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

WDFW
Habitat Program
Restoration Division
Fish Passage Section

Submitted by:
Damon Romero
Susan Cierebiej

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

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.

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

Site Id	Park Name	Stream Name	Tributary to	Feature Type	Lineal Gain (m)	Spawning (m^2)	Rearing (m^2)	PI
105 K041717a	Joemma Beach	Whiteman Cove	Case Inlet	other: dike/levee	1,645	15	17,391	20.59
125 1304W03 A	Willapa Hills Trail	Nicholson 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 1205W05B	Willapa Hills 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 (continued) – Inventoried fish passage barriers with habitat assessments conducted and Priority Index (PI) numbers generated to help prioritize barrier correction.

Site Id	Park Name	Stream Name	Tributary to	Feature Type	Lineal Gain (m)	Spawning (m^2)	Rearing (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 1205W06B	Willapa Hills 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
940345	Willapa Hills Trail	Unnamed	Rock Cr	culvert	560	261	429	8.43
940105	Willapa Hills Trail	Unnamed	Unnamed	culvert	579	0	313	7.91
940347	Willapa Hills Trail	Unnamed	Rock Cr	culvert	793	379	505	6.88
997962	Dosewallips	Unnamed	Hood Canal	culvert	806	1,453	886	6.83
125 1304W13B	Willapa Hills 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
940461	Wolfe Property	Unnamed	Bywater Bay	non-culvert crossing	439	102	211	5.16
940405	Wolfe Property	Unnamed	Bywater Bay	culvert	175	0	44	4.60
940391	Wallace Falls	Unnamed	Wallace R	culvert	171	0	46	3.96
940399	Wolfe Property	Unnamed	Bywater Bay	culvert	110	0	33	3.86
940352	Willapa Hills Trail	Unnamed	Rock Cr	culvert	394	462	415	2.17
940224	Hoko River/ Cowan Ranch	Unnamed	Little Hoko R	other: streambed control	129	183	65	2.15
940226	Hoko River/ Cowan Ranch	Unnamed	Little Hoko R	culvert	435	126	207	2.02
940217	Forks of the Sky	Unnamed	Deer Cr	non-culvert crossing	161	417	287	1.98
940100	Saint Edward	Unnamed	Lk Washington	culvert	150	0	55	1.60
940305	Penrose Point	Unnamed	Puget Sound	culvert	74	4	98	1.07
940306	Penrose Point	Unnamed	Puget Sound	culvert	37	1	40	1.01
940080	Larrabee	Unnamed	Wildcat 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, 940024, 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. Site 940144 is a total barrier culvert but is not accessible 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 940391 has a PI of 3.96 with a gain of 171m. Site 940479 has a PI of 10.91 with a gain of 858m. Sites 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 non-barrier bridge on Rock Creek. Site 940352 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 940373are 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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Appendix 1

Instream Features Evaluated for Fish Passage

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
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

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	unnamed	Little Hoko R	19	Yes	Culvert	Yes	Total
940231	48.25533451	-124.3503157	Hoko River Cowan Ranch	unnamed	Little Hoko R	19	No	Culvert	N/A	N/A
940234	48.24879052	-124.3407789	Hoko River 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

Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Barrier Status	Blockage
940206	47.38409691	-121.4727098	Iron Horse	Humpback Cr	SF Snoqualmie R	07.0512	Yes	Culvert	Yes	Total
940207	47.38470689	-121.5214067	Iron Horse	Hansen Cr	SF Snoqualmie R	07.0505	Yes	Bridge	No	None
940208	47.39612596	-121.5716889	Iron Horse	Harris Cr	SF Snoqualmie R	07.0502	Yes	Culvert	Yes	Total
940210	47.40107244	-121.5816838	Iron Horse	Rock Cr	SF Snoqualmie R	07.0501	Yes	Culvert	Yes	Total
940211	47.42462399	-121.6340712	Iron Horse	Mine Cr	SF Snoqualmie 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
940213	47.43668413	-121.6628643	Iron Horse	Change Cr	SF Snoqualmie R	07.0489	Yes	Bridge	No	None
940214	47.43275983	-121.7523368	Iron Horse	Boxley Cr	SF Snoqualmie R	07.0485	Yes	Streambed Control	Yes	Partial
105 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
940253	47.56513813	-122.0505948	Lake Sammamish	Laughing Jacobs 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

Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Barrier 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

Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Barrier Status	Blockage
						1				
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	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Barrier Status	Blockage
940351	46.5480794	-123.3380422	Willapa Hills Trail	Rock Cr	Chehalis R	23.1155	Yes	Bridge	No	None
940352	46.54766141	-123.3344525	Willapa Hills Trail	unnamed	Rock Cr	23.1159	Yes	Culvert	Yes	Partial
940353	46.55110912	-123.3305872	Willapa Hills Trail	unnamed	Rock Cr	23	No	Culvert	N/A	N/A
940354	46.55278713	-123.320861	Willapa Hills Trail	unnamed	Rock Cr	23	No	Culvert	N/A	N/A
940355	46.55270854	-123.3198047	Willapa Hills Trail	unnamed	Rock Cr	23	Yes	Culvert	Unk	Unk
940356	46.55311288	-123.317361	Willapa Hills Trail	unnamed	Rock Cr	23	Yes	Culvert	Yes	Total
940357	46.55667165	-123.3119527	Willapa Hills Trail	unnamed	Rock Cr	23	Yes	Culvert	Yes	Total
940358	46.55991637	-123.3058562	Willapa Hills Trail	Chehalis R	Grays Harbor	23.0190	Yes	Bridge	No	None
940359	46.56664384	-123.2988926	Willapa Hills Trail	Stowe Cr	Chehalis R	23.1152	Yes	Bridge	No	None
940360	46.59586667	-123.2796544	Willapa Hills Trail	Katula Cr	Chehalis R	23.1147	Yes	Bridge	No	None
940361	46.60000873	-123.2769231	Willapa Hills Trail	unnamed	Chehalis R	23	Yes	Culvert	Yes	Partial
940362	46.61870548	-123.2745875	Willapa Hills Trail	unnamed	Chehalis	23	Yes	Culvert	Yes	Partial
940363	46.62213818	-123.275595	Willapa Hills Trail	unnamed	Chehalis R	23	No	Culvert	N/A	N/A
940364	46.63571014	-123.2605913	Willapa Hills Trail	Chehalis R	Grays Harbor	23.0190	Yes	Washout	No	None
940365	46.63706707	-123.2468785	Willapa Hills Trail	Marcuson Cr	Chehalis R	23.1095	Yes	Bridge	No	None
940366	46.63725333	-123.2087267	Willapa Hills Trail	Dell Cr	Chehalis R	23.1091	Yes	Bridge	No	None
940367	46.63724094	-123.1994358	Willapa Hills Trail	unnamed	Chehalis R	23	Yes	Culvert	Unk	Unk
940368	46.63732085	-123.1822992	Willapa Hills Trail	unnamed	Chehalis R	23	Yes	Culvert	No	None
940369	46.63732696	-123.173496	Willapa Hills Trail	Garret Cr	Chehalis Cr	23.1084	Yes	Bridge	No	None
940370	46.62290222	-123.166036	Willapa Hills Trail	unnamed	Chehalis R	23	No	Culvert	N/A	N/A
940371	46.61725247	-123.1684376	Willapa Hills Trail	unnamed	Chehalis R	23	No	Culvert	N/A	N/A

Site ID	*Latitude	*Longitude	Park	Stream	Tributary to	WRIA	Fish Use?	Feature Type	Barrier Status	Blockage
940372	46.60793088	-123.1511781	Willapa Hills Trail	unnamed	Chehalis R	23	Yes	Culvert	Yes	Partial
940373	46.60959672	-123.1240739	Willapa Hills Trail	unnamed	Chehalis R	23	Yes	Culvert	Yes	Total
940374	46.61124639	-123.12035	Willapa Hills Trail	unnamed	Chehalis R	23	No	Culvert	N/A	N/A
940375	46.61261094	-123.1176599	Willapa Hills 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
940377	46.63544846	-123.0806009	Willapa Hills Trail	Chehalis R	Grays Harbor	23.0190	Yes	Bridge	No	None
940378	46.63334995	-123.0685479	Willapa Hills Trail	unnamed	Chehalis R	23.0952	Yes	Bridge	No	None
940379	46.6347471	-123.0452059	Willapa Hills Trail	unnamed	Chehalis R	23.0947	Yes	Bridge	No	None
940380	46.63848386	-123.0192057	Willapa Hills Trail	Chehalis R	Grays Harbor	23.0190	Yes	Bridge	No	None
940381	46.64432692	-122.9884652	Willapa Hills Trail	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 1205W05B	46.5494241	-123.3314163	Willapa Hills Trail	unnamed	Rock Cr	23.0000	Yes	Culvert	Yes	Total
125 1205W06B	46.55166884	-123.3464601	Willapa Hills Trail	unnamed	Rock Cr	23	Yes	Culvert	Yes	Partial
125 1304W03A	46.6350335	-123.1676928	Willapa Hills Trail	Nicholson Cr	Chehalis R	23.1083	Yes	Culvert	Yes	Partial
125 1304W13B	46.610286	-123.1333619	Willapa Hills 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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Cierebiej Survey Date: 12/17/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	1.45	1.45	12.90	0.11	NO	0.00		Yes		0.90

All dimensions in meters

Channel Description

Toe Width (m):	1.4
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	1.04

Plunge Pool

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

Road

Fill Depth (m):	3.00

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 ☐ 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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**125 1205W05B**	Facility			
Latitude:	**46.5494241**	Stream:	**unnamed**	WRIA:	**23.0000**
Longitude:	**-123.3314163**	Tributary To:	**Rock Cr**	Fish Use Potential:	**Yes**

Location

Willapa Hills Trail State Park.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/19/2008

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.91	0.91	26.90	0.03	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.40	Outlet	No		3.19

Channel Description

Toe Width (m):	1.5
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.61

Plunge Pool

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

Road

Fill Depth (m): 5.50

Assessment Results

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

Comments

Beaver rack US end. DS end outfall into Rock Cr.

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☑ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

Survey Type:	RSFS	Spawning (sq m):	73	Length (m):	115
Significant Reach:	No	Rearing (sq m):	1,464	**PI Total**	12.84

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**125 1205W06B**	Facility			
Latitude:	**46.551668841**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.346460061**	Tributary To:	**Rock Cr**	Fish Use Potential:	**Yes**

Location

Willapa Trails State Park. Across from Cole Rd.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/19/2008

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	SST	0.61	0.61	6.90	0.04	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.13	Outlet	No		2.19

Channel Description

Toe Width (m):	0.75
Average Width (m):	1.70
Culvert/Stream Width Ratio:	0.36

Plunge Pool

Length (m):	3.10
Max Depth (m):	0.45
OHW Width (m):	2.50

Road

Fill Depth (m):	0.50

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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**125 1304W03A**	Facility			
Latitude:	**46.6350335**	Stream:	**Nicholson Cr**	WRIA:	**23.1083**
Longitude:	**-123.1676928**	Tributary To:	**Chehalis R**	Fish Use Potential:	**Yes**

Location

Behind county gravel pit

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 02/25/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.91	0.91	28.40	0.04	NO	0.16	Outlet	No	No	1.41

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

Road

Fill Depth (m):	5.00

Assessment Results

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

Comments

Beaver dam at US end. US end is ponded.

Species

☐ Sockeye ☐ Pink ☐ Chum ☑ Chinook ☑ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

Survey Type:	RSFS	Spawning (sq m):	1,486	Length (m):	5,849
Significant Reach:	Yes	Rearing (sq m):	14,470	**PI Total**	20.21

WDFW Fish Passage and Diversion Screening Inventory Database

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 Potential:	**Yes**

Location

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

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Thompson Survey Date: 02/28/2012

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PVC	0.91	0.91	12.50	0.34	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		No	No	0.40

Channel Description

Toe Width (m):	
Average Width (m):	4.10
Culvert/Stream Width Ratio:	0.22

Plunge Pool

Length (m):	-999.99
Max Depth (m):	0.75
OHW Width (m):	-999.99

Road

Fill Depth (m):	4.00

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 ☐ Pink ☐ Chum ☐ Chinook ☑ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**125 1305W23B**	Facility			
Latitude:	**46.6054245**	Stream:	**Fronia Cr**	WRIA:	**23.1145**
Longitude:	**-123.2758059**	Tributary To:	**Chehalis R**	Fish Use Potential:	**Yes**

Location

Willapa Hills Trail State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Thompson Survey Date: 03/22/2012

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PCC	0.91	0.91	13.00	0.45	NO

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		No	No	1.84

All dimensions in meters

Channel Description

Toe Width (m):	1.5
Average Width (m):	2.00
Culvert/Stream Width Ratio:	0.46

Plunge Pool

Length (m):	10.00
Max Depth (m):	1.00
OHW Width (m):	6.00

Road

Fill Depth (m):	1.50

Assessment Results

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

Comments

Interior slope break, two upstream sections are set at approximately 4% slope.

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☑ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

Survey Type:	RSFS	Spawning (sq m):	2,342	Length (m):	5,627
Significant Reach:	Yes	Rearing (sq m):	23,720	**PI Total**	19.49

WDFW Fish Passage and Diversion Screening Inventory Database

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 and Wildlife

Field Crew: Ponder Survey Date: 05/29/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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 dimensions in meters

Channel Description

Toe Width (m):	4.5
Average Width (m):	5.90
Culvert/Stream Width Ratio:	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

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

☐ 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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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 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):	-999.99
Max Depth (m):	-99.99
OHW Width (m):	-999.99

Road

Fill Depth (m):	15.00

Assessment Results

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

Comments

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 & Wildlife TAPPS

Field Crew: Ingram;Romero Survey Date: 04/22/2008

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	0.01	NO	-99.99		No		-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

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

Road

Fill Depth (m):	4.00

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 Potential:	**No**

Location

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

Data Source

Organization: Mason Conservation District

Field Crew: Haque;Lutz;Schuetzler Survey Date: 05/20/2004

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	-999.90	0.02	NO	-99.99		No		-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

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

Road

Fill Depth (m):	5.00

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Mason Conservation District

Field Crew: Haque;Lutz;Schuetzler Survey Date: 04/20/2004

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.31	0.31	-999.90	0.01	NO	-99.99		No		-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

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

Road

Fill Depth (m):	0.50

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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 Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/22/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	SST	0.25	0.25	-999.90	0.15	NO	0.00		No		-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

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

Road

Fill Depth (m):	0.30

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**127S0387**	Facility			
Latitude:	**47.00414**	Stream:	**unnamed**	WRIA:	**22.0000**
Longitude:	**-123.58932**	Tributary To:	**Sylvia Lk**	Fish Use Potential:	**No**

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: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/22/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	OTH	0.20	0.20	-999.90	0.12	NO	-99.99		No		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	0.4
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.50

Plunge Pool

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

Road

Fill Depth (m):	0.20

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 Wildlife

Field Crew: Ingram;Romero Survey Date: 04/22/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	SST	0.25	0.25	-999.90	0.02	NO	-99.99		No		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Mason Conservation District

Field Crew: Ingram;Romero Survey Date: 04/22/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.30	0.30	-999.90	0.02	NO	-99.99		No		-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

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

Road

Fill Depth (m):	0.50

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/22/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	SST	0.21	0.21	-999.90	0.02	NO	0.00		No		-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

Length (m):	-999.99
Max Depth (m):	0.20
OHW Width (m):	0.50

Road

Fill Depth (m):	0.20

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Mason Conservation District

Field Crew: Ingram;Romero Survey Date: 04/22/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.29	0.29	-999.90	0.02	NO	0.80		No		-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

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

Road

Fill Depth (m):	0.20

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/27/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	BOX	PCC	5.53	2.38	16.20	0.15	NO	0.00		Yes		1.07

All dimensions in meters

Channel Description

Toe Width (m):	2.5
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	2.21

Plunge Pool

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

Road

Fill Depth (m):	0.10

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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 Department of Fish and Wildlife

Field Crew: Phinney;Romero Survey Date: 03/28/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.61	0.61	23.00	0.22	NO	0.00		Yes	No	2.09

All dimensions in meters

Channel Description

Toe Width (m):	2.15
Average Width (m):	2.35
Culvert/Stream Width Ratio:	0.26

Plunge Pool

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

Road

Fill Depth (m):	1.00

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940001**	Facility			
Latitude:	**48.040628136**	Stream:	**unnamed**	WRIA:	**17.0297**
Longitude:	**-123.027708758**	Tributary To:	**Sequim Bay**	Fish Use Potential:	**Yes**

Location

Sequim Bay State Park. 100m US from Sequim Bay

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 11/06/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.91	0.91	32.10	0.08	NO	1.04	Outlet	No		3.30

All dimensions in meters

Channel Description

Toe Width (m):	1.8
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.51

Plunge Pool

Length (m):	3.80
Max Depth (m):	0.58
OHW Width (m):	2.70

Road

Fill Depth (m): 6.00

Assessment Results

Barrier:	Yes	Passability (%):	0	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:	RSFS	Spawning (sq m):	1,435	Length (m):	1,272
Significant Reach:	Yes	Rearing (sq m):	1,256	**PI Total**	9.42

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940011**	Facility			
Latitude:	**48.656592781**	Stream:	**Moran Cr**	WRIA:	**02**
Longitude:	**-122.855471815**	Tributary To:	**Cascade Cr**	Fish Use Potential:	**Yes**

Location

Moran State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 11/15/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	BOX	CPC	1.54	0.95	15.90	0.04	NO	0.00		Yes		3.53

All dimensions in meters

Channel Description

Toe Width (m):	1.6
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.96

Plunge Pool

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

Road

Fill Depth (m):	1.00

Assessment Results

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

Comments

log streambed controls DS

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 11/15/2006

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	10.10	0.07	NO	0.00		No		2.67

All dimensions in meters

Channel Description

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

Plunge Pool

Length (m):	2.10
Max Depth (m):	0.17
OHW Width (m):	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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940013**	Facility			
Latitude:	**48.652080216**	Stream:	**unnamed**	WRIA:	**02**
Longitude:	**-122.85040026**	Tributary To:	**Cascade Lk**	Fish Use Potential:	**Yes**

Location

Midway Campground, Cascade Lk, Moran State Park.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 11/15/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	12.00	0.06	NO	0.00		Yes		2.42

All dimensions in meters

Channel Description

Toe Width (m):	0.6
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.77

Plunge Pool

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

Road

Fill Depth (m):	1.00

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940014**	Facility			
Latitude:	**48.652330708**	Stream:	**unnamed**	WRIA:	**02**
Longitude:	**-122.850200193**	Tributary To:	**Cascade Lk**	Fish Use Potential:	**Yes**

Location

Midway Campround, Cascade Lk, Moran State Park.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 11/15/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CPC	0.46	0.46	42.50	0.06	NO	0.00		Yes		5.99

All dimensions in meters

Channel Description

Toe Width (m):	0.6
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.77

Plunge Pool

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

Road

Fill Depth (m): 1.00

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940015**	Facility			
Latitude:	**48.649591612**	Stream:	**unnamed**	WRIA:	**02**
Longitude:	**-122.843311966**	Tributary To:	**Cascade Lk**	Fish Use Potential:	**Yes**

Location

Moran State Park. Approx. 0.25 miles E of Cascade Lk.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 11/15/2006

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.53	0.53	9.40	0.08	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		No		-99.99

Channel Description

Toe Width (m):	0.8
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.66

Plunge Pool

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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940018**	Facility			
Latitude:	**48.647793962**	Stream:	**unnamed**	WRIA:	**02**
Longitude:	**-122.845492163**	Tributary To:	**Cascade Lk**	Fish Use Potential:	**Yes**

Location

Moran State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 11/15/2006

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.76	0.76	37.90	0.09	NO

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.19	Outlet	No		8.10

All dimensions in meters

Channel Description

Toe Width (m):	0.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	1.09

Plunge Pool

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

Road

Fill Depth (m):	2.00

Assessment Results

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

Comments

Rubble sized rocks placed in culvert outlet creates outfall drop.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940023**	Facility			
Latitude:	**48.648517511**	Stream:	**unnamed**	WRIA:	**02**
Longitude:	**-122.843748187**	Tributary To:	**Cascade Lk**	Fish Use Potential:	**Yes**

Location

Moran State Park, in field near Camp Moran.

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	Countersunk	Backwater	Slope (%)
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

Toe Width (m):	0.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.54

Plunge Pool

Length (m):	1.80
Max Depth (m):	0.33
OHW Width (m):	0.60

Road

Fill Depth (m):	1.00

Assessment Results

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

Comments

Surface grated box at inlet. 0.16 outfall.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940024**	Facility			
Latitude:	**48.648906608**	Stream:	**unnamed**	WRIA:	**02**
Longitude:	**-122.843698554**	Tributary To:	**Cascade Lk**	Fish Use Potential:	**Yes**

Location

Moran State Park near cabins and Camp Moran.

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	Countersunk	Backwater	Slope (%)
1.1	RND	CAL	0.30	0.30	13.60	0.04	NO	0.05	Outlet	No		4.90

All dimensions in meters

Channel Description

Toe Width (m):	0.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.43

Plunge Pool

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

Road

Fill Depth (m): 1.00

Assessment Results

Barrier:	Yes	Passability (%):	0	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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940025**	Facility			
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	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

Plunge Pool

Length (m):	6.20
Max Depth (m):	0.55
OHW Width (m):	4.90

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940032**	Facility			
Latitude:	**48.648187828**	Stream:	**unnamed**	WRIA:	**02**
Longitude:	**-122.820633219**	Tributary To:	**Cascade Cr**	Fish Use Potential:	**Yes**

Location

5m US of confluence with Cascade Cr. Trail to Mountain Lk.

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	Countersunk	Backwater	Slope (%)
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

Toe Width (m):	0.75
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.61

Plunge Pool

Length (m):	1.40
Max Depth (m):	0.27
OHW Width (m):	1.10

Road

Fill Depth (m): 0.00

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 12/05/2006

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	ARCH	MRY	0.76	0.91	14.30	0.13	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		Yes		1.10

Channel Description

Toe Width (m):	1
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.76

Plunge Pool

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

Road

Fill Depth (m): 1.50

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940035**	Facility			
Latitude:	**48.060398438**	Stream:	**unnamed**	WRIA:	**06.0044**
Longitude:	**-122.594364184**	Tributary To:	**Puget Sound**	Fish Use Potential:	**Yes**

Location

South Whidbey State Park. From main entrance follow signs to Group Camp.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 12/12/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	8.90	0.05	NO	0.24	Outlet	No		4.00

All dimensions in meters

Channel Description

Toe Width (m):	0.8
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.58

Plunge Pool

Length (m):	0.70
Max Depth (m):	0.20
OHW Width (m):	1.30

Road

Fill Depth (m): 2.00

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:	Yes	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 12/13/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940038**	Facility			
Latitude:	**48.49858644**	Stream:	**unnamed**	WRIA:	**04**
Longitude:	**-121.624028458**	Tributary To:	**unnamed**	Fish Use Potential:	**Yes**

Location

Rockport State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 12/13/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.91	0.91	11.90	0.08	NO	0.11	Outlet	No		5.60

All dimensions in meters

Channel Description

Toe Width (m):	1
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.91

Plunge Pool

Length (m):	1.00
Max Depth (m):	0.20
OHW Width (m):	1.20

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940039**	Facility			
Latitude:	**48.497210937**	Stream:	**unnamed**	WRIA:	**04**
Longitude:	**-121.623142998**	Tributary To:	**unnamed**	Fish Use Potential:	**Yes**

Location

Rockport State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 12/13/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	8.80	0.09	NO	0.85	Outlet	No		4.30

All dimensions in meters

Channel Description

Toe Width (m):	0.8
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.76

Plunge Pool

Length (m):	1.20
Max Depth (m):	0.25
OHW Width (m):	1.40

Road

Fill Depth (m):	0.50

Assessment Results

Barrier:	Yes	Passability (%):	0	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:	Yes	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940040**	Facility			
Latitude:	**48.496409587**	Stream:	**unnamed**	WRIA:	**04**
Longitude:	**-121.621676062**	Tributary To:	**unnamed**	Fish Use Potential:	**Yes**

Location

Rockport State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 12/13/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	1.22	1.22	12.40	0.10	NO	0.10	Outlet	No		8.30

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):	1.40
Max Depth (m):	0.30
OHW Width (m):	1.80

Road

Fill Depth (m):	0.50

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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940041**	Facility			
Latitude:	**48.492958403**	Stream:	**unnamed**	WRIA:	**04**
Longitude:	**-121.625754062**	Tributary To:	**unnamed**	Fish Use Potential:	**Yes**

Location

Rockport State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 12/13/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	5.90	0.19	NO	0.00		No		3.90

All dimensions in meters

Channel Description

Toe Width (m):	0.6
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.77

Plunge Pool

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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 12/20/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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 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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940058**	Facility			
Latitude:	**48.489809871**	Stream:	**Fern Cr**	WRIA:	**04**
Longitude:	**-121.617799868**	Tributary To:	**Skagit R**	Fish Use Potential:	**Yes**

Location

Road to main campground Rockport State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 12/20/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	SQSH	CST	1.24	0.87	14.00	0.12	NO	0.26	Outlet	No		4.06

All dimensions in meters

Channel Description

Toe Width (m):	1.2
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	1.03

Plunge Pool

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

Road

Fill Depth (m):	1.00

Assessment Results

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

Comments

outfall plunges onto boulder

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940059**	Facility			
Latitude:	**48.492516642**	Stream:	**Fern Cr**	WRIA:	**04**
Longitude:	**-121.615313918**	Tributary To:	**Skagit R**	Fish Use Potential:	**Yes**

Location

Service road, Rockport State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 12/20/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.91	0.91	9.90	0.11	NO	0.29	Outlet	No		7.58

All dimensions in meters

Channel Description

Toe Width (m):	1.2
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.76

Plunge Pool

Length (m):	1.60
Max Depth (m):	0.25
OHW Width (m):	1.80

Road

Fill Depth (m):	0.50

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:	Yes	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

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**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	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

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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 and Wildlife

Field Crew: Geroux;Romero Survey Date: 01/04/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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 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):	-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

There are barrier falls 5m above site. There is also 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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940068**	Facility			
Latitude:	**48.647462796**	Stream:	**unnamed**	WRIA:	**01.0635**
Longitude:	**-122.48069221**	Tributary To:	**Samish Bay**	Fish Use Potential:	**Yes**

Location

Larrabee State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 01/04/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.91	0.91	36.60	0.30	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		No		2.62

Channel Description

Toe Width (m):	1.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.54

Plunge Pool

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

Road

Fill Depth (m): 14.00

Assessment Results

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

Comments

DS end is rusted out, plunges onto rocks.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940069**	Facility			
Latitude:	**48.647083812**	Stream:	**unnamed**	WRIA:	**01**
Longitude:	**-122.480765727**	Tributary To:	**unnamed**	Fish Use Potential:	**Yes**

Location

Larrabee State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 01/04/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	12.20	0.19	NO	0.47	Outlet	No		11.70

All dimensions in meters

Channel Description

Toe Width (m):	0.85
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.72

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

Comments

DS is rusted, outfall plunges onto rocks. Photo is US end.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940070**	Facility			
Latitude:	**48.486917234**	Stream:	**unnamed**	WRIA:	**04**
Longitude:	**-121.620095658**	Tributary To:	**unnamed**	Fish Use Potential:	**Yes**

Location

Rockport State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 12/21/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.30	0.30	3.00	0.05	NO	0.02	Outlet	No		4.26

All dimensions in meters

Channel Description

Toe Width (m):	0.42
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.71

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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 01/10/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
2.2	RND	PVC	0.61	0.61	2.40	0.04	NO
1.2	RND	PVC	0.61	0.61	2.40	0.04	NO

Level A Parameters

ID	WSDrop	Location	Countersunk	Backwater	Slope (%)
2.2	0.10	Outlet	No		1.60
1.2	0.10	Outlet	No		1.60

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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940080**	Facility			
Latitude:	**48.652534498**	Stream:	**unnamed**	WRIA:	**01**
Longitude:	**-122.49060524**	Tributary To:	**Wildcat Cove**	Fish Use Potential:	**Yes**

Location

Larrabee State Park, road to parking lot for ampitheater.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 01/18/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	SQSH	CST	1.44	0.94	9.30	0.02	NO	1.50	Outlet	No		7.43

All dimensions in meters

Channel Description

Toe Width (m):	0.7
Average Width (m):	2.40
Culvert/Stream Width Ratio:	0.60

Plunge Pool

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

Road

Fill Depth (m):	1.00

Assessment Results

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

Comments

Outfall onto boulders.

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☐ Coho ☐ Steelhead ☐ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

Survey Type:	RSFS	Spawning (sq m):	0	Length (m):	26
Significant Reach:	No	Rearing (sq m):	3	**PI Total**	0.79

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940096**	Facility			
Latitude:	**48.660965558**	Stream:	**unnamed**	WRIA:	**02**
Longitude:	**-122.836282438**	Tributary To:	**Paul Cr**	Fish Use Potential:	**Yes**

Location

Moran State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 02/27/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.46	0.46	9.70	0.20	NO	-99.99		No		-0.60

All dimensions in meters

Channel Description

Toe Width (m):	0.9
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.51

Plunge Pool

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

Road

Fill Depth (m):	1.00

Assessment Results

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

Comments

Small channel between two ponded wetlands.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940100**	Facility			
Latitude:	**47.730448262**	Stream:	**unnamed**	WRIA:	**08.0226**
Longitude:	**-122.254755382**	Tributary To:	**Lake Washington**	Fish Use Potential:	**Yes**

Location

Saint Edward State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 03/07/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.31	0.31	3.50	0.31	NO	-99.99		No		5.70

All dimensions in meters

Channel Description

Toe Width (m):	0.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.44

Plunge Pool

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

Road

Fill Depth (m):	0.50

Assessment Results

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

Comments

Culvert has several cinder blocks stacked around the US end; DS end is covered by brick and mortar.

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☐ Coho ☐ Steelhead ☐ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 03/13/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.2	RND	PCC	0.61	0.61	12.40	0.35	NO	0.45	Inlet	No		2.26
2.2	RND	CST	1.14	1.14	4.40	0.20	NO	0.18	Outlet	No		11.24

All dimensions in meters

Channel Description

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

Plunge Pool

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

Road

Fill Depth (m): 1.00

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 ☐ 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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940105**	Facility			
Latitude:	**46.637162326**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.227336366**	Tributary To:	**unnamed**	Fish Use Potential:	**Yes**

Location

Willapa Hills Trail State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Thompson Survey Date: 04/02/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.91	0.91	15.00	0.06	NO	0.22	Outlet	No	No	2.70

All dimensions in meters

Channel Description

Toe Width (m):	1.8
Average Width (m):	3.60
Culvert/Stream Width Ratio:	0.25

Plunge Pool

Length (m):	7.50
Max Depth (m):	0.70
OHW Width (m):	6.00

Road

Fill Depth (m):	0.50

Assessment Results

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

Comments

Culvert empties into private pasture. Plunge pool appears to be wallow and water source for livestock.

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☑ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

Survey Type:	RSFS	Spawning (sq m):	0	Length (m):	579
Significant Reach:	Yes	Rearing (sq m):	313	**PI Total**	7.91

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940106**	Facility			
Latitude:	**46.637060496**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.232071643**	Tributary To:	**Chehalis R**	Fish Use Potential:	**Yes**

Location

Willipa Hills Trail N. of Rainbow Falls State Park.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Thompson Survey Date: 04/02/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.91	0.91	6.70	0.12	NO	0.00		No	No	0.89

All dimensions in meters

Channel Description

Toe Width (m):	0.9
Average Width (m):	3.60
Culvert/Stream Width Ratio:	0.25

Plunge Pool

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

Road

Fill Depth (m): 1.00

Assessment Results

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

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940108**	Facility			
Latitude:	**47.273403368**	Stream:	**unnamed**	WRIA:	**09**
Longitude:	**-122.02007694**	Tributary To:	**Green R**	Fish Use Potential:	**Yes**

Location

Flaming Geyser State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 03/13/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.31	0.31	7.90	0.19	NO	-99.99		No		5.80

All dimensions in meters

Channel Description

Toe Width (m):	1
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.31

Plunge Pool

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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 and Wildlife

Field Crew: Dhunadale;Geroux Survey Date: 02/12/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	9.10	0.07	NO	0.30	Inlet	No		10.30

All dimensions in meters

Channel Description

Toe Width (m):	1.4
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.44

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

Comments

Outlet onto bedrock. Culvert is rusted out on DS end.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940116**	Facility			
Latitude:	**47.273587249**	Stream:	**unnamed**	WRIA:	**09**
Longitude:	**-122.020435922**	Tributary To:	**Green R**	Fish Use Potential:	**Yes**

Location

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 03/13/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.31	0.31	4.40	0.18	NO	-99.99		No		5.20

All dimensions in meters

Channel Description

Toe Width (m):	1
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.31

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 (%):	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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940119**	Facility			
Latitude:	**47.27299586**	Stream:	**unnamed**	WRIA:	**09**
Longitude:	**-122.027994**	Tributary To:	**Green R**	Fish Use Potential:	**Yes**

Location

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Cierebiej Survey Date: 12/14/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	22.60	0.61	NO	0.00		No		0.20

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

Road

Fill Depth (m):	0.50

Assessment Results

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

Comments

Level B not possible; ponded DS 7 US of site; road impounded wetland. Culvert may be undersized, but appears passable; no signs of velocity or depth problems, doesn't look plugged. 11/15/11 Cierebiej;Barber site visit; culvert is submerged, no velocity.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940126**	Facility			
Latitude:	**47.273827767**	Stream:	**unnamed**	WRIA:	**09**
Longitude:	**-122.030449459**	Tributary To:	**Green R**	Fish Use Potential:	**Yes**

Location

Flaming Geyser State Park.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Cierebiej;Barber Survey Date: 11/15/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PCC	0.61	0.61	18.60	0.33	NO

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		No		1.39

All dimensions in meters

Channel Description

Toe Width (m):	1
Average Width (m):	1.25
Culvert/Stream Width Ratio:	0.49

Plunge Pool

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

Road

Fill Depth (m): 1.00

Assessment Results

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

Comments

3/14/07-Geroux;Romero evaluated culvert as Level B passable; there was ponded habitat DS & US of the culvert.
11/15/11-Cierebiej;Barber evaluated culvert as Level A barrier due to 1.39% slope and velocity.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940127**	Facility			
Latitude:	**47.274263522**	Stream:	**unnamed**	WRIA:	**09**
Longitude:	**-122.030034604**	Tributary To:	**Green R**	Fish Use Potential:	**Yes**

Location

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 03/14/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	SST	0.76	0.76	9.10	0.61	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		No		3.06

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

Road

Fill Depth (m):	2.00

Assessment Results

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

Comments

US invert being undercut by flow. DS end is in the Green R

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940130**	Facility			
Latitude:	**47.894203726**	Stream:	**unnamed**	WRIA:	**20**
Longitude:	**-124.358785373**	Tributary To:	**Bogachiel R**	Fish Use Potential:	**Yes**

Location

Bogachiel State Park, east end of campground.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 03/15/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	7.00	0.05	NO	0.00		No		7.15

All dimensions in meters

Channel Description

Toe Width (m):	0.9
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.68

Plunge Pool

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

Road

Fill Depth (m):	1.00

Assessment Results

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

Comments

DS and US invert are rusted out 1m into pipe. Stream is NFB US of site 997088, ~100m US.

Species

☐ Sockeye ☐ Pink ☐ Chum ☑ Chinook ☑ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ 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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940142**	Facility			
Latitude:	**47.87512121**	Stream:	**unnamed**	WRIA:	**07.0000**
Longitude:	**-121.676670305**	Tributary To:	**Wallace R**	Fish Use Potential:	**Yes**

Location

Wallace Falls State Park. "Old RailRoad Grade" Trail.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 04/10/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	1.22	1.22	7.90	0.13	NO	0.28	Outlet	No		1.27

All dimensions in meters

Channel Description

Toe Width (m):	1.3
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.94

Plunge Pool

Length (m):	3.20
Max Depth (m):	0.50
OHW Width (m):	3.00

Road

Fill Depth (m):	1.00

Assessment Results

Barrier:	Yes	Passability (%):	67	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:	RSFS	Spawning (sq m):	1,670	Length (m):	2,123
Significant Reach:	Yes	Rearing (sq m):	3,928	**PI Total**	9.77

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940143**	Facility			
Latitude:	**47.874706101**	Stream:	**unnamed**	WRIA:	**07**
Longitude:	**-121.674037268**	Tributary To:	**Wallace R**	Fish Use Potential:	**Yes**

Location

Wallace Falls State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 04/10/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.76	0.76	8.30	0.08	NO

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		No	No	1.40

All dimensions in meters

Channel Description

Toe Width (m):	1.3
Average Width (m):	2.90
Culvert/Stream Width Ratio:	0.26

Plunge Pool

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

Road

Fill Depth (m):	3.00

Assessment Results

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

Comments

Culvert passes under old RR grade, now parks trail.

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☐ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☑ Bull Trout

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940144**	Facility			
Latitude:	**47.874391806**	Stream:	**unnamed**	WRIA:	**07**
Longitude:	**-121.670345629**	Tributary To:	**Wallace R**	Fish Use Potential:	**Yes**

Location

Wallace Falls State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 04/10/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.76	0.76	5.70	0.07	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.30	Outlet	Yes		9.54

Channel Description

Toe Width (m):	0.71
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	1.07

Plunge Pool

Length (m):	1.90
Max Depth (m):	0.20
OHW Width (m):	1.90

Road

Fill Depth (m):	1.00

Assessment Results

Barrier:	Yes	Passability (%):	0	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:	Yes	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

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 Potential:	**Yes**

Location

Iron Horse State Park Trail.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 10/23/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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 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

Road

Fill Depth (m): -999.90

Assessment Results

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

Comments

Masonry (brick) w/CPC cladding. High velocity sheet 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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940208**	Facility			
Latitude:	**47.396125963**	Stream:	**Harris Cr**	WRIA:	**07.0502**
Longitude:	**-121.57168888**	Tributary To:	**SF Snoqualmie R**	Fish Use Potential:	**Yes**

Location

Iron Horse State Park Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 10/24/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	ARCH	CPC	2.38	2.38	-999.90	0.04	BE	2.15	Outlet	No		-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

Length (m):	16.00
Max Depth (m):	1.60
OHW Width (m):	9.00

Road

Fill Depth (m):	15.00

Assessment Results

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

Comments

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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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940210**	Facility			
Latitude:	**47.401072441**	Stream:	**Rock Cr**	WRIA:	**07.0501**
Longitude:	**-121.581683768**	Tributary To:	**SF Snoqualmie R**	Fish Use Potential:	**Yes**

Location

Iron Horse State Park Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 10/24/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	ARCH	CPC	2.50	2.00	-999.90	0.05	BE	1.70	Outlet	No		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	4
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.62

Plunge Pool

Length (m):	4.20
Max Depth (m):	0.50
OHW Width (m):	6.50

Road

Fill Depth (m):	11.00

Assessment Results

Barrier:	Yes	Passability (%):	0	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:	Yes	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940226**	Facility			
Latitude:	**48.255996809**	Stream:	**unnamed**	WRIA:	**19**
Longitude:	**-124.350418343**	Tributary To:	**Little Hoko R**	Fish Use Potential:	**Yes**

Location

Hoko R/Cowan Ranch State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 10/07/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.61	0.61	8.90	0.02	NO

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
1.20	Outlet	No		7.17

All dimensions in meters

Channel Description

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

Plunge Pool

Length (m):	1.60
Max Depth (m):	0.27
OHW Width (m):	1.40

Road

Fill Depth (m):	2.00

Assessment Results

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

Comments

Also has an interior slope break.

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☐ Coho ☐ Steelhead ☐ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940231**	Facility			
Latitude:	**48.255334506**	Stream:	**unnamed**	WRIA:	**19**
Longitude:	**-124.350315747**	Tributary To:	**Little Hoko R**	Fish Use Potential:	**No**

Location

Hoko R/Cowan Ranch State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/14/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	-999.90	-99.99		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940232**	Facility			
Latitude:	**48.039252969**	Stream:	**unnamed**	WRIA:	**17**
Longitude:	**-123.030091784**	Tributary To:	**unnamed**	Fish Use Potential:	**No**

Location

Sequim Bay State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/13/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.30	0.30	-999.90	-99.99		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940234**	Facility			
Latitude:	**48.248790519**	Stream:	**unnamed**	WRIA:	**19**
Longitude:	**-124.340778918**	Tributary To:	**Little Hoko R**	Fish Use Potential:	**No**

Location

Hoko R/Cowan Ranch State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/14/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	-999.90	-99.99		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940235**	Facility			
Latitude:	**48.250118167**	Stream:	**unnamed**	WRIA:	**19**
Longitude:	**-124.343340581**	Tributary To:	**Little Hoko R**	Fish Use Potential:	**No**

Location

Hoko R/Cowan Ranch State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/14/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	-999.90	-99.99		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940236**	Facility			
Latitude:	**48.250769528**	Stream:	**unnamed**	WRIA:	**19**
Longitude:	**-124.344518632**	Tributary To:	**Little Hoko R**	Fish Use Potential:	**No**

Location

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/14/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	-999.90	-99.99		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940237**	Facility			
Latitude:	**48.25137717**	Stream:	**unnamed**	WRIA:	**19**
Longitude:	**-124.344919168**	Tributary To:	**Little Hoko R**	Fish Use Potential:	**No**

Location

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/14/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	-999.90	-99.99		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940238**	Facility			
Latitude:	**48.254206764**	Stream:	**unnamed**	WRIA:	**19**
Longitude:	**-124.347922271**	Tributary To:	**Little Hoko R**	Fish Use Potential:	**No**

Location

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/14/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	-999.90	-99.99		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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. Main park entrance road.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/28/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	BOX	CPC	3.05	1.85	17.80	0.55	NO	0.00		Yes		-0.07

All dimensions in meters

Channel Description

Toe Width (m):	2.3
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	1.33

Plunge Pool

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

Road

Fill Depth (m):	1.00

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: Romero;Schmidt Survey Date: 11/28/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PCC	0.61	0.61	-999.90	-99.99	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

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

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

photo taken US end.

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940254**	Facility			
Latitude:	**47.319703577**	Stream:	**unnamed**	WRIA:	**10**
Longitude:	**-122.413715082**	Tributary To:	**Puget Sound**	Fish Use Potential:	**Yes**

Location

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**

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

Toe Width (m):	1.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	3.59

Plunge Pool

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

Road

Fill Depth (m):	1.00

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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 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	RND	CAL	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

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

submerged at DS end

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: 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	6.11	1.27	11.70	0.10	NO	0.00		Yes		-1.10

All dimensions in meters

Channel Description

Toe Width (m):	1.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	3.59

Plunge Pool

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

Road

Fill Depth (m):	0.00

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940259**	Facility			
Latitude:	**47.31831846**	Stream:	**unnamed**	WRIA:	**10**
Longitude:	**-122.413569785**	Tributary To:	**unnamed**	Fish Use Potential:	**No**

Location

Dash Point State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 11/29/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.61	0.61	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 Potential:	**Yes**

Location

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

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 12/04/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	SST	1.91	1.72	4.30	0.40	NO	0.00		No		3.02

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

Road

Fill Depth (m):	-999.90

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 12/13/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Romero;Schmidt Survey Date: 12/13/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PCC	0.61	0.61	-999.90	-99.99	

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940302**	Facility			
Latitude:	**47.257393955**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.749492243**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Penrose Point State Park, campground loop road.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero Survey Date: 03/01/2012

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	OTH	0.30	0.30	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-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

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 RND PCC, DS end is RND CAL

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940303**	Facility			
Latitude:	**47.256680226**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.750122797**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Penrose Point State Park, campground loop road

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero Survey Date: 03/01/2012

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CAL	0.30	0.30	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero Survey Date: 03/01/2012

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

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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PCC	0.30	0.30	11.70	0.04	NO

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.09	Outlet	No	No	1.63

All dimensions in meters

Channel Description

Toe Width (m):	0.55
Average Width (m):	1.95
Culvert/Stream Width Ratio:	0.15

Plunge Pool

Length (m):	3.10
Max Depth (m):	0.16
OHW Width (m):	2.00

Road

Fill Depth (m):	1.50

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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Romero Survey Date: 03/01/2012

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CAL	0.30	0.30	6.10	0.18	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		No	Yes	1.39

Channel Description

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

Plunge Pool

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

Road

Fill Depth (m): 1.00

Assessment Results

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

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940307**	Facility			
Latitude:	**47.258815053**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.740788811**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Penrose Point State Park. Culvert under trail to Penrose Point.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero Survey Date: 03/01/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.46	0.46	-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

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

DS end section broken and disconnected.

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940308**	Facility			
Latitude:	**47.480008599**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.68711889**	Tributary To:	**Square Lk**	Fish Use Potential:	**No**

Location

Square Lake State Park. Culvert under trail at South end of Lake.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/15/2008

Culvert Details **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.38	0.38	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/07/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.61	0.61	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940311**	Facility			
Latitude:	**47.665122014**	Stream:	**unnamed**	WRIA:	**16**
Longitude:	**-122.912923184**	Tributary To:	**Hood Canal**	Fish Use Potential:	**No**

Location

Pleasant Harbor State Park.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/07/2008

Culvert Details **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.61	0.61	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940312**	Facility			
Latitude:	**47.66444797**	Stream:	**unnamed**	WRIA:	**16**
Longitude:	**-122.91487165**	Tributary To:	**Hood Canal**	Fish Use Potential:	**Yes**

Location

Pleasant Harbor State Park. Culvert under road to dock, NE of hairpin turn.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/07/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	18.30	0.08	NO	1.70	Outlet	No		22.51

All dimensions in meters

Channel Description

Toe Width (m):	0.9
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.51

Plunge Pool

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

Road

Fill Depth (m):	1.00

Assessment Results

Barrier:	Yes	Passability (%):	0	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:	No	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/07/2008

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	OTH	0.46	0.46	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-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

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

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

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940314**	Facility			
Latitude:	**47.577158112**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.555389375**	Tributary To:	**Beaver Cr**	Fish Use Potential:	**Yes**

Location

Manchester State Park at park entrance road from E. Hilldale Rd.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/08/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	36.40	0.12	NO	0.00		No		1.37

All dimensions in meters

Channel Description

Toe Width (m):	2.6
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.23

Plunge Pool

Length (m):	3.60
Max Depth (m):	0.46
OHW Width (m):	2.80

Road

Fill Depth (m):	1.50

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 Gain

Survey Type:	RSFS	Spawning (sq m):	38	Length (m):	858
Significant Reach:	Yes	Rearing (sq m):	2,389	**PI Total**	15.30

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940316**	Facility			
Latitude:	**47.573703886**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.55533546**	Tributary To:	**Beaver Cr**	Fish Use Potential:	**Yes**

Location

Manchester State Park service road to group camp.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/08/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.91	0.91	5.80	0.12	NO	0.00		No		3.48

All dimensions in meters

Channel Description

Toe Width (m):	2.2
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.41

Plunge Pool

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

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

Potential Habitat Gain

Survey Type:	RSFS	Spawning (sq m):	144	Length (m):	1,387
Significant Reach:	Yes	Rearing (sq m):	2,976	**PI Total**	17.53

WDFW Fish Passage and Diversion Screening Inventory Database

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;Romero Survey Date: 01/08/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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:	**No**

Location

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

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 12/08/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	-999.90	-99.99	NO	0.00		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	0.9
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

☐ 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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 12/08/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	-99.99	-99.99	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	0.75
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.40

Plunge Pool

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

Road

Fill Depth (m):	1.00

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940327**	Facility			
Latitude:	**47.541692608**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.483183743**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Blake Island State Park, day use area.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/08/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.33	0.33	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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:	**No**

Location

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

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingraml;Romero Survey Date: 12/08/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	0.9
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.68

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

☐ 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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940330**	Facility			
Latitude:	**47.648793908**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.846867071**	Tributary To:	**Hood Canal**	Fish Use Potential:	**No**

Location

Scenic Beach State Park. On single lane dirt road to "Emil House".

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/09/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.26	0.26	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940331**	Facility			
Latitude:	**47.648566074**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.847087646**	Tributary To:	**Hood Canal**	Fish Use Potential:	**No**

Location

Scenic Beach State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/09/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	-999.90	-99.99	NO	0.00		No		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 Pl SE, Auburn.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/10/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940339**	Facility			
Latitude:	**47.375573587**	Stream:	**unnamed**	WRIA:	**14**
Longitude:	**-122.972492214**	Tributary To:	**Twanoh Cr**	Fish Use Potential:	**No**

Location

Twanoh State Park.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 01/17/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.23	0.23	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Dierker;Romero Survey Date: 02/12/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.61	0.61	-999.90	-99.99		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940342**	Facility			
Latitude:	**46.545005359**	Stream:	**Salmon Cr**	WRIA:	**23.1166**
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 and Wildlife

Field Crew: Ponder Survey Date: 05/29/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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

Toe Width (m):	2.8
Average Width (m):	5.00
Culvert/Stream Width Ratio:	0.73

Plunge Pool

Length (m):	5.60
Max Depth (m):	1.40
OHW Width (m):	9.00

Road

Fill Depth (m): 0.50

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

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☑ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 and Wildlife

Field Crew: Romero;Thompson Survey Date: 03/22/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.91	0.91	12.50	0.11	NO	0.10	Outlet	No	No	4.47

All dimensions in meters

Channel Description

Toe Width (m):	1.1
Average Width (m):	3.55
Culvert/Stream Width Ratio:	0.26

Plunge Pool

Length (m):	7.55
Max Depth (m):	0.51
OHW Width (m):	3.72

Road

Fill Depth (m):	2.00

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 ☑ Steelhead ☑ 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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Dierker;Romero Survey Date: 02/12/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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

Toe Width (m):	0.8
Average Width (m):	1.75
Culvert/Stream Width Ratio:	0.52

Plunge Pool

Length (m):	5.10
Max Depth (m):	0.80
OHW Width (m):	4.30

Road

Fill Depth (m):	1.80

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940346**	Facility			
Latitude:	**46.552066149**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.375237**	Tributary To:	**Rock Cr**	Fish Use Potential:	**No**

Location

Willapa Hills Trail State Park. Parallel to SR 6 at approx. MP 23.82

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/19/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.61	0.61	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/19/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	SST	0.76	0.76	15.20	0.07	NO	0.71	Outlet	No		4.95

All dimensions in meters

Channel Description

Toe Width (m):	1.5
Average Width (m):	1.95
Culvert/Stream Width Ratio:	0.51

Plunge Pool

Length (m):	4.80
Max Depth (m):	0.44
OHW Width (m):	3.00

Road

Fill Depth (m):	4.00

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/19/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.61	0.61	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940350**	Facility			
Latitude:	**46.549140675**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.340009041**	Tributary To:	**Rock Cr**	Fish Use Potential:	**No**

Location

Willapa Hills State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/19/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.61	0.61	-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

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

DS end section washed out by flood event 12/2007

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940352**	Facility			
Latitude:	**46.547661414**	Stream:	**unnamed**	WRIA:	**23.1159**
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 and Wildlife

Field Crew: Ingram;Romero Survey Date: 02/22/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.61	0.61	9.50	0.05	NO	0.26	Outlet	No	No	2.74

All dimensions in meters

Channel Description

Toe Width (m):	
Average Width (m):	2.80
Culvert/Stream Width Ratio:	0.22

Plunge Pool

Length (m):	2.00
Max Depth (m):	0.32
OHW Width (m):	2.50

Road

Fill Depth (m):	1.00

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Ingraml;Romero Survey Date: 02/21/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.61	0.61	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

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

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

DS is 55% gradient cascades over boulder for 18m to Rock Cr. US is 35% gradient for 90m.

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/20/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.46	0.46	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940355**	Facility			
Latitude:	**46.552708543**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.319804729**	Tributary To:	**Rock Cr**	Fish Use Potential:	**Yes**

Location

Willapa Hills Trail State Park. 80m E of 940354

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Thompson Survey Date: 03/22/2012

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	OTH	0.61	0.61	5.60	0.11	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		Yes	No	5.35

Channel Description

Toe Width (m):	0.65
Average Width (m):	1.81
Culvert/Stream Width Ratio:	0.34

Plunge Pool

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

Road

Fill Depth (m): 1.00

Assessment Results

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

Comments

RND SST at both ends, appears to be RND PCC midlength section. Unusually countersunk for an undersized pipe at high gradient, possibly due to LWD at DS end.

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☐ Coho ☐ Steelhead ☐ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

Survey Type:	TD	Spawning (sq m):	-999	Length (m):	-999
Significant Reach:	Unknown	Rearing (sq m):	-999	**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: Erkel;Romero Survey Date: 02/20/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.61	0.61	11.90	0.04	NO	0.59	Outlet	No		4.52

All dimensions in meters

Channel Description

Toe Width (m):	0.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.87

Plunge Pool

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

Road

Fill Depth (m):	1.50

Assessment Results

Barrier:	Yes	Passability (%):	0	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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/20/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.91	0.91	14.30	0.05	NO	0.45	Outlet	No	No	4.13

All dimensions in meters

Channel Description

Toe Width (m):	1.2
Average Width (m):	3.12
Culvert/Stream Width Ratio:	0.29

Plunge Pool

Length (m):	3.30
Max Depth (m):	0.32
OHW Width (m):	2.20

Road

Fill Depth (m): 3.00

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 ☐ Pink ☐ Chum ☐ Chinook ☑ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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 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 measurements are from RB scour pool. LB is 1.2, RB is 2.2

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:	No	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Romero;Thompson Survey Date: 02/28/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.91	0.91	15.10	0.91	NO	0.00		No	No	0.34

All dimensions in meters

Channel Description

Toe Width (m):	1.1
Average Width (m):	3.40
Culvert/Stream Width Ratio:	0.27

Plunge Pool

Length (m):	7.50
Max Depth (m):	1.00
OHW Width (m):	4.10

Road

Fill Depth (m):	2.50

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940363**	Facility			
Latitude:	**46.622138183**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.275594973**	Tributary To:	**Chehalis R**	Fish Use Potential:	**No**

Location

Willapa Hills Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/21/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 and Wildlife

Field Crew: Ponder Survey Date: 05/29/2012

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PCC	0.61	0.61	9.80	0.27	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		No	No	0.72

Channel Description

Toe Width (m):	0.85
Average Width (m):	2.15
Culvert/Stream Width Ratio:	0.28

Plunge Pool

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

Road

Fill Depth (m):	1.00

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

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☑ Coho ☑ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

Survey Type:	TD	Spawning (sq m):	-999	Length (m):	146
Significant Reach:	No	Rearing (sq m):	-999	**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940368**	Facility			
Latitude:	**46.63732085**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.182299173**	Tributary To:	**Chehalis R**	Fish Use Potential:	**Yes**

Location

Willapa Hills Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/21/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.2	RND	PCC	0.91	0.91	12.40	0.15	NO	0.00		No		0.08
2.2	RND	PCC	0.91	0.91	12.20	0.21	NO	0.00		Yes		0.00

All dimensions in meters

Channel Description

Toe Width (m):	1.2
Average Width (m):	7.68
Culvert/Stream Width Ratio:	0.24

Plunge Pool

Length (m):	3.70
Max Depth (m):	0.48
OHW Width (m):	4.20

Road

Fill Depth (m): 2.00

Assessment Results

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

Comments

1.2 RB; 2.2 LB. 5/29/12- Don Ponder evaluated as passable, due to backwater.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940370**	Facility			
Latitude:	**46.622902223**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.166036025**	Tributary To:	**Chehalis R**	Fish Use Potential:	**No**

Location

Willapa Hills Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 02/25/2008

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PCC	0.76	0.76	-999.90	-99.99	NO

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940371**	Facility			
Latitude:	**46.617252469**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.168437589**	Tributary To:	**Chehalis R**	Fish Use Potential:	**No**

Location

Willapa Hills Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 02/25/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	SST	0.76	0.76	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940372**	Facility			
Latitude:	**46.607930884**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.151178122**	Tributary To:	**Chehalis R**	Fish Use Potential:	**Yes**

Location

Willapa Hills Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 02/16/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.91	0.91	11.40	0.20	NO	0.00		No	No	2.10

All dimensions in meters

Channel Description

Toe Width (m):	0.85
Average Width (m):	2.20
Culvert/Stream Width Ratio:	0.41

Plunge Pool

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

Road

Fill Depth (m):	3.00

Assessment Results

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

Comments

Channel width is approximate, stream is ponded US, ditched DS.

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☑ Coho ☐ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

Survey Type:	TD	Spawning (sq m):	-999	Length (m):	188
Significant Reach:	No	Rearing (sq m):	-999	**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940373**	Facility			
Latitude:	**46.609596717**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.12407393**	Tributary To:	**Chehalis R**	Fish Use Potential:	**Yes**

Location

Willapa Hills Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 02/25/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.61	0.61	15.60	0.01	NO	0.75	Outlet	No		5.60

All dimensions in meters

Channel Description

Toe Width (m):	0.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.87

Plunge Pool

Length (m):	2.10
Max Depth (m):	0.29
OHW Width (m):	3.30

Road

Fill Depth (m):	4.00

Assessment Results

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

Comments

Limited gain. Gradient increases to >20% upstream.

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:	No	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940374**	Facility			
Latitude:	**46.611246389**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.120349965**	Tributary To:	**Chehalis R**	Fish Use Potential:	**No**

Location

Willapa Hills Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero;Thompson Survey Date: 02/28/2012

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PCC	0.83	0.83	-999.90	-99.99	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940375**	Facility			
Latitude:	**46.612610939**	Stream:	**unnamed**	WRIA:	**23**
Longitude:	**-123.117659882**	Tributary To:	**Chehalis R**	Fish Use Potential:	**Yes**

Location

Willapa Hills Trail

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 02/25/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.91	0.91	17.90	0.03	NO	0.88	Outlet	No		3.30

All dimensions in meters

Channel Description

Toe Width (m):	0.8
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	1.14

Plunge Pool

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

Road

Fill Depth (m):	4.00

Assessment Results

Barrier:	Yes	Passability (%):	0	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:	TD	Spawning (sq m):	-999	Length (m):	40
Significant Reach:	No	Rearing (sq m):	-999	**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940391**	Facility			
Latitude:	**47.868221531**	Stream:	**unnamed**	WRIA:	**07**
Longitude:	**-121.674125281**	Tributary To:	**Wallace R**	Fish Use Potential:	**Yes**

Location

Wallace Falls State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 12/13/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.30	0.30	5.90	0.03	NO	0.31	Outlet	No		2.54

All dimensions in meters

Channel Description

Toe Width (m):	0.7
Average Width (m):	1.10
Culvert/Stream Width Ratio:	0.43

Plunge Pool

Length (m):	1.40
Max Depth (m):	0.12
OHW Width (m):	1.10

Road

Fill Depth (m):	1.00

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:	RSFS	Spawning (sq m):	0	Length (m):	171
Significant Reach:	No	Rearing (sq m):	46	**PI Total**	3.96

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940394**	Facility			
Latitude:	**47.261482872**	Stream:		WRIA:	**14**
Longitude:	**-122.87431397**	Tributary To:		Fish Use Potential:	**No**

Location

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 03/26/2008

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.38	0.38	-999.90	-99.99	NO

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940399**	Facility			
Latitude:	**47.886980986**	Stream:	**unnamed**	WRIA:	**17**
Longitude:	**-122.639601971**	Tributary To:	**Bywater Bay**	Fish Use Potential:	**Yes**

Location

Wolfe Property. Approx 215m DS from Paradise Bay Rd.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 09/13/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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

Toe Width (m):	0.6
Average Width (m):	1.90
Culvert/Stream Width Ratio:	0.24

Plunge Pool

Length (m):	2.10
Max Depth (m):	0.52
OHW Width (m):	1.40

Road

Fill Depth (m):	1.50

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:	RSFS	Spawning (sq m):	0	Length (m):	110
Significant Reach:	No	Rearing (sq m):	33	**PI Total**	3.86

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 03/25/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CAL	0.46	0.46	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940402**	Facility			
Latitude:	**46.860229318**	Stream:	**unnamed**	WRIA:	**11**
Longitude:	**-122.342916783**	Tributary To:	**Ohop Cr**	Fish Use Potential:	**Yes**

Location

Nisqually-Mashel State Park. NW of site 940401 along road 250m.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 03/25/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CAL	0.61	0.61	11.50	0.16	NO	0.00		No		4.40

All dimensions in meters

Channel Description

Toe Width (m):	0.6
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): 2.50

Assessment Results

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

Comments

US end has rip rap blocking inlet. US end ponded. 10m DS of pipe gradient increases to 35%.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 12/06/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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 dimensions 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

Fill Depth (m): 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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: 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	PVC	0.61	0.61	6.20	0.51	NO	0.00		No	No	1.60

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

Road

Fill Depth (m):	0.20

Assessment Results

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

Comments

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

Species

☐ Sockeye ☐ Pink ☐ Chum ☐ Chinook ☑ 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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940405**	Facility			
Latitude:	**47.885785683**	Stream:	**unnamed**	WRIA:	**17**
Longitude:	**-122.639316708**	Tributary To:	**Bywater Bay**	Fish Use Potential:	**Yes**

Location

Wolfe Property. 180m due E of Paradise Bay Rd. 130m S of 940399 on abandoned road.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 09/13/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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

Toe Width (m):	0.6
Average Width (m):	1.40
Culvert/Stream Width Ratio:	0.21

Plunge Pool

Length (m):	2.40
Max Depth (m):	0.15
OHW Width (m):	1.50

Road

Fill Depth (m):	1.50

Assessment Results

Barrier:	Yes	Passability (%):	0	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:	RSFS	Spawning (sq m):	0	Length (m):	175
Significant Reach:	No	Rearing (sq m):	44	**PI Total**	4.60

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940406**	Facility			
Latitude:	**47.297016585**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.78549627**	Tributary To:	**Hood Canal**	Fish Use Potential:	**Yes**

Location

Haley Property

Data 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	7.80	0.03	NO	1.10	Outlet	No		8.40

All dimensions in meters

Channel Description

Toe Width (m):	0.5
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.60

Plunge Pool

Length (m):	1.80
Max Depth (m):	0.25
OHW Width (m):	1.30

Road

Fill Depth (m):	1.50

Assessment Results

Barrier:	Yes	Passability (%):	0	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 Gain

Survey Type:	TD	Spawning (sq m):	-999	Length (m):	115
Significant Reach:	No	Rearing (sq m):	-999	**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940407**	Facility			
Latitude:	**47.297672027**	Stream:	**unnamed**	WRIA:	**15**
Longitude:	**-122.787734302**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Haley Property

Data 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

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):	-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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940412**	Facility			
Latitude:	**46.836290695**	Stream:	**unnamed**	WRIA:	**11.0000**
Longitude:	**-122.337658938**	Tributary To:	**Nisqually**	Fish Use Potential:	**No**

Location

Nisqually-Mashel State Park. Acces via Weyerhauser Rd.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/08/2008

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.61	0.61	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 Potential:	**No**

Location

Nisqually-Mashel State Park. Access via Weyerhauser Rd.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/08/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940414**	Facility			
Latitude:	**46.837215304**	Stream:	**unnamed**	WRIA:	**11.0000**
Longitude:	**-122.334892305**	Tributary To:	**Nisqually R**	Fish Use Potential:	**Yes**

Location

Nisqually-Mahsel State Park. Access via Weyerhauser rd.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/08/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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

Toe Width (m):	0.95
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.80

Plunge Pool

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

Road

Fill Depth (m):	2.00

Assessment Results

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

Comments

Outfall onto boulder

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:	No	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/10/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.91	0.91	2.00	0.12	NO	0.00		No		0.50

All dimensions in meters

Channel Description

Toe Width (m):	1.05
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.87

Plunge Pool

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

Road

Fill Depth (m):	0.00

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

☐ 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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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 Survey Date: 04/10/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.91	0.91	4.00	0.25	NO	0.00		Yes		1.80

All dimensions in meters

Channel Description

Toe Width (m):	1.3
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.70

Plunge Pool

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

Road

Fill Depth (m):	0.10

Assessment Results

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

Comments

LVLB not possible. Pipe is backwatered. Stream is pondedand has confluece w/other channel at DS end.

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: 04/10/2008

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.61	0.61	11.20	0.61	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.00		No		0.80

Channel Description

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

Plunge Pool

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

Road

Fill Depth (m): 0.50

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 Potential:	**No**

Location

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

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/10/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 Potential:	**Yes**

Location

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

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/10/2008

Culvert Details — **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.53	0.53	11.10	0.53	NO	0.00		No		1.20

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

Road

Fill Depth (m):	1.00

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/17/2008

Culvert Details — **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.30	0.30	5.10	0.03	NO	0.26	Outlet	No		1.50

All dimensions in meters

Channel Description

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

Plunge Pool

Length (m):	1.10
Max Depth (m):	0.24
OHW Width (m):	1.20

Road

Fill Depth (m):	1.00

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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:	**Yes**

Location

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

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/22/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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

Toe Width (m):	0.9
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.68

Plunge Pool

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

Road

Fill Depth (m):	3.50

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940434**	Facility			
Latitude:	**46.997563721**	Stream:	**unnamed**	WRIA:	**22.0000**
Longitude:	**-123.58952509**	Tributary To:	**Sylvia Lk**	Fish Use Potential:	**Yes**

Location

Lk Sylvia State Park, main road to campground.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/22/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.91	0.91	18.00	0.36	NO	0.00		No		1.55

All dimensions in meters

Channel Description

Toe Width (m):	1.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.54

Plunge Pool

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

Road

Fill Depth (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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940435**	Facility			
Latitude:	**46.996277373**	Stream:	**unnamed**	WRIA:	**22.0000**
Longitude:	**-123.591305885**	Tributary To:	**Sylvia Lk**	Fish Use Potential:	**Yes**

Location

Lk Sylvia State Park. Main campgroud road on E side of lake.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/22/2008

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	13.50	0.12		0.00		No		1.33

All dimensions in meters

Channel Description

Toe Width (m):	0.7
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.43

Plunge Pool

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

Road

Fill Depth (m):	1.50

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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 Potential:	**No**

Location

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

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/22/2008

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	SST	0.25	0.25	-999.90	-99.99		-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 and Wildlife

Field Crew: Phinney;Romero Survey Date: 03/27/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.61	0.61	5.00	0.09	NO	0.00		Yes	No	0.20

All dimensions in meters

Channel Description

Toe Width (m):	1.1
Average Width (m):	2.67
Culvert/Stream Width Ratio:	0.23

Plunge Pool

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

Road

Fill Depth (m):	0.50

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.

Species

☐ Sockeye ☐ Pink ☑ Chum ☐ Chinook ☑ Coho ☐ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940446**	Facility			
Latitude:	**47.097220549**	Stream:	**unnamed**	WRIA:	**22.0000**
Longitude:	**-123.466408247**	Tributary To:	**EF Satsop R**	Fish Use Potential:	**No**

Location

Schafer State Park

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 04/29/2008

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	SQSH	CST	1.37	0.91	-999.90	-99.99	NO

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 trail from Paradise Bay Rd. to kayak-access campground.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 09/13/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
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

Toe Width (m):	
Average Width (m):	1.50
Culvert/Stream Width Ratio:	0.21

Plunge Pool

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

Road

Fill Depth (m):	2.50

Assessment Results

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

Comments

Stream was dry at time of inspection

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940465**	Facility			
Latitude:	**47.53829363**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.486060766**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Located on Perimeter Road that loops around the island.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 11/30/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.30	0.30	-999.90	-99.99		-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940466**	Facility			
Latitude:	**47.533828776**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.49741063**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Blake Island State Park. Located on Perimeter Road.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 11/30/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CAL	0.23	0.23	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940467**	Facility			
Latitude:	**47.544341335**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.501541837**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Blake Island State Park. Located on Perimeter Road.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 11/30/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.30	0.30	-999.90	-99.99	

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940468**	Facility			
Latitude:	**47.54279006**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.49719484**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Blake Island State Park. Located on Perimeter Road.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 11/30/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.30	0.30	-999.90	-99.99	

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940469**	Facility			
Latitude:	**47.544648725**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.492876847**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Blake Island State Park, located on Perimeter Road

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 11/30/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PVC	0.30	0.30	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940470**	Facility			
Latitude:	**47.544671831**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.492666933**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Blake Island State Park, located on Perimeter Road

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 11/30/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.30	0.30	-999.90	-99.99	

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940471**	Facility			
Latitude:	**47.544313243**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.490664995**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Blake Island State Park, located on Perimeter Road

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Romero Survey Date: 11/30/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.30	0.30	-999.90	-99.99	

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940474**	Facility			
Latitude:	**47.540663857**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.488027054**	Tributary To:	**Unnamed**	Fish Use Potential:	**No**

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;Romero Survey Date: 12/08/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.38	0.38	-999.90	-99.99		-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940475**	Facility			
Latitude:	**47.540227946**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.489427651**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

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;Romero Survey Date: 12/08/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PVC	0.30	0.30	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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:	**No**

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;Romero Survey Date: 12/08/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.30	0.30	-999.90	-99.99		-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940477**	Facility			
Latitude:	**47.54089645**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.485339738**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

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

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 12/08/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PVC	0.30	0.30	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940478**	Facility			
Latitude:	**47.531087682**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.492702107**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Blake Island State Park, located on Perimeter Road

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Ingram;Romero Survey Date: 12/08/2011

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	PVC	0.30	0.30	-999.90	-99.99	

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

1.82m outfall

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 and Wildlife

Field Crew: Ingram;Romero Survey Date: 12/13/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.46	0.46	8.20	0.05	NO	0.54	Outlet	No	No	1.94

All dimensions in meters

Channel Description

Toe Width (m):	
Average Width (m):	1.60
Culvert/Stream Width Ratio:	0.29

Plunge Pool

Length (m):	2.60
Max Depth (m):	0.39
OHW Width (m):	2.30

Road

Fill Depth (m):	3.00

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

Potential Habitat Gain

Survey Type:	RSFS	Spawning (sq m):	308	Length (m):	858
Significant Reach:	Yes	Rearing (sq m):	489	**PI Total**	10.91

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940488**	Facility			
Latitude:	**47.315700948**	Stream:	**unnamed**	WRIA:	**10**
Longitude:	**-122.409376909**	Tributary To:	**unnamed**	Fish Use Potential:	**No**

Location

Located next to campground site 22

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Erkel;Ingram Survey Date: 12/21/2011

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.46	0.46	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

Pipe located directly next to campground site 22, NFB crossing under main campground road. Several other NFB trail crossing further upstream in system. This is the furthest downstream Non Fish Bearing site on system

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**940499**	Facility			
Latitude:	**47.255981413**	Stream:	**Unnamed**	WRIA:	**15**
Longitude:	**-122.750868029**	Tributary To:	**Puget Sound**	Fish Use Potential:	**No**

Location

Located in SW corner of park on loop road to higher number campsites.

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Romero Survey Date: 03/01/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	OTH	0.30	0.30	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

RND PCC at DS end, RND CST at US.

Species

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Phinney;Romero Survey Date: 03/27/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.46	0.46	-999.90	-99.99	NO	-99.99		Unknown		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	
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

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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 and Wildlife

Field Crew: Romero;Thompson Survey Date: 04/02/2012

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PVC	0.46	0.46	6.60	0.03	NO	0.28	Outlet	No	No	1.37

All dimensions in meters

Channel Description

Toe Width (m):	
Average Width (m):	1.80
Culvert/Stream Width Ratio:	0.26

Plunge Pool

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

Road

Fill Depth (m):	1.00

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 04/25/2007

Culvert Details

ID	Shape	Material	Span	Rise	Length	WDIC	Apron
1.1	RND	CST	0.60	0.60	3.00	0.01	NO

All dimensions in meters

Level A Parameters

WSDrop	Location	Countersunk	Backwater	Slope (%)
0.10		No		4.00

Channel Description

Toe Width (m):	1.4
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.43

Plunge Pool

Length (m):	1.89
Max Depth (m):	0.15
OHW Width (m):	1.80

Road

Fill Depth (m): 1.50

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 Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Brotman;Hird Survey Date: 05/05/2004

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	OTH	0.46	0.46	12.90	0.03	NO	0.00		No		7.00

All dimensions in meters

Channel Description

Toe Width (m):	0.8
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.57

Plunge Pool

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

Road

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

Potential Habitat Gain

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

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

Site ID:	**996679**	Facility			
Latitude:	**47.1543698**	Stream:	**unnamed**	WRIA:	**10**
Longitude:	**-121.7065264**	Tributary To:	**White R**	Fish Use Potential:	**Yes**

Location

32.7m US of WSDOT site 996661 MP 40.31 on SR 410

Data Source

Organization: Washington Department of Fish and Wildlife

Field Crew: Geroux;Romero Survey Date: 04/25/2007

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	CST	0.46	0.46	4.20	0.04	NO	0.43		No		7.40

All dimensions in meters

Channel Description

Toe Width (m):	0.9
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.51

Plunge Pool

Length (m):	0.07
Max Depth (m):	0.18
OHW Width (m):	1.20

Road

Fill Depth (m):	0.20

Assessment Results

Barrier:	Yes	Passability (%):	0	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:	No	Rearing (sq m):		**PI Total**	

WDFW Fish Passage and Diversion Screening Inventory Database

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 and Wildlife

Field Crew: Hird;Whitney Survey Date: 12/10/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.2	RND	CST	0.91	0.91	21.10	0.50	NO	0.00		No		2.20
2.2	RND	CST	0.91	0.91	21.30	0.44	NO	0.00		No		2.40

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

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

Potential Habitat Gain

Survey Type:	RSFS	Spawning (sq m):	1,453	Length (m):	806
Significant Reach:	Yes	Rearing (sq m):	886	**PI Total**	6.83

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Hird,Whitney Survey Date: 12/10/2005

Culvert Details — **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	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

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

Plunge Pool

Length (m):	3.50
Max Depth (m):	0.70
OHW Width (m):	4.00

Road

Fill Depth (m): 1.50

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**	

WDFW Fish Passage and Diversion Screening Inventory Database

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: Washington Department of Fish and Wildlife

Field Crew: Hird;Romero Survey Date: 11/13/2006

Culvert Details / **Level A Parameters**

ID	Shape	Material	Span	Rise	Length	WDIC	Apron	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1	RND	PCC	0.40	0.40	-999.90	-99.99	NO	0.00		No		-99.99

All dimensions in meters

Channel Description

Toe Width (m):	0.53
Average Width (m):	-99.99
Culvert/Stream Width Ratio:	0.75

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 (%):	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 ☐ Pink ☐ Chum ☐ Chinook ☑ Coho ☐ Steelhead ☑ Sea Run Cutthroat ☑ Resident Trout ☐ Bull Trout

Potential Habitat Gain

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)


940461_2.JPG


940462_1.JPG


940465_1.JPG


940466_1.JPG


940467_1.JPG


940468_1.JPG


940469_1.JPG


940470_1.JPG


940471_1.JPG


940474_1.JPG


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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.