Site #	Site Name	Waterbody Name	Flows Into	Culvert Watercourse Classification(s)	Lat, Long for Site Center Point	Total Approximate Disturbance Area (m²)	Total Permanent Aquatic Footprint (m²)	Total Permanent Riparian Footprint (m²)	Total Temporary Aquatic Footprint (m2)	Total Temporary Riparian Footprint (m²)	Total Aquatic Footprint (m²)	Total Riparian Footprint (m²)	
1	Coghlan Creek 1	Coghlan Creek	Salmon River	A	N49.107°, W122.507°	8781.6 m²	1144.0	2659.5	2141.5	3392.5	3285.5	6051.9	 Replacement of two smaller cul Watercourse realignment to tie- Installation of boulder riffles to i Realignment and armouring of I meet new culvert inlet and outlet. Installation of new riprap lined p the adjacent ditches. Refinement of roadside ditches Narrowing and reconstruction o Removal of the median swale to Temporary isolation of the streat Regrading, armouring, and real crossing culvert is to be built in suffrom the streatm. Riprapping at spillways and out Clearing and grubbing of ripariating impact due to road infill.
2	Coghlan Creek 2	Coghlan Creek tributary	Coghlan Creek tributary	A	N49.104°, W122.499°	27158 m²	2952.7	6138.0	1874.9	3087.4	4827.5	9225.4	 Replacement of two smaller cul Watercourse realignment to tie- Installation of a rock weir to pro Relocation of the southerly culv Realignment and armouring of l culvert inlet and outlet. Installation of 3 new culverts ald Replacement of two minor culve Addition of a storm sewer outfal Construction of new riprap lined the adjacent ditches. Refinement of roadside ditches Removal of the median swale. Addition of a maintenance diver culvert maintenance work is condoined the fill from riparian area, construction of aquatic and ripari of placed fill from riparian area, construction of a culverts to be built in se from the stream. Riprapping at spillways and out Clearing and grubbing of riparia impact due to road infill.

verts with a Single Box Culvert.

- -in at both ends of the new culvert.
- mprove the stream grades and slow flow.
- highway ditches along the north and south sides of the Highway, to

pavement drainage spillways from the edge of pavement down to

.

- f the median swale toward the west.
- oward the east.
- am work zone with dams and a pumped bypass.
- ligning the stream at the culvert C-2/3 approaches. The highway
- several stages to accommodate traffic, within the work zones isolated

falls.

an areas adjacent to stream and ditch realignments. Permanent

lverts with a Single Box Culvert.

- e-in at the north inlet of the new culvert.
- ovide backwatering and slow flows.
- vert outlet eastward approximately 60 metres.
- highway ditches along the north and south sides to meet new

ong the northwest side of the 264 interchange.

erts.

- all to the southerly highway ditch.
- I pavement drainage spillways from the edge of pavement down to

.

- ersion culvert beside culvert C-4/5, which will remain dry except when ducted in the future.
- ian offsets, northwest of the 264 interchange, which include removal construction of instream enhancements, and addition of riparian
- am culvert work zone with dams and installing a bypass pump. ligning the stream at the culvert C-4/5 approaches. The highway everal stages to accommodate traffic, within the work zones isolated

tfalls.

an areas adjacent to stream and ditch realignments. Permanent

Site #	Site Name	Waterbody Name	Flows Into	Culvert Watercourse Classification(s)	Lat, Long for Site Center Point	Total Approximate Disturbance Area (m²)	Total Permanent Aquatic Footprint (m²)	Total Permanent Riparian Footprint (m²)	Total Temporary Aquatic Footprint (m2)	Total Temporary Riparian Footprint (m²)	Total Aquatic Footprint (m²)	Total Riparian Footprint (m²)	
3	Coghlan Creek 3	Coghlan Creek tributaries	Coghlan Creek tributaries	B & C for the interchange and approach road ditches	N49.101°, W 122.493°	20436.7 m ²	5295.7	13824.6	179.8	1136.6	5475.5	14961.2	 Armouring of culvert inlets and Contributing to the flow of these culverts and storm sewers that lee Removal of the freeway mediar Connecting the northwest quad Connecting the southeasterly C Riprapping at spillways and out Clearing and grubbing of ripariar
4	West Creek 1	West Creek	West Creek	A(O)	N49.094°, W122.475°	13525.9 m²	3694.7	9244.2	865.3	415.1	4560.0	9659.2	 Replacement of two smaller cul Addition of a maintenance diver culvert maintenance work is cond Watercourse realignment to tie- Regrading, armouring, and real crossing culverts to be built in se from the stream. Installation of a rock weir to pro Installation of new riprap lined p the adjacent ditches. Refinement of roadside ditches Narrowing of the highway media Crossing the northerly highway 29.0m 600 CSP culvert Isolating (temporarily) the streaa Riprapping at spillways and out Clearing and grubbing of riparia
5	West Creek 2	West Creek tributary	West Creek tributary	В	N49.092°, W 122.470°	25.6 m²	5.4	16.8	3.4	0.0	8.8	16.8	 Replacement of two smaller cul Armouring highway ditches to ti Installation of four minor culverlunder multi-use path. Narrowing of the highway medi Installation of new riprap lined p the adjacent ditches. Refinement of roadside ditch. Addition of a maintenance divel when culvert maintenance work i Conducting onsite offsets exter side of the freeway. Isolating (temporarily) the streat Regrading, armouring, and real crossing culverts are to be built ii Riprapping at spillways and out Clearing and grubbing of riparia

- outlets with local stream realignments to tie-in.
- e Coghlan Creek tributaries with numerous roadside ditches, ead to them.
- n swale.
- drant onsite offsets to the northwesterly Coghlan Creek tributary Class C onsite offset to the adjacent class C ramp ditch.
- tfalls.
- an areas adjacent to stream and ditch realignments.
- Iverts with Single Box Culvert C-7/8.
- ersion culvert beside culvert C-7/8, which will remain dry except when iducted in the future.
- -in at both ends of the new culvert.
- ligning the stream at the culvert C-7/8 approaches. The highway everal stages to accommodate traffic, within the work zones isolated
- ovide backwatering and slow the flow.
- pavement drainage spillways from the edge of pavement down to
- ian swale
- v ditch under the westbound 264th interchange exit ramp with a
- am culvert work zone with dams and installing a bypass pump. tfalls.
- an areas adjacent to stream and ditch realignments.
- Iverts with Single Box Culvert C-38/39.
- tie-in at both ends of the new culvert.
- ts interconnecting the median with roadside ditches and crossing
- ian swale.
- pavement drainage spillways from the edge of pavement down to
- ersion culvert beside culverts C-38/39, which will remain dry except is conducted in the future.
- nding the wetland that is west of 272nd Street and along the north
- am culvert work zone with dams and installing a bypass pump. ligning the stream at the culvert C-38/39 approaches. The highway in several stages to accommodate traffic. tfalls.
- an areas adjacent to stream and ditch realignments.

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6	West Creek 3	West Creek tributary	West Creek tributary	B & C	N49.090°, W 122.463°	3088.7 m²	916.4	1888.3	94.5	189.4	1010.9	2077.7	 Replacement of two smaller cu Armouring highway ditches to t Narrowing of the highway medi Installation of new riprap lined p the adjacent ditches. Refining roadside ditches. Addition of a maintenance dive when culvert maintenance work Isolating (temporarily) the streat Regrading, armouring, and real crossing culverts to be built in set Riprapping at spillways and out Clearing and grubbing of ripariat
7	Nathan Creek 1	Westerly and central Nathan Creek tributaries	Westerly and central Nathan Creek tributaries	for Culvert C- 11/12: inlet B, outlet A(O) for Culvert C- 14/15: inlet C, outlet B	N49.088°, W122.459°	23509.3 m ²	4243.2	18457.5	172.3	636.4	4415.4	19093.9	 Replacement of four smaller cut Watercourse realignments to tid Installation of a rock weir to pro Armouring highway ditches to t Installation of five minor culvert Narrowing of the highway medi Installation of new riprap lined p the adjacent ditches. Refining roadside ditches. Enhancing freeway ditches throw Isolating (temporarily) the streat Regrading, armouring, and real The highway crossing culverts to Riprapping at spillways and out Clearing and grubbing of riparia
8	Nathan Creek 2	Central Nathan Creek	Central Nathan Creek	A(O)	N 49.081°, W122.441°	5430.4 m²	610.7	3175.2	245.8	1398.7	856.5	4573.9	 Replacement of two smaller cu Watercourse realignment to tie- Installation of a rock weir to pro Narrowing of the highway medi Installation of new riprap lined p the adjacent ditches. Refinement of roadside ditch. Addition of a maintenance dive when culvert maintenance work Isolating (temporarily) the streat Regrading, armouring, and real crossing culverts to be built in set Riprapping at spillways and out Clearing and grubbing of ripariat

- Iverts with Single Box Culvert C-9/10.
- tie-in at both ends of the new culvert.
- ian swale.
- pavement drainage spillways from the edge of pavement down to
- ersion culvert beside culvert C-9/10, which will remain dry except is conducted in the future.
- am culvert work zone with dams and installing a bypass pump.
- aligning the stream at the culvert C-9/10 approaches. The highway everal stages to accommodate traffic.
- ıtfalls.
- an areas adjacent to stream and ditch realignments.
- ulverts with Single Box Culverts C-11/12 and C-14/15.
- e-in at both ends of the new culverts.
- ovide backwatering and slow flows.
- tie-in at both ends of the new culvert.
- ts between the median, multi-use path and sideroad ditches. ian swale.
- pavement drainage spillways from the edge of pavement down to
- ough onsite offsetting.
- am culvert work zone with dams and installing a bypass pump.
- aligning the stream at the culverts C-11/12 & C-14/15 approaches.
- be built in several stages to accommodate traffic.
- tfalls.
- an areas adjacent to stream and ditch realignments.
- Iverts with Single Box Culvert C-16/17.
- e-in at both ends of the new culvert.
- ovide backwatering and slow flows.
- ian swale
- pavement drainage spillways from the edge of pavement down to
- ersion culvert beside culvert C-16/17, which will remain dry except is conducted in the future.
- am culvert work zone with dams and installing a bypass pump.
- aligning the stream at the culvert C-16/17 approaches. The highway everal stages to accommodate traffic.
- tfalls.
- an areas adjacent to stream and ditch realignments.

Site #	Site Name	Waterbody Name	Flows Into	Culvert Watercourse Classification(s)	Lat, Long for Site Center Point	Total Approximate Disturbance Area (m²)	Total Permanent Aquatic Footprint (m²)	Total Permanent Riparian Footprint (m²)	Total Temporary Aquatic Footprint (m2)	Total Temporary Riparian Footprint (m²)	Total Aquatic Footprint (m²)	Total Riparian Footprint (m²)	
9	Nathan Creek 3	Easterly Nathan Creek tributaries	Easterly Nathan Creek tributaries	A(O)	N49.077°, W 122.430°	11925.8 m²	1443.8	10218.9	31.7	231.4	1475.5	10450.3	 Installation of two new larger hi Armouring of highway ditches t Construction of several minor of Narrowing of the highway medi Installation of new riprap lined p the adjacent ditches. Refinement of roadside ditches Isolating (temporarily) the streat Regrading, armouring, and reat culverts to be built in several state Riprapping at spillways and out Clearing and grubbing of ripariat
10	Bradner North Offset	Nathan Creek tributary	Nathan Creek	A	N49.081°, W122.433°	1000 m ²					0.0	1000.0	 Installation of concrete and bound along the ravine. Construction of a new meanded directs this flow into Nathan Creet Complexing the channel with restrict the constructing a berm between the Adding spawning gravel to the Connecting a new channel to the Clearing and grubbing for the direct of the construction of the con
11	Nathan Creek East Offset	Nathan Creek East	Nathan Creek East	A(O)	N49.078°, W122.429°	11107.6 m ²					1295.8	9811.8	 Installing culverts. Installing boulders and concrete Complexing the channel with ro Armouring the bank. Adding spawning gravel to the Connecting a new channel and Riprapping at spillways and out Clearing and grubbing for the dispawning area.
12	Salmon River Tributary	Salmon River tributary	Salmon River tributary	A(O)	N48.069°, W 122.411°	6030.6 m²	957.3	3758.0	273.9	1041.4	1231.2	4799.4	 Replacement of two smaller cu Watercourse realignment to tie Narrowing of the highway medi Installation of new riprap lined period the adjacent ditches. Refinement of roadside ditchess Addition of a maintenance dive when culvert maintenance work Isolating (temporarily) the streat Regrading, armouring, and reat culverts to be built in several stat Riprapping at spillways and our Clearing and grubbing of ripariat

ighway culverts on Nathan Creek tributaries.

- to tie-in at both ends of the new culverts.
- culverts between the median and sideroad ditches.
- ian swale.
- pavement drainage spillways from the edge of pavement down to

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- am culvert work zone with dams and installing a bypass pump.
- ligning the stream at the culvert approaches. The highway crossing ges to accommodate traffic.
- tfalls.
- an areas adjacent to stream and ditch realignments.

ulder weirs to back flood the existing creek channel creating ponds

- ring channel that collects runoff from the Bradner Rest Area and ek.
- oot wads and large woody debris.
- the new and existing channel.
- creek bed.
- he existing creek.
- disturbed areas adjacent to stream and constructed ponds.

e weirs.

- oot wads and large woody debris.
- channel bed.
- I upstream constructed pond to the existing creek.
- tfalls.
- disturbed areas adjacent to stream, constructed ponds, and
- Iverts with Single Box Culvert C-18/19.
- e-in at both ends of the new culvert.
- ian swale
- pavement drainage spillways from the edge of pavement down to

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- ersion culvert beside culvert C-16/17, which will remain dry except is conducted in the future.
- am culvert work zone with dams and installing a bypass pump.
- aligning the stream at the culvert approaches. The highway crossing ages to accommodate traffic.
- itfalls.
- an areas adjacent to stream and ditch realignments.

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13	Fishtrap Creek 1	Westerly Fishtrap Creek tributaries	Westerly Fishtrap Creek tributaries	С	N49.066°, W122.404°	239.2 m ²	239.2	828.4	0.0	0.0	239.2	828.4	 Installation of new riprap lined p the adjacent ditches. Construction of one minor media Narrowing of the highway media Refinement of roadside ditches. Minor earthworks interfacing wit Riprapping at spillways and outfit Clearing and grubbing for the dital
14	Fishtrap Creek 2	Fishtrap Creek	Fishtrap Creek	CUL-3 A(O) Other culverts: B	N49.063°, W 122.395°	3462.8 m²	86.1	428.6	332.4	2615.8	418.5	3044.3	 Replacement of an existing olde Watercourse realignment to tie- Installation of boulder riffles to in Creation of accesses to this dee Construction of launching and reembankment. Replacement of three culverts b CUL-5. Installation of new riprap lined p the adjacent ditches. Refinement of roadside ditches. Narrowing of the highway media Addition of a maintenance diver when culvert maintenance work is Isolating (temporarily) the stream Regrading, armouring, and reali Riprapping at spillways and out Clearing and grubbing of riparia
15	Fishtrap Creek 3	Easterly Fishtrap Creek tributary	Easterly Fishtrap Creek tributary	A	N49.056°, W 122.386°	3949.3 m²	273.1	1615.5	492.3	2807.3	765.4	3183.9	 Replacement of an existing olde Watercourse realignment to tie-i Installation of boulder riffles to in Construction of accesses to the Construction of launching and reembankment. Installation of new riprap lined p the adjacent ditches. Refinement of roadside ditches. Narrowing of the highway media Installation of new minor Class I Installation of a south road shi Reconstruction of a south road shi Reconstruction of a maintenance diver when culvert maintenance work is Isolating (temporarily) the stream Regrading, armouring, and reali Riprapping at spillways and out

avement drainage spillways from the edge of pavement down to

an culvert at an emergency turn-around. an swale

th existing highway ditches.

falls.

isturbed areas adjacent to stream and ditch realignments.

er culvert with Single Culvert CUL-3.

-in at both ends of the new culvert.

mprove the stream grades and slow flows.

ep culvert in the ravine on both sides of the highway.

eceiving platforms for jacking the pipe through the highway

between the median and the highway ditches: CUL-2, CUL-4 and

pavement drainage spillways from the edge of pavement down to

an swale

sion culvert beside culvert CUL-3, which will remain dry except is conducted in the future.

am culvert work zone with dams and installing a bypass pump.

igning the stream at the culvert approaches.

falls.

an areas adjacent to stream and ditch realignments.

er culvert with Single Culvert CUL-7.

in at both ends of the new culvert.

mprove the stream grades and slow the flow.

deep culvert in the ravine on both sides of the highway.

eceiving platforms for jacking the pipe through the highway

avement drainage spillways from the edge of pavement down to

an swale with median storm sewer.

B CUL-6 under muti-use path.

C CUL-8 under westbound entrance ramp from Mt. Lehman Road.

oulder storm sewer east of CUL-7.

hes at the ramps.

sion culvert beside culvert CUL-7, which will remain dry except s conducted in the future.

m culvert work zone with dams and installing a bypass pump.

igning the stream at the culvert approaches.

falls.

in areas adjacent to stream and ditch realignments.

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16	Enns Brook 1	Enns Brook westerly tributaries	Enns Brook westerly tributary	B, C	N49.056°, W 122.367°	2288.4 m ²	527.6	1347.9	350.6	254.6	878.2	1410.2	 Replacement of an older existin Installation of new riprap lined the adjacent ditches. Refinement of roadside ditches Narrowing of the highway medi Some reshaping of roadside di Replacing Culvert CUL-11. Reconstructing the median swa Riprapping at spillways and ou Clearing and grubbing of riparia
17	East Fishtrap Creek	Enns Brook	Fish Trap Creek East	A	N49.051°, W 122.366°	13643.6 m ²	2920.4	8117.7	806.9	1798.6	3727.3	9916.3	 Removal of five existing highwa Pre-loading. Construction of two bridges over traffic. Armouring the channel at select Narrowing and reconstructing to Replacement of culvert CUL-13. Installation of new riprap lined the adjacent ditches. Refinement of roadside ditchess Replacement of a minor culver Isolating stream work zones witch annel. Removing culverts. Armouring the banks. Realigning stream channels. Riprapping spillways and outfa Clearing and grubbing of riparia
18	Enns Brook 2	Enns Brook easterly tributaries	Enns Brook easterly tributary	A	N49.049°, W 122.360°	486.3 m²	0.0	0.0	0.0	486.3	0*	486.3	 Replacement of one minor culv Installation of new riprap lined p the adjacent ditches. Refinement of roadside ditches Narrowing of the highway media Construction of a sound wall ar Reconstructing the median swa Regrading the north side ditch Removing a fish bearing culver Riprapping at spillways and ou Clearing and grubbing of riparia
19	Salmon River Offsite Offsets	Salmon River & Salmon River tributaries	Salmon River	A	N49.141°, W 122.604°	4643 m² (length m x width m)						4685.0	 Connecting ponds (built in isola Armouring the bank in select lo Clearing and grubbing for the crealignments. Riparian planting

ing culvert with Single Culvert CUL-11. pavement drainage spillways from the edge of pavement down to

ian swale with median storm sewer. itches at the ramps.

ale

ıtfalls

an areas adjacent to stream and ditch realignments.

ay culverts to create an open channel.

er the creek; one bridge for eastbound traffic and one for westbound

cted locations to reduce erosion.

the median and its' swale.

3 between the median and the south ditch.

pavement drainage spillways from the edge of pavement down to

t CUL-13 that connects the median to the southerly highway ditch. ith temporary dams and later removing those dams to open the new

s.

an areas adjacent to stream and ditch realignments.

vert CUL-14 connecting the median to the southerly highway ditch. pavement drainage spillways from the edge of pavement down to

ian swale.

nd retaining wall beside the northside class A highway ditch. ale.

adjacent to soundwall/retaining wall.

rt along the south highway ditch and replacing with an open ditch. Itfalls

an areas adjacent to stream and ditch realignments.

ation) to the existing Salmon River.

ocations.

disturbed areas adjacent to stream and constructed ponds