunge Pool			Road		
Toe Width (m):	-99.99		Length (m):	-999.99		Fill Depth (m):	-999.90	
Average Width (m):	-99.99		Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99				

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940442	Facility			
Latitude:	47.362478851	Stream:	unnamed	WRIA:	16.0218
Longitude:	-123.157318523	Tributary To:	Hood Canal	Fish Use Potential	: Yes

Location

Potlach State Park. This site is directly behind the Park Manager's trailer.

Data Source

Organization:	Washington Department of Fish a		
Field Crew:	Phinney;Romero	Survey Date: 03/27/2012]
	Culvert Details	Leve	I A Parameters

<u>ID</u>	<u>Shape</u>	Material	<u>Span</u>	<u>Rise</u>	<u>Length</u>	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>	
1.1	RND	CST	0.61	0.61	5.00	0.09	NO	0.00		Yes	No	0.20	
All dir	mensions	in meters											

Channel Description		Plunge Pool		_	Road	
Toe Width (m):	1.1	Length (m):	0.00		Fill Depth (m):	0.50
Average Width (m):	2.67	Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	0.23	OHW Width (m):	-999.99			

Assessment Results

Barrier:	Yes	Passability (%):	67	Method:	Level B
Reason:	Velocity	Fishway Present:	No	Recheck:	

Comments

Culvert is undersized and does not meet the velocity criteria.	
pecies	

Sockeye 🔲 Pin	k 🖌 Chum 🔲 Chinoo	k 🖌 Coho 🔲 Steelhead 🖌 🤅	Sea Run Cutthroat 🔽	Resident Trout 🔲 Bull	Trout
Potential Habitat G	Bain				
	DOFO		<u> </u>	Longth (m)	007

Survey Type:	RSFS	Spawning (sq m):	623	Length (m):	287
Significant Reach:	Yes	Rearing (sq m):	334	PI Total	14.90

Site ID: 940	446	Faci	lity						
Latitude: 47.0	97220549	Stre		unnan			WRIA		22.0000
Longitude: -12:	3.466408247	Trib	utary To:	EF Sa	tsop R		Fish	Use Potentia	l: No
_ocation									
Schafer State F	Park								
Data Source									
Organization:	Washington	Department of	Fish an	d Wildlif	е				
Field Crew:	Ingram;Rome	ero		Survey I	Date: 0	4/29/2008]		
	Culvert	Details				Leve	I A Parame	eters	
ID Shape Mat	erial Span	Rise Length	<u>WDIC</u>	<u>Apron</u>	WSDrop	Location C	Countersunk	Backwater	<u>Slope (%)</u>
1.1 SQSH C	ST 1.37	0.91 -999.90	-99.99	NO	-99.99		Unknown		-99.99
All dimensions in m	eters								
Channel Descri	otion		Plu	inge Po	ol		R	oad	
Toe Width (m):		-99.99	L	ength (n	n):	-999.99	F	Fill Depth (m)	: -999.90
Average Width	(m):	-99.99	N	lax Dep	th (m):	-99.99			
Culvert/Stream	Width Ratio:	-99.99	C	DHW Wi	dth (m):	-999.99			
Assessment Re	sults								
Barrier:	N/A	Passabili	ty (%):	N/	A	M	ethod:	N/	Ά
Reason:	N/A	Fishway	Present:	N	0	Re	echeck:		
Comments									
Species									
Potential Habita	t Gain								
Survey Type:			Spourp	ing (sq r	m):			ength (m):	

Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

			-		
Site ID: 940462	Facility				
Latitude: 47.888837575	Stream:	Unnamed		WRIA:	17
Longitude: -122.639635597	Tributary To:	Bywater Bay		Fish Use Potential	Yes
Location					
Wolfe Property. Located on t	rail from Paradise Bay	y Rd. to kayak-ac	cess campgrou	ind.	
Data Source					
Organization: Washington I	Department of Fish an	nd Wildlife			
Field Crew: Erkel;Romero	D	Survey Date: 0	9/13/2011		
Culvert I	Details		Level A F	Parameters	
<u>ID Shape Material Span</u> I	Rise Length WDIC	Apron WSDrop	Location Coun	tersunk Backwater	<u>Slope (%)</u>
1.1 RND CST 0.31 (0.31 6.40 0.00	NO 0.31	Outlet	No No	2.95
All dimensions in meters					
Channel Description	Plu	unge Pool		Road	
Toe Width (m):	L	ength (m):	0.00	Fill Depth (m):	2.50
Average Width (m):	1.50 N	/lax Depth (m):	-99.99		
Culvert/Stream Width Ratio:	0.21	OHW Width (m):	-999.99		
				L	
Assessment Results					
Barrier: Yes	Passability (%):	33	Metho	d: Leve	I A
Reason: WS Drop	Fishway Present:	No	Reche	eck:	

Comments

Stream was dry at time of inspection		

Species

Survey Type:	Spawning (sq m):	Length (m):
Significant Reach: Unknown	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 940465		Facility				
Latitude: 47.538293	63	Stream:	Unnamed		WRIA:	15
Longitude: -122.48600	60766	Tributary To:	Puget Sound	b	Fish Use Potential:	No
ocation						
Located on Perimeter	Road that loops	around the is	land.			
oata Source						
Organization: Wash	ington Departmo	ent of Fish and	d Wildlife			
Field Crew: Erkel;	Romero		Survey Date:	11/30/2011		
C	ulvert Details -			Level A	Parameters	
ID Shape Material	<u>Span Rise Le</u>	ngth WDIC	Apron WSDro	<u>p_Location_Coun</u>	tersunk Backwater S	lope (%)
1.1 RND PVC (0.30 0.30 -99	99.90 -99.99	-99.99	Unl	known ·	-99.99
All dimensions in meters						
		DI	n na Da al		Deed	
Channel Description			nge Pool		Road	
Toe Width (m):			ength (m):	-999.99	Fill Depth (m):	-999.90
Average Width (m):	-99.9		lax Depth (m):	-99.99		
Culvert/Stream Width	Ratio: -99.9	9 0	HW Width (m)	-999.99		
ssessment Results						
Barrier: N/A	Pas	sability (%):	N/A	Metho	od: N/A	
Reason: N/A	Fish	way Present:	No	Reche	eck:	
Comments						
pecies						

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 940466	Fac	cility				
Latitude: 47.5338287	776 Str	eam:	Unnamed	١	WRIA:	15
Longitude: -122.49741	063 Trik	outary To:	Puget Sound	I	Fish Use Potential:	No
ocation						
Blake Island State Parl	k. Located on Perin	neter Road	l.			
oata Source						
Organization: Washi	ngton Department	of Fish and	l Wildlife			
Field Crew: Erkel;F	Romero	S	Survey Date: 1	1/30/2011		
Cı	Ivert Details			Level A Pa	rameters	
ID Shape Material S	<u>pan Rise Length</u>	<u>WDIC</u>	Apron <u>WSDrop</u>	Location Counter	<u>sunk Backwater Sl</u>	<u>ope (%)</u>
1.1 RND CAL 0	.23 0.23 -999.90	0 -99.99	-99.99	Unkno	own -	99.99
All dimensions in meters						
Channel Description		Dlu	nge Pool		Road	
						000.00
Toe Width (m):			ength (m):	-999.99	Fill Depth (m):	-999.90
Average Width (m):	-99.99		ax Depth (m):	-99.99		
Culvert/Stream Width	Ratio: -99.99	O	HW Width (m):	-999.99		
ssessment Results						
Barrier: N/A	Passab	lity (%):	N/A	Method:	N/A	
Reason: N/A	Fishway	Present:	No	Recheck		
Comments						
Johnnenits						
Species						

Survey Type: Spawning (sq m): Length (m): Image: Comparison of the state o

Level A Culvert Assessment Report

Site ID:	940467	Facility						
atitude:	47.544341335	Stream:	Unn	amed		WF	RIA:	15
ongitude:	-122.501541837	Tributary	To: Pug	et Sound		Fis	h Use Potential:	No
cation								
Blake Islan	d State Park. Lo	cated on Perimeter R	oad.					
ata Source	9							
Organizatio	on: Washingtor	n Department of Fish	and Wild	llife				
Field Crew	: Erkel;Rome	ero	Surve	y Date: 1	1/30/2011			
	Culver	t Details			Level	A Parar	neters	
ID Shape	<u>Material</u> <u>Span</u>	<u>Rise Length WD</u>	IC Apron	<u>WSDrop</u>	Location Co	ountersur	n <u>k Backwater Sl</u>	<u>ope (%)</u>
1.1 RND	CST 0.30	0.30 -999.90 -99.	99	-99.99	ι	Jnknowr) -	99.99
II dimensions	in meters							
nannel De	scription		Plunge F	lool			Road	
Toe Width	(m):		Length	(m):	-999.99		Fill Depth (m):	-999.90
Average W	/idth (m):	-99.99	Max De	epth (m):	-99.99			
Culvert/Str	eam Width Ratio	o: -99.99	OHW V	Vidth (m):	-999.99			
sessmen	t Results					l		
Barrier:	N/A	Passability (%)):	N/A	Met	hod:	N/A	
Reason:	N/A	Fishway Prese	ent:	No	Rec	heck:		
omments								
ecies								

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 940468	Facility				
atitude: 47.54279006	Stream:	Unnamed		WRIA:	15
ongitude: -122.49719484	Tributary To:	Puget Sound		Fish Use Potential:	No
ocation					
Blake Island State Park. Loca	ted on Perimeter Roa	d.			
ata Source					
Organization: Washington D	epartment of Fish and	d Wildlife			
Field Crew: Erkel;Romero		Survey Date: 1	1/30/2011		
Culvert D	etails		Level A P	arameters	
ID Shape Material Span R	ise Length WDIC	Apron WSDrop	Location Counter	ersunk Backwater Sl	ope (%)
1.1 RND CST 0.30 0.	.30 -999.90 -99.99	-99.99	Unkı	- nown	99.99
Il dimensions in meters					
hannel Description	Plu	nge Pool		Road	
Toe Width (m):	Le	ength (m):	-999.99	Fill Depth (m):	-999.90
Average Width (m):	-99.99 M	ax Depth (m):	-99.99		
Culvert/Stream Width Ratio:	-99.99 O	HW Width (m):	-999.99		
ssessment Results					
Barrier: N/A	Passability (%):	N/A	Method	I: N/A	
Reason: N/A	Fishway Present:	No	Recheo	sk:	
omments					
pecies					

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: 940	0469	Facility					
Latitude: 47.	544648725	Stream:	U	Innamed		WRIA:	15
Longitude: -12	2.492876847	Tributar	у То: Р	uget Sound		Fish Use Potential:	No
ocation Blake Island S	tate Park, loca	ated on Perimeter	Road				
Data Source							
Organization:	Washington	Department of Fis	sh and V	Vildlife			
Field Crew:	Erkel;Romer	0	Su	rvey Date: 1	1/30/2011		
	Culvert	Details			Level A	Parameters	
<u>ID</u> Shape <u>Ma</u> 1.1 RND F	<u>terial</u> <u>Span</u> VC 0.30		<u>DIC Ap</u> 9.99	oron <u>WSDrop</u> -99.99			<u>lope (%)</u> -99.99
All dimensions in m	neters						
Channal Dagari	intion		Dlung			Peed	
Channel Descri			_	e Pool	000.00	Road	000.00
Toe Width (m)				gth (m):	-999.99	Fill Depth (m):	-999.90
Average Width Culvert/Stream		-99.99 -99.99		Depth (m): WWidth (m):	-99.99 -999.99		
Assessment Re	esults						
Barrier:	N/A	Passability (9	%):	N/A	Meth	od: N/A	
Reason:	N/A	Fishway Pres	sent:	No	Rech	eck:	
Comments Species							
Potential Habita	at Gain						

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: Latitude: Longitude	940470 47.544671 -122.49266			am:	Unnamed Puget Soun	d	WRI/ Fish I	A: Use Potential:	15 No
Location Blake Isla	nd State Par	k, locate	ed on Perime	eter Road					
Data Sourc	e								
Organizat	ion: Washi	ington D	Department c	f Fish an	d Wildlife				
Field Crev	w: Erkel;	Romero)		Survey Date:	11/30/2011			
	C	ulvert D	Details ——			Leve	I A Parame	eters	
ID Shape 1.1 RND All dimension	CST (Rise <u>Length</u> 9.30 -999.90	<u>WDIC</u> -99.99	<u>Apron</u> <u>WSDrc</u> -99.99		countersunk Unknown		p <u>e (%)</u>)9.99
Channel D	escription			Plu	nge Pool		Re	oad	
Toe Widtl	n (m):	[L	ength (m):	-999.99	F	Fill Depth (m):	-999.90
Average \	Nidth (m):		-99.99	N	lax Depth (m):	-99.99			
Culvert/S	tream Width	Ratio:	-99.99	C	HW Width (m): -999.99			
Assessme	nt Results								
Barrier:	N/A		Passabil	ity (%):	N/A	Me	ethod:	N/A	
Reason:	N/A		Fishway	Present:	No	Re	echeck:		
Comments									
<u> </u>									
Species									
Potential H	labitat Gain								

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID: Latitude: Longitude	940471 47.544313 -122.49066		Stre	ility eam: outary To:	Unnamed Puget Soun	d	WRI/ Fish	A: Use Potential:	15 No
Location Blake Isla	nd State Par	rk, locate	ed on Perim	eter Road	1				
Data Sourc	e								
Organizat	ion: Wash	ington D	Department of	of Fish an	d Wildlife				
Field Crev	w: Erkel;	Romero)		Survey Date:	11/30/2011			
	C	ulvert D	Details			Leve	I A Parame	eters	
ID Shape 1.1 RND All dimensior	CST (<u>Rise</u> <u>Length</u> 0.30 -999.90	<u>WDIC</u>) -99.99	<u>Apron</u> <u>WSDrc</u> -99.99		<u>countersunk</u> Unknown		o <u>pe (%)</u> 99.99
Channel D	escription			Plu	inge Pool		R	oad	
Toe Widtl	n (m):			L	ength (m):	-999.99	F	Fill Depth (m):	-999.90
Average \	Nidth (m):		-99.99	N	lax Depth (m):	-99.99			
Culvert/St	tream Width	Ratio:	-99.99	С	HW Width (m): -999.99			
Assessme	nt Results								
Barrier:	N/A		Passabi	lity (%):	N/A	Me	ethod:	N/A	
Reason:	N/A		Fishway	Present:	No	Re	echeck:		
Comments	5								
	·								
Species									
Potential H	labitat Gain								

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID:	940474	Fa	acility					
Latitude:	47.540663857	St	tream:	Unnamed		W	RIA:	15
Longitude:	-122.48802705	4 Ti	ributary To:	Unnamed	Unnamed		sh Use Potential:	No
ocation								
Blake Islan	d State Park, lo	cated on spur	road to we	ll and pump hou	ISE			
Data Source	9							
Organizatio	on: Washingto	n Departmen	t of Fish an	d Wildlife				
Field Crew:	: Ingram;Ro	mero		Survey Date:	12/08/2011			
	Culve	rt Details —			Level	A Para	meters	
ID Shape	Culve Material Span	rt Details — <u>Rise</u> Leng	th <u>WDIC</u>	Apron WSDrop				Slope (%)
ID Shape 1.1 RND				Apron WSDrop -99.99			nk <u>Backwater</u> S	<u>lope (%)</u> -99.99
	MaterialSpanPVC0.38	<u>Rise</u> Leng				ountersu	nk <u>Backwater</u> S	
1.1 RND	Material Span PVC 0.38 s in meters	<u>Rise</u> Leng	90 -99.99			ountersu	nk <u>Backwater</u> S	
1.1 RND All dimensions	MaterialSpanPVC0.38a in meters	<u>Rise</u> Leng	90 -99.99 Plu	-99.99		ountersu	<u>nk Backwater S</u> n	
1.1 RND All dimensions Channel Des Toe Width	Material PVC 0.38 in meters scription (m):	<u>Rise Leng</u> 0.38 -999.	90 -99.99 Plu	-99.99 Inge Pool ength (m):	<u>Location</u> <u>C</u> -999.99	ountersu	nk <u>Backwater S</u> n Road	-99.99
1.1 RND All dimensions Channel Des Toe Width Average W	Material PVC 0.38 in meters scription (m):	<u>Rise Leng</u> 0.38 -999.	90 -99.99 Plu	-99.99	<u>Location</u> <u>C</u> -999.99 -99.99	ountersu	nk <u>Backwater S</u> n Road	-99.99
1.1 RND All dimensions Channel Des Toe Width Average W	Material Span PVC 0.38 in meters	<u>Rise Leng</u> 0.38 -999.	90 -99.99 Plu	-99.99 Inge Pool ength (m): Iax Depth (m):	<u>Location</u> <u>C</u> -999.99 -99.99	ountersu	nk <u>Backwater S</u> n Road	-99.99
1.1 RND All dimensions Channel Des Toe Width Average W Culvert/Stre	Material Span PVC 0.38 in meters	<u>Rise Leng</u> 0.38 -999. 	90 -99.99 Plu	-99.99 Inge Pool ength (m): Iax Depth (m):	<u>Location</u> <u>C</u> -999.99 -99.99 -999.99	ountersu	nk <u>Backwater S</u> n Road	-99.99

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

		_				ment Report			
Site ID: 940	475		Facili	ty					
Latitude: 47.	atitude: 47.540227946			m:	Unna	med	WRIA:		
Longitude: -12	2.489427651		Tribu	tary To:	Puge	t Sound	Fish l	Jse Potentia	al: No
Location									
Blake Island St	ate Park, loc	ated on	sour roa	d to we	ll and p	ump house			
			opurioc		n ana p				
Data Source									
Organization:	Washingtor	n Depart	tment of	Fish and	d Wildli	fe			
Field Crew:	Ingram;Ror	nero			Survey	Date: 12/08/201	1		
					,				
	Culver	t Details	s			Le	vel A Parame	ters	
ID Shape Mat	erial <u>Span</u>	<u>Rise</u>	<u>Length</u>	<u>WDIC</u>	<u>Apron</u>	WSDrop Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND P	VC 0.30	0.30	-999.90	-99.99		-99.99	Unknown		-99.99
All dimensions in m	eters								
Channel Descri	ption			Plu	nge Po	ool	Ro	bad	

channel Description	Flulige Fool	Rudu
Toe Width (m):	Length (m): -999.99	Fill Depth (m): -999.90
Average Width (m): -99.99	Max Depth (m): -99.99	
Culvert/Stream Width Ratio: -99.99	OHW Width (m): -999.99	

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940476	Facility			
Latitude:	47.540010166	Stream:	Unnamed	WRIA:	15
Longitude:	-122.489768111	Tributary To:	Puget Sound	Fish Use Potential:	Νο

Location

Blake Island State Park, located on spur road to well and pump house

Data Source

Organization: Washington Department of Fish and Wildlife										
Field Crew:	Ingram;Rc	mero			Survey	Date:	12/08/201	1		
	Culve	rt Detai	ils —				Lev	vel A Parame	ters	
<u>ID</u> <u>Shape</u> <u>Ma</u>	terial <u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDro</u>	p Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND P	VC 0.30	0.30	-999.90	-99.99		-99.99		Unknown		-99.99
All dimensions in m	neters									

Channel Description	ription		Plunge Pool			Road		
Toe Width (m):			Length (m):	-999.99		Fill Depth (m):	-999.90	
Average Width (m):	-99.99		Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	-99.99		OHW Width (m):	-999.99				

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

	4							
	477	Facilit Strear	-	Unnamed		\\/	RIA:	15
Langitude: -12	54089645 2 495220729			: Puget Soun	d		sh Use Potential:	No
Longitude12	2.400009700	THDUG	ary to	- Puget Soun	u	L L L	ST USE POLEIILIAI.	NO
_ocation								
Blake Island St	ate Park, loca	ated on spur road	d to we	ell and pumpho	use			
Data Source								
Organization:	Washington	Department of F	- ish ar	nd Wildlife]		
Field Crew:	Ingram;Rom	iero		Survey Date:	12/08/2011			
	Culvert	Details			Leve	el A Para	meters	
ID Shape Mat	erial <u>Span</u>	Rise Length	WDIC	Apron WSDro	p Location	Countersu	nk Backwater Slo	ope (%)
1.1 RND P	VC 0.30	0.30 -999.90	-99.99	-99.99		Unknow		99.99
All dimensions in m	eters							
Channel Descri	ption		Pl	unge Pool			Road	
Toe Width (m):	:		L	_ength (m):	-999.99		Fill Depth (m):	-999.90
Average Width	(m):	-99.99	ſ	Max Depth (m):	-99.99			
Culvert/Stream	Width Ratio:	-99.99	(OHW Width (m): -999.99			
Assessment Re	oulto					·		
Barrier:	N/A	Passability	(%)·	N/A	N	lethod:	N/A	
Reason:	N/A	Fishway Pi				echeck:		
			00011	. 110				
Comments								
Species								

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Site ID:	940478		Facility				
Latitude:	47.53108768	2	Stream:	Unnamed		WRIA:	15
Longitude	-122.4927021	07	Tributary To	Puget Sour	nd	Fish Use Potential:	Νο
Location							
Blake Isla	nd State Park,	ocated on F	Perimeter Road	b			
Data Sourc	e						
Organizat	ion: Washing	ton Departn	nent of Fish ar	nd Wildlife			
Field Crev	v: Ingram;F	omero		Survey Date:	12/08/2011		
	Culv	ert Details			Level A	Parameters	
<u>ID</u> Shape	<u>Material</u> <u>Spa</u>	<u>n Rise L</u>	ength WDIC	Apron WSDr	op Location Cou	ntersunk <u>Backwater</u> <u>S</u>	lope (%)
1.1 RND	PVC 0.30	0.30 -9	999.90 -99.99	-99.9	9 Ur	hknown	-99.99
All dimensior	is in meters						
Channel D	escription		Plu	unge Pool		Road	
Toe Widtl	ר (m):			ength (m):	-999.99	Fill Depth (m):	-999.90
Average \	Vidth (m):	-99.	.99 N	Max Depth (m)	: -99.99		
Culvert/St	ream Width Ra	tio: -99.	.99 0	OHW Width (m	n): -999.99		
Assessme	nt Results						
Barrier:	N/A	Pa	ssability (%):	N/A	Meth	od: N/A	
Reason:	N/A	Fis	hway Present:	No	Rech	eck:	
Comments							
1.82m ou							
Species							
species							
Potential H	abitat Gain						

Survey Type:	Spawning (sq m):	Length (m):
Significant Reach: N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940479	Facility			
Latitude:	47.865778552	Stream:	Unnamed	WRIA:	07
Longitude:	-121.680292451	Tributary To:	Wallace R	Fish Use Potential:	Yes

Location

On private road, Wallace Lk Rd, which is a left turn just before entrance to Wallace Falls State Park.

Data Source

Organization:	Washington Department of Fish a	nd Wildlife
Field Crew:	Ingram;Romero	Survey Date: 12/13/2011
	Culvert Details	Level A Parameters

<u>_ID</u>	<u>Shape</u>	Material	<u>Span</u>	Rise	<u>Length</u>	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	<u>Backwater</u>	<u>Slope (%)</u>	
1.1	RND	PCC	0.46	0.46	8.20	0.05	NO	0.54	Outlet	No	No	1.94	
All dir	mensions	in meters											

Channel Description		Plunge Pool		Road	
Toe Width (m):		Length (m):	2.60	Fill Depth (m):	3.00
Average Width (m):	1.60	Max Depth (m):	0.39		
Culvert/Stream Width Ratio:	0.29	OHW Width (m):	2.30		

Assessment Results

Barrier:	Yes	Passability (%):	0	Method:	Level A
Reason:	WS Drop	Fishway Present:	No	Recheck:	

Comments

Culvert is beginning to fail, bottom section has disconnected and is in the plunge pool along with other discarded	
concrete debris.	

Species

🔲 Sockeye 🔲 Pink 📄 Chum 📄 Chinook 🖌 Coho 🖌 Steelhead 🖌 Sea Run Cutthroat 🖌 Resident Trout 🖌 Bull Trout	

Survey Type:	RSFS	Spawning (sq m):	308	Length (m):	858
Significant Reach:	Yes	Rearing (sq m):	489	PI Total	10.91

Level A Culvert Assessment Report

Site ID: 940	488	Facilit	tv				
	315700948	Stream	•	unnamed		WRIA:	10
Longitude: -12	2.409376909	Tribut	ary To:	unnamed		Fish Use Potential:	No
Location							
Located next to	campground	site 22					
Data Source							
Organization:	Washington I	Department of	Fish and	d Wildlife			
Field Crew:	Erkel;Ingram		Ş	Survey Date:	12/21/2011		
	Culvert	Details				arameters	
ID Shape Mat			WDIC	Apron WSDro			ope (%)
	-	-	-99.99	NO -99.99	-		99.99
All dimensions in m	eters						
Channel Descri	ption		Plu	nge Pool		Road	
Toe Width (m)	:		Le	ength (m):	-999.99	Fill Depth (m):	-999.90
Average Width	(m):	-99.99	Μ	ax Depth (m):	-99.99		
Culvert/Stream	Width Ratio:	-99.99	0	HW Width (m)	: -999.99		
Assessment Re	sults				,		
Barrier:	N/A	Passability	/ (%):	N/A	Method	l: N/A	
Reason:	N/A	Fishway P	resent:	No	Rechec	:k:	
Comments							
	rectly next to c	ampground site	e 22, NF	-B crossing un	der main campgro	und road. Several of	ther NFB
trail crossing fu	irther upstream	n in system. Th	is is the	furthest down	stream Non Fish E	Bearing site on syster	n
Species							
pecies							

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

		LO					pon			
Site ID: 940	499		Facil	ity						
Latitude: 47.2	255981413		Strea	am:	Unna	amed		WRI	A:	15
Longitude: -12	2.750868029	Ð	Tribu	itary To:	Puge	et Sound		Fish	Use Potential	: No
ocation										
Located in SW	corner of pa	irk on loo	p road	to highe	er numb	er camps	ites.			
ata Source										
Organization:	Washingto	n Departr	ment of	Fish an	d Wildl	ife				
-				1			0/04/004			
Field Crew:	Romero				Survey	Dale.)3/01/2012	2		
	Culver	t Details					Lev	vel A Param	eters	
ID Shape Mat	terial Span	<u>Rise</u> I	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop	Location	Countersun	<u>Backwater</u>	<u>Slope (%)</u>
1.1 RND 0	0.30 TH	0.30 -	999.90	-99.99	NO	-99.99		Unknown		-99.99
All dimensions in m	ieters									
hannel Descri	ption			ΡΙι	unge P	ool		F	load	
Toe Width (m)	:			L	.ength ((m):	-999.99	9	Fill Depth (m):	-999.90
()					5	· ·			/	

Average Width (m):	-9
Culvert/Stream Width Ratio:	-9

langer oor	
Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

RND PCC at DS end, RND CST at US.		

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940504	Facility			
Latitude:	47.363844193	Stream:	Unnamed	WRIA:	16
Longitude:	-123.159485001	Tributary To:	Hood Canal	Fish Use Potential:	No

Location

Approx. 330m long pipe located along northern boundary.

Data Source

Organization: Washington Department of Fish and Wildlife										
Field Crew:	Crew: Phinney;Romero Survey Date: 03/27/2012									
	Culvert Details Level A Parameters									
<u>ID Shape</u> Ma	terial Span	Rise	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop	Location	Countersunk	Backwater	Slope (%)

		matorial	opun	1100	Longin		<u> </u>	TTOBIOP LOCATION	obantorbanne	Baolimator		
1.1	RND	PCC	0.46	0.46	-999.90	-99.99	NO	-99.99	Unknown		-99.99	
All dir	All dimensions in meters											

Channel Description		Plunge Pool		Road	Road		
Toe Width (m):		Length (m):	-999.99	Fill Depth (m):	-999.90		
Average Width (m):	-99.99	Max Depth (m):	-99.99				
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	-999.99				

Assessment Results

Barrier:	N/A	Passability (%):	N/A	Method:	N/A
Reason:	N/A	Fishway Present:	No	Recheck:	

Comments

DS end located in short vertical RND 1.22m PCC standpipe. US end is a RND 0.53m PCC located in a concrete vault structure.

Species

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	940509	Facility			
Latitude:	48.753623613	Stream:	Unnamed	WRIA:	02
Longitude:	-122.902879915	Tributary To:	Mud Bay	Fish Use Potential:	Yes

Location

Located on park service road that connects ranger's workshop and boat dock at Fossil Bay.

Data Source

Organization:	Washington Department of Fish a	nd Wildlife	
Field Crew:	Romero;Thompson	Survey Date: 04/02/2012	
	Culvert Details	Level A Parameter	s

<u>_ID</u>	<u>Shape</u>	Material	<u>Span</u>	Rise	<u>Length</u>	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	<u>Backwater</u>	<u>Slope (%)</u>	
1.1	RND	PVC	0.46	0.46	6.60	0.03	NO	0.28	Outlet	No	No	1.37	
All dir	nensions	in meters											

Channel Description		Plunge Pool		Road		
Toe Width (m):		Length (m):	0.00	Fill Depth (m):	1.00	
Average Width (m):	1.80	Max Depth (m):	-99.99			
Culvert/Stream Width Ratio:	0.26	OHW Width (m):	-999.99			

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Other
Reason:	Other	Fishway Present:	No	Recheck:	

Comments

LVL A at low tide. Upstream invert elevation = 7'11", relative to 0 tide. Backwatered at extreme high tide only. When not backwatered by high tide the culvert is an outfall, slope, and depth barrier.

Species

Survey Type:	TD	Spawning (sq m):	-999	Length (m):	-999
Significant Reach:	No	Rearing (sq m):	-999	PI Total	

Level A Culvert Assessment Report

Site ID:	991898	Facility			
Latitude:	47.1589088	Stream:	unnamed	WRIA:	10
Longitude:	-121.7284164	Tributary To:	White R	Fish Use Potential:	Yes

Location

Federation Forest State Park. Located <100 m upstream of Site 991219 (SR 410 Mp 39.19).

Data Source

Organization	Organization: Washington Department of Fish and Wildlife									
Field Crew:	rew: Geroux;Romero Survey Date: 04/25/2007						5/2007			
		Culver	t Detai	ls				Level A Parame	ters	
<u>ID Shape N</u>	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Loc	ation Countersunk	Backwater	<u>Slope (%)</u>
1.1 RND	CST	0.60	0.60	3.00	0.01	NO	0.10	No		4.00
All dimensions ir	All dimensions in meters									

Channel Description	Plunge Pool		Road		
Toe Width (m):	1.4	Length (m):	1.89	Fill Depth (m): 1.50)
Average Width (m):	-99.99	Max Depth (m):	0.15		
Culvert/Stream Width Ratio:	0.43	OHW Width (m):	1.80		

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

Species	

Sockeye 🔲 Pink 🔲 Chum 🔲 Chinook 🖌 Coho 🖌 Steelhead 🔲 Sea Run Cutthroat 🖌 Resident Trout 🖌 Bull Trout	t
tontial Habitat Cain	
tential Habitat Gain	

Survey Type:	TD	Spawning (sq m):	-999	Length (m):	-999
Significant Reach:	No	Rearing (sq m):	-999	PI Total	

Level A Culvert Assessment Report

Site ID:	996678	Facility			
Latitude:	47.1546218	Stream:	unnamed	WRIA:	10
Longitude:	-121.7023759	Tributary To:	White R	Fish Use Potential:	Yes

Location

Federation Forest State Park. 14.9m US of SR 410 MP 40.51 WSDOT site 996662

Data Source

Organization:	Was	Washington Department of Fish and Wildlife									
Field Crew:	Brotman;Hird Survey Date: 05/05/2004				4						
	Culvert Details Leve					vel A Parame	ters				
<u>ID</u> Shape <u>Ma</u>	aterial	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND (DTH	0.46	0.46	12.90	0.03	NO	0.00		No		7.00
All dimensions in r	neters										

Toe Width (m):	0.8
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.57

	Plunge Pool
0.8	Length (m):
99.99	Max Depth (m):
0.57	OHW Width (m):

0.00

-99.99

-999.99

Fill Depth (m):	3.00

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

old road bed; bankfull 1.2m
Species
🔲 Sockeye 🔲 Pink 🔲 Chum 🔲 Chinook 🖌 Coho 🖌 Steelhead 🔲 Sea Run Cutthroat 🖌 Resident Trout 🖌 Bull Trout

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	No	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID: 996679 Latitude: 47.15436	508	Facility Stream:	unnamed	W	RIA:	10
Longitude: -121.706		Tributary To:			sh Use Potential:	Yes
	5204	Thoulary 10.				163
Location						
32.7m US of WSDO	T site 996661 M	P 40.31 on SR	410			
Data Source						_
Organization: Was	shington Departn	nent of Fish and	d Wildlife			
Field Crew: Ger	oux;Romero		Survey Date: 04	/25/2007		
[Culvert Details			Level A Para	meters	
ID Shape Material	<u>Span Rise L</u>	ength WDIC	Apron WSDrop	Location Countersu	unk Backwater S	<u> Slope (%)</u>
1.1 RND CST	0.46 0.46	4.20 0.04	NO 0.43	No		7.40
All dimensions in meters						
Channel Description	1	Plu	nge Pool		Road	
Toe Width (m):	(0.9 Le	ength (m):	0.07	Fill Depth (m):	0.20
Average Width (m):	-99.	.99 M	lax Depth (m):	0.18		
Culvert/Stream Widt	th Ratio: 0.	.51 O	HW Width (m):	1.20		
Assessment Results	•					
Barrier: Yes	Pa	ssability (%):	0	Method:	Level	Α
Reason: WS Di	rop Fis	shway Present:	No	Recheck:		
Comments						
Species						
Sockeye Pink [Chum 🔲 Chin	iook 🖌 Coho 🗸] Steelhead 🔲 Se	a Run Cutthroat 🖌	Resident Trout 🖌	Bull Trout
Potential Habitat Gai	in					
Survey Type:		Spawni	ing (sq m):		Length (m):	
Significant Reach:	No	Rearing	g (sq m):		PI Total	

Level A Culvert Assessment Report

Site ID:	997962	Facility			
Latitude:	47.687863507	Stream:	unnamed	WRIA:	16
Longitude:	-122.902694233	Tributary To:	Hood Canal	Fish Use Potential:	Yes

Location

Heading North on US 101 turn left onto Dosewallips Sate Park entrance Rd. Site is near Park office and housing.

Data Source

Organization:	Washington Department of Fish				
Field Crew:	Hird;Whitney	Survey Date:	12/10/2006]	

-	Culvert Details							Level A Parameters			
	Shape	Material	<u>Span</u>	<u>Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	WSDrop Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.2	2 RND	CST	0.91	0.91	21.10	0.50	NO	0.00	No		2.20
2.2	2 RND	CST	0.91	0.91	21.30	0.44	NO	0.00	No		2.40
All d	All dimensions in meters										

Channel Description

Toe Width (m):	3.2
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.57

Plunge Pool	
Length (m):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Fill Depth (m):	1.00

Road

Assessment Results

Barrier:	Yes	Passability (%):	33	Method:	Level A
Reason:	Slope	Fishway Present:	No	Recheck:	

Comments

Species							
Sockeye F	Pink 📃 Chu	um 🔳 Chinoo	k 🖌 Coho 🔲	Steelhead 🖌	Sea Run Cutthroa	t 📃 Resident Trout 🗌	Bull Trout
Potential Habitat	Gain						
Survey Type:	F	SES	Snawning	n (sa m).	1 453	Length (m).	806

Survey Type:	RSFS	Spawning (sq m):	1,453	Length (m):	806
Significant Reach:	Yes	Rearing (sq m):	886	PI Total	6.83

Level A Culvert Assessment Report

Site ID:	997963	Facility			
Latitude:	47.689512369	Stream:	unnamed	WRIA:	16
Longitude:	-122.911778457	Tributary To:	Hood Canal	Fish Use Potential:	No

Location

Take gravel road on left shortly after entering park entrance. Follow to first major crossing.

Data Source

Organization	Organization: Washington Department of Fish and Wildlife										
Field Crew: Hird,Whitney Survey Date: 12/10/2005								5			
	Culvert Details Leve								/el A Parame	ters —	
										Slope (%)	
1.1 RND CST 0.91 0.91 9.90 0.14 NO 1.90 Outlet								No		10.50	

All dimensions in meters

Channel Description		Plunge Pool		Road	
Toe Width (m):	-99.99	Length (m):	3.50	Fill Depth (m):	1.50
Average Width (m):	-99.99	Max Depth (m):	0.70		
Culvert/Stream Width Ratio:	-99.99	OHW Width (m):	4.00		

Assessment Results

Barrier:	N/A	Passability (%): N/	A Method:	N/A
Reason:	N/A	Fishway Present: N	o Recheck:	

Comments

Species

Potential Habitat Gain

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	N/A	Rearing (sq m):	PI Total

Level A Culvert Assessment Report

Site ID:	FD39	Facility			
Latitude:	48.41407	Stream:	unnamed	WRIA:	03
Longitude:	-122.65024	Tributary To:	Bowman Bay	Fish Use Potential:	Unknown

Location

Deception Pass Sate park Lighthouse Pt. Trail

Data Source

Organization:	Organization: Washington Department of Fish and Wildlife									
Field Crew:	Hird;Ror	nero			Survey	Date: 1	1/13/2006	3		
Culvert Details Level A Parameters										
<u>ID Shape Ma</u>	<u>iterial</u> Spa	<u>n Rise</u>	Length	<u>WDIC</u>	<u>Apron</u>	<u>WSDrop</u>	Location	<u>Countersunk</u>	Backwater	<u>Slope (%)</u>
1.1 RND F	PCC 0.4	0.40	-999.90	-99.99	NO	0.00		No		-99.99

All dimensions in meters

Channel Description		Plunge Pool		Road	
Toe Width (m):	0.53	Length (m):	-999.99	Fill Depth (m):	-999.90
Average Width (m):	-99.99	Max Depth (m):	-99.99		
Culvert/Stream Width Ratio:	0.75	OHW Width (m):	-999.99		

Assessment Results

Barrier:	Yes	Passability (%):	0	Method:	Professional Judgment
Reason:	Debris	Fishway Present:	No	Recheck:	

Comments

small pipe thru berm. Photo of US end. No pipe visible at DS end at low tide, probably buried in sand and gravel.
Footbridge just to the south of site could provide fish passage at extreme high tide/high flow.

Species

Sockeye 🔲 Pi	nk 🔲 Chum 🔲 Chinook	🖌 Coho 🔲 Steelhead 💽	Sea Run Cutthroat	Resident Trout	Bull Trout
Potential Habitat	Gain				
0					

Survey Type:		Spawning (sq m):	Length (m):
Significant Reach:	No	Rearing (sq m):	PI Total

Appendix 3

Photos of Instream Features Evaluated for Fish Passage (photos sorted by Site Identification Number)





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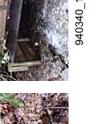




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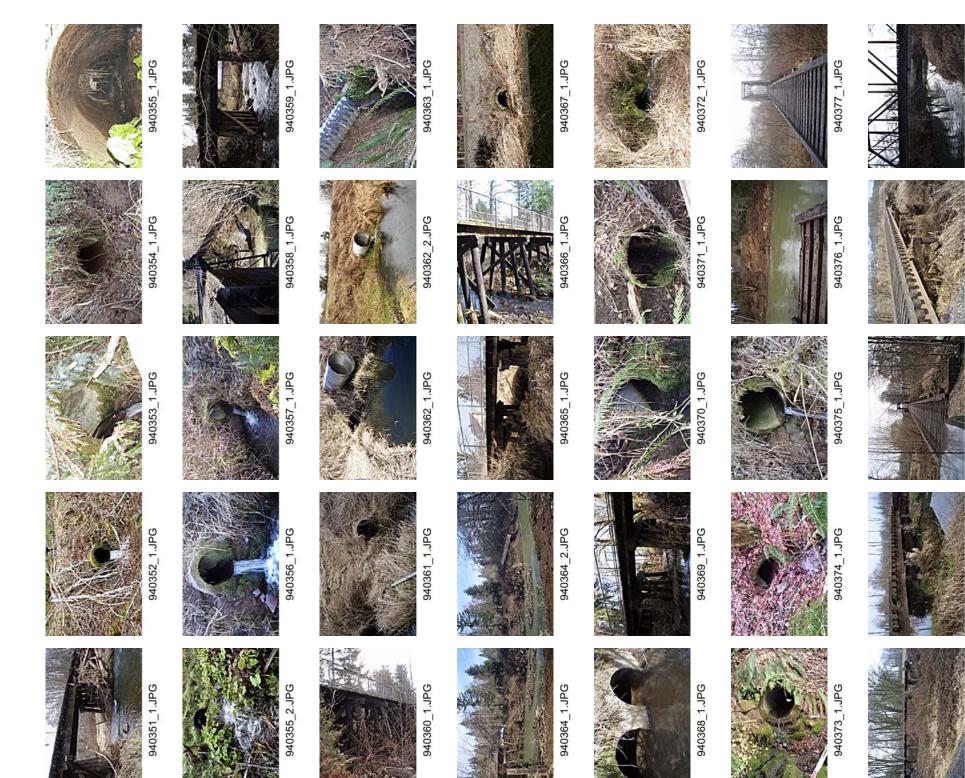


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Appendix 4

Park Lands Descriptions

State Parks located within WRIA's 1-23 are described below.

WRIA 01

Birch Bay

Birch Bay State Park is a campground and day use park with approximately 194 acres of upland habitat and 476 acres of intertidal habitat. It includes saltwater shoreline on Birch Bay and freshwater shoreline on Terrell Creek (WRIA 01.0089). Much of the park is forested.

Larrabee

Larrabee State Park is a campground and day use park, one of the largest State Parks with 2,683 acres of upland habitat. There is significant amount of shoreline on Sammish Bay and Wildcat Cove. Much of the park is high gradient slope with several small and medium sized freshwater lakes and unnamed tributaries to Sammish Bay, Wildcat Cove, Chuckanut Bay, and Chuckanut Creek. Much of the park is forested. A portion of the park is located in WRIA 02.

Peace Arch

Peace Arch State Park is a 20 acre day use park on the U.S./Canada border. There are no fish bearing streams or natural drainages in the park.

WRIA 02

Griffin Bay

Griffin Bay State Park is a narrow 15 acre band of land with a small shoreline. Part of this campground park is forested and the part closest to the saltwater is covered with grass and deciduous shrubs. There are no fish bearing streams on the park, only a modified natural drainage (short section of ditch) which does not flow out to the saltwater.

Lime Kiln Point

Lime Kiln Point State Park is an approximately 42 acre day use park with wooded upland habitat and a rocky shoreline. There are no fish bearing streams or natural drainages located in the park.

Lopez Island Tidelands

Lopez Island Tidelands are a 39 acre parcel of intertidal habitat adjacent to Odlin County Park on Lopez Island. There are no freshwater tributaries that cross these tidelands.

Moran

Moran State Park is one of the largest in the State Park system with approximately 6,170 acres. Much of the park is forested slopes with several lakes, creeks, springs and wetlands. In addition to the central area of the park which includes Mt. Constitution, there are several satellite parcels. The area near Obstruction Pass is well marked and has defined trails. Undeveloped properties near Raccoon Point and Lawrence Point were included in this inventory.

Mud Bay Tidelands

Mud Bay Tidelands are two parcels of land, approximately 73 acres total, located on tide flats of Mud Bay which is part of Lopez Sound. There are no freshwater tributaries that cross these tidelands.

Olga

Olga Property is a small area on the south side of Orcas Island just big enough for a pier and boat dock. No fish bearing streams on this property.

Spencer Spit

Spencer Spit State Park is a 200 acre camping and day use marine park (including tidelands). There is a forested upland area and the namesake sand spit and tidal lagoon. No fish bearing streams are located on this park.

Sucia Island

Sucia Island State Park is a small archipelago of islands known locally as the "Sucia Group". Due to time limitations only a small section of the park was visited for the inventory. A small pocket estuary near the park workshop has a culvert in place under the road that is situated on the closed berm. This pocket estuary in Mud Bay and another similar pocket estuary in Shallow Bay were the only two areas visited by inventory staff.

Upright Channel

Upright Channel State Park is a 20 acre day use park on the northern shore of Lopez Island. The majority of the property is wooded with a dune grass beach area. There are no fish bearing streams on this property. Some natural drainages have been modified. Culverts on these drainages were not considered relevant to the fish passage barrier inventory.

WRIA 03

Bay View

Bay View State Park is a 68 acre camping park (including tidelands) located on the shore of Padilla Bay. The park is a mix of lawn/ landscaping and tree canopy. No fish bearing streams flow on park property.

Deception Pass

Deception Pass State Park is a camping and day use marine park with areas of old growth forest, freshwater lakes and streams, and rocky cliff saltwater shoreline. Approximately half of Deception Pass State Park is located on Fidalgo Island in WRIA 03 (2,123 acres including tideland and islands), half is on Whidbey Island in WRIA 06. Small satellite islands that are part of the park were not visited for this inventory.

Larrabee

Approximately 275 acres of forested area are within the WRIA 03 boundary.

Rasar

Rasar State Park is a located on the banks of the Skagit River. It is a camping and day use park with 173 acres of forest and grass land. No fish bearing streams flow through the park property.

WRIA 04

Cascade Island

Cascade Island is a remote 40 acres of forested, undeveloped property held by State Parks. It is located on the banks of the Cascade River (tributary to the Skagit R.) and has no fish bearing streams through the property.

Everett Property

The Everett Property is a 0.7 acre sliver of forested riverbank on the Skagit River. Lorenzan Creek flows through the property.

O'Brien-Riggs

The O'Brien-Riggs property is a 94 acre mostly forested area with a portion of the property on the bank of the Skagit River. It is mostly undeveloped and has no fish bearing streams crossing through the property.

Rockport

Rockport State Park is located near the base of Sauk Mountain and has 636 acres (including a remote undeveloped property to the east of the main park) of mostly old-growth forest. Several small tributaries to the Skagit River flow through the park. Due to high gradient slopes upstream of the confluence with the Skagit R., the streams are not accessible to anadromous salmonids.

WRIA 05

Mount Pilchuck

Mount Pilchuck State Park is a 1,903 acre area of steep alpine terrain that straddles the WRIA boundary between WRIA's 05 and 07. Approximately 585 acres are within WRIA 05. An alpine lake and several streams flow through the property. The streams are too high gradient to provide salmonid habitat.

WRIA 06

Cama Beach

Cama Beach State Park is situated on Camano Island and is a mostly forested area. There are low gradient slopes and a shoreline along Saratoga Passage. This 388 acre park contains a shallow lake and a seasonal non-fish bearing stream.

Camano Island

Camano Island State Park is a 242 camping and day use park located on Camano Island. Much of the park is a forested upland with coastal bluffs and a shoreline on Saratoga Passage. No fish bearing streams flow through the park. A large portion of the shoreline appears to be an historic closed or pocket estuary that has been modified (filled) to create a day use area.

Deception Pass

Deception Pass State Park is partially in WRIA 06. This section of the park, which is on Whidbey Island contains forested slopes, steep shoreline cliffs, tidal zones, wetlands, and a freshwater lake.

Dugualla

Dugualla State Park is a 600 acre forested day use park located on Whidbey Island with a shoreline on Skagit Bay. There are spring-fed wetlands and non-fish bearing natural drainages in the park. Slopes are steep near the saltwater. The park is minimally developed.

Ebey's Landing

Ebey's Landing is two parcels of property totaling 46 acres held by State Parks on Whidbey Island. The property is located on the saltwater shoreline of Admiralty Inlet. The area includes coastal bluffs and closed lagoons.

Fort Casey

Fort Casey State Park is 1,000 acres and includes tidal areas, a sparsely forested hill, a large tidal lagoon, and a long shoreline. This marine camping and day use park is located on Whidbey

Island and the shoreline faces Admiralty Inlet and Admiralty Bay. A newly acquired 60 acre parcel on the north side of Crockett Lake was not included in this inventory.

Fort Ebey

Fort Ebey State park is a 644 acre marine camping and day use park on Whidbey Island. The park is mostly forested and includes a freshwater lake and a saltwater shoreline with coastal bluffs on the Strait of Juan de Fuca. There are unique geological depressions called "kettles" in the forests of the park.

Joseph Whidbey

Joseph Whidbey State Park is a 208 acre day use park (including tidelands) on Whidbey Island with a saltwater shoreline facing the Strait of Juan de Fuca. The park is a mix of forest, closed brackish lagoon, and flat fields.

Possession Point

Possession Point is 56 acre property held by State Parks on the southern tip of Whidbey Island. The property is undeveloped forest land on steep slopes with coastal bluffs, tidelands, and non-fish bearing natural drainages.

South Whidbey

South Whidbey State Park is 380 acres of mostly forested land on Whidbey Island with a shoreline that faces the Puget Sound. There are coastal bluffs and non-fish bearing natural drainages in this camping and day use park.

WRIA 07

Forks of the Sky

Forks of the Sky property is a 1,383 acre complex of 14 distinct parcels of steep forested slopes and river bank along a seven mile stretch of the Skykomish River. Many tributaries and non-fish bearing natural drainages flow through the properties. This property is not developed and is without park amenities.

Mount Pilchuck

Mount Pilchuck State Park has approximately 1,318 acres within the WRIA 07 boundary.

Wallace Falls

Wallace Falls State Park is a 1385 acre camping and day use park in the foothills of the Cascade Mountains. Most of the park is forested and includes steep slopes, rivers, tributaries, lakes and wetlands.

WRIA 08

Bridle Trails

Bridle Trails State Park is a 489 acre day use park. The park is forested and has very little change in elevation. There are non-fish bearing natural drainages in the park. The park is primarily used by horse riders.

Lake Sammamish

Lake Sammamish State Park is a 532 acre day use park on the shore of Lake Sammamish. Most of the park is flat gradient with deciduous or no canopy. Issaquah Creek flows through the park and has a meandering course. Laughing Jacobs Creek flows through a forested ravine at the north east corner of the park.

Mercer Slough

Mercer Slough property is a complex of several properties totaling 90 acres. The properties are in close proximity to one another and located in the broad floodplain of Richards Cr, tributary to the Cedar River. The area is flat with deciduous shrubs and trees providing canopy. A 20 acre portion of the property is used for agriculture.

Saint Edward

Saint Edward State Park is a 326 acre forested area on the shore of Lake Washington. A small unnamed tributary flows through the park (WRIA 08.0226). A campus of a former seminary sits at the top of the slope that leads to the lake shore.

Squak Mountain

Squak Mountain State Park is 1,592 of forested slopes surrounding the peak of Squak Mountain near the city of Issaquah. Several streams flow through the park but are too small or too steep to provide habitat for salmonids.

WRIA 09

Flaming Geyser

Flaming Geyser State Park is a 504 day use park located on the shore of the Green River. There are forested areas and large mowed pastures. Several tributaries to the Green River flow through the park. There are also wetlands, ponds, and non-fish bearing natural drainages.

GRG - Black Diamond

GRG – Black Diamond is a 333 acre undeveloped park property on the banks of the Green River. The property is forested and small tributaries to the Green River flow through it.

GRG – Hanging Gardens

GRG – Hanging Gardens is a 434 acre undeveloped park property on the banks of the Green River. The property is forested and small tributaries to the Green River flow through it.

GRG – Jellum

GRG – Jellum is a 351 acre undeveloped park property on the banks of the Green River. The property is forested and non-fish bearing drainages flow through it.

Kanaskat – Palmer

Kanaskat – Palmer is a 535 acre undeveloped park property on the banks of the Green River. The property is forested and non-fish bearing drainages flow through it.

Lower Green River

Lower Green River is a complex of five parcels totaling 49 acres on the banks of the Green River. Most of the property is forested and non-fish bearing drainages flow through it.

Nolte

Nolte State Park is 111 acre day use park surrounding Deep Lake and touching the corner of Muskrat Lake. Most of the park is forested with small grass fields. Deep Creek (WRIA 09.0142) flows through the park. Both Deep Lake and Deep Creek provide habitat to resident trout only.

Saltwater

Saltwater State Park is a 137 acre (including tidelands) camping and day use park on the shore of Puget Sound. Most of the park is forested with some small grass fields and large parking lots. McSorely Creek (WRIA 09.0381) flows through the park.

WRIA 10

Auburn Game Farm

Auburn Game Farm is a 4.7 acre property with buildings, landscaping, and parking. No streams flow through the property.

Dash Point

Dash Point State Park is a 459 acre (including tidelands) camping and day use park on the shore of Puget Sound. Most of the park is forested and there are tidelands, an unnamed tributary to Puget Sound, shoreline and small delta/estuary.

Federation Forest

Federation Forest State Park is 594 acres of forested land on both banks of the White River. The park includes areas of floodplain and steep slopes. Several tributaries to the White River flow through the park.

WRIA 11

Elbow Lake

Elbow Lake is a 319 acre property held by State Parks in rural Thurston County. The property is forested, has minimal development and contains freshwater lakes and tributaries.

Nisqually

Nisqually State Park (formerly Nisqually – Mashel) is 1,218 of forested land surrounding the confluence of the Nisqually River and the Mashel River. The park includes river bank, steep slopes, low gradient wetlands, and has an extensive trail system. Tributaries to the Nisqually River, Mashel River, and Ohop Creek flow through the property.

WRIA 12

Steilacoom Lake Shoreland

Steilacoom Lake Shoreland is 2 acres of aquatic lake bed offshore of Steilacoom Lake and was analyzed by aerial photography only.

WRIA 13

Tolmie

Tolmie State Park is a 154 acre day use marine park (including tidelands). The uplands are forested and the park includes a shoreline on the Nisqually Reach of Puget Sound, an estuary, and a small tributary flowing through a broad ravine.

WRIA 14

Harstine Island

Harstine Island Property includes two separate parcels of undeveloped forested land totaling 403 acres. The day use property includes saltwater shoreline on Case Inlet of southern Puget Sound. The property also includes wetlands and freshwater tributaries to Puget Sound.

Jarrell Cove

Jarrell Cove State Park is a 56 acre marine camping park (including tidelands) on Harstine Island in Mason County. Most of the park is forested with some grass fields. There are no fish bearing streams that flow through the park.

Lake Isabella

Lake Isabella Property is a 192 acre area on the shore of Lake Isabella. There are forested areas, large grass fields, and a densely vegetated shoreline. Non-fish bearing natural drainages and wetland ponds are also on the property.

Stretch Point

Stretch Point Property is an eight acre saltwater shoreline area with a small forested upland section. A small closed pocket lagoon is situated at the point which is on the shore of Case Inlet in southern Puget Sound.

Twanoh

Twanoh State Park is a 188 acre camping and day use park on the shore of Hood Canal. Most of the park is forested and includes a fluvial delta, tidelands, shoreline, and forested uplands. Twanoh Creek (WRIA 14.0134) flows through the park.

WRIA 15

Belfair

Belfair State Park is a 94 acre camping and day use park with extensive tidelands located on Hood Canal. Some of the park is forested and much is landscaped grass field. There are estuaries, saltwater shoreline and stream habitat in the park. Mission Creek (WRIA 15.0495) and Little Mission Creek (WRIA 15.0493) flow through the park.

Blake Island

Blake Island State Park is located in central Puget Sound. The island is approximately 480 acres and the park property includes an additional 647 acres of surrounding tidelands and aquatic territory. The island is mostly forested and includes coastal bluffs, small estuaries, wetlands, and non-fish bearing natural drainages.

Camp Calvinwood

Camp Calvinwood Property is a 115 acre forested property in rural Kitsap County. The property includes freshwater lakes and wetlands.

Haley Property

Haley Property is and undeveloped Parks property on the Key Peninsula of Pierce County. The 216 acre property is forested and includes a pocket estuary, tidelands, shoreline on Case Inlet of southern Puget Sound, and riparian habitats. Unnamed tributaries to Puget Sound flow through the property including WRIA 15.0028.

Illahee

Illahee State Park is an 82 acre marine camping and day use park near the city of Bremerton. Most of the park is forested with some landscaped grass fields. There are tidelands and shoreline on the Port Orchard area of Puget Sound as well as riparian areas in the park. Unnamed tributaries to Puget Sound flow through the park including WRIA 15.0265.

Joemma Beach

Joemma Beach State Park is a 113 acre marine camping and day use park located on the Key Peninsula of Pierce County with a shoreline facing Case Inlet of southern Puget Sound. Most of the park is forested. At the time of the inventory there were no fish bearing streams flowing through the park. Clarification of park boundaries has shown that Joemma Beach State Park includes an unnamed tributary to Puget Sound, a small pocket estuary, and a portion of Whiteman Cove.

Kitsap Memorial

Kitsap Memorial State Park is a 63 acre camping and day use park in northern Kitsap County. Most of the park is forested with some large multi-use grass fields. The park includes shoreline and tidelands on Hood Canal. Kinman Creek (WRIA 15.0368) flows through a small section of the park.

Kopachuck

Kopachuck State Park is a 280 acre camping and day use park with shoreline and extensive tidelands and aquatic area. The park is situated between Carr Inlet and Henderson Bay of central Puget Sound. There are no fish bearing streams that flow through the park.

Manchester

Manchester State Park is a 123 acre camping and day use park located on Rich Passage of central Puget Sound. Most of the park is forested with some multi-use grass fields. The park includes a large area of shoreline and tidelands as well as riparian habitat. An unnamed tributary to Beaver Creek flows through the park.

Penrose Point

Penrose Point State Park is a marine camping and day use park located on the Key Peninsula of Pierce County. The 236 acre park property includes extensive intertidal and aquatic area. The park is mostly forested and has shoreline property on Mayo Cove and Carr Inlet of southern Puget Sound. In the park there are estuaries, wetlands, non-fish bearing streams and as well as an unnamed tributary to Puget Sound capable of providing habitat to resident salmonids only.

Scenic Beach

Scenic Beach State Park is a 117 acre camping and day use park (including tidelands) located on the shore of Hood Canal. The park is forested with some grass field area. A small tributary to Hood Canal flows through the property.

Square Lake

Square Lake Property is 232 forested acres in rural Kitsap County with freshwater streams, wetlands, ponds, and lakes.

(Fort Ward) owned by City of Bainbridge Island

Fort Ward was part of the State Park system when visited by field staff in 2007 but is now owned by the City of Bainbridge Island.

(Fay Bainbridge) owned by City of Bainbridge Island

Fay Bainbridge was part of the State Park system when visited by field staff in 2007 but is now owned by the City of Bainbridge Island.

WRIA 16

Dosewallips

Dosewallips State Park is a 605 acre camping and day use park at the confluence of the Dosewallips River and Hood Canal with extensive tidelands included. The area is mostly forested and includes estuaries, shoreline, riparian areas and river bank. Dosewallips River flows through the park as well as tributaries to Dosewallips River and tributaries to Hood Canal.

Lilliwaup Tidelands

Lilliwaup Tidelands are a 21 acre property held by State Parks in the intertidal zone of the shore of Hood Canal.

Pleasant Harbor

Pleasant Harbor State Park is a 1.24 acre sliver of tree-lined road leading to a moorage dock on Pleasant Harbor of Hood Canal. Two small unnamed tributaries to Hood Canal flow through the property.

Potlatch

Potlatch State Park is a 125 acre camping and day use park that includes extensive tidelands located on the southern end of Hood Canal. The upland area is forested and a spring-fed stream flows through the property.

Triton Cove

Triton Cove State Park is a 30 acre day use park on the shore of Hood Canal. The park includes forested upland and tidelands. A non-fish bearing natural drainage flows through the park.

WRIA 17

Anderson Lake

Anderson Lake State Park is a 424 acre day use park that surrounds Anderson Lake. Most of the park is forested with some grass fields. The park contains freshwater tributaries to the lake as well as wetlands.

Fort Flagler

Fort Flagler State Park is a 1,454 acre marine camping and day use park on the northern tip of Marrowstone Island. The park property includes extensive tidelands on the shore of Admiralty Inlet in northern Puget Sound. The park has large forested areas, grass fields, non-fish bearing natural drainages, coastal bluffs and saltwater shoreline.

Fort Townsend

Fort Townsend State Park (formerly Old Fort Townsend State Park) is a 640 acre marine camping and day use park on the shore of Puget Sound. The park is forested with some grass fields and includes tidelands, shoreline, and small unnamed tributaries to Puget Sound. A new acquisition to the park was not part of the inventory when visited by field crew members in 2006.

Fort Worden

Fort Worden State Park is a 445 acre camping and day use park located on the Quimper Peninsula of north western Jefferson County where the Strait of Juan de Fuca meets Admiralty Inlet of Puget Sound. In the park there are forested areas as well as grass fields and buildings associated with the former military base. Included in the park property are shorelines, coastal bluffs, tidelands, and a large brackish lagoon.

H J Carroll Site

H J Carroll Site is a 1.4 acre forested property owned by State Parks and located on the shore of Dabob Bay. No streams flow through the property.

Kinney Point

Kinney Point State Park is a 67 acre marine camping and day use park on Oak Bay of northern Puget Sound. This is a boat access only park that includes forested uplands, shoreline, and coastal bluffs. Small unnamed tributaries to Puget Sound flow through the park.

Miller Peninsula

Miller Peninsula is a 2,894 acre undeveloped park property with shoreline on the Strait of Juan de Fuca and Discovery Bay. The property is forested and has some small unnamed tributaries flowing through it.

Mystery Bay

Mystery Bay State Park is an 18 acre marine park on the shore of Mystery Bay on Marrowstone Island. The park property includes an upland area with deciduous canopy, areas of grass, an estuary, shoreline, tidelands, and aquatic property. A small non-fish bearing stream flows through the property.

Point Hannon

Point Hannon is a 7.6 acre undeveloped park property at the northern end of Hood Canal. The property includes a small wooded upland area, tidelands, and a small closed lagoon.

Right Smart Cove

Right Smart Cove is a 2.1 acre property on the shore of Dabob Bay. The property includes a strip of land leading to a sand spit of an estuary/lagoon area and includes an intertidal zone.

Rothschild House

Rothschild House is located on one half of a city block in the city of Port Townsend.

Sequim Bay

Sequim Bay State Park is a 94 acre camping and day use park on Sequim Bay of the Strait of Juan de Fuca. The park is mostly forested with some grass field areas. The park includes forested uplands, tidelands, shoreline and riparian zones. An unnamed tributary to Sequim Bay (WRIA 17.0297) flows through the park.

Shine Tidelands

Shine Tidelands State Park is a 47 acre shoreline and tideland property just north of the Hood Canal Bridge in Jefferson County. The park includes a closed lagoon.

Wolfe Property

Wolfe Property is a 197 acre marine camping and day use park. The property is forested and includes uplands, tideland, riparian zones, and shoreline on Bywater Bay and Hood Canal. Several small tributaries to Bywater Bay flow through the property.

WRIA 18

There are no park properties in WRIA 18.

WRIA 19

Clallam Bay

Clallam Bay is a Parks owned property at the confluence of the Clallam River with Clallam Bay of the Strait of Juan de Fuca. The property includes a small forested area, river banks, an estuary, saltwater shoreline, and tidelands.

Hoko River/ Cowan Ranch

Hoko River/ Cowan Ranch State Park are a complex of several parcels of land totaling 918 acres. The park includes forested uplands, pastures, river banks, estuary, shoreline, and tidelands. The Hoko River (WRIA 19.0148), Little Hoko River (WRIA 19.0149), and several small tributaries flow through the property.

WRIA 20

Bogachiel

Bogachiel State Park is a 125 acre camping and day use park on the bank of the Bogachiel River in the Olympic Peninsula. The park is forested and includes river shore, uplands, and small unnamed tributaries to the Bogachiel River.

Point of Arches

Point of Arches is a 21 acre of steep forested slope and coastal bluff on the shore of the Pacific Ocean in a remote area of the Olympic Peninsula. There are no fish bearing streams flowing through the property.

Sol Duc

Sol Duc is a 443 acre undeveloped park property on the banks of the Sol Duc River. The property includes forested uplands and river shore. The Sol Duc River (WRIA 20.0096A) flows through the property.

WRIA 21

Griffith-Priday

Griffith-Priday State Park is a 472 acre day use park at the confluence of the Copalis River and the Pacific Ocean. The park includes ocean beach, coastal dunes, river shore, estuary, and wetlands. The Copalis River (WRIA 21.0767), Cedar River (WRIA 21.0768), and unnamed

tributaries flow through this property. New property acquisitions at the confluence of the Copalis and Cedar Rivers were not part of this inventory.

Moclips

Moclips is 5.2 acres of grass and deciduous shrubs in the small town of Moclips. There are no fish bearing streams flowing through this property.

Ocean City

Ocean City State Park is a 221 acre camping and day use park on the upland shore of the Pacific Ocean. There are dense coastal thickets, shore pine, coastal dunes, and wetlands in this park. Part of the park is in WRIA 22.

Pacific Beach

Pacific Beach is a 17 acre camping park at the confluence of Joe Creek(WRIA 21.0740) and the Pacific Ocean. There are some areas of coastal pine, coastal dunes, river shore, and ocean beach.

Seashore Conservation Area

Seashore Conservation Area is a thin strip of coastline of the Pacific Ocean approximately totaling 7,177 acres. The majority of this property is in WRIA 21 and some is in WRIA 22 and WRIA 24. The property includes intertidal zones, coastal dunes and bluffs, and estuaries for all tributaries to the Pacific Ocean along the length of the property.

WRIA 22

Bottle Beach

Bottle Beach State Park is a complex of many small parcels of land that total 64 acres. In this day use park there are small areas of deciduous forest, large grass fields, a coastal slough (Redman Slough, WRIA 21.1317), and intertidal mudflats of Grays Harbor.

Damon Point

Damon Point is a 79 acre accreted sand spit in Grays Harbor. This day use park includes intertidal zones and coastal dunes. State Parks has turned over administration and management of this park to the Washington Department of Natural Resources.

Grayland Beach Approach

Grayland Beach Approach is a six acre day use park upland of the Seashore Conservation Area. The park contains coastal dunes and deciduous shrubs. No fish bearing streams flow through the park.

Lake Sylvia

Lake Sylvia State Park is a 252 acre camping and day use park surrounding a freshwater lake which has no access to anadromous salmonids due to a natural barrier falls at the outlet of the lake. The park is mostly forested with some landscaped areas around the lake. Sylvia Creek (WRIA 22.0261) and many unnamed tributaries flow through the park.

Schafer

Schafer State Park is a 122 acre camping and day use area on the Satsop River. The area is mostly forested and has river shore and riparian areas. East Fork Satsop River (WRIA 22.0360A), Decker Creek (WRIA 22.0445) and an unnamed tributary to East Fork Satsop (WRIA 22.0457) all flow through the park.

Seashore Conservation Area

Seashore Conservation Area is a thin strip of coastline of the Pacific Ocean approximately totaling 7,177 acres. The majority of this property is in WRIA 21 and some is in WRIA 22 and WRIA 24. The property includes intertidal zones, coastal dunes and bluffs, and estuaries for all tributaries to the Pacific Ocean along the length of the property.

Twin Harbors Beach

Twin Harbors Beach State Park is a 222 camping and day use park on the upland shore of the Pacific Ocean. The area includes coastal forests, wetlands, freshwater ponds, sand dunes and includes shoreline which is part of the Seashore Conservation Area.

Westhaven

Westhaven State Park is an 80 acre day use park with shoreline on the Pacific Ocean and Grays Harbor. There are some areas of coastal pine, coastal dune, and intertidal sandy beach. There are no streams that flow through the park.

Westport Light

Westport Light State Park is a 236 acre day use park upland and adjacent to the Seashore Conservation Area. Most of the area is forested with coastal pine. There are no fish bearing streams in this park.

WRIA 23

Millersylvania

Millersylvania State Memorial State Park is a 902 acre camping and day use park. Most of the park is forested, with some old growth cedar. The park includes freshwater lake shore (Deep

Lake), wetlands, creeks, and quarry ponds. Allen Creek (WRIA 23.0000) and Bloom's Ditch (WRIA 23.0684) flow through the park.

Rainbow Falls

Rainbow Falls State Park is a 131 acre camping and day use park located on the bank of the Chehalis River. The park includes areas of old growth forest, grass fields, pasture, and river shoreline. Chehalis River (WRIA 23.0190), Marcuson Cr (WRIA 23.1095), and several unnamed tributaries to the Chehalis River flow through the park.

Willapa Hills Trail

Willapa Hills Trail is a converted railroad that runs 57 miles between Lewis and Pacific Counties and contains 759 acres. Approximately half of the Willapa Hills Trail is in WRIA 23 and half in WRIA 24. In WRIA 23, much of the trail follows the course of the Chehalis River, Rock Creek, and Salmon Creek. Many tributaries flow through the trail property.