

Appendix - Phase 1 Fish Passage Assessment Data and Photos

| Location and Stream Data | | Crossing Characteristics | |
|---|--|--------------------------|---------------|
| Date | 2024-10-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 4931 | Diameter (m) | 1.55 |
| External ID | — | Length (m) | 6 |
| Crew | LS | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | — |
| Easting | 344707 | Resemble Channel | No |
| Northing | 5862849 | Backwatered | No |
| Stream | Teepee Creek | Percent Backwatered | — |
| Road | Mount Tinsley Pit Road | Fill Depth (m) | 0.5 |
| Road Tenure | Carrier Lumber R13564 | Outlet Drop (m) | 1.3 |
| Channel Width (m) | 5.6 | Outlet Pool Depth (m) | 0.35 |
| Stream Slope (%) | 12 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 5 |
| Habitat Value | High | Valley Fill | Shallow Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |
| Comments: A significant outlet drop was present. The pipe was in good condition, but there was erosion under the outlet and on the road column on the outlet side. The stream provided high-quality habitat with known fish in the system, including a salmon point downstream. The gradient was steep at this crossing, but the downstream highway crossing had lower gradients with abundant gravels. The road was a small dirt road with minimal road fill, making replacement relatively straightforward. | | | |
| Photos: PSCIS ID 4931. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  14-10-98 14:17:53 U 344712 5352864 | • |  14-10-98 14:17:53 |
|  14-10-98 14:17:53 U 344712 5352867 | • |  14-10-98 14:17:53 U 344712 5352867 |
|  14-10-98 14:17:53 U 344712 5352868 | • |  14-10-98 14:17:53 U 344712 5352869 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2024-10-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 7620 | Diameter (m) | 2.6 |
| External ID | – | Length (m) | 52 |
| Crew | LS | Embedded | Yes |
| UTM Zone | 11 | Depth Embedded (m) | 0.1 |
| Easting | 343425 | Resemble Channel | Yes |
| Northing | 5862437 | Backwatered | Yes |
| Stream | Teepee Creek | Percent Backwatered | 100 |
| Road | Railway | Fill Depth (m) | 7 |
| Road Tenure | CN Rail | Outlet Drop (m) | 0 |
| Channel Width (m) | 7.5 | Outlet Pool Depth (m) | 1 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 1.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 22 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 27 |

Comments: Long culvert which passed under the CN railway and a dirt road. A beaver dam located 50m downstream of the outlet created a larger beaver pond which was backwatering the culvert . Below the beaver dam, the stream had low gradients and provided good fish habitat. A gate across the inlet functioned as a beaver grate. The stream was fenced perpendicular to the channel both upstream and downstream, likely for cattle management. Signs of cattle accessing the stream were observed near the outlet.

Photos: PSCIS ID 7620. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  <p>2024-10-04 14:31 N 43° 34' 57.56" E 75° 56' 24.03"</p> | • |  <p>2024-10-04 14:31 N 43° 34' 57.56" E 75° 56' 24.03"</p> |
|  <p>2024-10-04 14:31 N 43° 34' 57.56" E 75° 56' 24.03"</p> | • |  <p>2024-10-04 14:31 N 43° 34' 57.56" E 75° 56' 24.03"</p> |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199163 | Diameter (m) | 7.1 |
| External ID | 5400442 | Length (m) | 24 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 311759 | Resemble Channel | No |
| Northing | 6025526 | Backwatered | No |
| Stream | Tributary to Endako River | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 1.8 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.85 |
| Channel Width (m) | 10 | Outlet Pool Depth (m) | 1.3 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: This is two 1.55 m pipes plus a 0.6 m overflow. The north large pipe has a strange apron on the inlet. The stream is deeply incised (2.5 m deep) within an agricultural field on the downstream side. No riparian for approximately 70 m downstream on the right bank. The stream is partially dewatered with stagnant pools throughout. Forgie Creek dam, owned by Hart George F/V B, is upstream and may be influencing flow. Channel is choked downstream with grasses in many places indicating flow is not occurring year around. MoTi chris_culvert_id: 2883939, 2076427, 2076426. 12:57:11

Photos: PSCIS ID 5400442. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199164 | Diameter (m) | 3.6 |
| External ID | 24707052 | Length (m) | 22 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 311577 | Resemble Channel | No |
| Northing | 6025364 | Backwatered | No |
| Stream | Tributary to Endako River | Percent Backwatered | — |
| Road | West Decker Road | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 4 | Outlet Pool Depth (m) | 0.6 |
| Stream Slope (%) | 0.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 16 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Was modelled as open bottom structure, has now been changed to CBS. Larger drainage with agricultural fields both upstream and downstream. Heavily impacted riparian with primarily field on either side upstream and downstream. Channel choked out with agronomic grasses. Mostly dewatered except for intermittent stagnant pools. Unassessed railway crossing downstream. MoTi chris_culvert_id: 2077140, 2077139. 13:48:59

Photos: PSCIS ID 24707052. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199165 | Diameter (m) | 1.8 |
| External ID | 5400216 | Length (m) | 25 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 341709 | Resemble Channel | Yes |
| Northing | 6003118 | Backwatered | No |
| Stream | Tributary to Endako River | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.6 | Outlet Pool Depth (m) | 0.3 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Dry at time of survey. Abundant gravels throughout. Crossing on railway downstream still unassessed. Modelled crossing below. First 5 m of pipe is rusted through on the bottom side. Deeply incised banks upstream indicate the stream has a lot of flow at sometimes in the year with a decent amount of power. 9m falls ~1km upstream. Upstream Co-op Lake stocked with KO from 2017-2023 and EB from 1963-2023. MoTi chris_culvert_id: 2069497. 10:56:54

Photos: PSCIS ID 5400216. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | . | Crossing Characteristics | - |
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| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199166 | Diameter (m) | 0.6 |
| External ID | 5400121 | Length (m) | 14 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 346590 | Resemble Channel | No |
| Northing | 6001339 | Backwatered | No |
| Stream | Tributary to Endako River | Percent Backwatered | - |
| Road | Priestly Station Road | Fill Depth (m) | 0.7 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.1 |
| Channel Width (m) | 1.8 | Outlet Pool Depth (m) | 0.25 |
| Stream Slope (%) | 0.5 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 26 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Small stream with very good flow immediately adjacent to the mainstem of the Endako River. Could be valuable Chinook rearing area during high flow periods. Pipe is bent in the middle so top half is backwatered but the bottom half is not. Small outlet drop. There is a large lump in the road at the pipe and pylons have been set up here likely to warn drivers.. 12:11:02

Photos: PSCIS ID 5400121. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | . | Crossing Characteristics | – |
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| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199167 | Diameter (m) | 1.55 |
| External ID | 5400192 | Length (m) | 23 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 353705 | Resemble Channel | No |
| Northing | 5996651 | Backwatered | No |
| Stream | Sam Ross Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 1.8 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.6 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dry at time of survey. Stream may be channelized upstream due to driveways to private properties on either side of the stream. Appears to have narrow, but decently healthy cottonwood dominated riparian, which could help dissipate flows and floods and runoff. Crack in Highway at culvert with minor erosion of road prism on downstream side. Stream labelled as Ross creek on sign. MoTi chris_culvert_id: 1793864. 12:42:58

Photos: PSCIS ID 5400192. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | . | Crossing Characteristics | – |
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| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199168 | Diameter (m) | 0.9 |
| External ID | 5400235 | Length (m) | 20 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 371691 | Resemble Channel | No |
| Northing | 5993173 | Backwatered | No |
| Stream | Alf Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 0.7 |
| Road Tenure | MOTI | Outlet Drop (m) | 1.2 |
| Channel Width (m) | 1 | Outlet Pool Depth (m) | 0.4 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 31 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dry with very poorly defined channel upstream and downstream. Seems very unlikely that this system could support fish. Pipe is rusted right through at the inlet for ~1m. Pipe is in very bad shape. MoTi chris_culvert_id: 1793794. 13:41:54

Photos: PSCIS ID 5400235. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199169 | Diameter (m) | 1.5 |
| External ID | 5400045 | Length (m) | 50 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 391513 | Resemble Channel | No |
| Northing | 5991795 | Backwatered | No |
| Stream | Tributary to Fraser Lake | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 9.9 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.4 |
| Channel Width (m) | 4 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 32 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 35.5 |

Comments: Dry at time of survey. Upstream channel is choked with reed canary grass. Downstream is extremely thick willow with multiple channels present. Stream provides access to Drywilliam lake. Road fill was measured at 12m, but changed to 9.9 to satisfy provincial submission requirements. MoTi chris_culvert_id: 1793348. 14:31:28

Photos: PSCIS ID 5400045. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199170 | Diameter (m) | 0.6 |
| External ID | 5400003 | Length (m) | 23 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 377178 | Resemble Channel | No |
| Northing | 5993874 | Backwatered | No |
| Stream | Perry Creek | Percent Backwatered | — |
| Road | Stella Road | Fill Depth (m) | 4 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.3 |
| Channel Width (m) | 1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Small drainage. Dry with primarily vegetated channel indicating does not much flow for most of the year.

Culvert rusting at inlet. MoTi chris_culvert_id: 1794274. 10:53:44

Photos: PSCIS ID 5400003. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
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|  A photograph of a paved road curving through a forested area. A yellow and white sign is visible on the left side of the road, with the text "FISH PASS" printed on it. |  A photograph looking down the interior of a corrugated metal culvert. Water is flowing through the pipe, and the walls are covered in algae or moss. A timestamp in the top right corner reads "2023-08-30 10:58:50" and "10U 377169 5063372". |
|  A photograph showing dense brush and fallen branches in a wooded area. A small opening in the brush is visible, likely a fish passage structure. |  A photograph of a culvert entrance partially obscured by brush and fallen branches. A timestamp in the top right corner reads "2023-08-30 10:58:53" and "10U 377169 5063372". |
|  A photograph of a stream crossing structure made of concrete or stone blocks. It appears to be a low dam or a series of weirs. The surrounding area is overgrown with brush and trees. |  A photograph showing brush and debris in a wooded area, possibly near a stream crossing. A timestamp in the top right corner reads "2023-08-30 10:58:42" and "10U 377169 5063372". |

| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199171 | Diameter (m) | 1 |
| External ID | 5400202 | Length (m) | 13 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 388944 | Resemble Channel | No |
| Northing | 5997002 | Backwatered | No |
| Stream | Tributary to Fraser Lake | Percent Backwatered | - |
| Road | Gala Bay Road | Fill Depth (m) | 1 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.8 |
| Channel Width (m) | 1.7 | Outlet Pool Depth (m) | 0.6 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 4.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Very nice stream with good flow and abundant gravels upstream and downstream. Landowner indicated sockeye spotted along shoreline years ago. Massive outlet drop. Deserves habitat confirmation and consideration for replacement if no natural barriers upstream. There is a PSCIS assessed site (assessment_id = 7622) upstream that is a barrier. MoTi chris_culvert_id: 1790951. 12:12:56

Photos: PSCIS ID 5400202. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199172 | Diameter (m) | 1.1 |
| External ID | 5400203 | Length (m) | 25 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 388270 | Resemble Channel | No |
| Northing | 5996949 | Backwatered | No |
| Stream | Scotch Creek | Percent Backwatered | — |
| Road | Stella Road | Fill Depth (m) | 5 |
| Road Tenure | MOTI | Outlet Drop (m) | 1.4 |
| Channel Width (m) | 2.6 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 4.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 39 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 21 |

Comments: Very nice little stream with excellent flow for this time of year on a dry year. Crossing downstream on Gala Bay Road was fully embedded and passible at the time of the assessment. There is a historic chinook observation within this stream. This could be valuable Chinook rearing habitat and connectivity within the system should be restored, should no natural barriers be observed on a habitat confirmation assessment. MoTi chris_culvert_id: 1794198, 1794199. 12:47:26

Photos: PSCIS ID 5400203. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199173 | Diameter (m) | 0.95 |
| External ID | 15600277 | Length (m) | 12 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 398933 | Resemble Channel | No |
| Northing | 5996365 | Backwatered | No |
| Stream | Tributary to Nechako River | Percent Backwatered | — |
| Road | Dog Creek Road | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.4 |
| Channel Width (m) | 2.7 | Outlet Pool Depth (m) | 1 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 3 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Very nice stream with excellent flow for this time of year on a dry year. Very large deep outlet pool with extensive erosion undercutting the main pipe and 0.6 m overflow. Locally known as Dog Creek. Chinook captured upstream and downstream of Dog Creek FSR in 2021, 2022, and 2023 reported here <https://a100.gov.bc.ca/pub/acat/public/viewReport.do?reportId=62942>. Connected to the Nechako River with observed chinook points downstream adjacent to the confluence. Road edge is failing at the culvert and eroding into stream. Highly degraded site upstream that would be a good candidate for restoration. MoTi chris_culvert_id: 1794340. 13:43:26

Photos: PSCIS ID 15600277. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199174 | Diameter (m) | 1.45 |
| External ID | 15604478 | Length (m) | 16 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 397160 | Resemble Channel | No |
| Northing | 5996558 | Backwatered | No |
| Stream | Tributary to Nechako River | Percent Backwatered | — |
| Road | Sutherland FSR | Fill Depth (m) | 0.5 |
| Road Tenure | West Fraser R09194 SE | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.5 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 0.5 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Extreme negative impacts due to cattle, particularly upstream of the FSR. Extensive trampling of the channel and banks, along with heavy grazing and removal of riparian. Dry at the time of assessment besides a small wallowing hole upstream of the inlet. Riparian exclusion fencing is required along with repairing vegetation, restoration irrigation, and monitoring. This is a fish bearing stream with high habitat values less than 2 km down the stream where it crosses Dog Creek Road.. 14:17:41

Photos: PSCIS ID 15604478. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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|  <p>Location and Stream Data:</p> <p>•</p> <p>Crossing Characteristics:</p> | | |

| Location and Stream Data | . | Crossing Characteristics | - |
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| Date | 2023-10-01 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199175 | Diameter (m) | 1.2 |
| External ID | 9903437 | Length (m) | 29 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 500733 | Resemble Channel | No |
| Northing | 5959822 | Backwatered | No |
| Stream | Aird Creek | Percent Backwatered | - |
| Road | Upper Mud River Road | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 1.5 |
| Channel Width (m) | 1.2 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 5 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Two pipes at 0.6 m each. Agricultural field downstream. Appears that the stream has been modified to put the stream in the ditch of the agricultural field. Aird lake upstream with rainbow trout presence. Dry channel. Very small stream. Massive outlet drops. May have historically provided some rearing refuge for wetted periods of the year. MoTi chris_culvert_id: 1975643, 1975642. 09:41:29

Photos: PSCIS ID 9903437. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
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|  | • |  2103-00-007093 TX0 55-42-00-00-0002 |
|  | • |  |
|  | • |  2103-00-007093 TX0 55-42-00-00-0002 |

| Location and Stream Data | . | Crossing Characteristics | – |
|---|---|---------------------------------|---------------|
| Date | 2023-10-01 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199176 | Diameter (m) | 0.9 |
| External ID | 9901826 | Length (m) | 10 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 498057 | Resemble Channel | No |
| Northing | 5955884 | Backwatered | No |
| Stream | Chilako Creek | Percent Backwatered | – |
| Road | Upper Mud River Road | Fill Depth (m) | 0.8 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.25 |
| Channel Width (m) | 1.7 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 31 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |
| Comments: Dry at time of assessment. One assessed crossing on private driveway located downstream. Stream is completely trampled and barely recognizable upstream due to cattle trampling and riparian removal. Downstream is ditch like with just grass and shrub riparian before mix forest begins proximately 40 m downstream of the road. | | | |
| Agricultural field on right back downstream. Some scouring of the channel downstream, but primarily choked with grasses indicating stream does not flow for much of the year lately. MoTi chris_culvert_id: 1975651. 10:20:58 | | | |
| Photos: PSCIS ID 9901826. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--|
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| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-01 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199177 | Diameter (m) | 1.5 |
| External ID | 9903963 | Length (m) | 16 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 491332 | Resemble Channel | No |
| Northing | 5956490 | Backwatered | No |
| Stream | Tributary to Chelako River | Percent Backwatered | - |
| Road | McBride Timber Road | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.75 |
| Channel Width (m) | 1.7 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 3 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dry at time of assessment. Two other crossings located upstream on non-active forestry roads. Extensive beaver activity upstream with water above both upstream crossings. Could consider opportunity for upgrading this crossing and removing the upper two. MoTi chris_culvert_id: 1976780. 12:17:51

Photos: PSCIS ID 9903963. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-01 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199178 | Diameter (m) | 4.5 |
| External ID | 9900367 | Length (m) | 33 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 509128 | Resemble Channel | No |
| Northing | 5959562 | Backwatered | No |
| Stream | Beaverley Creek | Percent Backwatered | – |
| Road | Blackwater Road | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 5 | Outlet Pool Depth (m) | 1 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 0 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Moti major structure. Beaver dam located approximately 30 m downstream has backwatered the entire structure. MoTi chris_hwy_structure_road_id: 3755. 13:13:41

Photos: PSCIS ID 9900367. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199179 | Diameter (m) | 5 |
| External ID | 24716727 | Length (m) | 25 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 433506 | Resemble Channel | No |
| Northing | 5987089 | Backwatered | No |
| Stream | Murray Creek | Percent Backwatered | — |
| Road | Loop Rd | Fill Depth (m) | 1.5 |
| Road Tenure | Vanderhoof | Outlet Drop (m) | 0 |
| Channel Width (m) | 6.2 | Outlet Pool Depth (m) | 1.5 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Huge system with wide channel. Hundreds of fry spotted upstream and some in culvert. Deep outlet pool suggesting culvert may be undersized. Extensive restoration activities in the watershed with many led by Nechako Environment and Watershed Stewardship Society.. 09:13:29

Photos: PSCIS ID 24716727. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  202-09-09-11:50 100-133520-5937090 |  202-09-09-11:50 100-133520-5937090 |
|  202-09-09-11:53 100-133486-2587053 |  202-09-09-11:53 100-133486-2587053 |
|  202-09-09-09:12:54 100-133511-0937109 |  202-09-09-09:12:54 100-133511-0937109 |

| Location and Stream Data | | • | Crossing Characteristics | – |
|--|--------------|-----------------------|--------------------------|---|
| Date | 2023-09-09 | Crossing Sub Type | Round Culvert | |
| PSCIS ID | 199180 | Diameter (m) | 2.2 | |
| External ID | 15600108 | Length (m) | 15 | |
| Crew | MW | Embedded | No | |
| UTM Zone | 10 | Depth Embedded (m) | – | |
| Easting | 429831 | Resemble Channel | No | |
| Northing | 5990320 | Backwatered | No | |
| Stream | Murray Creek | Percent Backwatered | – | |
| Road | Snell Rd E | Fill Depth (m) | 2 | |
| Road Tenure | MOTI | Outlet Drop (m) | 0 | |
| Channel Width (m) | 2.1 | Outlet Pool Depth (m) | 0.4 | |
| Stream Slope (%) | 1 | Inlet Drop | No | |
| Beaver Activity | No | Slope (%) | 0.5 | |
| Habitat Value | Medium | Valley Fill | Deep Fill | |
| Final score | 13 | Barrier Result | Passable | |
| Fix type | – | Fix Span / Diameter | – | |
| Comments: Grassy wetland habitat upstream and downstream. Culvert diameter used as channel width and stream slope estimated. Beaver grate present at inlet. Some flow in culvert. MoTi chris_culvert_id: 1808533. 09:55:51 | | | | |
| Photos: PSCIS ID 15600108. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-09 09:56:55 101-420883-5990324</p> |  <p>2023-09-09 10:03:04 101-420883-5950322</p> |
|  <p>2023-09-09 10:03:04 101-420883-5950322</p> |  <p>2023-09-09 10:03:04 101-420883-5950322</p> |
|  <p>2023-09-09 09:57:29 101-420883-5990324</p> |  <p>2023-09-09 09:57:29 101-420883-5990324</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199181 | Diameter (m) | 3.2 |
| External ID | 15600467 | Length (m) | 16 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 429905 | Resemble Channel | No |
| Northing | 5990198 | Backwatered | No |
| Stream | Murray Creek | Percent Backwatered | — |
| Road | Loop Road | Fill Depth (m) | 4 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.3 |
| Channel Width (m) | 2.2 | Outlet Pool Depth (m) | 1 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 28 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 18 |

Comments: Known chinook system upstream and down. Two culverts, only left one has water flowing through. Left one is warped in the middle. Very deep outlet pool. Wetland habitat upstream. Agricultural land downstream, with defined channel and good flow. MoTi chris_culvert_id: 1802380, 1802381. 10:16:56

Photos: PSCIS ID 15600467. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
|   |   |
|  | NO IMAGE AVAILABLE |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199182 | Diameter (m) | 2.5 |
| External ID | 15600107 | Length (m) | 22 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 430580 | Resemble Channel | No |
| Northing | 5990313 | Backwatered | No |
| Stream | East Murray Creek | Percent Backwatered | – |
| Road | Snell Rd E | Fill Depth (m) | 0.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.7 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: No water in culvert. Dewatered upstream. Some standing water in outlet pool, then deters downstream. Clear signs of cattle intruding into channel upstream. MoTi chris_culvert_id: 1808528. 12:00:12

Photos: PSCIS ID 15600107. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-09 11:56:33 10U 430576 5000312</p> |  <p>2023-09-09 11:56:33 10U 430576 5000312</p> |
|  <p>2023-09-09 11:56:33 10U 430576 5000312</p> |  <p>2023-09-09 11:56:33 10U 430576 5000312</p> |
|  <p>2023-09-09 12:00:30 10U 430576 5000320</p> |  <p>2023-09-09 12:00:30 10U 430576 5000320</p> |

| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199183 | Diameter (m) | 1.8 |
| External ID | 15600190 | Length (m) | 12 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 431924 | Resemble Channel | No |
| Northing | 5991893 | Backwatered | No |
| Stream | McIntosh Creek | Percent Backwatered | - |
| Road | Mcleod Pit Rd | Fill Depth (m) | 0.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.6 | Outlet Pool Depth (m) | 0.3 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 15 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Three culverts. Water flowing through two pipes. The other one is dewatered, looks like it was installed too high. Overgrown channel upstream. Downstream goes through agricultural land. MoTi chris_culvert_id: 1807160, 1807157, 1807159. 12:30:04

Photos: PSCIS ID 15600190. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|---|--------------------------|---------------|
| | . | | - |
| Date | 2023-09-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199184 | Diameter (m) | 0.5 |
| External ID | 15603995 | Length (m) | 10 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 431910 | Resemble Channel | No |
| Northing | 5995592 | Backwatered | No |
| Stream | McIntosh Creek | Percent Backwatered | - |
| Road | Stringer Rd | Fill Depth (m) | 1 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 0.7 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Fully dewatered. Very small culvert. Signs of a stream channel but doesn't look like there has been water flowing in years. MoTi chris_culvert_id: 1806918. 13:57:33

Photos: PSCIS ID 15603995. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-09 13:56:25 10U 431000 5925599</p> |  <p>2023-09-09 13:57:07 10U 431000 5925589</p> |
|  <p>2023-09-09 13:58:04 10U 431000 5925591</p> |  <p>2023-09-09 13:57:00 10U 431000 5925584</p> |
|  <p>2023-09-09 13:59:00 10U 431000 5925593</p> |  <p>2023-09-09 13:57:08 10U 431000 5925587</p> |

| Location and Stream Data | | Crossing Characteristics | |
|---|--|--------------------------|---------------|
| Date | 2023-09-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199185 | Diameter (m) | 1.7 |
| External ID | 15600011 | Length (m) | 14 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 439543 | Resemble Channel | No |
| Northing | 5988470 | Backwatered | No |
| Stream | Knight Creek | Percent Backwatered | — |
| Road | Gulbranson Rd | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.7 | Outlet Pool Depth (m) | 2 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |
| Comments: Huge outlet pool, but no outlet drop. No water in pipe and no flowing water in stream. MoTi chris_culvert_id: 1803926. 15:09:18 | | | |
| Photos: PSCIS ID 15600011. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | . | Crossing Characteristics | - |
|--|--|---|--------------------------|---------------|
| Date | 2023-09-09 | | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199186 | | Diameter (m) | 3 |
| External ID | 15600572 | | Length (m) | 16 |
| Crew | MW | | Embedded | No |
| UTM Zone | 10 | | Depth Embedded (m) | - |
| Easting | 449681 | | Resemble Channel | No |
| Northing | 5990078 | | Backwatered | No |
| Stream | Tributary to Tritt Creek | | Percent Backwatered | - |
| Road | Sturgeon Pt Rd | | Fill Depth (m) | 1 |
| Road Tenure | MOTI | | Outlet Drop (m) | 0 |
| Channel Width (m) | 3 | | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | | Inlet Drop | No |
| Beaver Activity | No | | Slope (%) | 1.5 |
| Habitat Value | Low | | Valley Fill | Deep Fill |
| Final score | 21 | | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | | Fix Span / Diameter | 15 |
| Comments: Dewatered. Vegetated stream channel. Three culverts, diameter totaled. MoTi chris_culvert_id: 1801577, 1801578. 15:44:14 | | | | |
| Photos: PSCIS ID 15600572. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  2023-09-09 15:41:18 18U 449680 5990069 |  |
|  2023-09-09 15:41:27 18U 449676 5990075 |  |
|  2023-09-09 15:42:01 18U 449676 5990075 |  |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--------------------------|--|---|--------------------------|--------------|
| Date | 2023-09-10 | | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199187 | | Diameter (m) | 3.9 |
| External ID | 15600483 | | Length (m) | 17 |
| Crew | MW | | Embedded | No |
| UTM Zone | 10 | | Depth Embedded (m) | - |
| Easting | 425343 | | Resemble Channel | No |
| Northing | 5991993 | | Backwatered | No |
| Stream | Clear Creek | | Percent Backwatered | - |
| Road | Braeside Rd | | Fill Depth (m) | 2 |
| Road Tenure | MOTI | | Outlet Drop (m) | 0 |
| Channel Width (m) | 4.7 | | Outlet Pool Depth (m) | 0.6 |
| Stream Slope (%) | 0.5 | | Inlet Drop | No |
| Beaver Activity | No | | Slope (%) | 1.5 |
| Habitat Value | High | | Valley Fill | Deep Fill |
| Final score | 21 | | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | | Fix Span / Diameter | 15 |

Comments: High quality habitat upstream, wide channel with good flow. Lots of instream vegetation near culvert. Fully backwatered and passable at time of assessment. MoTi chris_hwy_structure_road_id: 30525. 09:33:54

Photos: PSCIS ID 15600483. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics | - |
|---|---|--|---|
|  | 2023-09-10 03:24:24 01-4253475992017 |  | 2023-09-10 03:24:27 01-4253475992017 |
|  | 2023-09-10 03:24:24 01-4253475992017 |  | 2023-09-10 03:24:27 01-4253475992017 |
|  | 2023-09-10 03:24:24 01-4253475992017 |  | 2023-09-10 03:24:27 01-4253475992017 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199188 | Diameter (m) | 0.95 |
| External ID | 15600493 | Length (m) | 10 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 425987 | Resemble Channel | No |
| Northing | 5997655 | Backwatered | No |
| Stream | Tributary to Clear Creek | Percent Backwatered | – |
| Road | Blue Mountain Road | Fill Depth (m) | 1 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.7 |
| Channel Width (m) | 1.1 | Outlet Pool Depth (m) | 0.7 |
| Stream Slope (%) | 4 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 28 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Upstream, overgrown with smaller channel. than downstream. Significant outlet drop.. 10:44:11

Photos: PSCIS ID 15600493. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199189 | Diameter (m) | 1.6 |
| External ID | 15600520 | Length (m) | 20 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 424104 | Resemble Channel | No |
| Northing | 6000564 | Backwatered | No |
| Stream | Clear Creek | Percent Backwatered | — |
| Road | Highway 27 S | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.1 |
| Channel Width (m) | 2.2 | Outlet Pool Depth (m) | 0.6 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Big wetland upstream, beaver grate at inlet. Big debris jam in middle of culvert. Only water in pipe near inlet. Dewatered channel downstream at time of survey. MoTi chris_culvert_id: 1797338. 11:44:44

Photos: PSCIS ID 15600520. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  2023-09-10 11:43:14 10U 424100 6000571 |  2023-09-10 10:54:40.08 10U 424117 5000862 |
|  2023-09-10 11:44:22 10U 424194 6000591 |  2023-09-10 11:44:22 10U 424194 6000591 |
|  2023-09-10 11:44:25 10U 424194 6000591 |  2023-09-10 11:45:17 10U 424192 6000573 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199190 | Diameter (m) | 1.7 |
| External ID | 15600119 | Length (m) | 22 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 425557 | Resemble Channel | No |
| Northing | 5996141 | Backwatered | No |
| Stream | Clear Creek | Percent Backwatered | — |
| Road | Highway 27 S | Fill Depth (m) | 2.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.3 |
| Channel Width (m) | 2.5 | Outlet Pool Depth (m) | 0.4 |
| Stream Slope (%) | 5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 7 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 39 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: High value habitat, wide channel with good flow and gravels. Known chinook system downstream. Culvert is very damaged near outlet. There are holes on bottom of pipe about 5m from outlet where water is running through and under the pipe. Culvert is angled down near outlet. Good candidate for replacement. MoTi chris_culvert_id: 1806163.
12:15:10

Photos: PSCIS ID 15600119. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  <p>2023-09-10 12:14:10 00 425560 5996142</p> |  <p>2023-09-10 12:14:10 00 425560 5996142</p> |
|  <p>2023-09-10 12:18:14 00 425562 5996188</p> |  <p>2023-09-10 12:21:27 00 425549 5996192</p> |
|  <p>2023-09-10 12:38:14 00 425562 5996188</p> |  <p>2023-09-10 12:21:27 00 425549 5996192</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199191 | Diameter (m) | 1.6 |
| External ID | 24716705 | Length (m) | 18 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 422841 | Resemble Channel | No |
| Northing | 5993387 | Backwatered | No |
| Stream | Moss Creek | Percent Backwatered | – |
| Road | Braeside Rd | Fill Depth (m) | 2.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.2 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Inlet almost completely blocked by debris and wood. Wetland upstream. Beaver dam blocking most of water just downstream of outlet pool. Chinook observations noted downstream MoTi chris_culvert_id: 1804629. 13:01:50

Photos: PSCIS ID 24716705. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
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| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199192 | Diameter (m) | 1.5 |
| External ID | 15600122 | Length (m) | 30 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 420920 | Resemble Channel | No |
| Northing | 5993688 | Backwatered | No |
| Stream | Redmond Creek | Percent Backwatered | – |
| Road | Braeside Rd | Fill Depth (m) | 6 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.5 |
| Channel Width (m) | 1.9 | Outlet Pool Depth (m) | 1 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Big, deep outlet pool. Water is flowing from inlet under the pipe for ~10m and then entering pipe through small hole and then flowing in pipe to outlet. Very near Nechako on unpaved road. Perched pipe. MoTi chris_culvert_id: 1804624. 13:44:39

Photos: PSCIS ID 15600122. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-09-10 13:30:50 10U 420917 5903693 |  2023-09-10 13:38:56 10U 427375 5988844 |
|  2023-09-10 13:44:28 10U 420917 5903714 |  2023-09-10 13:44:28 10U 420917 5903714 |
|  2023-09-10 13:44:29 10U 420917 5903714 |  2023-09-10 13:44:29 10U 420917 5903714 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199193 | Diameter (m) | 0.6 |
| External ID | 15600124 | Length (m) | 10 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 419953 | Resemble Channel | No |
| Northing | 5995257 | Backwatered | No |
| Stream | Redmond Creek | Percent Backwatered | — |
| Road | Walker Rd | Fill Depth (m) | 1 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.5 |
| Channel Width (m) | 0.9 | Outlet Pool Depth (m) | 0.3 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 26 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Very small channel. Agricultural fields upstream and downstream of crossing with no tree cover. Seems likely historic wetland area. MoTi chris_culvert_id: 1800221. 14:39:14

Photos: PSCIS ID 15600124. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--------------------------|---|--------------------------|
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| | . | | - |
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199194 | Diameter (m) | 0.8 |
| External ID | 15600362 | Length (m) | 9 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 449050 | Resemble Channel | No |
| Northing | 5977312 | Backwatered | No |
| Stream | Tributary to Hulatt Creek | Percent Backwatered | - |
| Road | Barsness Rd | Fill Depth (m) | 0.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 0.8 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dewatered pasture upstream with vegetated channel. Small channel downstream with no water. MoTi chris_culvert_id: 1807349. 15:54:33

Photos: PSCIS ID 15600362. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199195 | Diameter (m) | 0.9 |
| External ID | 15600434 | Length (m) | 10 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 442800 | Resemble Channel | No |
| Northing | 5991029 | Backwatered | No |
| Stream | Gilbert Creek | Percent Backwatered | – |
| Road | Gilbert Rd | Fill Depth (m) | 2 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.9 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1.5 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Landowner reports there hasn't been water in stream since the spring. MoTi chris_culvert_id: 1806660.
10:18:36

Photos: PSCIS ID 15600434. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-09-11 10:17:20 104 442789 5991029 |  2023-09-11 10:18:28 104 442789 5991033 |
|  2023-09-11 10:18:39 104 442789 5991040 |  2023-09-11 10:18:49 104 442789 5991041 |
|  2023-09-11 10:21:22 104 442789 5991044 |  2023-09-11 10:21:30 104 442789 5991045 |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|--|---------------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199196 | Diameter (m) | 0.9 |
| External ID | 15600431 | Length (m) | 15 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 441794 | Resemble Channel | No |
| Northing | 5990161 | Backwatered | No |
| Stream | Gilbert Creek | Percent Backwatered | – |
| Road | Sturgeon Point Rd | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.6 |
| Channel Width (m) | 1.2 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Mostly dewatered channel with small amount of water in outlet pool.. Large outlet drop. No well defined channel upstream. Channel width and gradient estimated as areas immediately upstream and downstream are fenced off. MoTi chris_culvert_id: 1801616. 10:37:09

Photos: PSCIS ID 15600431. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|---|--------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199197 | Diameter (m) | 3 |
| External ID | 15600311 | Length (m) | 14 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 444371 | Resemble Channel | No |
| Northing | 5989869 | Backwatered | No |
| Stream | Knight Creek | Percent Backwatered | — |
| Road | Bave Rd | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.6 |
| Channel Width (m) | 1.3 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 25 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Two pipes. Dewatered at time of assessment. Large outlet drop. Debris jam near outlet blocking channel. Grassy habitat upstream, with small channel. MoTi chris_culvert_id: 1802489, 1802490. 11:10:27

Photos: PSCIS ID 15600311. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
|  |  <p>2023-09-11 11:02:07 011-444333 92-09890</p> |
|  |  <p>2023-09-11 11:02:07 011-444333 92-09890</p> |

| Location and Stream Data | | • | Crossing Characteristics | – |
|---|-------------|-----------------------|--------------------------|---|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert | |
| PSCIS ID | 199198 | Diameter (m) | 1.45 | |
| External ID | 15600314 | Length (m) | 18 | |
| Crew | MW | Embedded | No | |
| UTM Zone | 10 | Depth Embedded (m) | – | |
| Easting | 446488 | Resemble Channel | No | |
| Northing | 5982434 | Backwatered | No | |
| Stream | Leona Creek | Percent Backwatered | – | |
| Road | Sackner Rd | Fill Depth (m) | 5 | |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 | |
| Channel Width (m) | 0.7 | Outlet Pool Depth (m) | 0 | |
| Stream Slope (%) | 2 | Inlet Drop | No | |
| Beaver Activity | No | Slope (%) | 0 | |
| Habitat Value | Low | Valley Fill | Deep Fill | |
| Final score | 13 | Barrier Result | Passable | |
| Fix type | – | Fix Span / Diameter | – | |
| Comments: Dewatered at time of assessment. Very small channel upstream. Culvert was installed deep down into the valley. MoTi chris_culvert_id: 1801777. 11:40:33 | | | | |
| Photos: PSCIS ID 15600314. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--------------------------|
|  <p>2023-09-11 11:37:45 100 446434.9382440</p>  <p>2023-09-11 11:37:45 100 446434.9382440</p>  <p>2023-09-11 11:37:38 100 446434.9382445</p> | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| | • | | – |
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199199 | Diameter (m) | 1.4 |
| External ID | 15600305 | Length (m) | 30 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 442969 | Resemble Channel | No |
| Northing | 5985328 | Backwatered | No |
| Stream | Leduc Creek | Percent Backwatered | – |
| Road | Sackner Rd | Fill Depth (m) | 4 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0.5 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 16 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dewatered at time of assessment. Small channel. Inlet side is fenced off by barbed wire. MoTi
chris_culvert_id: 1801803. 12:10:19

Photos: PSCIS ID 15600305. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--------------------------|
|  | | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199200 | Diameter (m) | 3.6 |
| External ID | 15600459 | Length (m) | 16 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 433132 | Resemble Channel | No |
| Northing | 5991214 | Backwatered | No |
| Stream | East Murray Creek | Percent Backwatered | — |
| Road | Strieger Rd | Fill Depth (m) | 0.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.6 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Three pipes. Dewatered at time of assessment. Culverts appear old and near end of life. Vegetated channel within pasture land upstream. Large debris jam blocking inlet of middle culvert. MoTi chris_culvert_id: 1806925, 1806926. 12:39:13

Photos: PSCIS ID 15600459. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-11 12:33:03 10U-433186-5997239</p> |  <p>2023-09-11 12:34:03 10U-433186-5997239</p> |
|  <p>2023-09-11 12:38:22 10U-433186-5997219</p> |  <p>2023-09-11 12:34:08 10U-433186-5997216</p> |
|  <p>2023-09-11 12:38:49 10U-433186-5997227</p> |  <p>2023-09-11 12:34:08 10U-433186-5997216</p> |

| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199201 | Diameter (m) | 1.2 |
| External ID | 15600182 | Length (m) | 30 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 435117 | Resemble Channel | No |
| Northing | 5987010 | Backwatered | No |
| Stream | Tributary to Nechako River | Percent Backwatered | - |
| Road | Sackner Rd | Fill Depth (m) | 9.9 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 1.2 |
| Channel Width (m) | 1.3 | Outlet Pool Depth (m) | 1.6 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Very big outlet drop and deep outlet pool. Trickle of water flowing through culvert. Dewatered downstream of outlet pool and dewatered upstream of culvert. Channel width taken upstream but channel is wider downstream of crossing. Culvert is warped and a little corroded. Channel primarily vegetated.. 13:09:19

Photos: PSCIS ID 15600182. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
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| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|--|---------------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199202 | Diameter (m) | 0.9 |
| External ID | 15600490 | Length (m) | 20 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 426233 | Resemble Channel | No |
| Northing | 5995486 | Backwatered | No |
| Stream | Tributary to Clear Creek | Percent Backwatered | – |
| Road | Highway 27 S | Fill Depth (m) | 3 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.9 |
| Channel Width (m) | 1.1 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 4 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Very big outlet drop. Small channel upstream, grassy habitat near crossing. Chinook confirmed downstream on nearby Clear Creek. MoTi chris_culvert_id: 1806169. 15:41:05

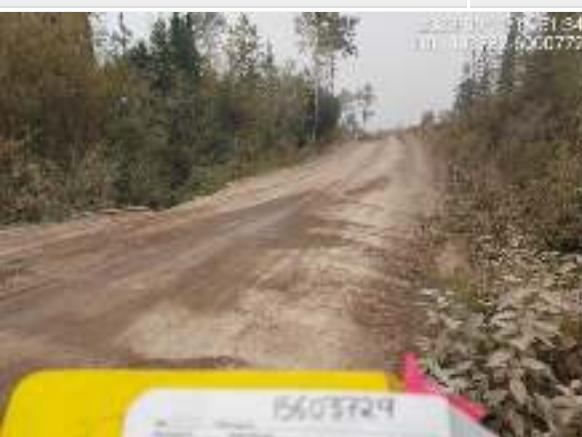
Photos: PSCIS ID 15600490. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
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| Location and Stream Data | . | Crossing Characteristics | — |
|---------------------------------|--|---------------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199203 | Diameter (m) | 2.6 |
| External ID | 15603729 | Length (m) | 12 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 403775 | Resemble Channel | No |
| Northing | 6000768 | Backwatered | No |
| Stream | Nine Mile Creek | Percent Backwatered | — |
| Road | Dog Creek FSR | Fill Depth (m) | 0.5 |
| Road Tenure | MOTI Unclassified | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.4 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 15 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: High habitat value. Abundant gravels and wide channel. Two pipes that look very old but fully backwatered. Chinook were captured downstream of Settlement Road culvert in 2021 (<https://a100.gov.bc.ca/pub/acat/public/viewReport.do?reportId=61991>). MoTi chris_culvert_id: 1794329, 1794330. 16:59:42

Photos: PSCIS ID 15603729. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199204 | Diameter (m) | 3 |
| External ID | 15600285 | Length (m) | 9 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 403897 | Resemble Channel | No |
| Northing | 5998780 | Backwatered | No |
| Stream | Nine Mile Creek | Percent Backwatered | — |
| Road | Settlement Rd | Fill Depth (m) | 0.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.5 |
| Channel Width (m) | 3 | Outlet Pool Depth (m) | 2 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 28 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Two pipes (one at 1.8m, one at 1.5m), both with similar outlet drops. Inlet side has extensive beaver activity. Beaver dams are covering the inlet and culverts are not visible. Huge wetland upstream. Very big outlet pool so depth was estimated. Chinook were captured downstream of Settlement Road culvert in 2021 (<https://a100.gov.bc.ca/pub/acat/public/viewReport.do?reportId=61991>) and Rainbow Trout observed in stream from 2021-2023 (<https://a100.gov.bc.ca/pub/acat/public/viewReport.do?reportId=61202> and <https://a100.gov.bc.ca/pub/acat/public/viewReport.do?reportId=62942>). Culverts should be replaced and beaver activity managed. Habitat looks good downstream. High habitat value at crossing upstream. MoTi chris_culvert_id: 1793922, 1793923. 17:26:25

Photos: PSCIS ID 15600285. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-11 17:21:10 1004033165328778</p> |  <p>2023-09-11 17:21:10 1004033165328778</p> |
|  <p>2023-09-11 17:21:10 1004033165328778</p> |  <p>2023-09-11 17:21:10 1004033165328778</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-12 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199205 | Diameter (m) | 2 |
| External ID | 15600427 | Length (m) | 26 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 424186 | Resemble Channel | No |
| Northing | 5985604 | Backwatered | No |
| Stream | Goldie Creek | Percent Backwatered | – |
| Road | Highway 16 W | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.1 | Outlet Pool Depth (m) | 0.4 |
| Stream Slope (%) | 0.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Dewatered stream. Large outlet pool. Pipe very corroded on outlet side. Wide stream channel upstream. Grassy channel downstream. Fully backwatered at time of assessment. MoTi chris_culvert_id: 3738843. 08:55:03

Photos: PSCIS ID 15600427. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|--|---------------------------------|---------------|
| Date | 2023-09-12 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199206 | Diameter (m) | 0.9 |
| External ID | 15600478 | Length (m) | 10 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 418610 | Resemble Channel | No |
| Northing | 5987801 | Backwatered | No |
| Stream | Croft Creek | Percent Backwatered | – |
| Road | Landaluza Rd | Fill Depth (m) | 0.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 0.9 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Wetland upstream and downstream. Culvert blocked with some debris and overgrown with vegetation.

Probably hasn't been flow through pipe in a while.. 09:26:55

Photos: PSCIS ID 15600478. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  2023-09-12 09:26:19 100.418614 59.87304 | |  2023-09-12 09:26:19 100.418631 59.87304 |
|  2023-09-12 09:28:52 100.418600 59.87304 | |  2023-09-12 09:28:52 100.418619 59.87304 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199207 | Diameter (m) | 2.5 |
| External ID | 5400450 | Length (m) | 32 |
| Crew | MW | Embedded | No |
| UTM Zone | 9 | Depth Embedded (m) | — |
| Easting | 693922 | Resemble Channel | No |
| Northing | 6032097 | Backwatered | No |
| Stream | Endako River | Percent Backwatered | — |
| Road | Highway 16 W | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 1 |
| Channel Width (m) | 3.1 | Outlet Pool Depth (m) | 0.9 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Moderate flow, wide stream with nice gravels upstream. Runs through rural area. Big outlet drop and deep pool. Erosion and embankment issues above culvert on outlet side. Rainbow confirmed upstream. FISS has 3m falls located 3.5km upstream of Decker Lake but suspect not actually an issue. MoTi chris_culvert_id: 3100663. 11:36:12

Photos: PSCIS ID 5400450. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  |
|  | • |  |
|  | • |  |

| Location and Stream Data | . | Crossing Characteristics | — |
|---------------------------------|--|---------------------------------|--------------|
| Date | 2023-09-28 | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199208 | Diameter (m) | 2.6 |
| External ID | 5400445 | Length (m) | 16 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 309133 | Resemble Channel | No |
| Northing | 6028926 | Backwatered | No |
| Stream | Allen Creek | Percent Backwatered | — |
| Road | Highway 16 W | Fill Depth (m) | 0.4 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.4 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Dewatered at time of assessment. Wide channel, private land on both sides. Culvert looks old and corroded, abundant fill in barrel. MoTi chris_culvert_id: 2076438. 12:44:04

Photos: PSCIS ID 5400445. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|    |    |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|--------------|
| Date | 2023-09-28 | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199209 | Diameter (m) | 2.3 |
| External ID | 5400440 | Length (m) | 20 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 313583 | Resemble Channel | No |
| Northing | 6022421 | Backwatered | No |
| Stream | Powder House Creek | Percent Backwatered | – |
| Road | Highway 16 W | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 3.5 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 4 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Dewatered at time of assessment. Small pool near outlet. Rainbow confirmed in past upstream. Two 3m falls noted 450m upstream. in FISS. Culvert is very old, corroded and has holes in bottom. MoTi chris_culvert_id: 2076418. 13:18:49

Photos: PSCIS ID 5400440. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-09-28 13:15:41 101.313807 50.223777 |  101.313872 50.223777 |
|  2023-09-28 13:15:29 101.313820 50.223729 |  2023-09-28 13:15:04 101.313560 50.224830 |
|  2023-09-28 13:15:35 101.313571 50.224829 |  2023-09-28 13:15:53 101.313571 50.224829 |

| Location and Stream Data | | Crossing Characteristics | |
|--|--|--------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199210 | Diameter (m) | 2.2 |
| External ID | 5406295 | Length (m) | 12 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 313514 | Resemble Channel | No |
| Northing | 6022401 | Backwatered | No |
| Stream | Powder House Creek | Percent Backwatered | — |
| Road | Rail | Fill Depth (m) | 1.2 |
| Road Tenure | CN Rail | Outlet Drop (m) | 0.5 |
| Channel Width (m) | 4.1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |
| Comments: Two pipes at 1.1m diameter each. Debris jam blocking majority of inlet on both pipes. Large channel dewatered at time of assessment. Significant outlet drop on both culverts. Two 3m high falls documented in FISS at ~500-600m upstream. Rainbow trout historically captured upstream. RB have historically been captured upstream. 13:50:33 | | | |
| Photos: PSCIS ID 5406295. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  |  |
|  |  |
|  |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199211 | Diameter (m) | 2.6 |
| External ID | 5400044 | Length (m) | 32 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 316235 | Resemble Channel | No |
| Northing | 6018694 | Backwatered | No |
| Stream | Decker Creek | Percent Backwatered | — |
| Road | Highway 16 W | Fill Depth (m) | 1.3 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.6 |
| Channel Width (m) | 4.3 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 4 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Dewatered stream at time of survey. Wide channel, abundant boulders downstream of crossing. Rainbow confirmed upstream in past. Culvert is old and corroded badly on outlet side. Stream most likely flows under culvert near outlet during high flow. MoTi chris_culvert_id: 2076407. 14:15:04

Photos: PSCIS ID 5400044. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  A photograph showing a paved road curving away from the viewer towards a forested area. A small stream or creek flows alongside the road. The surrounding vegetation is mostly green with some yellow autumn leaves on the ground. |  A close-up view of a dark, cylindrical culvert entrance. The ground in front of it is covered with fallen yellow leaves. A metal grate or screen is visible at the top of the culvert opening. |
|  A photograph of a black culvert entrance partially obscured by a chain-link fence. A yellow and white sign is attached to the fence post next to the culvert. The ground is covered with fallen yellow leaves. |  A photograph of a culvert entrance situated in a rocky, uneven terrain. Fallen yellow leaves are scattered around the entrance. A metal grate is visible at the top. |
|  A photograph of a stream flowing through a rocky bed. Fallen yellow leaves are scattered across the rocks. A chain-link fence runs along the bank of the stream. |  A photograph of a stream flowing through a rocky bed. Fallen yellow leaves are scattered across the rocks. A chain-link fence runs along the bank of the stream. |

| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|--|---------------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199212 | Diameter (m) | 1.2 |
| External ID | 5400227 | Length (m) | 48 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 317315 | Resemble Channel | No |
| Northing | 6016973 | Backwatered | No |
| Stream | Gauvin Creek | Percent Backwatered | - |
| Road | Highway 16 W | Fill Depth (m) | 4 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 1.1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 26 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Very long culvert length and high fill depth, two pipes. Mostly dewatered stream. Small pools upstream, stagnant water. Small, confined channel. Can't see the other end of pipe, culvert slope estimated. Might be some blockage or culvert is bent in middle. Unassessed railway crossing just downstream. MoTi chris_culvert_id: 2076402.
14:49:25

Photos: PSCIS ID 5400227. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
|  | 2023-09-28 14:48:53 10U 317342 6016018 |
|  | 2023-09-28 14:48:07 10U 317306 6016022 |
|  | 2023-09-28 14:48:43 10U 317306 6016022 |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--------------------------|--|---|--------------------------|--------------|
| Date | 2023-09-28 | | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199213 | | Diameter (m) | 4 |
| External ID | 5400286 | | Length (m) | 22 |
| Crew | MW | | Embedded | No |
| UTM Zone | 10 | | Depth Embedded (m) | - |
| Easting | 320733 | | Resemble Channel | No |
| Northing | 6009596 | | Backwatered | No |
| Stream | Guyishton Creek | | Percent Backwatered | - |
| Road | Highway 35 | | Fill Depth (m) | 0.1 |
| Road Tenure | MOTI | | Outlet Drop (m) | 0.6 |
| Channel Width (m) | 2.8 | | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 3 | | Inlet Drop | No |
| Beaver Activity | No | | Slope (%) | 2 |
| Habitat Value | High | | Valley Fill | Deep Fill |
| Final score | 28 | | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | | Fix Span / Diameter | 15 |

Comments: Small fry spotted in culvert and in outlet pool. Two pipes, both old and corroded with large outlet drops.

Small holes in both pipes causing some water to flow under pipe. Very low fill depth, culverts almost at highway. Near Burns Lake, in residential area. Habitat looks good upstream. RB and LSU upstream in Guyishton Lake. MoTi chris_culvert_id: 2070299, 2070298. 15:48:58

Photos: PSCIS ID 5400286. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  |  <p>2023-09-28 15:37:33 10.1320738-60.09564</p> |
|  |  <p>2023-09-28 15:38:00 10.1320738-60.09564</p> |
|  <p>2023-09-28 15:38:14 10.1320738-60.09564</p> |  <p>2023-09-28 15:38:15 10.1320738-60.09564</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199214 | Diameter (m) | 3.5 |
| External ID | 5400042 | Length (m) | 30 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 322424 | Resemble Channel | No |
| Northing | 6011731 | Backwatered | No |
| Stream | Wardrop Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 4 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.4 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 4 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 26 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 18 |

Comments: Culvert almost fully embedded except for small section at inlet side. Small fish seen in culvert and upstream of crossing. Moderate flow, wide channel. RB confirmed upstream in past. MoTi chris_hwy_structure_road_id: 3880. 16:36:18

Photos: PSCIS ID 5400042. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  |  |
|  |  |
|  |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199215 | Diameter (m) | 2.6 |
| External ID | 5400157 | Length (m) | 52 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 337777 | Resemble Channel | No |
| Northing | 6007094 | Backwatered | No |
| Stream | Sheraton Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 4 |
| Road Tenure | MOTI | Outlet Drop (m) | 1.8 |
| Channel Width (m) | 6.5 | Outlet Pool Depth (m) | 1.5 |
| Stream Slope (%) | 4 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 42 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 18 |

Comments: Very wide channel, culvert is undersized and perched. Deep outlet pool and massive outlet drop. Small fish seen in outlet pool. RB confirmed in past upstream and downstream. Just upstream of Babine Forest Products Ltd lumber yard. Railway downstream needs to be assessed. MoTi chris_culvert_id: 2069556. 11:11:26

Photos: PSCIS ID 5400157. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-20 10:38:26 00U 337765 6207173</p> |  <p>2023-09-20 10:38:26 00U 337763 6207180</p> |
|  <p>2023-09-20 10:42:52 00U 337765 6207189</p> |  <p>2023-09-20 10:42:52 00U 337765 6207192</p> |
|  <p>2023-09-20 10:42:52 00U 337765 6207192</p> |  <p>2023-09-20 10:42:52 00U 337765 6207192</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199216 | Diameter (m) | 2.5 |
| External ID | 5401774 | Length (m) | 14 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 337850 | Resemble Channel | No |
| Northing | 6006827 | Backwatered | No |
| Stream | Sheraton Creek | Percent Backwatered | – |
| Road | Unnamed | Fill Depth (m) | 1 |
| Road Tenure | Burns Lake | Outlet Drop (m) | 1.4 |
| Channel Width (m) | 5.6 | Outlet Pool Depth (m) | 2 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Near entrance to lumber yard, Babine Forest Products Ltd. Barrier just upstream. Railway downstream has not been assessed yet. Big outlet drop with very deep pool. Wide stream channel with low water levels. RB upstream.. 11:25:01

Photos: PSCIS ID 5401774. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  |  <p>2023-09-29 11:34:42 101.937583-50.6825</p> <p>2023-09-29 11:34:42 101.937583-50.6825</p> |
|  |  <p>2023-09-29 11:38:38 101.937583-50.6825</p> <p>2023-09-29 11:38:38 101.937583-50.6825</p> |
|  |  <p>2023-09-29 11:38:38 101.937583-50.6825</p> <p>2023-09-29 11:38:38 101.937583-50.6825</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|---|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199217 | Diameter (m) | 1.2 |
| External ID | 5400019 | Length (m) | 99 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 366638 | Resemble Channel | No |
| Northing | 5995282 | Backwatered | No |
| Stream | Four Mile Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 6 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Culverts runs underneath highway and railway. Outlet could not be located Creek found below railway and flows to the Endako confluence. Beaver grate on inlet side. MoTi chris_culvert_id: 1793819. 13:07:39

Photos: PSCIS ID 5400019. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  2023-09-29 13:12:21 100-36643-599-0119 | |  2023-09-29 13:12:21 100-36643-599-0119 |
|  2023-09-29 13:12:35 100-36643-599-0119 | | NO IMAGE AVAILABLE |
|  2023-09-29 13:09:23 100-36643-599-0119 | |  2023-09-29 13:09:49 100-36643-599-0119 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199218 | Diameter (m) | 1.5 |
| External ID | 5400239 | Length (m) | 45 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 381850 | Resemble Channel | No |
| Northing | 5991183 | Backwatered | No |
| Stream | Robertson Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 2.3 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 5 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 21 |

Comments: Dewatered at time of assessment. RB, LKC and LSU confirmed upstream in past. Foster Creek joins this stream just upstream of crossing. Old culvert, bent in middle. Unassessed railway crossing downstream. MoTi chris_culvert_id: 1793375. 14:27:03

Photos: PSCIS ID 5400239. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-09-03 14:32:04 10U 381830.5921178 |  2023-09-03 14:32:04 10U 381830.5921178 |
|  2023-09-29 12:24:50 10U 331845.5891213 |  2023-09-29 12:24:50 10U 331845.5891213 |
|  2023-09-29 12:24:50 10U 331845.5891213 |  2023-09-29 12:24:50 10U 331845.5891213 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199219 | Diameter (m) | 1.4 |
| External ID | 15600265 | Length (m) | 18 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 399029 | Resemble Channel | No |
| Northing | 5988757 | Backwatered | No |
| Stream | Tributary to Nechako River | Percent Backwatered | — |
| Road | Lily Lake Rd | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.4 |
| Channel Width (m) | 1.9 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 39 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dewatered at time of assessment. Fenced off private land on both sides. Small outlet drop. MoTi chris_culvert_id: 3343582. 15:19:42

Photos: PSCIS ID 15600265. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-29 15:11:38 100-389022-5988760</p> |  <p>2023-09-29 15:11:38 100-389022-5988760</p> |
|  <p>2023-09-29 15:11:58 100-389022-5988760</p> |  <p>2023-09-29 15:11:58 100-389022-5988760</p> |
|  <p>2023-09-29 15:11:58 100-389022-5988760</p> |  <p>2023-09-29 15:11:58 100-389022-5988760</p> |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199220 | Diameter (m) | 1.2 |
| External ID | 15600301 | Length (m) | 24 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 401104 | Resemble Channel | No |
| Northing | 5983401 | Backwatered | No |
| Stream | Tributary to Smith Creek | Percent Backwatered | – |
| Road | Lily Lake Rd | Fill Depth (m) | 3 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.2 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Wetland habitat upstream and downstream. Beaver in culvert at time of survey. Beaver exclusion cage on inlet. Small debris jam at outlet. Fish presence confirmed just downstream of culvert. Leg Lake just upstream. MoTi chris_culvert_id: 1795039. 15:51:16

Photos: PSCIS ID 15600301. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  A photograph of a dirt road curving through a forested area. A yellow rectangular sign is mounted on a post on the left side of the road. A pink flag is attached to the sign. The sign has some text and numbers on it, though they are not clearly legible. The surrounding trees have autumn-colored leaves. |  A photograph looking down the interior of a corrugated metal culvert. The floor of the culvert is filled with various pieces of debris, including wooden logs and branches. The walls of the culvert are made of corrugated metal. |
|  A photograph of a small stream flowing through a forest. The water is shallow and reflects the surrounding trees. The banks of the stream are covered in green grass and some fallen branches. |  A photograph of a small stream flowing through a forest. The water is shallow and reflects the surrounding trees. The banks of the stream are covered in green grass and some fallen branches. |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--------------------------|--|---|--------------------------|--------------|
| Date | 2023-09-29 | | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199221 | | Diameter (m) | 4 |
| External ID | 15600302 | | Length (m) | 30 |
| Crew | MW | | Embedded | No |
| UTM Zone | 10 | | Depth Embedded (m) | - |
| Easting | 400866 | | Resemble Channel | No |
| Northing | 5982476 | | Backwatered | No |
| Stream | Smith Creek | | Percent Backwatered | - |
| Road | Lily Lake Road | | Fill Depth (m) | 0.8 |
| Road Tenure | MOTI Local | | Outlet Drop (m) | 0 |
| Channel Width (m) | 6.1 | | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | | Inlet Drop | No |
| Beaver Activity | No | | Slope (%) | 2 |
| Habitat Value | Medium | | Valley Fill | Deep Fill |
| Final score | 27 | | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | | Fix Span / Diameter | 15 |

Comments: Wide stream channel, dewatered at time of survey. Small pool near outlet, no flowing water. Likely important migration corridor as this is a large system. MoTi chris_hwy_structure_road_id: 3743. 16:09:38

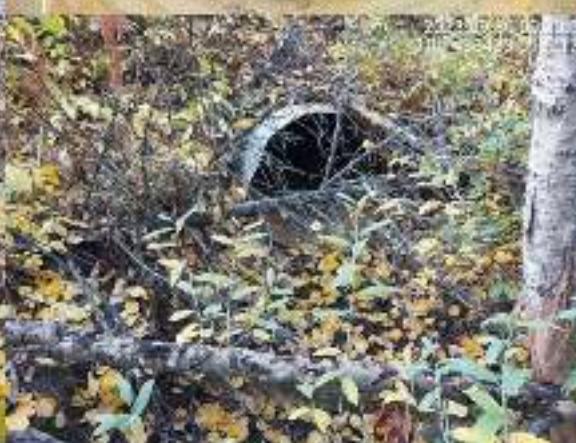
Photos: PSCIS ID 15600302. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
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| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|--|---------------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199222 | Diameter (m) | 0.9 |
| External ID | 15600624 | Length (m) | 18 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 438428 | Resemble Channel | No |
| Northing | 5982155 | Backwatered | No |
| Stream | Neuro Creek | Percent Backwatered | – |
| Road | Ens Rd | Fill Depth (m) | 2.2 |
| Road Tenure | Vanderhoof | Outlet Drop (m) | 0 |
| Channel Width (m) | 0.9 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2.5 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dewatered at time of assessment. Very small and hard to find channel. Overgrown and little stream substrate present. Upstream fenced off on private land. . 09:24:18

Photos: PSCIS ID 15600624. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  |  <p>2023-09-30 13:44 00:438431 5082157</p> |
|  <p>2023-09-30 13:44 00:438431 5082157</p> |  <p>2023-09-30 13:47 00:438431 5082157</p> |
|  <p>2023-09-30 13:47 00:438431 5082157</p> |  <p>2023-09-30 13:47 00:438431 5082157</p> |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199223 | Diameter (m) | 1.5 |
| External ID | 15600626 | Length (m) | 20 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 438529 | Resemble Channel | No |
| Northing | 5982155 | Backwatered | No |
| Stream | Tributary to Neuco Creek | Percent Backwatered | – |
| Road | Ens Rd | Fill Depth (m) | 2 |
| Road Tenure | Vanderhoof | Outlet Drop (m) | 0.6 |
| Channel Width (m) | 1.6 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 0.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 31 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dewatered stream. Upstream is in fenced off private land, no clear channel visible. More obvious channel downstream of crossing. Moderate outlet drop with big dry area that looks like it would be an outlet pool when the stream is flowing.. 09:45:55

Photos: PSCIS ID 15600626. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|   |  2023-09-30 09:36 100-438524 5081153 |
|  |  2023-09-30 09:37 100-438524 5081153 |
|   |  2023-09-30 09:40:03 100-438524 5081153 |

| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199224 | Diameter (m) | 1.8 |
| External ID | 15600076 | Length (m) | 48 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 449834 | Resemble Channel | No |
| Northing | 5977830 | Backwatered | No |
| Stream | Tributary to Hulatt Creek | Percent Backwatered | - |
| Road | Highway 16 | Fill Depth (m) | 5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.2 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Two pipes, they are closer together at outlet compared to inlet so they must be bent in middle. Dewatered. Fenced off private land downstream. Little riparian and evidence of cattle trampling. Upstream is in better shape, small channel visible. MoTi chris_culvert_id: 1804941, 3693332. 10:17:48

Photos: PSCIS ID 15600076. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | |  <p>2023-09-30 10:29:58 100-449817-5977818</p> |
|  <p>2023-09-30 10:29:48 100-449817-5977815</p> | |  <p>2023-09-30 10:29:28 100-449817-5977816</p> |
|  <p>2023-09-30 10:29:08 100-449817-5977817</p> | |  <p>2023-09-30 10:29:30 100-449817-5977819</p> |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199225 | Diameter (m) | 1.5 |
| External ID | 15600629 | Length (m) | 90 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 451599 | Resemble Channel | No |
| Northing | 5975913 | Backwatered | No |
| Stream | Hulatt Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 8 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.3 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 32 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 4.5 |

Comments: Dewatered. Fenced off private field upstream. Wide open grassy floodplain with little riparian and no channel visible. Downstream has wide area at outlet where pool used to be. Evidence of livestock trampling and/or big game near outlet. MoTi chris_culvert_id: 1804931. 11:06:49

Photos: PSCIS ID 15600629. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
|   |   |
|  |  |

| Location and Stream Data | | Crossing Characteristics | |
|--|--|--------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199226 | Diameter (m) | 2.4 |
| External ID | 15600057 | Length (m) | 66 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 464822 | Resemble Channel | No |
| Northing | 5971609 | Backwatered | No |
| Stream | Tributary to Cluculz Lake | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.6 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 21 |
| Comments: Culvert runs under active highway construction site. Inlet could not be accessed. Looks like they are excavating near inlet. Possible bridge construction? Stream is mostly dewatered but there is some stagnant water in culvert. Baffles in pipe. Habitat downstream looks good, with abundant woody debris and healthy riparian. MoTi chris_culvert_id: 1804902. 11:33:26 | | | |
| Photos: PSCIS ID 15600057. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
|---|---|
|  |  |
| <p>NO IMAGE AVAILABLE</p> |   |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199227 | Diameter (m) | 2.5 |
| External ID | 15603872 | Length (m) | 78 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 462928 | Resemble Channel | No |
| Northing | 5969213 | Backwatered | No |
| Stream | Norman Creek | Percent Backwatered | — |
| Road | Lloyd Dr | Fill Depth (m) | 5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.1 | Outlet Pool Depth (m) | 0.3 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 21 |

Comments: Numerous baffles in pipe. Smaller secondary culvert next to main pipe but installed higher up so likely doesn't get much water. Little amount of flow in pipe but stops just short of outlet, most likely due to small split in pipe. Wide shallow outlet pool but no drop. Abundant algae on stream substrate upstream. RB and WSU confirmed up and downstream. MoTi chris_culvert_id: 1802792. 12:18:02

Photos: PSCIS ID 15603872. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  |    |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199228 | Diameter (m) | 2 |
| External ID | 9902601 | Length (m) | 60 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 474705 | Resemble Channel | No |
| Northing | 5969325 | Backwatered | No |
| Stream | Tributary to Bednesti Lake | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 8 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.7 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 6 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 26 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dewatered upstream and downstream. Baffle steps in culvert containing pools with water but no flow. Efforts being made upstream to restore riparian vegetation with fencing and saplings present. No clear channel downstream. Fish confirmed upstream in 2020. MoTi chris_culvert_id: 1975143. 13:34:52

Photos: PSCIS ID 9902601. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199229 | Diameter (m) | 2.2 |
| External ID | 9903105 | Length (m) | 16 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 482695 | Resemble Channel | No |
| Northing | 5969819 | Backwatered | No |
| Stream | Zelkwas Creek | Percent Backwatered | — |
| Road | Isle Pierre Rd | Fill Depth (m) | 0.7 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.1 |
| Channel Width (m) | 2.2 | Outlet Pool Depth (m) | 0.3 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: 2 pipes. Wetland area upstream, beaver grate on inlet. Signs of beaver activity, dam near outlet. Hard to determine stream channel width so used combined culvert diameter. Little trickle flowing through one pipe but other one is dewatered. Considered medium value habitat due to presence of suitable rearing habitat and water in drought period.
MoTi chris_culvert_id: 1975493, 1975492. 14:05:44

Photos: PSCIS ID 9903105. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  <p>2023-09-30 14:02:48 TBL 482711 5069816</p> | • |  <p>2023-09-30 14:02:48 TBL 482711 5069816</p> |
|  <p>2023-09-30 14:04:12 TBL 4827108 5069816</p> | • |  <p>2023-09-30 14:05:34 TBL 4827108 5069816</p> |
|  <p>2023-09-30 14:06:43 TBL 4827108 5069816</p> | • |  <p>2023-09-30 14:06:43 TBL 4827108 5069816</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|---|--------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199230 | Diameter (m) | 1.7 |
| External ID | 9900404 | Length (m) | 56 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 494827 | Resemble Channel | No |
| Northing | 5963256 | Backwatered | No |
| Stream | Sweden Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 6 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.4 |
| Channel Width (m) | 2.2 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 4.5 |

Comments: Outlet drop but no pool. Small amount of flow in pipe. Holes in bottom of pipe near outlet where water is flowing through and under. Very murky, turbid water upstream with no flow. Abundant boulders around outlet. MoTi chris_culvert_id: 3773627. 14:57:37

Photos: PSCIS ID 9900404. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199231 | Diameter (m) | 2.8 |
| External ID | 9900446 | Length (m) | 45 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 488990 | Resemble Channel | No |
| Northing | 5965724 | Backwatered | No |
| Stream | Kellogg Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.4 |
| Channel Width (m) | 4.1 | Outlet Pool Depth (m) | 2 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 21 |

Comments: 4 pipes seen at outlet but only 2 bigger ones visible on inlet side. Only one big pipe has flowing water, has beaver grate on inlet. Small debris jam in front of inlet, likely from beaver. Upstream is grassy with little riparian on banks near crossing. Downstream is different, good habitat and wide channel. Very deep, wide outlet pool. Small fish seen in pool. No fish confirmed on system. MoTi chris_culvert_id: 3773624, 3773623, 1975211. 15:48:26

Photos: PSCIS ID 9900446. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
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|  | • |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|--------------|
| Date | 2023-09-30 | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199232 | Diameter (m) | 6.5 |
| External ID | 9902577 | Length (m) | 26 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 502368 | Resemble Channel | No |
| Northing | 5962510 | Backwatered | No |
| Stream | Beaverley Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 0.9 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.6 |
| Channel Width (m) | 7.6 | Outlet Pool Depth (m) | 0.6 |
| Stream Slope (%) | 2.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Chinook confirmed upstream in past. Two pipes, only one had water flowing through at time of survey. Small outlet drop. Abundant boulders present downstream. High value habitat upstream with wide channel and gravels present. MoTi chris_hwy_structure_road_id: 4166. 16:33:33

Photos: PSCIS ID 9902577. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
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| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199233 | Diameter (m) | 0.9 |
| External ID | 9900262 | Length (m) | 32 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 502603 | Resemble Channel | No |
| Northing | 5962435 | Backwatered | No |
| Stream | Little Beaverley Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 2.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 0.8 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Two pipes but only one is functioning and has small amount of flow through it. Very small channel.
 Observed chinook in FISS downstream of confluence with Beaverley Creek at ~100m from the crossing and ~30m from the confluence. MoTi chris_culvert_id: 1975199. 16:46:37

Photos: PSCIS ID 9900262. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  A photograph of a roadside scene. In the foreground, a yellow sign with a red star and blue text is visible. The text on the sign includes "577", "990025-2", and "2025 09 30 16:54:42". The background shows a paved road curving away, lined with trees displaying autumn foliage under a clear blue sky. |  A photograph looking down the interior of a large, circular concrete culvert. The walls are smooth and light-colored. A bright light source at the far end creates a strong lens flare effect. |
|  A photograph of a metal pipe opening surrounded by dense green and brown vegetation. The pipe appears to be a drainage or utility pipe. The date and time stamp "2025 09 30 16:44:47" and coordinates "41.502905 59.7405" are visible in the top right corner. |  A photograph of a metal pipe opening surrounded by dense green and brown vegetation. The pipe appears to be a drainage or utility pipe. The date and time stamp "2025 09 30 16:44:47" and coordinates "41.502905 59.7405" are visible in the top right corner. |
|  A photograph of a ground surface covered in fallen leaves and small plants. A green pipe lies across the surface. The date and time stamp "2025 09 30 16:44:47" and coordinates "41.502905 59.7405" are visible in the top right corner. |  A photograph of a ground surface covered in fallen leaves and small plants. A metal pipe lies across the surface. The date and time stamp "2025 09 30 16:44:47" and coordinates "41.502905 59.7405" are visible in the top right corner. |

| Location and Stream Data | • | Crossing Characteristics | – |
|---------------------------------|--|---------------------------------|---------------|
| Date | 2023-10-01 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199234 | Diameter (m) | 0.6 |
| External ID | 9900380 | Length (m) | 22 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 500461 | Resemble Channel | No |
| Northing | 5958635 | Backwatered | No |
| Stream | Tributary to Chelako River | Percent Backwatered | – |
| Road | Upper Mud River Rd | Fill Depth (m) | 1 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 1.5 |
| Channel Width (m) | 1.6 | Outlet Pool Depth (m) | 0.1 |
| Stream Slope (%) | 6 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 4 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 39 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Small stream, very close to Chelako confluence. Large outlet drop but no deep outlet pool. Abundant gravels upstream. MoTi chris_culvert_id: 1975638. 09:45:56

Photos: PSCIS ID 9900380. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  2023-09-09 09:44:15 001-00452-9358635 |  2023-09-09 09:50:20 001-00452-9358635 |
|  2023-09-09 10:05:30 001-00452-9358635 |  2023-09-09 10:05:30 001-00452-9358635 |
|  2023-09-09 09:45:20 001-00452-9358635 |  2023-09-09 09:45:20 001-00452-9358635 |

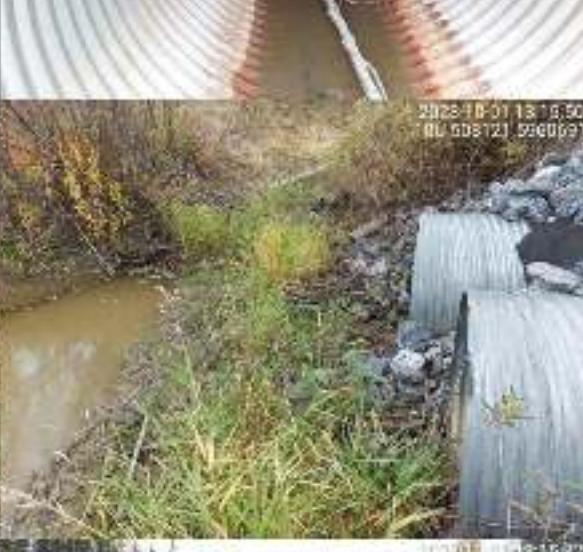
| Location and Stream Data | | Crossing Characteristics | |
|--|--|--------------------------|---------------|
| Date | 2023-10-01 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199235 | Diameter (m) | 0.6 |
| External ID | 9900385 | Length (m) | 15 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 496344 | Resemble Channel | No |
| Northing | 5954586 | Backwatered | No |
| Stream | Tributary to Chelako River | Percent Backwatered | — |
| Road | Upper Mud River Rd | Fill Depth (m) | 1.2 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.4 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 4.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |
| Comments: Dewatered stream, small channel with little to no gravels or cobbles. Two pipes but only one functioning. with other pipe is not visible at outlet. MoTi chris_culvert_id: 3389486. 10:26:08 | | | |
| Photos: PSCIS ID 9900385. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-10-01 10:23:50 10U 495342 5054598</p> |  <p>2023-10-01 10:30:39 10U 495361 5054583</p> |
|  <p>2023-10-01 10:26:00 10U 495342 5054598</p> |  <p>2023-10-01 10:31:07 10U 495361 5054583</p> |
|  <p>2023-10-01 10:26:00 10U 495342 5054598</p> |  <p>2023-10-01 10:31:07 10U 495361 5054583</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-01 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199236 | Diameter (m) | 2.5 |
| External ID | 9900277 | Length (m) | 20 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 508131 | Resemble Channel | No |
| Northing | 5960681 | Backwatered | No |
| Stream | Tributary to Beaverley Creek | Percent Backwatered | — |
| Road | East Beaverley Rd | Fill Depth (m) | 2 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.3 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Two pipes and one overflow pipe. Small amount of flowing water through one pipe. Wetland type habitat downstream with beaver dam near outlet. Medium sized channel downstream with medium value habitat with functional woody debris and some gravels. MoTi chris_culvert_id: 1976123, 1976122. 13:17:26

Photos: PSCIS ID 9900277. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-09-01 13:10:23 10U 508129 5050680 |  2023-09-01 13:10:23 10U 508129 5050680 |
|  2023-09-01 13:11:12 10U 508129 5050680 |  2023-09-01 13:10:50 10U 508121 5050691 |
|  2023-09-01 13:11:22 10U 508120 5050692 |  2023-09-01 13:10:27 10U 508120 5050693 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|--------------|
| Date | 2023-09-12 | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199237 | Diameter (m) | 3.1 |
| External ID | 13900100 | Length (m) | 44 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 650774 | Resemble Channel | No |
| Northing | 5934861 | Backwatered | No |
| Stream | Snowshoe Creek | Percent Backwatered | — |
| Road | Highway 16a | Fill Depth (m) | 4.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.35 |
| Channel Width (m) | 15 | Outlet Pool Depth (m) | 2 |
| Stream Slope (%) | 0.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 19.5 |

Comments: High value spawning and rearing habitat upstream. Massive outlet pool with erosion indicates culvert is extremely under sized. Candy et al 2002 notes chinook spawning in this system. MoTi chris_hwy_structure_road_id: 3751. 17:54:33

Photos: PSCIS ID 13900100. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-03-12 13:58:03 10U 680700 5934882 |  |
|  2023-03-12 13:59:13 10U 680700 5934813 |  2023-03-12 14:00:13 10U 680700 5934913 |
|  2023-03-12 13:59:34 10U 680700 5934757 |  2023-03-12 14:00:14 10U 680700 5934942 |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199238 | Diameter (m) | 0.6 |
| External ID | 13900026 | Length (m) | 10 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 611035 | Resemble Channel | No |
| Northing | 5968655 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | – |
| Road | Penny Rd | Fill Depth (m) | 0.8 |
| Road Tenure | Unknown | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.4 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 26 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Small stream, overgrown with vegetation in sections. Pipe is made of plastic. Some gravels present, with moderate flow. Unassessed rail crossing just upstream that appears passable. Downstream crossings on private property.. 11:30:44

Photos: PSCIS ID 13900026. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  2023-10-03 11:30:18 104-611027.506863 |  2023-10-03 11:30:19 104-61043.506806 |
|  2023-10-03 11:34:34 104-61040.506863 |  2023-10-03 11:37:06 104-611040.506863 |
|  2023-10-03 11:37:06 104-611040.506863 |  2023-10-03 11:39:06 104-611040.506863 |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199239 | Diameter (m) | 2.7 |
| External ID | 13905537 | Length (m) | 20 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 612146 | Resemble Channel | No |
| Northing | 5967655 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | – |
| Road | Railway | Fill Depth (m) | 7 |
| Road Tenure | CN Rail | Outlet Drop (m) | 0.5 |
| Channel Width (m) | 3.3 | Outlet Pool Depth (m) | 0.3 |
| Stream Slope (%) | 0.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 31 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 4.5 |

Comments: Three pipes at 0.9 m each, but only one has flowing water, other two are blocked by vegetation. Made of concrete and built in 1930. Nice stream with good flow. Abundant rearing habitat located upstream. Although the stream has a lot of volume, the depth in the one pipe functioning is extremely shallow and has a 50cm concrete drop at the outlet. This road is the only access to the town of Penny just downstream, therefore a wash out could leave them stranded.. 11:38:41

Photos: PSCIS ID 13905537. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  |
|  | • |  |
|  | • |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199240 | Diameter (m) | 1.8 |
| External ID | 13900027 | Length (m) | 10 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 610540 | Resemble Channel | No |
| Northing | 5969263 | Backwatered | No |
| Stream | 72 Mile Creek | Percent Backwatered | — |
| Road | Penny Rd | Fill Depth (m) | 0.3 |
| Road Tenure | Unknown | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 3.1 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 26 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Two 0.9m pipes, both plastic. Nice stream with good flow. There is another culvert located downstream on the driveway to a private residence that has a small outlet drop (approximately 20cm). Some gravel is upstream of the railway. No barrel photos. Penny Street is the only vehicle access to and from the community of Penny located just up the road.. 12:00:42

Photos: PSCIS ID 13900027. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics | - |
|--|---|---------------------------|---|
|     | • | NO IMAGE AVAILABLE | - |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199241 | Diameter (m) | 1.8 |
| External ID | 13905538 | Length (m) | 31 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 610556 | Resemble Channel | No |
| Northing | 5969281 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | – |
| Road | Railway | Fill Depth (m) | 9.9 |
| Road Tenure | CN Rail | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.1 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 22 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 4.5 |

Comments: Two pipes made of concrete under the railway 0.9 m each. Crossing constructed in 1934. Nice stream good flow. Some small gravel's located upstream. Wire mesh cages attached to inlets upstream - poentially for beaver. Fill depth measured at 12m, but changed to 9.9 to satisfy submission template macros.. 12:07:26

Photos: PSCIS ID 13905538. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  <p>1390653B 184312-02 100.11372.525038</p> |  <p>184312-02-01-10-0 100.11372.525038</p> |
|  <p>184312-02-02-0 100.11372.525038</p> |  <p>184312-02-03-0 100.11372.525038</p> |
|  <p>184312-02-04-0 100.11372.525038</p> |  <p>184312-02-05-0 100.11372.525038</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199242 | Diameter (m) | 2 |
| External ID | 13900309 | Length (m) | 19 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 608028 | Resemble Channel | No |
| Northing | 5970651 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | Penny Rd | Fill Depth (m) | 1.6 |
| Road Tenure | Unknown | Outlet Drop (m) | 0.3 |
| Channel Width (m) | 3.8 | Outlet Pool Depth (m) | 1.2 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 39 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Predominantly fine substrate downstream but abundant gravels upstream as. Wide channel with good flow immediately adjacent to Fraser mainstem. Small debris jam near outlet, backwatering pipe. Does not appear to be a barrier to adults but could have value for juvenile rearing and potentially hindered access during high flow times when refuge needed. Sampling could help determine if chinook are accessing upstream. Very deep, muddy outlet pool.
Unassessed railway crossing ~900m upstream.. 12:16:38

Photos: PSCIS ID 13900309. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  <p>2023-10-03 12:06:50 1041 608027 5370658</p> |  <p>2023-10-03 12:06:00 1041 608043 5070052</p> |
|  <p>2023-10-03 12:06:36 1041 608025 5370653</p> |  <p>2023-10-03 12:06:23 1041 608013 5070050</p> |
|  <p>2023-10-03 12:12:28 1041 608040 5970654</p> |  <p>2023-10-03 12:19:34 1041 608000 5970654</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199243 | Diameter (m) | 0.9 |
| External ID | 13900306 | Length (m) | 8 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 607661 | Resemble Channel | No |
| Northing | 5971153 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | Penny Rd | Fill Depth (m) | 2 |
| Road Tenure | Unknown | Outlet Drop (m) | 0 |
| Channel Width (m) | 3 | Outlet Pool Depth (m) | 0.7 |
| Stream Slope (%) | 0 | Inlet Drop | Yes |
| Beaver Activity | Yes | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Wetland area upstream. Beaver exclusion cage on inlet but the cage is completely blocked with material so there is a wetland upstream. Appears to be recent maintenance on the site. Road prism is eroding at the location of the culvert with a piece of pipe set aside that has possibly been recently removed. Culvert slope estimated as could not see through the pipe. Unassessed railway crossing ~1.3km upstream.. 12:55:42

Photos: PSCIS ID 13900306. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  A photograph showing a dirt road crossing a small stream. A yellow rectangular sign is placed on the bank of the stream, displaying the number "5900304" and coordinates "N 49° 27' 42.6" and "W 117° 57' 11.4". |  A close-up photograph of a stream crossing. A large piece of debris, possibly a log or a collapsed bridge, is partially submerged in the water. The surrounding area is dense with vegetation. |
|  A photograph showing a dirt road crossing a larger stream. The water is deeper here compared to the previous image, and the surrounding area is more densely forested. |  A photograph of a stream flowing through a grassy area. The water is shallow and reflects the surrounding trees. The date "2018-10-11" and coordinates "N 49° 27' 42.6" and "W 117° 57' 11.4" are overlaid on the image. |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199244 | Diameter (m) | 0.9 |
| External ID | 13900305 | Length (m) | 6 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 605976 | Resemble Channel | No |
| Northing | 5971827 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | Penny Rd | Fill Depth (m) | 0.5 |
| Road Tenure | Carrier R07924 | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.2 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Stream dry the time assessment. Flows through agricultural field on both sides. Very minimal willow and cottonwood riparian. Stream is incorrectly mapped in the Freshwater Atlas and actually crosses under the road ~350m further east on Penny road. Satellite imagery shows there are signs of the old meandering channel near the FWA streamline, suggesting the stream may have been redirected at one point. Road embankment is sloughing around the inlet with pipe 50% blocked due to the road fill. Penny Road is the only access to the community of Penny.. 13:20:38

Photos: PSCIS ID 13900305. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
|  13700305 |  2023-10-03 13:24:05 10U 605675 5071826 |
|  |  |
|  |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199245 | Diameter (m) | 0.8 |
| External ID | 13903451 | Length (m) | 10 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 605208 | Resemble Channel | No |
| Northing | 5972373 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | Penny Rd | Fill Depth (m) | 1 |
| Road Tenure | Carrier R07924 | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 1.4 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 31 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Small debris jam at outlet causing drop. Culvert is old and warped. Velocity is much higher in pipe than upstream. Predominantly fine substrate upstream, some gravels downstream.. 13:30:15

Photos: PSCIS ID 13903451. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
|  | 2023-10-08 13:29:40 101.605180 50.773802 |
|  | 2023-10-08 13:26:42 101.605180 50.773802 |
|  | 2023-10-08 13:21:00 101.605180 50.773802 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199246 | Diameter (m) | 0.6 |
| External ID | 13903452 | Length (m) | 14 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 604828 | Resemble Channel | No |
| Northing | 5973094 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | Penny Rd | Fill Depth (m) | 1.5 |
| Road Tenure | Carrier R07924 | Outlet Drop (m) | 0.7 |
| Channel Width (m) | 3.2 | Outlet Pool Depth (m) | 0.6 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Very nice stream with abundant gravels and good flow upstream. Some old growth cedar within the upstream riparian area. Culvert must be bent in the middle because cannot see through. Pipe gradient estimated. Large outlet drop and deep outlet pool indicates culvert is extremely undersized. Penny Road is only access in and out of the community of Penny. Unassessed railway crossing ~300m upstream.. 13:38:13

Photos: PSCIS ID 13903452. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  <p>2023-10-03 13:38:52 10U 604826 5073091</p> <p>13903452</p> | • |  <p>2023-10-03 13:45:25 10U 604821 5073036</p> |
|  <p>2023-10-03 13:48:52 10U 604824 5073097</p> | • |  <p>2023-10-03 13:48:53 10U 604821 5073036</p> |
|  <p>2023-10-03 13:48:54 10U 604821 5073036</p> | • |  <p>2023-10-03 13:48:55 10U 604821 5073036</p> |

| Location and Stream Data | | Crossing Characteristics – | |
|--|--|----------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199247 | Diameter (m) | 1.3 |
| External ID | 13903450 | Length (m) | 10 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 604449 | Resemble Channel | No |
| Northing | 5973168 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | – |
| Road | Penny Rd | Fill Depth (m) | 0.6 |
| Road Tenure | Carrier R07924 | Outlet Drop (m) | 0.5 |
| Channel Width (m) | 1.9 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 4 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |
| Comments: Beaver grate at inlet, moderate outlet drop and pool. Wetland type habitat upstream. Very turbid stream water.. 14:03:23 | | | |
| Photos: PSCIS ID 13903450. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-10-03 13:47:31 10U 604438 597315B</p> |  <p>2023-10-03 13:49:07 10U 604438 5973175</p> |
|  <p>2023-10-03 13:47:31 10U 604438 5973175</p> |  <p>2023-10-03 13:48:23 10U 604438 5973125</p> |
|  <p>2023-10-03 13:33:06 10U 604432 5973172</p> |  <p>2023-10-03 13:49:23 10U 604432 5973125</p> |

| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199248 | Diameter (m) | 0.6 |
| External ID | 13903449 | Length (m) | 14 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 603342 | Resemble Channel | No |
| Northing | 5973549 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | - |
| Road | Penny Rd | Fill Depth (m) | 1.1 |
| Road Tenure | Carrier R07924 | Outlet Drop (m) | 0.6 |
| Channel Width (m) | 0.7 | Outlet Pool Depth (m) | 0.65 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 4 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 33 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Good flow. Small channel with fine substrate. Pipe is bent up approximately 2m downstream of the inlet. Debris guard has been built around the inlet. Penny Road is the only access in and out of the community of Penny. Is 500m downstream to the fraser river confluence. with another crossing that should be considered.. 14:08:24

Photos: PSCIS ID 13903449. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|---|
|  A photograph showing a dirt road curving through a dense forest. In the foreground, there is a yellow rectangular sign with a white label that reads "13903447". The date "10/18/09" and ID "TU 500360 5073645" are also visible on the sign. 10/18/09 TU 500360 5073645 | • |  A photograph looking down the interior of a large, curved metal culvert. The walls are dark and reflective, and the floor is a sandy or dirt surface. The date "10/18/09" and ID "TU 500360 5073645" are visible in the top right corner. 10/18/09 TU 500360 5073645 |
|  A photograph of a small, shallow stream flowing over rocks and debris. The water is clear and reflects the surrounding greenery. The date "10/18/09" and ID "TU 500360 5073645" are visible in the top left corner. 10/18/09 TU 500360 5073645 | • |  A photograph of a stream flowing over rocks and debris. A metal structure, possibly a bridge or culvert support, is visible in the background. The date "10/18/09" and ID "TU 500360 5073645" are visible in the top right corner. 10/18/09 TU 500360 5073645 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199249 | Diameter (m) | 0.8 |
| External ID | 2023100301 | Length (m) | 11 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 601824 | Resemble Channel | No |
| Northing | 5974432 | Backwatered | No |
| Stream | Tributary to Read Creek | Percent Backwatered | – |
| Road | Gray Rd | Fill Depth (m) | 0.3 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.08 |
| Channel Width (m) | 3.4 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Stream not present at this location within freshwater atlas. Good flow and abundant, small gravels upstream and downstream. Although pipe appears undersized, the size and depth of the outlet pool indicates that it handles the flow decently well. MoTi chris_culvert_id: 1995103. 14:41:27

Photos: PSCIS ID 2023100301. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2025100501 |  2025-0-03 14:10:29 10U 503329 597362 |
|  2025-0-03 14:14:23 10U 503329 597482 | |
|  2025-0-03 14:45:47 10U 503329 597491 |  2025-0-03 14:42:26 10U 503329 597459 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199250 | Diameter (m) | 0.9 |
| External ID | 13900052 | Length (m) | 18 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 587885 | Resemble Channel | No |
| Northing | 5985390 | Backwatered | No |
| Stream | Robinson Creek | Percent Backwatered | — |
| Road | Upper Fraser Rd | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.6 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Small channel with no outlet drop or pool. Moderate flow and a lot of grassy vegetation on stream banks downstream. MoTi chris_culvert_id: 1994901. 15:31:18

Photos: PSCIS ID 13900052. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  A photograph showing a stream crossing. A yellow and white device, likely a flow meter or monitoring equipment, is placed across the stream. A pink boot is visible on the left side. The background shows a dirt road and some trees. |    |
| | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199251 | Diameter (m) | 0.9 |
| External ID | 13905581 | Length (m) | 12 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 587975 | Resemble Channel | No |
| Northing | 5985293 | Backwatered | No |
| Stream | Robinson Creek | Percent Backwatered | — |
| Road | Rail | Fill Depth (m) | 1.2 |
| Road Tenure | CN Rail | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Grassy vegetation upstream and downstream, little to no riparian. Runs through private property downstream. Small channel with low flow.. 16:11:20

Photos: PSCIS ID 13905581. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics | - |
|--|---|---|---|
|  | | NO IMAGE AVAILABLE | |
|  | |  | |
| | | | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199252 | Diameter (m) | 0.8 |
| External ID | 13900094 | Length (m) | 20 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 584227 | Resemble Channel | No |
| Northing | 5988493 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | Upper Fraser Road | Fill Depth (m) | 1.2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.8 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 4.5 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Newly installed pipe. Good flow with beaver activity prevalent upstream and downstream. MoTi
chris_culvert_id: 1994777. 16:14:28

Photos: PSCIS ID 13900094. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  <p>2023-10-03 16:10:45 10U 584224 5088454</p> |
|  <p>2023-10-03 16:10:28 10U 584223 5088454</p> | • |  <p>2023-10-03 16:10:28 10U 584223 5088454</p> |
|  <p>2023-10-03 16:10:28 10U 584223 5088454</p> | • |  <p>2023-10-03 16:10:28 10U 584223 5088454</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199253 | Diameter (m) | 1.05 |
| External ID | 13903446 | Length (m) | 17 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 582480 | Resemble Channel | No |
| Northing | 5989487 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | Upper Fraser Road | Fill Depth (m) | 1.6 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.05 |
| Channel Width (m) | 2 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Concrete pipe. Smaller stream with some flow. Chinook observations upstream and downstream of this crossing in FISS. Located on Upper Fraser Road which is only access to communities beyond including town of Penny.
MoTi chris_culvert_id: 1994747. 16:28:14

Photos: PSCIS ID 13903446. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--------------------------|
|      | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199254 | Diameter (m) | 0.95 |
| External ID | 13900043 | Length (m) | 54 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 569895 | Resemble Channel | No |
| Northing | 5996572 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | Upper Fraser Rd | Fill Depth (m) | 4 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.6 |
| Channel Width (m) | 2.3 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 4 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 18 |

Comments: Chinook confirmed upstream in 2018. Structure goes under highway and railway. Culvert visible at inlet but outlet has different structure. Slope estimated. Small step at outlet creating drop. MoTi chris_culvert_id: 1994444.

17:35:22

Photos: PSCIS ID 13900043. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  A photograph showing a yellow and white corrugated metal culvert crossing a small stream. The culvert is partially buried in the ground. A red flag is visible on top of the culvert. In the background, there is a road and some trees. |  A photograph looking down the interior of a large, yellow corrugated metal culvert. Water is flowing through it, creating a strong current. The walls of the culvert are ribbed and show signs of wear and discoloration. |
|  A photograph of a stream flowing through a rocky area. The water is clear and shallow. There are fallen logs and debris in the stream bed. |  A photograph of a stream flowing through a wooded area. The water is clear and shallow. There are fallen logs and debris in the stream bed. |
|  A photograph of a stream flowing through a rocky area. The water is clear and shallow. There are fallen logs and debris in the stream bed. |  A photograph of a stream flowing through a wooded area. The water is clear and shallow. There are fallen logs and debris in the stream bed. |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199255 | Diameter (m) | 1.1 |
| External ID | 13903617 | Length (m) | 17 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 578670 | Resemble Channel | No |
| Northing | 5973004 | Backwatered | No |
| Stream | Tributary to Kenneth Creek | Percent Backwatered | — |
| Road | Bowron FSR | Fill Depth (m) | 1.3 |
| Road Tenure | MOF | Outlet Drop (m) | 0.05 |
| Channel Width (m) | 2.6 | Outlet Pool Depth (m) | 0.05 |
| Stream Slope (%) | 2 | Inlet Drop | Yes |
| Beaver Activity | Yes | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: The crossing is actually located ~150m south of the modelled crossing (at km 31.9), on an unmapped Freshwater Atlas stream which flows into the crossing from the east, flowing along the ditch for approximately 60-70m. The streamline can be seen in satellite imagery. Very nice stream with good flow, abundant gravels, and some pools to 50cm deep. The inlet is completely buried and the outlet is blocked by beaver debris. Culvert slope estimated.. 09:31:27

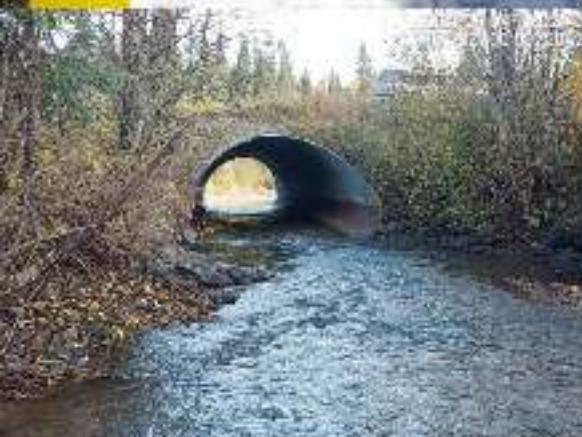
Photos: PSCIS ID 13903617. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  |
|  | • |  |
|  | • |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|--------------|
| Date | 2023-10-04 | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199256 | Diameter (m) | 4.7 |
| External ID | 13903184 | Length (m) | 33 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 582276 | Resemble Channel | No |
| Northing | 5975078 | Backwatered | No |
| Stream | Kenneth Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 1 |
| Channel Width (m) | 9.4 | Outlet Pool Depth (m) | 2.4 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Very wide stream with high flow. Velocity is high in culvert. Very deep and big outlet pool, depth estimated. Known salmon spawning location. Chinook confirmed with carcass noted just upstream in 2022 by same field team.
MoTi chris_hwy_structure_road_id: 3750. 10:13:57

Photos: PSCIS ID 13903184. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
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|  |  |
|  | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199257 | Diameter (m) | 1.2 |
| External ID | 13903183 | Length (m) | 30 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 582694 | Resemble Channel | No |
| Northing | 5975012 | Backwatered | No |
| Stream | Tributary to Kenneth Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 3.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.35 |
| Channel Width (m) | 2.2 | Outlet Pool Depth (m) | 0.7 |
| Stream Slope (%) | 1.5 | Inlet Drop | Yes |
| Beaver Activity | Yes | Slope (%) | 1.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 16.5 |

Comments: Wetland type habitat upstream with multiple small channels threaded through it. Inlet of pipe is extremely bent. Nice little stream with well defined channel downstream. Good amount of flow and connected to known chinook system. MoTi chris_culvert_id: 1992666. 10:35:14

Photos: PSCIS ID 13903183. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  A photograph of a two-lane asphalt road with yellow center and side markings. A white rectangular sign is mounted on the right shoulder, displaying the text "13705163" and "2023-10-04 10:41:31" above it. 2023-10-04 10:41:31 13705163 |  A close-up view of a large, dark-colored culvert pipe lying horizontally on the ground. It is surrounded by vegetation and some debris. The pipe has a yellow identification tag attached to it. 2023-10-04 10:41:31 13705163 |
|  A photograph of a small, shallow stream or ditch flowing through dense green grass and low-lying plants. The water is clear and reflects the surrounding environment. 2023-10-04 10:41:35 1CU-502251-5374681 |  A photograph of a larger stream or creek flowing through a mix of green and brown vegetation. The water is slightly murky and has some debris floating on the surface. 2023-10-04 10:41:35 1CU-502251-5374681 |
|  A photograph showing a wide, open landscape with a stream bed visible in the foreground. The background features a dense forest under a clear blue sky. 2023-10-04 10:41:35 1CU-502251-5374681 |  A close-up view of a narrow, rocky stream bed. The water flows over smooth, light-colored stones and pebbles. The surrounding area is covered in fallen leaves and low-lying plants. 2023-10-04 10:45:35 1CU-502251-5374681 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199258 | Diameter (m) | 1.2 |
| External ID | 13900192 | Length (m) | 31 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 585255 | Resemble Channel | No |
| Northing | 5973726 | Backwatered | No |
| Stream | Tributary to Kenneth Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 1.7 |
| Channel Width (m) | 2.3 | Outlet Pool Depth (m) | 0.6 |
| Stream Slope (%) | 4.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 42 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Very big outlet drop. Gravels present upstream that could be suitable for spawning. Small debris jam ~15m upstream of crossing but likely not a major barrier. MoTi chris_culvert_id: 1992618. 10:50:45

Photos: PSCIS ID 13900192. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
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|  |  |
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| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199259 | Diameter (m) | 1.1 |
| External ID | 13900261 | Length (m) | 42 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 587876 | Resemble Channel | No |
| Northing | 5972476 | Backwatered | No |
| Stream | Tributary to Sugarbowl Creek | Percent Backwatered | - |
| Road | Highway 16 | Fill Depth (m) | 7 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 2.5 | Outlet Pool Depth (m) | 0.7 |
| Stream Slope (%) | 9 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 12 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 4.5 |

Comments: Very nice stream with steeper cobble boulder habitat, potentially valuable rearing for Bulltrout . Very steep and long pipe with transmission line vegetation cleared at outlet. There's a 20m section of dewatered stream approximately 10m downstream of the outlet due to a graded substrate likely related to highway corridor. Crossing is within provincial park. MoTi chris_culvert_id: 1992817. 11:05:47

Photos: PSCIS ID 13900261. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  A photograph showing a paved road curving through a landscape with autumn-colored trees and shrubs. A yellow sign in the foreground displays the text "13900261". <p>2023-10-04 11:07:15 100 557851 3072473</p> | • |  A photograph looking down the interior of a corrugated metal culvert. The walls are ribbed and show some vegetation growth. A small amount of water is visible at the bottom. <p>2023-10-04 11:07:15 100 557851 3072473</p> |
|  A photograph showing a dark, circular opening in the ground, likely a culvert entrance, surrounded by dense brush and fallen leaves. Water is visible flowing out from the opening. <p>2023-10-04 11:07:15 100 557851 3072473</p> | • |  A photograph showing a dark, circular opening in the ground, likely a culvert entrance, surrounded by dense brush and fallen leaves. Water is visible flowing out from the opening. <p>2023-10-04 11:07:15 100 557851 3072473</p> |
|  A photograph showing a dark, circular opening in the ground, likely a culvert entrance, surrounded by dense brush and fallen leaves. Water is visible flowing out from the opening. <p>2023-10-04 11:07:15 100 557851 3072473</p> | • |  A photograph showing a dark, circular opening in the ground, likely a culvert entrance, surrounded by dense brush and fallen leaves. Water is visible flowing out from the opening. <p>2023-10-04 11:07:15 100 557851 3072473</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199260 | Diameter (m) | 1.2 |
| External ID | 13900260 | Length (m) | 38 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 587936 | Resemble Channel | No |
| Northing | 5972452 | Backwatered | No |
| Stream | Tributary to Sugarbowl Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 8 |
| Road Tenure | MOTI | Outlet Drop (m) | 1.15 |
| Channel Width (m) | 5.2 | Outlet Pool Depth (m) | 0.8 |
| Stream Slope (%) | 9 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 7 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 42 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 30 |

Comments: Large stream with abundant gravels present upstream suitable for spawning. Massive outlet drop with powerline riparian cleared downstream of the highway. Old growth cedar hemlock riparian within Sugar bowl grizzly den provincial park. Follow up with habitat confirmation recommended. MoTi chris_culvert_id: 1992815. 11:30:20

Photos: PSCIS ID 13900260. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  |
|  | • |  |
|  | • |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199261 | Diameter (m) | 1.2 |
| External ID | 13900270 | Length (m) | 56 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 595602 | Resemble Channel | No |
| Northing | 5969818 | Backwatered | No |
| Stream | Tributary to Sugarbowl Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 6 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.9 |
| Channel Width (m) | 3.7 | Outlet Pool Depth (m) | 0.4 |
| Stream Slope (%) | 4 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 42 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 24 |

Comments: Culvert very old. Big wetland complex upstream. Inlet barely visible, covered in woody debris and rusty metal. Culvert slope estimated. High velocity coming out of outlet with moderate drop. Habitat looks good downstream, wide channel with high flow. Crossing is within the Sugarbowl grizzly den provincial park. MoTi chris_culvert_id: 1992569. 12:49:05

Photos: PSCIS ID 13900270. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
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|  |  |
|  |  |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--------------------------|--|---|--------------------------|--------------|
| Date | 2023-10-04 | | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199262 | | Diameter (m) | 5 |
| External ID | 13900196 | | Length (m) | 31 |
| Crew | AI | | Embedded | No |
| UTM Zone | 10 | | Depth Embedded (m) | - |
| Easting | 596934 | | Resemble Channel | No |
| Northing | 5969359 | | Backwatered | No |
| Stream | Hungary Creek | | Percent Backwatered | - |
| Road | Highway 16 | | Fill Depth (m) | 2 |
| Road Tenure | MOTI | | Outlet Drop (m) | 0.5 |
| Channel Width (m) | 11.6 | | Outlet Pool Depth (m) | 1.4 |
| Stream Slope (%) | 1 | | Inlet Drop | No |
| Beaver Activity | No | | Slope (%) | 1 |
| Habitat Value | High | | Valley Fill | Deep Fill |
| Final score | 37 | | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | | Fix Span / Diameter | 16.5 |

Comments: Very large, low gradient stream with chinook points. Hydrometric station upstream. Outlet drop is comprised of boulders, likely placed there to aid in passage. Located at the downstream end of powerline corridor, there is a steep cascade section for approximately 30m that is 8% gradient. Cascade could be as much or more of a passage issue as the pipe. MoTi chris_hwy_structure_road_id: 3749. 12:57:36

Photos: PSCIS ID 13900196. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  2023-09-04 10:35:00 100.506528 56.634382 | • |  2023-09-04 10:27:53 100.506528 56.634382 |
|  2023-09-04 10:39:00 13900196 | • |  2023-09-04 10:35:00 |
|  2023-09-04 10:35:00 | • |  2023-09-04 10:35:00 |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|--|---------------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199263 | Diameter (m) | 1.2 |
| External ID | 13900198 | Length (m) | 82 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 601647 | Resemble Channel | No |
| Northing | 5967974 | Backwatered | No |
| Stream | Lunate Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 8 |
| Road Tenure | MOTI | Outlet Drop (m) | 2.8 |
| Channel Width (m) | 2.4 | Outlet Pool Depth (m) | 2 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 4.5 |

Comments: Massive outlet drop and deep pool, both depths estimated. Signs of beaver activity near inlet. There is an old well-like structure attached to inlet side. Water could be flowing through underneath surface, not visible. MoTi chris_culvert_id: 1992863. 13:34:08

Photos: PSCIS ID 13900198. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-10-04 13:05:35 10U-001684-5057953 |  |
|  2023-10-04 13:15:18 10U-001676-5057950 |  2023-10-04 13:27:36 10U-001680-5057952 |
|  2023-10-04 13:19:16 10U-001680-5057951 |  2023-10-04 13:29:07 10U-001680-5057950 |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199264 | Diameter (m) | 0.6 |
| External ID | 13903179 | Length (m) | 20 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 610990 | Resemble Channel | No |
| Northing | 5966577 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | – |
| Road | Penny Access Road | Fill Depth (m) | 3 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 1.6 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 0.25 | Inlet Drop | Yes |
| Beaver Activity | Yes | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Horsetail and willow wetland upstream with a small well-defined channel with fine gradients. Pipe is blocked by beaver debris. There is a second pipe that's approximately 1.5 m higher and 0.9m in diameter that is free of debris and functions as an overflow. Potential refuge area during periods of high flow in the Fraser river, which was only 40m downstream at the time of assessment. Gate at the end of the road preventing access to launch point for Penny. Could consider road deactivation as a solution. Crossing is located in the Ancient Forest/Chun T'oh Whudujut Protected Area. MoTi chris_culvert_id: 1993423. 13:44:19

Photos: PSCIS ID 13903179. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  13903179 |  232-04-13-4F BLU-1002-536657 |
|  101410-13-000000 |  232-04-14-05-00 BLU-1002-536658 |
|  100501-1008-59-00 |  232-04-13-59-49 BLU-1002-536659 |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199265 | Diameter (m) | 0.6 |
| External ID | 13900200 | Length (m) | 36 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 604596 | Resemble Channel | No |
| Northing | 5966257 | Backwatered | No |
| Stream | Tributary to Driscoll Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 4 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 1.1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1.5 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 32 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Big wetland upstream. Inlet could not be found, likely submerged. Small channel downstream, pipe looks old and in bad shape. Overflow pipe near first pipe but not functioning currently. MoTi chris_culvert_id: 1992855.

14:06:57

Photos: PSCIS ID 13900200. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  |  |
| NO IMAGE AVAILABLE |  |
|  |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199266 | Diameter (m) | 0.6 |
| External ID | 13900053 | Length (m) | 10 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 608807 | Resemble Channel | No |
| Northing | 5966506 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | Penny Access Road | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 0 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 16 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Could not locate pipe as it is underwater at both inlet and outlet. There appears to be a bunch of logs under the road so suspect that there may be no structure at all as the drainage may have been put in with logs - although MOT culvert layer says 0.6 m galvanized pipe.. Road is failing with 3 foot deep and 2 foot wide hole in the road marked with a pilon. MoTi chris_culvert_id: 1993428. 14:32:19

Photos: PSCIS ID 13900053. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics | - |
|--|---|---|---|
|  | | NO IMAGE AVAILABLE | |
|  | |  | |
|  | | | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199267 | Diameter (m) | 2.4 |
| External ID | 13900201 | Length (m) | 56 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 606374 | Resemble Channel | No |
| Northing | 5965784 | Backwatered | No |
| Stream | Driscoll Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 3.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.6 |
| Channel Width (m) | 6.4 | Outlet Pool Depth (m) | 0.7 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 2 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 16.5 |

Comments: Big beaver dam near inlet of culvert spanning across whole channel approx 1.2m high. Boulders in pipe near inlet creating small drop and increasing velocity. Channel widens downstream, high value habitat. RB and CCG confirmed upstream and downstream with chinook observed way downstream at mouth. Low gradient upstream and downstream with decent outlet drop so resampling to determine chinook presence could be insightful. MoTi chris_culvert_id: 1992674. 14:54:00

Photos: PSCIS ID 13900201. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  A photograph showing a paved road curving away from the viewer towards a forested hillside. A small stream flows alongside the road. The date and time stamp in the top right corner reads "2023-10-04 14:31:57" and the coordinates are "60°58'37"N 130°06'23"W". | • |  A photograph looking down the interior of a corrugated metal culvert. Water is flowing through it. The date and time stamp in the top right corner reads "2023-10-04 14:31:57" and the coordinates are "60°58'37"N 130°06'23"W". |
|  A close-up photograph of a large, dark-colored corrugated metal culvert pipe lying on the ground. It appears to be partially buried in soil and rocks. The date and time stamp in the top right corner reads "2023-10-04 14:31:57" and the coordinates are "60°58'37"N 130°06'23"W". | |  A photograph showing a culvert pipe at the edge of a stream. Water is flowing out of the pipe and into the stream. The date and time stamp in the top right corner reads "2023-10-04 14:32:03" and the coordinates are "60°58'38"N 130°06'23"W". |
|  A photograph of a forested area with a stream flowing through it. The surrounding vegetation is dense with evergreen trees. The date and time stamp in the top right corner reads "2023-10-04 14:43:18" and the coordinates are "60°58'39"N 130°06'23"W". | |  A photograph of a narrow stream flowing through a forest. The water is clear and reflects the surrounding greenery. The date and time stamp in the top right corner reads "2023-10-04 14:48:29" and the coordinates are "60°58'39"N 130°06'23"W". |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199268 | Diameter (m) | 2.4 |
| External ID | 13900157 | Length (m) | 45 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 645733 | Resemble Channel | No |
| Northing | 5940526 | Backwatered | No |
| Stream | Catfish Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 9.9 |
| Road Tenure | MOTI | Outlet Drop (m) | 1 |
| Channel Width (m) | 6.7 | Outlet Pool Depth (m) | 0.1 |
| Stream Slope (%) | 0 | Inlet Drop | Yes |
| Beaver Activity | Yes | Slope (%) | 2 |
| Habitat Value | High | Valley Fill | Shallow Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 35.5 |

Comments: Very large system with beaver complex upstream, including a large beaver dam approximately 1.3m high located 25m upstream of the inlet. Approximately 20m downstream of the outlet is a rock chute that is over 30% gradient but only for 5m with a total height of 1.7m. There are two other falls noted as FISS obstacles between this crossing and the Fraser River downstream. There is significant erosion of the road prism on the upstream side above the culvert. Culvert is located on the bend of Highway 16 under 10m of road fill. Noted falls and lack of fish observations indicated access issues downstream. MoTi chris_culvert_id: 1992752. 16:16:08

Photos: PSCIS ID 13900157. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  A photograph showing a paved road curving through a forested area. A concrete culvert is visible on the left side of the road. The sky is blue with scattered clouds. <p>2023-10-04 15:56:03 ICU 645736 5946515</p> | • |  A close-up view of a dark, circular culvert entrance. Several fallen tree branches are piled up against it, partially obscuring it. The ground around the culvert is covered in vegetation and soil. <p>2023-10-04 15:56:03 ICU 645736 5946515</p> |
|  A photograph showing two culverts side-by-side. Water is falling from the top of the culverts into a small pool of water below. Fallen tree branches are scattered around the base of the culverts. <p>2023-10-04 15:56:54 ICU 645736 5946479</p> | • |  A photograph showing a single culvert with water falling from its top into a pool below. Fallen tree branches are scattered around the base of the culvert. <p>2023-10-04 15:56:54 ICU 645736 5946479</p> |
|  A photograph of a stream flowing through a rocky bed. A person wearing a blue jacket and red pants is standing on the left bank, looking towards the stream. The background shows a dense forest under a cloudy sky. <p>2023-10-04 15:56:54 ICU 645736 5946479</p> | • |  A close-up view of a waterfall cascading over rocks. The water is turbulent and white as it falls. Fallen tree branches are visible in the foreground and background. <p>2023-10-04 15:57:03 ICU 645736 5946577</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199269 | Diameter (m) | 1.3 |
| External ID | 13900019 | Length (m) | 27 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 660595 | Resemble Channel | No |
| Northing | 5929526 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.3 |
| Channel Width (m) | 3.9 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 3.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Steep waterfall 10m downstream of crossing, approximately 8m in height. Stream gradient and channel width taken upstream. Gravels present upstream, but definite barrier downstream. Crossing is within the West Twin Protected Area. MoTi chris_culvert_id: 1473114. 16:34:20

Photos: PSCIS ID 13900019. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
|  |  <p>2023-10-04 16:19:45 100.660735 59.29443</p> |
|  |  <p>2023-10-04 16:18:40 100.660075 59.29542</p> |
|  |  <p>2023-10-04 16:19:23 100.660035 59.29543</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199270 | Diameter (m) | 5 |
| External ID | 13900066 | Length (m) | 90 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 675449 | Resemble Channel | No |
| Northing | 5917446 | Backwatered | No |
| Stream | Clyde Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 9.9 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.75 |
| Channel Width (m) | 6.4 | Outlet Pool Depth (m) | 1.8 |
| Stream Slope (%) | 3.5 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 4 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 39 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 35.5 |
| Comments: Absolutely massive structure with 12 m of fill plus the height of the culvert which appears to be approximately 7m. Fill depth changed to 9.9m to satisfy submission template macros. Very nice large stream with boulder step pool habitat suitable for bull trout. Falls noted just downstream in FISS but not observed in field with minimal survey. MoTi chris_hwy_structure_road_id: 3691. 17:00:34 | | | |
| Photos: PSCIS ID 13900066. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199271 | Diameter (m) | 4.1 |
| External ID | 13900064 | Length (m) | 52 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 677526 | Resemble Channel | No |
| Northing | 5916242 | Backwatered | No |
| Stream | McIntosh Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 9.9 |
| Road Tenure | MOTI | Outlet Drop (m) | 2.4 |
| Channel Width (m) | 6.2 | Outlet Pool Depth (m) | 1.2 |
| Stream Slope (%) | 4 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 35.5 |

Comments: Deep canyon and high waterfall directly downstream of crossing which is a definite barrier to all fish. Rough estimate 20m height. Outlet drop and pool estimated because it was unsafe to get near stream due to steep embankment. RB confirmed upstream of crossing in 2017 and 2020, but the falls downstream is a definite barrier. MoTi chris_hwy_structure_road_id: 30367. 17:27:23

Photos: PSCIS ID 13900064. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  2023-10-04 17:03:47 102.677414 59.16308 |  2023-10-04 17:03:47 102.677414 59.16308 |
|  2023-10-04 17:25:25 102.677498 59.16305 | |
|  2023-10-04 17:09:28 102.677502 59.16197 |  2023-10-04 17:25:25 102.677502 59.16197 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199272 | Diameter (m) | 2.7 |
| External ID | 22200151 | Length (m) | 35 |
| Crew | AI | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | — |
| Easting | 345349 | Resemble Channel | No |
| Northing | 5856053 | Backwatered | No |
| Stream | Cranberry Creek | Percent Backwatered | — |
| Road | Pine Road | Fill Depth (m) | 3 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.38 |
| Channel Width (m) | 4 | Outlet Pool Depth (m) | 0.35 |
| Stream Slope (%) | 0 | Inlet Drop | Yes |
| Beaver Activity | Yes | Slope (%) | 2.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Newly installed culvert with beaver grate on inlet. Beaver influenced wetland area upstream and downstream. Channel width estimated as wetland areas present. Approximately 700m downstream this stream flows into Swift Creek which is a known chinook stream. MoTi chris_culvert_id: 1468490. 09:14:05

Photos: PSCIS ID 22200151. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  A photograph showing a paved road curving through a forested area. A yellow sign is visible on the left side of the road. | • |  A close-up photograph of a large, dark, corrugated metal culvert. A small circular opening is visible on its side. Technical data is overlaid on the top right: 2023-0-001-C-1, HU 345354-2850033. |
|  A photograph of a corrugated metal culvert installed in a stream bed. The water flows around the culvert, which is partially submerged. Technical data is overlaid on the top right: 2023-0-001-B-2, HU 345354-2850033. | • |  A photograph of a culvert installed in a stream bed. The water flows over the rocks surrounding the culvert. Technical data is overlaid on the top right: 2023-0-001-B-3, HU 345354-2850033. |
|  A photograph of a culvert installed in a stream bed. A yellow sign is placed near the entrance of the culvert. Technical data is overlaid on the top right: 2023-0-001-B-4, HU 345354-2850041. | • |  A photograph of a culvert installed in a stream bed. A yellow sign is placed near the entrance of the culvert. Technical data is overlaid on the top right: 2023-0-001-B-5, HU 345354-2850030. |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|--------------|
| Date | 2023-10-05 | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199273 | Diameter (m) | 4.5 |
| External ID | 13900077 | Length (m) | 28 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 691822 | Resemble Channel | No |
| Northing | 5904863 | Backwatered | No |
| Stream | Hankins Creek | Percent Backwatered | – |
| Road | Eddy Rd | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.3 |
| Channel Width (m) | 6.7 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Wide channel and high flowing stream. Small outlet drop and high velocity in pipe with shallow flows over unembedded pipe. Chinook confirmed downstream near Fraser River confluence in the past. Railway bridge downstream seen in photos. MoTi chris_hwy_structure_road_id: 30365. 10:49:31

Photos: PSCIS ID 13900077. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-10-05 10:41:12 10U 691815 5004875 |  2023-10-05 10:44:01 10U 691832 5004875 |
|  2023-10-05 10:41:12 10U 691815 5004875 |  2023-10-05 10:43:45 10U 691824 5004875 |
|  2023-10-05 10:41:12 10U 691815 5004875 |  2023-10-05 10:41:12 10U 691820 5004875 |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--------------------------|--|---|--------------------------|---------------|
| Date | 2023-10-05 | | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199274 | | Diameter (m) | 1.5 |
| External ID | 13900003 | | Length (m) | 18 |
| Crew | MW | | Embedded | No |
| UTM Zone | 10 | | Depth Embedded (m) | - |
| Easting | 688720 | | Resemble Channel | No |
| Northing | 5909202 | | Backwatered | No |
| Stream | Dominion Creek | | Percent Backwatered | - |
| Road | 1st Ave | | Fill Depth (m) | 3 |
| Road Tenure | McBride | | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.3 | | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | | Inlet Drop | Yes |
| Beaver Activity | No | | Slope (%) | 1 |
| Habitat Value | High | | Valley Fill | Deep Fill |
| Final score | 24 | | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | | Fix Span / Diameter | 15 |

Comments: Two culverts, one bigger than the other. Debris jams at inlet creating drop and increasing stream velocity in pipe. Rail crossing upstream is a concrete OBS. Channel wider downstream than upstream.. 11:06:36

Photos: PSCIS ID 13900003. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  |  |
|  |  |
|  |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199275 | Diameter (m) | 0.9 |
| External ID | 13900030 | Length (m) | 15 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 689523 | Resemble Channel | No |
| Northing | 5908856 | Backwatered | No |
| Stream | Tributary to Dominion Creek | Percent Backwatered | — |
| Road | Horseshoe Lake Rd | Fill Depth (m) | 0.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 0.9 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dewatered at crossing with large wetland area upstream. Flow goes through mainstem of Dominion Creek just north through town. MoTi chris_culvert_id: 1462891. 11:52:44

Photos: PSCIS ID 13900030. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  <p>2023-10-05 11:43:23 101.689521 59.08852</p> |  <p>2023-10-05 11:43:15 101.689521 59.08852</p> |
|  <p>2023-10-05 11:43:23 101.689521 59.08852</p> |  <p>2023-10-05 11:43:52 101.689522 59.08870</p> |
|  <p>2023-10-05 11:43:01 101.689523 59.08854</p> |  <p>2023-10-05 11:44:52 101.689526 59.08874</p> |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--------------------------|--|---|--------------------------|--------------|
| Date | 2023-10-05 | | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199276 | | Diameter (m) | 2.8 |
| External ID | 22200081 | | Length (m) | 13 |
| Crew | MW | | Embedded | No |
| UTM Zone | 11 | | Depth Embedded (m) | - |
| Easting | 345396 | | Resemble Channel | No |
| Northing | 5860898 | | Backwatered | No |
| Stream | Crooked Creek | | Percent Backwatered | - |
| Road | Loseth Road | | Fill Depth (m) | 1 |
| Road Tenure | MOTI | | Outlet Drop (m) | 0.42 |
| Channel Width (m) | 3.4 | | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 4.5 | | Inlet Drop | No |
| Beaver Activity | No | | Slope (%) | 4 |
| Habitat Value | Medium | | Valley Fill | Deep Fill |
| Final score | 33 | | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | | Fix Span / Diameter | 15 |

Comments: Two pipes at 1.4m diameter each. Crossing is only 5m downstream of the railway crossing. The stream has bigger volume of water at this location than it did below Highway 5 downstream. Water may be recharging beaver influenced wetlands downstream. Road edge has been armoured with riprap and downstream side of road bank is eroding significantly for approximately 60m. MoTi chris_culvert_id: 1468680, 1468681. 12:14:12

Photos: PSCIS ID 22200081. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  |  |
|  |  |
|  |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199277 | Diameter (m) | 1.7 |
| External ID | 22201951 | Length (m) | 40 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | — |
| Easting | 345405 | Resemble Channel | No |
| Northing | 5860914 | Backwatered | No |
| Stream | Crooked Creek | Percent Backwatered | — |
| Road | Railway | Fill Depth (m) | 2.5 |
| Road Tenure | CN Rail | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 3.6 | Outlet Pool Depth (m) | 0.75 |
| Stream Slope (%) | 4.5 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 2.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 32 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Culvert runs under both sets of tracks. Model Crossing will need to be removed from bcfishpass. Outlet of this pipe is immediately upstream of Loseth road with significant armouring around the outlet pool and road at the inlet downstream. Very nice stream with significant amounts of flow. Known rainbow stream. Much less flow downstream below Highway 5, which is very interesting.. 12:21:02

Photos: PSCIS ID 22201951. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--------------------------|
|  <p>2023-09-12 12:28 H13 34-389 5000900</p> <p>2023-09-12 12:28 H13 34-389 5000900</p> <p>2023-09-12 12:28 H13 34-389 5000900</p> <p>2023-09-12 12:28 H13 34-389 5000900</p> | | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199278 | Diameter (m) | 1.5 |
| External ID | 22201176 | Length (m) | 26 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | — |
| Easting | 344016 | Resemble Channel | No |
| Northing | 5862741 | Backwatered | No |
| Stream | Teepee Creek | Percent Backwatered | — |
| Road | Highway 5 | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.4 |
| Channel Width (m) | 4.5 | Outlet Pool Depth (m) | 1 |
| Stream Slope (%) | 3.5 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 1.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Very nice stream with salmon point in FISS located upstream. Very good flow with some pools present to 80cm deep upstream. Unassessed railway crossing approximately 200m upstream. There is no crossing at the pipeline but construction activities have resulted in a small cascade of boulders at the pipe which is similar to the natural cascade section observed approximately 50m upstream. Railway crossing downstream which is ranked as a barrier.
MoTi chris_culvert_id: 1467202. 12:56:09

Photos: PSCIS ID 22201176. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  |
|  | • |  |
|  | • |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199279 | Diameter (m) | 0.6 |
| External ID | 22200022 | Length (m) | 20 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | — |
| Easting | 302951 | Resemble Channel | No |
| Northing | 5899072 | Backwatered | No |
| Stream | Tributary to Fraser river | Percent Backwatered | — |
| Road | Hinkelman Rd | Fill Depth (m) | 5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.7 |
| Channel Width (m) | 1.4 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 34 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Very small stream with low flow. Embankment above outlet has been covered to prevent rockslide. MoTi
chris_culvert_id: 1461358. 13:46:10

Photos: PSCIS ID 22200022. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  <p>2023-10-05 13:42:06 1U 302933 581908</p> |
|  <p>2023-10-05 13:40:53 1U 302933 581908</p> | • |  <p>2023-10-05 13:40:53 1U 302933 581908</p> |
|  <p>2023-10-05 13:42:02 1U 302933 581908</p> | • |  <p>2023-10-05 13:40:52 1U 302933 581908</p> |

| Location and Stream Data | | Crossing Characteristics | |
|---|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199280 | Diameter (m) | 1.05 |
| External ID | 22200075 | Length (m) | 19 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | – |
| Easting | 335908 | Resemble Channel | No |
| Northing | 5872652 | Backwatered | No |
| Stream | L'Esrange Creek | Percent Backwatered | – |
| Road | L'heureux Road | Fill Depth (m) | 1.8 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.5 |
| Channel Width (m) | 2.2 | Outlet Pool Depth (m) | 0.4 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 39 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |
| Comments: Nice little stream with good flow and abundant small gravel's upstream. There may be crossings downstream on private land. Significant amount of large riprap placed around inlet and outlet to protect the crossing. Outlet is placed on large piece of riprap, so 0.3m was added to the 0.2m outlet drop to account for the additional distance from the stream to the outlet. RB observed upstream. MoTi chris_culvert_id: 1466467. 14:00:15 | | | |
| Photos: PSCIS ID 22200075. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  A photograph showing a paved road curving through a forested area. A yellow rectangular sign is positioned on the left side of the road, partially obscured by bushes. In the background, a dark-colored vehicle is parked near the edge of the road. The sky is clear and blue. <p>2023-09-15 14:01:13 1U 33501 3872637</p> |  A photograph looking down the interior of a large, corrugated metal culvert. The walls are ribbed and show signs of water damage. A white, cylindrical object, possibly a fish ladder or pipe, extends from the bottom towards the center. The floor of the culvert is rocky and uneven. <p>2023-09-15 14:00:13 1U 33501 3872637</p> |
|  A photograph of a small stream flowing over rocks and debris into the entrance of a culvert. The water is clear and reflects the surrounding greenery. The entrance of the culvert is visible, showing its dark interior and ribbed metal structure. <p>2023-09-15 14:02:53 1U 33501 3872637</p> |  A photograph of a person standing in a shallow stream next to the entrance of a culvert. The person is wearing a blue shirt and dark pants. The water is shallow and clear, reflecting the surrounding foliage. The entrance of the culvert is visible in the background. <p>2023-09-15 14:02:53 1U 33501 3872637</p> |
|  A photograph of a small waterfall cascading down a rocky embankment into a stream. The water is clear and flows over mossy rocks. The surrounding vegetation is dense and green, with sunlight filtering through the leaves. <p>2023-09-15 14:07:53 1U 33501 3872637</p> |  A photograph of a person standing in a shallow stream next to the entrance of a culvert. The person is wearing a blue shirt and dark pants. The water is shallow and clear, reflecting the surrounding foliage. The entrance of the culvert is visible in the background. <p>2023-09-15 14:07:53 1U 33501 3872637</p> |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|--------------|
| Date | 2023-10-05 | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199281 | Diameter (m) | 1.7 |
| External ID | 22201218 | Length (m) | 35 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | – |
| Easting | 335375 | Resemble Channel | No |
| Northing | 5873132 | Backwatered | No |
| Stream | Goslin Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.4 |
| Channel Width (m) | 1 | Outlet Pool Depth (m) | 0.4 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 31 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Very nice stream with good flow and abundant gravels upstream. Pipe is an extremely bad shape with extensive corrosion inside of the pipe particularly at the downstream end - see photos. Likely at least one crossing downstream on private land. Transmission line corridor is located immediately upstream and the channel appears to be modified in this location to be straighter and narrower than its natural state. No crossing immediately upstream on Goslin Road (no road - crossing should be removed as potential barrier in bcfishpass) MoTi chris_culvert_id: 1465295.
14:28:28

Photos: PSCIS ID 22201218. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  A photograph showing a paved road curving to the right. A small yellow rectangular marker is mounted on a black post on the left side of the road, pointing towards the stream. The background shows a forested hillside under a blue sky with scattered clouds. |  A photograph looking down the interior of a corrugated metal culvert. The walls are ribbed and curved. Light from the end of the tunnel illuminates the dark water inside. The date and time "2023-04-05 14:01:55" and coordinates "110 356382 5873103" are overlaid in the top right corner. |
|  A photograph of a stream flowing over rocks and through dense green and yellow autumn foliage. A black cylindrical pipe or culvert is partially buried in the ground on the left, with water flowing out of its opening. The date and time "2023-04-05 14:02:55" and coordinates "110 356370 5873145" are overlaid in the top left corner. |  A photograph of a stream flowing over rocks and through dense green and yellow autumn foliage. A large black spherical object, possibly a fish pass or culvert, sits in the center of the stream, with water flowing out of its base. The date and time "2023-04-05 14:03:55" and coordinates "110 356370 5873172" are overlaid in the top right corner. |
|  A close-up photograph of a stream bank covered in dry, brownish-yellow vegetation and small rocks. The date and time "2023-04-05 14:04:25" and coordinates "110 356370 5873172" are overlaid in the top right corner. |  A photograph of a stream flowing through a forest. The water flows over rocks and through dense green and yellow autumn foliage. The date and time "2023-04-05 14:04:25" and coordinates "110 356370 5873172" are overlaid in the top right corner. |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199282 | Diameter (m) | 2.5 |
| External ID | 22201229 | Length (m) | 56 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | – |
| Easting | 305965 | Resemble Channel | No |
| Northing | 5896000 | Backwatered | No |
| Stream | Holliday Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 2.3 |
| Road Tenure | MOTI | Outlet Drop (m) | 0.4 |
| Channel Width (m) | 10.8 | Outlet Pool Depth (m) | 0.3 |
| Stream Slope (%) | 5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 37 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Culvert is undersized for a stream of this size. High flow, channel is just over 10m wide upstream. Chinook confirmed downstream in the past. MoTi chris_hwy_structure_road_id: 29925. 14:39:41

Photos: PSCIS ID 22201229. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-10-05 14:33:44 110.305749 58.966102 |  2023-10-05 14:28:49 110.305749 58.966102 |
|  2023-10-05 14:26:39 110.305923 58.959902 |  2023-10-05 14:26:39 110.305923 58.959902 |
|  2023-10-05 14:27:09 110.305921 58.960037 |  2023-10-05 14:26:29 110.305923 58.959902 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199283 | Diameter (m) | 1.4 |
| External ID | 22200029 | Length (m) | 19 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | — |
| Easting | 309830 | Resemble Channel | No |
| Northing | 5892394 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | — |
| Road | River Rd | Fill Depth (m) | 2.2 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0.2 |
| Channel Width (m) | 1.2 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 3.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Small stream with low flow. Muddy, fine substrate makes up most of streambed. Very close to Fraser River.
MoTi chris_culvert_id: 3189063. 15:17:53

Photos: PSCIS ID 22200029. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  2023-06-05 15:31:30 M 303624 5892393 | |  2023-06-05 15:31:30 M 303624 5892393 |
|  2023-06-05 15:31:30 M 303624 5892393 | |  2023-06-05 15:31:30 M 303624 5892393 |
|  2023-06-05 15:31:30 M 303624 5892393 | |  2023-06-05 15:31:30 M 303624 5892393 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199284 | Diameter (m) | 2.6 |
| External ID | 22200067 | Length (m) | 18 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | — |
| Easting | 331575 | Resemble Channel | No |
| Northing | 5875589 | Backwatered | No |
| Stream | Spittal Creek | Percent Backwatered | — |
| Road | Care Road | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 5.8 | Outlet Pool Depth (m) | 0.4 |
| Stream Slope (%) | 6 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Pipes and road are in extremely poor condition with evidence of embankment failure and pipes rusted all the way through on the bottom side in places. Small side road parallel to Highway 16 with residences that could be accessed from either side. Removal of crossing could perhaps be considered. Large high value system suitable for bulltrout rearing. Culvert upstream is relatively new concrete box culvert on the highway which is over half embedded and 3.7m wide. MoTi chris_culvert_id: 1466350. 15:53:19

Photos: PSCIS ID 22200067. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|--|
|  A photograph showing a paved road curving through a forested area. A yellow rectangular marker is placed on the ground near the roadside, indicating a specific location or feature. The surrounding trees have autumn-colored leaves. | • |  A photograph looking down the interior of a corrugated metal culvert. Water is flowing through the pipe, creating a strong current. The walls of the culvert are ribbed and show signs of wear and discoloration. |
|  A photograph of a stream crossing. Two black culverts are visible, one on each side of the stream bed. The water flows over rocks and gravel between the culverts. The background shows a dense forest with autumn foliage. | • |  A photograph of a stream crossing from a different angle. Two black culverts are visible, one on each side of the stream bed. The water flows over rocks and gravel between the culverts. The background shows a dense forest with autumn foliage. |
|  A close-up photograph of a rocky stream bed. A large, light-colored rock is prominent in the foreground. The water flows over smaller stones and pebbles. The surrounding vegetation includes shrubs and small trees. | • |  A close-up photograph of a rocky stream bed. A large, light-colored rock is prominent in the foreground. The water flows over smaller stones and pebbles. The surrounding vegetation includes shrubs and small trees. |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199285 | Diameter (m) | 1.1 |
| External ID | 22200051 | Length (m) | 8 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | – |
| Easting | 312484 | Resemble Channel | No |
| Northing | 5892004 | Backwatered | No |
| Stream | Tributary to Fraser River | Percent Backwatered | – |
| Road | Read Rd | Fill Depth (m) | 1 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.5 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 4.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 26 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Stream flows through private fenced off land on both sides. Moderate flow and a wide entrenched channel upstream. It appears cobbles are the predominant stream substrate and gravels subdominant. MoTi chris_culvert_id: 1463590. 15:57:40

Photos: PSCIS ID 22200051. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics | - |
|---|---|--|---|
|  | • |  | - |
|  | • |  | - |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|--------------|
| Date | 2023-10-05 | Crossing Sub Type | Concrete Box |
| PSCIS ID | 199286 | Diameter (m) | 3.65 |
| External ID | 22200061 | Length (m) | 21 |
| Crew | MW | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | — |
| Easting | 331629 | Resemble Channel | No |
| Northing | 5875684 | Backwatered | No |
| Stream | Spittal Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 5.8 | Outlet Pool Depth (m) | 0.2 |
| Stream Slope (%) | 6 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 6 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Large stream with cobble boulder substrate suitable for bull trout. Concrete box culvert is 60% embedded on the downstream side. Decent amount of debris is clogging the inlet. Although not perfect, this culvert appears to be fairly new with some embeddedment so not earmarked for follow up. MoTi chris_hwy_structure_road_id: 29885.

22:39:24

Photos: PSCIS ID 22200061. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  A photograph showing a long stretch of asphalt road curving through a forested area. On the left side, there is a yellow concrete barrier wall. A small white sign is attached to the wall, displaying the number "22200061". The sky is blue with some white clouds. |  A photograph looking down into a concrete culvert or underpass. Water is flowing rapidly through the opening, creating white foam. The concrete walls are light-colored and show some texture. The entrance to the underpass is visible on the right. |
|  A photograph of a concrete culvert entrance partially buried in a rocky streambed. The water flows out from the opening, creating a small pool. The surrounding ground is covered with large rocks and some sparse vegetation. |  A photograph of a concrete culvert entrance from a slightly different angle. The water is flowing out, creating a pool. The surrounding ground is rocky and appears to be a mix of natural rock and some man-made materials. |
|  A photograph of a stream flowing through a dense forest. The water is clear and moves over rocks. The banks of the stream are lined with tall evergreen trees and some deciduous trees showing autumn foliage. |  A photograph of a stream flowing through a forest. The water is clear and moves over rocks. The banks of the stream are lined with tall evergreen trees and some deciduous trees showing autumn foliage. |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199287 | Diameter (m) | 2.25 |
| External ID | 5400446 | Length (m) | 22 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 307446 | Resemble Channel | No |
| Northing | 6030655 | Backwatered | Yes |
| Stream | Rentoul Creek | Percent Backwatered | 100 |
| Road | Highway 16 | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.8 | Outlet Pool Depth (m) | 0.3 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Nice stream with good flow and abundant gravel throughout low gradients. Adjacent property is northern wildlife design. Crossing is currently 100% backwaters and passable to all life stages and species at these lower flow levels. MoTi chris_culvert_id: 2076441. 12:01:27

Photos: PSCIS ID 5400446. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|--|
|  A photograph showing a paved road with a yellow center line. A dark-colored car is driving away from the camera on the right side of the road. To the left of the road, there is a grassy area with some fallen leaves. In the background, there are trees with autumn foliage. The date "10/06/14" and location "Yukon River, YT, Canada" are visible in the top right corner of the image. | • |  A photograph looking down into a large, circular culvert or pipe. The interior walls are made of metal and show signs of wear and rust. Light is coming through the opening at the bottom, creating a bright glow. The date "10/06/14" and location "Yukon River, YT, Canada" are visible in the top right corner of the image. |
|  A photograph of a stream flowing through a grassy area. The water is clear and shallow. In the background, a car is parked on the side of a road. The date "10/06/14" and location "Yukon River, YT, Canada" are visible in the top right corner of the image. | • | |
|  A photograph of a stream flowing through a rocky, overgrown area. The water is clear and shallow. The surrounding vegetation includes various shrubs and small trees. The date "10/06/14" and location "Yukon River, YT, Canada" are visible in the top right corner of the image. | • | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199288 | Diameter (m) | 1.7 |
| External ID | 5400589 | Length (m) | 22 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 311154 | Resemble Channel | No |
| Northing | 6025092 | Backwatered | Yes |
| Stream | Tributary to Endako River | Percent Backwatered | 100 |
| Road | West Decker Rd | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 4.5 | Outlet Pool Depth (m) | 1 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 0 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Major beaver activity with inlet of pipe 3/4 blocked by mud. 0.6m overflow pipe also present. Low gradient, willow dominated, beaver influenced floodplain habitat upstream and downstream. Pipe is backwatered however, the inlet is blocked so fish passage was not happening at time of assessment. Crossing on railway upstream, not yet assessed. MoTi chris_culvert_id: 2077136, 2077137. 14:10:33

Photos: PSCIS ID 5400589. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  |  |
|  |  |
|  |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199289 | Diameter (m) | 3.6 |
| External ID | 5400423 | Length (m) | 22 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 327463 | Resemble Channel | No |
| Northing | 6011366 | Backwatered | Yes |
| Stream | Stearns Creek | Percent Backwatered | 60 |
| Road | Tintagel Road | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 5 | Outlet Pool Depth (m) | 0.1 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Two pipes at 1.8 m each, north pipe slightly lower than south pipe at outlet. Good sized stream with great flow for this time of year on a dry year. Abundant black algae on gravel and cobble substrate. Very nice stream. Appears to have decent riparian health adjacent to the crossing but riparian buffer to be enlarged particularly on upstream south side. Downstream crossing on highway was fully backwatered and not a barrier at the time of assessment. MoTi chris_culvert_id: 2070691, 2070692. 09:42:44

Photos: PSCIS ID 5400423. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--------------------------|---|--------------------------|
| | | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199290 | Diameter (m) | 9.99 |
| External ID | 5400024 | Length (m) | 35 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 345676 | Resemble Channel | No |
| Northing | 6001245 | Backwatered | Yes |
| Stream | Endako River | Percent Backwatered | 100 |
| Road | Highway 16 | Fill Depth (m) | 3 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 17 | Outlet Pool Depth (m) | 0.7 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 0.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 22 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 22 |

Comments: Three 4 m diameter pipes. All three pipes are 100% backwatered, and passable. Road prism and pipes appear to be in good condition. Extensive beaver activity upstream and downstream. Diameter changed from 12m to 9.99m to meet spreadsheet requirements. MoTi chris_hwy_structure_road_id: 3812. 11:35:39

Photos: PSCIS ID 5400024. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  A photograph showing a paved road curving through a landscape with green and yellow vegetation. A small yellow sign is visible on the right side of the road. | • |  A close-up photograph of a large, dark, ribbed culvert pipe. A bright yellow circular opening is visible at the top center. A small yellow sign is attached to the pipe. |
|  A photograph of a bridge with two dark, arched culverts spanning a stream. The water is calm, reflecting the sky and surrounding trees. A yellow sign is attached to the left side of the bridge. | • |  A photograph showing two dark culverts partially submerged in a shallow stream. The water reflects the sky and surrounding evergreen trees. A yellow sign is attached to the left side of the culverts. |
|  A photograph of a stream flowing through a dense forest of evergreen trees. The water is clear and reflects the surrounding environment. A yellow sign is attached to the left bank of the stream. | • |  A photograph of a rocky stream bed with a small pool of water. A yellow sign is attached to a rock on the left side of the stream. |

| Location and Stream Data | | Crossing Characteristics | |
|---|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199291 | Diameter (m) | 1.5 |
| External ID | 15600273 | Length (m) | 18 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 398480 | Resemble Channel | No |
| Northing | 5976390 | Backwatered | Yes |
| Stream | Tahultzu Creek | Percent Backwatered | 100 |
| Road | Zalenski Road | Fill Depth (m) | 0.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 3 | Outlet Pool Depth (m) | 0.3 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |
| Comments: Stream is extremely impacted by cattle ranching. Banks eroded and trampled. Algae indicates nutrient inputs from cows are high. Pipes are old with a lot of rust. Habitat value is currently very poor, but historically would've been high. Still a good amount of flow for a dry year. 100% backwatered however, depth of the water is only approximately 1 cm. Absolutely no riparian vegetation or cattle exclusion fencing on the upstream side for as far as the eye can see (approximately 1 km.). MoTi chris_culvert_id: 1790770, 1790769. 15:33:57 | | | |
| Photos: PSCIS ID 15600273. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | |  <p>2023-08-28 15:29:47 10U 328487 5376137</p> |
|  <p>15600273</p> | |  <p>2023-08-28 15:29:47 10U 328487 5376137</p> |
|  <p>2023-08-28 15:29:51 10U 328487 5376139</p> | |  <p>2023-08-28 15:29:47 10U 328487 5376134</p> |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--------------------------|--|---|--------------------------|--------------|
| Date | 2023-09-30 | | Crossing Sub Type | Oval Culvert |
| PSCIS ID | 199292 | | Diameter (m) | 4.5 |
| External ID | 24727338 | | Length (m) | 32 |
| Crew | AI | | Embedded | No |
| UTM Zone | 10 | | Depth Embedded (m) | - |
| Easting | 385711 | | Resemble Channel | No |
| Northing | 5995594 | | Backwatered | Yes |
| Stream | Ormond Creek | | Percent Backwatered | 100 |
| Road | Stella Road | | Fill Depth (m) | 1 |
| Road Tenure | MOTI | | Outlet Drop (m) | 0 |
| Channel Width (m) | 6 | | Outlet Pool Depth (m) | 1.3 |
| Stream Slope (%) | 0 | | Inlet Drop | No |
| Beaver Activity | Yes | | Slope (%) | 0 |
| Habitat Value | High | | Valley Fill | Deep Fill |
| Final score | 22 | | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | | Fix Span / Diameter | 15 |

Comments: 100% backwatered at time of assessment. Beaver dams downstream backwatering the crossing. Pipe and road prism in great shape. Fully passable for all species and life stages at the time of assessment. Some small amount of embeddedment but only for a small piece of the pipe diameter. Known chinook system with significant restoration works upstream. MoTi chris_hwy_structure_road_id: 2678. 11:25:13

Photos: PSCIS ID 24727338. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
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|  | • |  |

| Location and Stream Data | | • | Crossing Characteristics | – |
|--|--------------|---|--------------------------|---------------|
| Date | 2023-09-09 | | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199293 | | Diameter (m) | 2.2 |
| External ID | 15600468 | | Length (m) | 14 |
| Crew | MW | | Embedded | No |
| UTM Zone | 10 | | Depth Embedded (m) | – |
| Easting | 429073 | | Resemble Channel | No |
| Northing | 5991955 | | Backwatered | Yes |
| Stream | Murray Creek | | Percent Backwatered | 100 |
| Road | Northside Rd | | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI | | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.7 | | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 0 | | Inlet Drop | No |
| Beaver Activity | No | | Slope (%) | 0.5 |
| Habitat Value | Medium | | Valley Fill | Deep Fill |
| Final score | 13 | | Barrier Result | Passable |
| Fix type | – | | Fix Span / Diameter | – |
| Comments: Agricultural land on both sides and cow pasture downstream. Fully backwatered culvert with no flowing water. Cows seen intruding into the stream channel at time of survey. MoTi chris_culvert_id: 1799951. 10:55:03 | | | | |
| Photos: PSCIS ID 15600468. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|--|--|
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| Location and Stream Data | | • | Crossing Characteristics | – |
|--|--------------|-----------------------|--------------------------|---|
| Date | 2023-09-09 | Crossing Sub Type | Concrete Box | – |
| PSCIS ID | 199294 | Diameter (m) | 3.1 | – |
| External ID | 15600111 | Length (m) | 16 | – |
| Crew | MW | Embedded | No | – |
| UTM Zone | 10 | Depth Embedded (m) | – | – |
| Easting | 429944 | Resemble Channel | No | – |
| Northing | 5992722 | Backwatered | Yes | – |
| Stream | Murray Creek | Percent Backwatered | 100 | – |
| Road | Larson Road | Fill Depth (m) | 0.5 | – |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 | – |
| Channel Width (m) | 2.7 | Outlet Pool Depth (m) | 0.1 | – |
| Stream Slope (%) | 0.5 | Inlet Drop | No | – |
| Beaver Activity | No | Slope (%) | 0 | – |
| Habitat Value | High | Valley Fill | Deep Fill | – |
| Final score | 13 | Barrier Result | Passable | – |
| Fix type | – | Fix Span / Diameter | – | – |
| Comments: Stream section is part of rehab project. New - fully backwatered structure likely passable to all life stages and species at time of assessment. MoTi chris_hwy_structure_road_id: 26621. 11:25:02 | | | | |
| Photos: PSCIS ID 15600111. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-09 11:21:57 10U 429941 5992734</p> <p>1560011</p> <p>2023-09-09 11:28:00 10U 429941 5992732</p> |  <p>2023-09-09 11:24:00 10U 429941 5992738</p>  <p>2023-09-09 11:24:11 10U 429941 5992712</p> |
|  <p>2023-09-09 11:28:01 10U 429941 5992731</p> |  <p>2023-09-09 11:24:01 10U 429941 5992736</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199295 | Diameter (m) | 2.5 |
| External ID | 15600106 | Length (m) | 18 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 431487 | Resemble Channel | No |
| Northing | 5990586 | Backwatered | Yes |
| Stream | East Murray Creek | Percent Backwatered | 100 |
| Road | Northside Rd | Fill Depth (m) | 3 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.5 | Outlet Pool Depth (m) | 1.5 |
| Stream Slope (%) | 1 | Inlet Drop | Yes |
| Beaver Activity | Yes | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Wetland habitat upstream and downstream. Huge beaver dam on inlet side creating drop. Adjacent landowner Ron reports there are no fish near this location. He reports that beaver activity increased significantly in the past few years, that is the only reason there is water here. MoTi chris_hwy_structure_road_id: 30585. 13:09:51

Photos: PSCIS ID 15600106. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-09 13:06:45 100-431503 5090834</p> |  <p>2023-09-09 13:06:45 100-431503 5090834</p> |
|  <p>2023-09-09 13:28:27 100-431503 5090837</p> |  <p>2023-09-09 13:28:27 100-431503 5090837</p> |
|  <p>2023-09-09 13:26:25 100-431504 5090873</p> |  <p>2023-09-09 13:26:25 100-431504 5090873</p> |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199296 | Diameter (m) | 1.3 |
| External ID | 15600488 | Length (m) | 20 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 427033 | Resemble Channel | No |
| Northing | 5994538 | Backwatered | Yes |
| Stream | Tributary to Clear Creek | Percent Backwatered | 100 |
| Road | Highway 27S | Fill Depth (m) | 2.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.3 | Outlet Pool Depth (m) | 0.8 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Wetland upstream and downstream. A lot of beaver activity upstream, big pond near inlet. Culvert is very warped on inlet side. Chinook observations downstream on nearby Clear Creek. MoTi chris_culvert_id: 1806178.
09:56:44

Photos: PSCIS ID 15600488. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-09-10 09:56:20 10U 427020 5994549 |  2023-09-10 10:03:45 10U 427029 5994531 |
|  2023-09-10 10:09:12 10U 427032 5994545 |  2023-09-10 09:59:59 10U 427032 5994530 |
|  2023-09-10 11:01:00 10U 427031 5994540 |  2023-09-10 11:27:01 10U 427031 5994530 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199297 | Diameter (m) | 2.35 |
| External ID | 15600120 | Length (m) | 10 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 426006 | Resemble Channel | No |
| Northing | 5998858 | Backwatered | Yes |
| Stream | Clear Creek | Percent Backwatered | 100 |
| Road | Fourteen Mile Rd | Fill Depth (m) | 0.3 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.5 | Outlet Pool Depth (m) | 0.4 |
| Stream Slope (%) | 4 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Two pipes, approx 15m apart but part of same system. No flowing water through either. Signs of beaver activity upstream. MoTi chris_culvert_id: 3343588. 11:05:23

Photos: PSCIS ID 15600120. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  3023.09.10.11108.50 300-425287.52-8882 |  2023.09.054.107.41 300-426008-5018853 |
|  |  |
|  3023.09.13.71.7625 300-429-20-54-0010 |  |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199298 | Diameter (m) | 0.8 |
| External ID | 15600158 | Length (m) | 16 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 434160 | Resemble Channel | No |
| Northing | 5985531 | Backwatered | Yes |
| Stream | Tributary to Nechako River | Percent Backwatered | 100 |
| Road | Chilco Ave | Fill Depth (m) | 2 |
| Road Tenure | Vanderhoof | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.5 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Very small channel downstream, wider upstream. Small amount of flow, grassy wetland habitat. Not likely fish bearing stream section. Considered medium habitat value due to larger size of watershed and presence of some water in drought period when many adjacent systems were dry.. 13:50:05

Photos: PSCIS ID 15600158. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--------------------------|
|  | | |

| Location and Stream Data | | Crossing Characteristics | |
|--|--|--------------------------|---------------|
| Date | 2023-09-11 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199299 | Diameter (m) | 0.9 |
| External ID | 15605366 | Length (m) | 18 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 434208 | Resemble Channel | No |
| Northing | 5985603 | Backwatered | Yes |
| Stream | Tributary to Nechako River | Percent Backwatered | 100 |
| Road | Rail | Fill Depth (m) | 2 |
| Road Tenure | CN Rail | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.3 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |
| Comments: Wetland downstream. Vegetated channel upstream. Several unassessed crossings downstream.. 13:56:33 | | | |
| Photos: PSCIS ID 15605366. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  <p>2023-09-11 10:23:38 100.43422/-129.59612</p> |  <p>2023-09-11 10:23:38 100.43422/-129.59612</p> |
| | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-12 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199300 | Diameter (m) | 2.2 |
| External ID | 15600112 | Length (m) | 30 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 426644 | Resemble Channel | No |
| Northing | 5985671 | Backwatered | Yes |
| Stream | Goldie Creek | Percent Backwatered | 100 |
| Road | Highway 27 S | Fill Depth (m) | 4 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.2 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 18 |

Comments: Stream not flowing at the time of assessment. Horse pasture downstream. Fenced off on both sides of pipe. Nechako Environment and Water Stewardship Society (<https://newsociety.org/watersheds/goldie-creek>) report that stream was historically impacted adjacent to this site when Highway 27 was constructed 20-30 years ago due to fill from the excavation of the highway contributing significant amounts of sediment into Stoney Creek and ultimately into the spawning beds of Nechako White Sturgeon just below the Stoney Creek/Nechako River confluence. Extensive works completed upstream of the crossing in 2021 including culvert replaced with bridge, installation of beaver dam analogues, riparian planting and addition of large woody debris just upstream of the crossing. MoTi chris_culvert_id: 1806217.
08:23:29

Photos: PSCIS ID 15600112. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
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| Location and Stream Data | | Crossing Characteristics | |
|---|--|--------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199301 | Diameter (m) | 2.1 |
| External ID | 5400448 | Length (m) | 44 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 306137 | Resemble Channel | No |
| Northing | 6031749 | Backwatered | Yes |
| Stream | Relief Creek | Percent Backwatered | 25 |
| Road | Highway 16 W | Fill Depth (m) | 4 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.4 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 18 |
| Comments: Long pipe, no outlet drop but culvert is partially backwatered at outlet. Small fish spotted in outlet pool. Upstream goes into private land and is fenced off. MoTi chris_culvert_id: 2076443. 12:13:13 | | | |
| Photos: PSCIS ID 5400448. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-28 11:55:53 MJ 306217 5031694</p> |  <p>2023-09-28 12:09:00 MJ 306134 5031753</p> |
|  <p>2023-09-28 11:03:16 MJ 306134 5031722</p> |  <p>2023-09-28 11:03:16 MJ 306134 5031722</p> |
|  <p>2023-09-28 12:02:30 100 306150 5031709</p> |  <p>2023-09-28 12:02:30 100 306150 5031709</p> |

| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199302 | Diameter (m) | 0.8 |
| External ID | 5400181 | Length (m) | 28 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 321873 | Resemble Channel | No |
| Northing | 6012125 | Backwatered | Yes |
| Stream | Wardrop Creek | Percent Backwatered | 100 |
| Road | Roumieu drive | Fill Depth (m) | 3 |
| Road Tenure | Burns Lake | Outlet Drop (m) | 0 |
| Channel Width (m) | 0.8 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Culvert is backwatered and fully submerged on inlet side. Outlet side barely visible. Wetland/grassy habitat upstream and downstream. Stagnant water present in pools, no flowing water. Assuming beaver activity due to beaver grate on inlet and beaver dam seen downstream in photos. Silt fencing seen on downstream left bank and major erosion on downstream right bank, based on photos.. 17:02:58

Photos: PSCIS ID 5400181. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|---|
|  <p>2023-09-28 16:52:27 100-821875 5012106</p> | <p>NO IMAGE AVAILABLE</p> |
|  | <p>2023-09-28 16:57:10 100-821875 5012106</p> |
|  | <p>2023-09-28 16:56:42 100-821875 5012106</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199303 | Diameter (m) | 1.7 |
| External ID | 5403082 | Length (m) | 22 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 327620 | Resemble Channel | No |
| Northing | 6010443 | Backwatered | Yes |
| Stream | Stearns Creek | Percent Backwatered | 100 |
| Road | Highway 16 | Fill Depth (m) | 1.8 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2.5 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 24 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Backwatered at outlet but some flow upstream and downstream. Some gravels upstream. Private property on both sides. RB confirmed upstream. Downstream railway crossing yet to be assessed. MoTi chris_culvert_id: 3100655. 09:23:27

Photos: PSCIS ID 5403082. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199304 | Diameter (m) | 4 |
| External ID | 5400193 | Length (m) | 32 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 352357 | Resemble Channel | No |
| Northing | 5996976 | Backwatered | Yes |
| Stream | Tchesinkut Creek | Percent Backwatered | 100 |
| Road | Highway 16 | Fill Depth (m) | 2.2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 8.4 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 27 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Wetland downstream and upstream. Stream channel upstream is more defined. Pipe is fully backwatered. Medium habitat value given due to presence of water at this location when other areas of this same stream were dry. MoTi chris_hwy_structure_road_id: 2141. 12:21:46

Photos: PSCIS ID 5400193. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  |
|  | • |  |
|  | • |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|---|--------------------------|---------------|
| Date | 2023-10-01 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199305 | Diameter (m) | 0.9 |
| External ID | 9905144 | Length (m) | 16 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 492375 | Resemble Channel | No |
| Northing | 5956652 | Backwatered | Yes |
| Stream | Tributary to Chilako River | Percent Backwatered | 100 |
| Road | Gregg FSR | Fill Depth (m) | 1.6 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 1 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 1.5 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Obvious signs of beaver activity. Big dam near inlet and small dam just downstream of outlet as well. Small channel downstream with no water with wetland upstream. MoTi chris_culvert_id: 1976775. 12:19:45

Photos: PSCIS ID 9905144. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--------------------------|
|  <p>2023-10-01 12:23:25 10U 492339 5236002</p> <p>2023-10-01 12:23:25 10U 492339 5236002</p> <p>2023-10-01 12:20:16 10U 492339 5956636</p> <p>2023-10-01 12:20:16 10U 492339 5956636</p> | | |

| Location and Stream Data | | Crossing Characteristics | |
|---|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199306 | Diameter (m) | 1.4 |
| External ID | 13900028 | Length (m) | 10 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 612135 | Resemble Channel | No |
| Northing | 5967623 | Backwatered | Yes |
| Stream | Tributary to Fraser River | Percent Backwatered | 40 |
| Road | Penny street | Fill Depth (m) | 0.3 |
| Road Tenure | Northwood R02900 | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.4 | Outlet Pool Depth (m) | 1 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1.5 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |
| Comments: Nice stream with good flow. Railway crossings approximately 30 m upstream are much more of a barrier than the crossing on Penny Street.. 11:19:24 | | | |
| Photos: PSCIS ID 13900028. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  |
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|  | • |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199307 | Diameter (m) | 2 |
| External ID | 13900308 | Length (m) | 8 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 607110 | Resemble Channel | No |
| Northing | 5971294 | Backwatered | Yes |
| Stream | Tributary to Fraser River | Percent Backwatered | 100 |
| Road | Penny Rd | Fill Depth (m) | 0.7 |
| Road Tenure | Unknown | Outlet Drop (m) | 0 |
| Channel Width (m) | 5.9 | Outlet Pool Depth (m) | 0.6 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 16 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Abundant gravels present downstream and upstream. Small fish seen in culvert and downstream. There's flow upstream and downstream but culvert is backwatered. Unassessed railway crossing ~900m upstream.. 12:52:51

Photos: PSCIS ID 13900308. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  2023-09-03 10:03 100.607134, 57.7777 |  2023-09-03 10:03 100.607134, 57.7777 |
|  2023-09-03 10:03 100.607134, 57.7777 |  2023-09-03 10:03 100.607134, 57.7777 |
|  2023-09-03 10:03 100.607134, 57.7777 |  2024-10-08 12:47:00 100.607125, 57.7777 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199308 | Diameter (m) | 3.3 |
| External ID | 13900252 | Length (m) | 7 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 590794 | Resemble Channel | No |
| Northing | 5982763 | Backwatered | Yes |
| Stream | Wolfe Creek | Percent Backwatered | 100 |
| Road | Upper Fraser Rd | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 4.1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Wide channel with four culverts. Culvert diameter totaled for all 4 culverts. Two are in good condition, other two are bent and look older. Railway crossing just upstream which consists of three culverts and appears likely passable for most species at most flows. Abundant gravels present downstream of road. This road is the only to access the town of Penny. MoTi chris_culvert_id: 1994890, 1994893, 1994894. 14:48:37

Photos: PSCIS ID 13900252. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | |  |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199309 | Diameter (m) | 0.8 |
| External ID | 13900050 | Length (m) | 12 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 582105 | Resemble Channel | No |
| Northing | 5989825 | Backwatered | Yes |
| Stream | Tributary to Fraser River | Percent Backwatered | 100 |
| Road | Upper Fraser Rd | Fill Depth (m) | 1.2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.2 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 21 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: No well defined stream channel visible. Flooded wetland area downstream, surveyed during heavy rain.
Backwatered pipe. MoTi chris_culvert_id: 1994950. 16:43:39

Photos: PSCIS ID 13900050. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  |  |
|  |  |
|  |  |

| Location and Stream Data | | . | Crossing Characteristics | – |
|---|-------------------------|-----------------------|--------------------------|---|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert | |
| PSCIS ID | 199310 | Diameter (m) | 2 | |
| External ID | 13900283 | Length (m) | 14 | |
| Crew | AI | Embedded | No | |
| UTM Zone | 10 | Depth Embedded (m) | – | |
| Easting | 558697 | Resemble Channel | No | |
| Northing | 5995816 | Backwatered | Yes | |
| Stream | Tributary to Aleza Lake | Percent Backwatered | 100 | |
| Road | Upper Fraser Rd | Fill Depth (m) | 2.5 | |
| Road Tenure | MOTI | Outlet Drop (m) | 0 | |
| Channel Width (m) | 2.5 | Outlet Pool Depth (m) | 0.7 | |
| Stream Slope (%) | 0 | Inlet Drop | No | |
| Beaver Activity | Yes | Slope (%) | 0 | |
| Habitat Value | Medium | Valley Fill | Deep Fill | |
| Final score | 13 | Barrier Result | Passable | |
| Fix type | – | Fix Span / Diameter | – | |
| Comments: Two pipes each with 1m diameter on the south side of the railway. It is not clear where the stream crosses under the railway upstream, this crossing still needs to be assessed. Agricultural field located upstream with what appears to be very minimal riparian buffer. Stream has been channelized beside the railway. A 1m overflow pipe has been installed above the level of the other 2 pipes. MoTi chris_culvert_id: 1994283, 1994682, 1994683. 18:08:11 | | | | |
| Photos: PSCIS ID 13900283. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
| A photograph showing a paved road with yellow center and side markings. It crosses a small stream bed. In the background, there are evergreen trees under a cloudy sky. | • | A photograph looking down the interior of a large, corrugated metal culvert. The walls are dark and reflective. Light is visible at the far end. |
| A photograph of a stream flowing through dense green and brown vegetation. A small, round, metallic structure, possibly a fish ladder or screen, is partially submerged in the water. | • | A photograph of a culvert entrance from the outside. The opening is circular and surrounded by overgrown vegetation. Water is visible in the foreground. |
| A photograph of a wetland area with a narrow stream flowing through tall grasses and reeds. The background shows a forested hillside under a clear sky. | • | A close-up photograph of a stream bed covered in dense, tall grasses and aquatic plants. The water is shallow and reflects the surrounding vegetation. |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--------------------------|--|---|--------------------------|---------------|
| Date | 2023-10-04 | | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199311 | | Diameter (m) | 0.7 |
| External ID | 13903627 | | Length (m) | 16 |
| Crew | MW | | Embedded | No |
| UTM Zone | 10 | | Depth Embedded (m) | - |
| Easting | 579525 | | Resemble Channel | No |
| Northing | 5977412 | | Backwatered | Yes |
| Stream | Tributary to Kenneth Creek | | Percent Backwatered | 100 |
| Road | Bowron FSR | | Fill Depth (m) | 1.5 |
| Road Tenure | MOF 7141 | | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.1 | | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 0 | | Inlet Drop | No |
| Beaver Activity | No | | Slope (%) | 1 |
| Habitat Value | Low | | Valley Fill | Deep Fill |
| Final score | 24 | | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | | Fix Span / Diameter | 15 |

Comments: Big wetland area upstream. Smaller, grassy, wetland downstream. RB confirmed upstream in the past. Culvert is very old and in bad shape. There is a bigger overflow pipe present.. 09:37:55

Photos: PSCIS ID 13903627. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  2023-10-04 09:52:31 0U-079534-0072413 |  2023-10-04 09:30:06 0U-079534-0072413 |
|  2023-10-04 09:20:09 0U-079534-0072413 |  2023-10-04 09:20:09 0U-079534-0072413 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|---|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199312 | Diameter (m) | 0.9 |
| External ID | 13903618 | Length (m) | 18 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 578804 | Resemble Channel | No |
| Northing | 5973956 | Backwatered | Yes |
| Stream | Tributary to Kenneth Creek | Percent Backwatered | 50 |
| Road | Bowron FSR | Fill Depth (m) | 1.4 |
| Road Tenure | MOF 7141 | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.8 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 4 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Wetland lake area upstream with small channels threaded through it. Beaver grate on culvert inlet and pipe is in poor shape as it is rusted and bent out of shape. Outlet backwater for 40%. Small stream with some flow.. 10:14:44

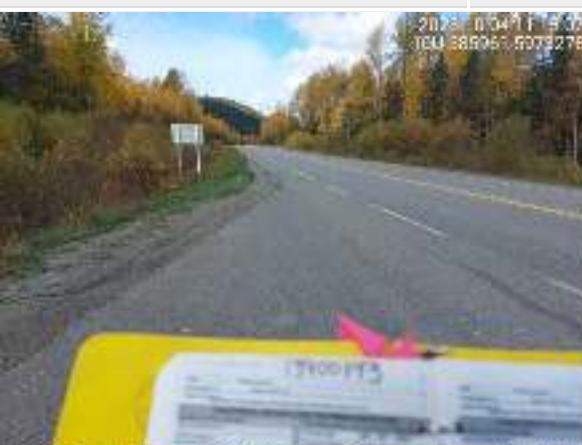
Photos: PSCIS ID 13903618. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | • |  <p>2023-10-01 10:03:21 10U 578782 5023062</p> |
|  <p>2023-10-01 10:03:21 10U 578782 5023062</p> | • |  <p>2023-10-01 10:03:21 10U 578782 5023062</p> |
|  <p>2023-10-01 10:03:21 10U 578782 5023062</p> | • |  <p>2023-10-01 10:03:21 10U 578782 5023062</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199313 | Diameter (m) | 1.2 |
| External ID | 13900193 | Length (m) | 21 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 585722 | Resemble Channel | No |
| Northing | 5973394 | Backwatered | Yes |
| Stream | Tributary to Kenneth Creek | Percent Backwatered | – |
| Road | Highway 16 | Fill Depth (m) | 1.2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 5 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 4 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 29 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Culvert is a little backwatered at outlet. Small fish seen in pipe. Trib to major spawning stream. Crossing appears passable. Slight inlet drop due to woody debris. MoTi chris_culvert_id: 1992616. 11:30:43

Photos: PSCIS ID 13900193. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-04-11 04:11:53.17 1044 385061 5073278 |  2023-04-11 04:11:53.17 1044 385061 5073278 |
|  2023-04-11 04:11:53.17 1044 385061 5073278 |  2023-04-11 04:11:53.17 1044 385061 5073278 |
|  2023-04-11 04:11:53.17 1044 385061 5073278 |  2023-04-11 04:11:53.17 1044 385061 5073278 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199314 | Diameter (m) | 1.05 |
| External ID | 13903148 | Length (m) | 32 |
| Crew | MW | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | – |
| Easting | 689760 | Resemble Channel | No |
| Northing | 5909638 | Backwatered | Yes |
| Stream | Dominion Creek | Percent Backwatered | 100 |
| Road | Highway 16 | Fill Depth (m) | 1.3 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.9 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 0 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 22 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Wetland habitat upstream and downstream. Crossing is near transmission line so trees have been cut down. Backwatered culvert and pipe appears undersized. Chinook confirmed in the past downstream of crossing. MoTi chris_culvert_id: 1473381. 09:43:53

Photos: PSCIS ID 13903148. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  023 6.056943 18 011 689738 530663 |  2023 11-05-09 10:27 011 689738 50 |
|  2023 11-05-09 10:28 011 689738 50 |  2023 11-05-09 10:32 011 689738 50 |
|  2023 11-05-09 10:40 011 689738 50 |  2023 11-05-09 10:42 011 689738 50 |

| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199315 | Diameter (m) | 0.9 |
| External ID | 22200015 | Length (m) | 67 |
| Crew | AI | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | - |
| Easting | 345011 | Resemble Channel | No |
| Northing | 5860593 | Backwatered | Yes |
| Stream | Crooked Creek | Percent Backwatered | 10 |
| Road | Highway 5 | Fill Depth (m) | 7.5 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.8 | Outlet Pool Depth (m) | 1 |
| Stream Slope (%) | 1.5 | Inlet Drop | No |
| Beaver Activity | Yes | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 32 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Culvert spans McLennan Rd and highway. Small stream with good flow and primarily fine substrate. Extensive beaver activity both upstream and downstream, with dams of up to 1 1/2 m high in both locations. Very long structure. Culvert gradient estimated as could not see through the pipe. MoTi chris_culvert_id: 1467210. 11:30:35

Photos: PSCIS ID 22200015. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  | • |  2025-10-05 11:25:13 11U 345038 5860627 |
|  | • |  |
|  2025-10-05 11:12:17 11U 344981 5000521 | • |  2025-10-05 11:14:43 11U 344981 5000521 |

| Location and Stream Data | | • | Crossing Characteristics | – |
|---|----------------|-----------------------|--------------------------|---|
| Date | 2023-09-28 | Crossing Sub Type | Round Culvert | |
| PSCIS ID | 199316 | Diameter (m) | 4.5 | |
| External ID | 5400179 | Length (m) | 38 | |
| Crew | AI | Embedded | Yes | |
| UTM Zone | 10 | Depth Embedded (m) | 0.75 | |
| Easting | 319471 | Resemble Channel | Yes | |
| Northing | 6012988 | Backwatered | No | |
| Stream | Sauls Creek | Percent Backwatered | – | |
| Road | Railway Avenue | Fill Depth (m) | 1.5 | |
| Road Tenure | Burns Lake | Outlet Drop (m) | 0 | |
| Channel Width (m) | 2.8 | Outlet Pool Depth (m) | 0 | |
| Stream Slope (%) | 0 | Inlet Drop | No | |
| Beaver Activity | Yes | Slope (%) | 0 | |
| Habitat Value | Medium | Valley Fill | Deep Fill | |
| Final score | 11 | Barrier Result | Passable | |
| Fix type | – | Fix Span / Diameter | – | |
| Comments: There are three 1.5m pipes located under Railway Avenue continuing all the way under the railway line. Pipes are embedded at or more than 50% of their depth. Stream was dry at the time of assessment and scoured channels indicate a fairly small system.. 15:25:25 | | | | |
| Photos: PSCIS ID 5400179. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  | • |  <p>20210928 16:32:45 BU 313405 6032095</p> |
|  <p>20210928 15:34:45 BU 313405 5712295</p> | • |  <p>20210928 15:34:45 BU 313405 5712295</p> |
|  <p>20210928 15:34:45 BU 313405 5712295</p> | • |  <p>20210928 15:34:45 BU 313405 5712295</p> |

| Location and Stream Data | | . | Crossing Characteristics | - |
|---|---------------|-----------------------|--------------------------|---|
| Date | 2023-09-09 | Crossing Sub Type | Round Culvert | |
| PSCIS ID | 199317 | Diameter (m) | 2.7 | |
| External ID | 15600147 | Length (m) | 16 | |
| Crew | MW | Embedded | Yes | |
| UTM Zone | 10 | Depth Embedded (m) | 0.3 | |
| Easting | 438071 | Resemble Channel | No | |
| Northing | 5986296 | Backwatered | No | |
| Stream | Knight Creek | Percent Backwatered | - | |
| Road | Sickness Road | Fill Depth (m) | 0.5 | |
| Road Tenure | Vanderhoof | Outlet Drop (m) | 0 | |
| Channel Width (m) | 1.9 | Outlet Pool Depth (m) | 0 | |
| Stream Slope (%) | 2 | Inlet Drop | No | |
| Beaver Activity | No | Slope (%) | 1 | |
| Habitat Value | Medium | Valley Fill | Deep Fill | |
| Final score | 13 | Barrier Result | Passable | |
| Fix type | - | Fix Span / Diameter | - | |
| Comments: No water in pipe. Periodic pools of standing water upstream and downstream but no flowing water. NEWWS has completed restoration work for this site with sign posted at this location. Culvert appears fully embedded in photos so have changed inputs to reflect this.. 14:51:44 | | | | |
| Photos: PSCIS ID 15600147. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-09 14:38:22 100-438092-5986301</p> |  <p>2023-09-09 14:42:04 100-438078-5986302</p> |
|  <p>2023-09-09 14:43:11 100-438092-5986303</p> |  <p>2023-09-09 14:47:53 100-438079-5986278</p> |
|  <p>2023-09-09 14:49:23 100-438092-5986305</p> |  <p>2023-09-09 14:49:18 100-438061-5986270</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-10 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199318 | Diameter (m) | 1 |
| External ID | 15600154 | Length (m) | 16 |
| Crew | MW | Embedded | Yes |
| UTM Zone | 10 | Depth Embedded (m) | 0.1 |
| Easting | 416009 | Resemble Channel | No |
| Northing | 5993732 | Backwatered | No |
| Stream | Trankle Creek | Percent Backwatered | - |
| Road | Braeside Rd | Fill Depth (m) | 1 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 16 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Dewatered, no well-defined stream channel. Agricultural fields on both sides. Embeddedness estimated from photos. MoTi chris_culvert_id: 1804664. 14:18:04

Photos: PSCIS ID 15600154. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-09-10 14:15:50 100.415958, 59.93740</p> |  <p>2023-09-10 14:15:50 100.415958, 59.93740</p> |
|  <p>2023-09-10 14:16:08 100.415958, 59.93740</p> |  <p>2023-09-10 14:16:08 100.415958, 59.93740</p> |
|  <p>2023-09-10 14:16:29 100.415958, 59.93740</p> |  <p>2023-09-10 14:16:29 100.415958, 59.93740</p> |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199319 | Diameter (m) | 3.8 |
| External ID | 5400028 | Length (m) | 44 |
| Crew | MW | Embedded | Yes |
| UTM Zone | 10 | Depth Embedded (m) | 0.2 |
| Easting | 330232 | Resemble Channel | No |
| Northing | 6009362 | Backwatered | No |
| Stream | Tintagel Creek | Percent Backwatered | - |
| Road | Highway 16 | Fill Depth (m) | 2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.6 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 1 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 16 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Wide channel, nicely installed moti major structure that appears passable as fully embedded. 3m falls noted in FISS as 1.3 km upstream. Railway crossing just downstream noted as passable in bcfishpass. MoTi chris_hwy_structure_road_id: 3811. 09:56:11

Photos: PSCIS ID 5400028. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
| NO IMAGE AVAILABLE | • |  |
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| Location and Stream Data | | • | Crossing Characteristics | – |
|---|-------------|-----------------------|--------------------------|---|
| Date | 2023-10-03 | Crossing Sub Type | Round Culvert | |
| PSCIS ID | 199320 | Diameter (m) | 4.8 | |
| External ID | 13905385 | Length (m) | 18 | |
| Crew | AI | Embedded | Yes | |
| UTM Zone | 10 | Depth Embedded (m) | 0.25 | |
| Easting | 590814 | Resemble Channel | Yes | |
| Northing | 5982800 | Backwatered | No | |
| Stream | Wolfe Creek | Percent Backwatered | – | |
| Road | Railway | Fill Depth (m) | 2 | |
| Road Tenure | CN Rail | Outlet Drop (m) | 0 | |
| Channel Width (m) | 3.3 | Outlet Pool Depth (m) | 0.1 | |
| Stream Slope (%) | 1.5 | Inlet Drop | No | |
| Beaver Activity | Yes | Slope (%) | 0 | |
| Habitat Value | High | Valley Fill | Deep Fill | |
| Final score | 8 | Barrier Result | Passable | |
| Fix type | – | Fix Span / Diameter | – | |
| Comments: Fully embedded pipes. Three pipes total, with two at 1.8 m and one at 1.2m in diameter. Nice habitat upstream with abundant gravels, some deeper pools and deeply undercut banks.. 15:31:23 | | | | |
| Photos: PSCIS ID 13905385. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199321 | Diameter (m) | 2 |
| External ID | 13900265 | Length (m) | 22 |
| Crew | MW | Embedded | Yes |
| UTM Zone | 10 | Depth Embedded (m) | 0.25 |
| Easting | 591253 | Resemble Channel | No |
| Northing | 5971048 | Backwatered | No |
| Stream | Sugarbowl Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 0.8 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 6.2 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 5.5 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Embedded culvert, high flowing mountain stream. Very clear and wide channel. Gradient increases upstream. Fully embedded pipe so likely passable for all species and life stages at perhaps all but very high flows. MoTi chris_culvert_id: 1992808. 11:55:36

Photos: PSCIS ID 13900265. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  A photograph showing a yellow and white sign with the number "H3" and a barcode. The sign is placed on the side of a road next to a concrete culvert. |  A photograph looking down the interior of a corrugated metal culvert. Water is flowing through it, and the bottom is rocky. |
|  A photograph of a culvert entrance partially hidden in dense green vegetation and fallen leaves. |  A photograph of a culvert entrance partially hidden in dense brush and fallen leaves. |
|  A photograph of a stream bed filled with rocks, fallen leaves, and some aquatic plants. |  A photograph of a stream bed filled with rocks, fallen leaves, and some aquatic plants. |

| Location and Stream Data | . | Crossing Characteristics | – |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199322 | Diameter (m) | 3 |
| External ID | 13900025 | Length (m) | 27 |
| Crew | MW | Embedded | Yes |
| UTM Zone | 10 | Depth Embedded (m) | 0.15 |
| Easting | 688754 | Resemble Channel | No |
| Northing | 5910557 | Backwatered | No |
| Stream | Shelby Creek | Percent Backwatered | – |
| Road | Airport Rd | Fill Depth (m) | 2.2 |
| Road Tenure | McBride | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.4 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 18 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: Chinook and mountain whitefish confirmed just upstream in 2019. Continuously embedded culvert. Grassy habitat upstream with little riparian on streambanks near crossing. Fines were the predominant stream substrate..
09:09:59

Photos: PSCIS ID 13900025. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | • | Crossing Characteristics | – |
|---|---------------------|---|--------------------------|---------------|
| Date | 2023-10-05 | | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199323 | | Diameter (m) | 0.75 |
| External ID | 22200082 | | Length (m) | 12 |
| Crew | AI | | Embedded | Yes |
| UTM Zone | 11 | | Depth Embedded (m) | 0.18 |
| Easting | 345873 | | Resemble Channel | Yes |
| Northing | 5855411 | | Backwatered | No |
| Stream | Cranberry Creek | | Percent Backwatered | – |
| Road | Cranberry Lake Road | | Fill Depth (m) | 1 |
| Road Tenure | MOTI | | Outlet Drop (m) | 0 |
| Channel Width (m) | 4 | | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 0 | | Inlet Drop | No |
| Beaver Activity | Yes | | Slope (%) | 0 |
| Habitat Value | Medium | | Valley Fill | Deep Fill |
| Final score | 11 | | Barrier Result | Passable |
| Fix type | – | | Fix Span / Diameter | – |
| Comments: Stream is mostly dewatered. Large beaver dam (1.7m high) located approximately 30m upstream. Fully embedded pipe with beaver grate on the inlet. Unassessed crossing on private driveway upstream from here. Adjacent landowner has concerns about the recent lack of water and says it is un-characteristic for the section of stream. They have concerns that recent pipeline construction just upstream of this crossing has potentially influenced beaver populations and water flow.. 09:47:05 | | | | |
| Photos: PSCIS ID 22200082. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199324 | Diameter (m) | 3.7 |
| External ID | 13900015 | Length (m) | 30 |
| Crew | MW | Embedded | Yes |
| UTM Zone | 10 | Depth Embedded (m) | 0.2 |
| Easting | 688844 | Resemble Channel | Yes |
| Northing | 5909209 | Backwatered | No |
| Stream | Dominion Creek | Percent Backwatered | - |
| Road | 2nd Ave | Fill Depth (m) | 2 |
| Road Tenure | McBride | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.4 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | High | Valley Fill | Deep Fill |
| Final score | 16 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |
| Comments: Continuously embedded culvert. Wide channel with moderate flow. High value habitat. 10:09:03 | | | |
| Photos: PSCIS ID 13900015. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | |

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199325 | Diameter (m) | 2.5 |
| External ID | 13900073 | Length (m) | 20 |
| Crew | MW | Embedded | Yes |
| UTM Zone | 10 | Depth Embedded (m) | 0.3 |
| Easting | 693145 | Resemble Channel | Yes |
| Northing | 5907919 | Backwatered | No |
| Stream | Teare Creek | Percent Backwatered | — |
| Road | Jeck Rd | Fill Depth (m) | 1.5 |
| Road Tenure | MOTI Local | Outlet Drop (m) | 0 |
| Channel Width (m) | 3.1 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 16 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: RB and CCG confirmed downstream in past. Private agricultural land upstream and downstream. Embedded culvert. Small wooden dam just downstream of crossing, approx 0.8m high. Small trickle of water beside structure that would allow fish to swim upstream. MoTi chris_culvert_id: 1461195. 12:32:44

Photos: PSCIS ID 13900073. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|--|
|  2023-10-05 12:16:48 100-693141-5007927 |  2023-10-05 13:09:15 100-683144-5007927 |
|  2023-10-05 14:22:23 100-693145-5007925 |  2023-10-05 14:22:53 100-693146-5007926 |
|  2023-10-05 14:22:55 100-693147-5007922 |  |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2023-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199326 | Diameter (m) | 2.5 |
| External ID | 13900012 | Length (m) | 32 |
| Crew | MW | Embedded | Yes |
| UTM Zone | 10 | Depth Embedded (m) | 0.2 |
| Easting | 693878 | Resemble Channel | Yes |
| Northing | 5908064 | Backwatered | No |
| Stream | Teare Creek | Percent Backwatered | — |
| Road | Highway 16 | Fill Depth (m) | 2.2 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 2.8 | Outlet Pool Depth (m) | 0 |
| Stream Slope (%) | 2 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Continuously embedded culvert. Agricultural fields upstream and downstream. Very little riparian vegetation. Small fish seen near inlet. Channel looks like it gets smaller upstream, flows through cow field. Not a fish passage issue, but riparian restoration could be pursued. RB confirmed in the past near crossing. MoTi chris_culvert_id: 1473360.

12:54:06

Photos: PSCIS ID 13900012. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-10-05 13:05:13 RDU690004 53006683 |  2023-10-05 13:05:13 RDU690004 53006683 |
|  2023-10-05 13:35:02 RDU693550 53008081 |  2023-10-05 13:47:40 RDU693550 53008081 |
|  2023-10-05 13:47:40 RDU693550 53008081 |  2023-10-05 13:47:40 RDU693550 53008081 |

| Location and Stream Data | | • | Crossing Characteristics | – |
|--|----------------|-----------------------|--------------------------|---|
| Date | 2023-09-29 | Crossing Sub Type | Round Culvert | |
| PSCIS ID | 199327 | Diameter (m) | 1.8 | |
| External ID | 15600048 | Length (m) | 17 | |
| Crew | AI | Embedded | Yes | |
| UTM Zone | 10 | Depth Embedded (m) | 0.2 | |
| Easting | 397528 | Resemble Channel | Yes | |
| Northing | 5976165 | Backwatered | Yes | |
| Stream | Tahultzu Creek | Percent Backwatered | 100 | |
| Road | Lily Lake Road | Fill Depth (m) | 1 | |
| Road Tenure | MOTI | Outlet Drop (m) | 0 | |
| Channel Width (m) | 3 | Outlet Pool Depth (m) | 0.3 | |
| Stream Slope (%) | 0 | Inlet Drop | No | |
| Beaver Activity | No | Slope (%) | 0 | |
| Habitat Value | Medium | Valley Fill | Deep Fill | |
| Final score | 14 | Barrier Result | Passable | |
| Fix type | – | Fix Span / Diameter | – | |
| Comments: Two pipes (1.2m and 0.6m). 100% backwater. Guessing the pipes are embedded but cannot see due to poor water quality. This stream is extremely impacted by poor cattle ranching practices. There is no riparian fencing and cattle have completely trampled all the banks. There is no riparian vegetation and water quality is extremely poor. This stream could likely be very productive for chinook and other species if eventually restored. MoTi chris_culvert_id: 1795014, 1795015. 16:01:11 | | | | |
| Photos: PSCIS ID 15600048. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | • | Crossing Characteristics | – |
|---|----------------|-----------------------|--------------------------|---|
| Date | 2023-09-30 | Crossing Sub Type | Round Culvert | |
| PSCIS ID | 199328 | Diameter (m) | 1.2 | |
| External ID | 5400201 | Length (m) | 11 | |
| Crew | AI | Embedded | Yes | |
| UTM Zone | 10 | Depth Embedded (m) | 0.5 | |
| Easting | 388367 | Resemble Channel | Yes | |
| Northing | 5996767 | Backwatered | Yes | |
| Stream | Scotch Creek | Percent Backwatered | 80 | |
| Road | Gala Lake Road | Fill Depth (m) | 1.5 | |
| Road Tenure | MOTI | Outlet Drop (m) | 0 | |
| Channel Width (m) | 1.7 | Outlet Pool Depth (m) | 0.05 | |
| Stream Slope (%) | 3 | Inlet Drop | No | |
| Beaver Activity | No | Slope (%) | 0.2 | |
| Habitat Value | Medium | Valley Fill | Deep Fill | |
| Final score | 6 | Barrier Result | Passable | |
| Fix type | – | Fix Span / Diameter | – | |
| Comments: Good flow. Abundant gravel downstream and upstream. Pipes are both fully embedded with partial backwatering. Chinook point on the stream immediately adjacent to the site. Upstream left bank riparian has been cleared for what appears to be a parking space. Upstream crossing on Stella Road could be addressed by MoT. MoTi chris_culvert_id: 1790947, 3365573. 11:54:44 | | | | |
| Photos: PSCIS ID 5400201. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | • | Crossing Characteristics | – |
|---|---------------------------|---|--------------------------|---------------|
| Date | 2023-10-03 | | Crossing Sub Type | Round Culvert |
| PSCIS ID | 199329 | | Diameter (m) | 4.4 |
| External ID | 24715754 | | Length (m) | 35 |
| Crew | AI | | Embedded | Yes |
| UTM Zone | 10 | | Depth Embedded (m) | 1.3 |
| Easting | 576134 | | Resemble Channel | Yes |
| Northing | 5992813 | | Backwatered | Yes |
| Stream | Tributary to Fraser River | | Percent Backwatered | 100 |
| Road | Upper Fraser Road | | Fill Depth (m) | 2.5 |
| Road Tenure | MOTI | | Outlet Drop (m) | 0 |
| Channel Width (m) | 12 | | Outlet Pool Depth (m) | 2 |
| Stream Slope (%) | 0 | | Inlet Drop | No |
| Beaver Activity | Yes | | Slope (%) | 0 |
| Habitat Value | High | | Valley Fill | Deep Fill |
| Final score | 12 | | Barrier Result | Passable |
| Fix type | – | | Fix Span / Diameter | – |
| Comments: Three pipes total, two at 1.2m diameter which were completely submerged underwater and one at 2m diameter which was 100% backwatered. Assuming embedded due to the depth of the backwatering. Bridge located just upstream on River Road. Unassessed railway crossing located downstream which, based off satellite imagery, leads to a wetland area, but no modelled crossing present. There is a second unassessed crossing (24715896) downstream which should be assessed. Multiple non-salmonid FISS observations downstream. Chinook and sockeye salmon have been observed just upstream of the confluence of this creek with the Fraser River, roughly 1km downstream of the crossing. MoTi chris_culvert_id: 1994579, 1994580, 1994581. 17:04:42 | | | | |
| Photos: PSCIS ID 24715754. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  2023-06-03 17:02:08 100 576 120 524 281 | • |  2023-06-03 17:02:08 100 576 120 524 281 |
|  2023-06-03 17:02:08 100 576 120 524 281 | • |  2023-06-03 17:02:08 100 576 120 524 281 |
|  2023-06-03 17:02:08 100 576 120 524 281 | • |  2023-06-03 17:02:08 100 576 120 524 281 |

| Location and Stream Data | | . | Crossing Characteristics | - |
|---|---------------|-----------------------|--------------------------|---|
| Date | 2023-09-28 | Crossing Sub Type | Bridge | |
| PSCIS ID | 199330 | Diameter (m) | 4 | |
| External ID | 5400159 | Length (m) | 11 | |
| Crew | AI | Embedded | - | |
| UTM Zone | 10 | Depth Embedded (m) | - | |
| Easting | 319797 | Resemble Channel | - | |
| Northing | 6012952 | Backwatered | - | |
| Stream | Sauls Creek | Percent Backwatered | - | |
| Road | Government Rd | Fill Depth (m) | - | |
| Road Tenure | Burns Lake | Outlet Drop (m) | - | |
| Channel Width (m) | - | Outlet Pool Depth (m) | - | |
| Stream Slope (%) | - | Inlet Drop | - | |
| Beaver Activity | - | Slope (%) | - | |
| Habitat Value | - | Valley Fill | - | |
| Final score | 0 | Barrier Result | Passable | |
| Fix type | - | Fix Span / Diameter | - | |
| Comments: Dry channel. Bridge.. 14:56:53 | | | | |
| Photos: PSCIS ID 5400159. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | . | Crossing Characteristics | - |
|--|---------------|-----------------------|--------------------------|---|
| Date | 2023-09-29 | Crossing Sub Type | Pipe Arch | |
| PSCIS ID | 199331 | Diameter (m) | 2.65 | |
| External ID | 5400180 | Length (m) | 12 | |
| Crew | AI | Embedded | - | |
| UTM Zone | 10 | Depth Embedded (m) | - | |
| Easting | 321069 | Resemble Channel | - | |
| Northing | 6011579 | Backwatered | - | |
| Stream | Wardrop Creek | Percent Backwatered | - | |
| Road | Glans Drive | Fill Depth (m) | - | |
| Road Tenure | Burns Lake | Outlet Drop (m) | - | |
| Channel Width (m) | - | Outlet Pool Depth (m) | - | |
| Stream Slope (%) | - | Inlet Drop | - | |
| Beaver Activity | - | Slope (%) | - | |
| Habitat Value | - | Valley Fill | - | |
| Final score | 0 | Barrier Result | Passable | |
| Fix type | - | Fix Span / Diameter | - | |
| Comments: Pipe arch. Passable. Modelled crossings 5406290 and 5400675 downstream adjacent to Burn's Lake shoreline have not been assessed.. 17:53:31 | | | | |
| Photos: PSCIS ID 5400180. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | • | Crossing Characteristics | – |
|---|----------------------------|---|--------------------------|----------|
| Date | 2023-09-30 | | Crossing Sub Type | Bridge |
| PSCIS ID | 199332 | | Diameter (m) | 13 |
| External ID | 15604870 | | Length (m) | 5 |
| Crew | AI | | Embedded | – |
| UTM Zone | 10 | | Depth Embedded (m) | – |
| Easting | 396140 | | Resemble Channel | – |
| Northing | 5997722 | | Backwatered | – |
| Stream | Tributary to Nechako River | | Percent Backwatered | – |
| Road | Williams FSR | | Fill Depth (m) | – |
| Road Tenure | West Fraser R09194 SE | | Outlet Drop (m) | – |
| Channel Width (m) | – | | Outlet Pool Depth (m) | – |
| Stream Slope (%) | – | | Inlet Drop | – |
| Beaver Activity | – | | Slope (%) | – |
| Habitat Value | – | | Valley Fill | – |
| Final score | 0 | | Barrier Result | Passable |
| Fix type | – | | Fix Span / Diameter | – |
| Comments: Bridge with sign from Fraser lake sawmills. Extensive cattle trampling underneath the bridge, but some decent amount of water at this location.. 14:46:03 | | | | |
| Photos: PSCIS ID 15604870. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | . | Crossing Characteristics | - |
|--|-----------------|---|--------------------------|----------|
| Date | 2023-09-30 | | Crossing Sub Type | Bridge |
| PSCIS ID | 199333 | | Diameter (m) | 20 |
| External ID | 15604704 | | Length (m) | 5 |
| Crew | AI | | Embedded | - |
| UTM Zone | 10 | | Depth Embedded (m) | - |
| Easting | 395496 | | Resemble Channel | - |
| Northing | 6003141 | | Backwatered | - |
| Stream | Tatsutnai Creek | | Percent Backwatered | - |
| Road | Barlow FSR | | Fill Depth (m) | - |
| Road Tenure | Canfor R11286 | | Outlet Drop (m) | - |
| Channel Width (m) | - | | Outlet Pool Depth (m) | - |
| Stream Slope (%) | - | | Inlet Drop | - |
| Beaver Activity | - | | Slope (%) | - |
| Habitat Value | - | | Valley Fill | - |
| Final score | 0 | | Barrier Result | Passable |
| Fix type | - | | Fix Span / Diameter | - |
| Comments: Bridge. Good flow. 15:02:17 | | | | |
| Photos: PSCIS ID 15604704. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
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| Location and Stream Data | | • | Crossing Characteristics | - |
|---|--------------|-----------------------|--------------------------|---|
| Date | 2023-09-11 | Crossing Sub Type | Bridge | |
| PSCIS ID | 199334 | Diameter (m) | 13 | |
| External ID | 15600065 | Length (m) | 4 | |
| Crew | MW | Embedded | - | |
| UTM Zone | 10 | Depth Embedded (m) | - | |
| Easting | 441140 | Resemble Channel | - | |
| Northing | 5989596 | Backwatered | - | |
| Stream | Knight Creek | Percent Backwatered | - | |
| Road | Spur | Fill Depth (m) | - | |
| Road Tenure | MOTI Local | Outlet Drop (m) | - | |
| Channel Width (m) | - | Outlet Pool Depth (m) | - | |
| Stream Slope (%) | - | Inlet Drop | - | |
| Beaver Activity | - | Slope (%) | - | |
| Habitat Value | - | Valley Fill | - | |
| Final score | 0 | Barrier Result | Passable | |
| Fix type | - | Fix Span / Diameter | - | |
| Comments: Restoration work conducted at this crossing. No flowing water at time of survey. Livestock field upstream. Goats seen trampling through stream channel.. 09:59:33 | | | | |
| Photos: PSCIS ID 15600065. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
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| Location and Stream Data | | • | Crossing Characteristics | – |
|--|-------------------|-----------------------|--------------------------|---|
| Date | 2023-10-03 | Crossing Sub Type | Bridge | |
| PSCIS ID | 199335 | Diameter (m) | 12 | |
| External ID | 24715750 | Length (m) | 5 | |
| Crew | MW | Embedded | – | |
| UTM Zone | 10 | Depth Embedded (m) | – | |
| Easting | 613206 | Resemble Channel | – | |
| Northing | 5966880 | Backwatered | – | |
| Stream | Redmountain Creek | Percent Backwatered | – | |
| Road | Penny St | Fill Depth (m) | – | |
| Road Tenure | MOTI Local | Outlet Drop (m) | – | |
| Channel Width (m) | – | Outlet Pool Depth (m) | – | |
| Stream Slope (%) | – | Inlet Drop | – | |
| Beaver Activity | – | Slope (%) | – | |
| Habitat Value | – | Valley Fill | – | |
| Final score | 0 | Barrier Result | Passable | |
| Fix type | – | Fix Span / Diameter | – | |
| Comments: Wide stream with high flows and good habitat. Bridge on railway just upstream. Major moti structure was in the wrong spot on the map. MoTi chris_hwy_structure_road_id: 3626. 11:13:09 | | | | |
| Photos: PSCIS ID 24715750. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--|
|  <p>2023-10-03 11:09:33 100-013206 5056891</p> |  <p>2023-10-03 11:09:33 100-013206 5056891</p> |
|  <p>2023-10-03 11:09:51 100-013213 5966884</p> |  <p>2023-10-03 11:09:51 100-013213 5966884</p> |
|  <p>2023-10-03 11:09:51 100-013214 5966884</p> |  <p>2023-10-03 11:09:51 100-013214 5966884</p> |

| Location and Stream Data | | • | Crossing Characteristics | – |
|---|-----------------|-----------------------|--------------------------|---|
| Date | 2023-10-01 | Crossing Sub Type | Ford | – |
| PSCIS ID | 199336 | Diameter (m) | – | – |
| External ID | 9904385 | Length (m) | – | – |
| Crew | AI MW | Embedded | – | – |
| UTM Zone | 10 | Depth Embedded (m) | – | – |
| Easting | 485546 | Resemble Channel | – | – |
| Northing | 5954833 | Backwatered | – | – |
| Stream | Dahl Creek | Percent Backwatered | – | – |
| Road | Gregg Creek FSR | Fill Depth (m) | – | – |
| Road Tenure | MOF 5416 | Outlet Drop (m) | – | – |
| Channel Width (m) | – | Outlet Pool Depth (m) | – | – |
| Stream Slope (%) | – | Inlet Drop | – | – |
| Beaver Activity | – | Slope (%) | – | – |
| Habitat Value | – | Valley Fill | – | – |
| Final score | 0 | Barrier Result | Unknown | – |
| Fix type | – | Fix Span / Diameter | – | – |
| Comments: Deactivated road. Ford passable by 4x4 vehicles. 11:50:24 | | | | |
| Photos: PSCIS ID 9904385. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  2023-10-01 11:38:12 10U 485547 5934834 | • |  2023-10-01 11:39:16 10U 485547 5934834 |
|  2023-10-01 11:49:37 10U 485547 5934834 | • |  2023-10-01 11:49:38 10U 485547 5934834 |
|  2023-10-01 11:49:38 10U 485547 5934834 | • |  2023-10-01 11:49:38 10U 485547 5934834 |

| Location and Stream Data | | • | Crossing Characteristics | – |
|--|---------------|---|--------------------------|---------|
| Date | 2023-09-10 | | Crossing Sub Type | Ford |
| PSCIS ID | 199337 | | Diameter (m) | – |
| External ID | 15600486 | | Length (m) | – |
| Crew | MW | | Embedded | – |
| UTM Zone | 10 | | Depth Embedded (m) | – |
| Easting | 420111 | | Resemble Channel | – |
| Northing | 5994723 | | Backwatered | – |
| Stream | Redmond Creek | | Percent Backwatered | – |
| Road | Spur | | Fill Depth (m) | – |
| Road Tenure | Unclassified | | Outlet Drop (m) | – |
| Channel Width (m) | – | | Outlet Pool Depth (m) | – |
| Stream Slope (%) | – | | Inlet Drop | – |
| Beaver Activity | – | | Slope (%) | – |
| Habitat Value | – | | Valley Fill | – |
| Final score | 0 | | Barrier Result | Unknown |
| Fix type | – | | Fix Span / Diameter | – |
| Comments: NA. 14:54:00 | | | | |
| Photos: PSCIS ID 15600486. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  <p>2023-09-10 14:57:27 101.423116 59.94754</p> |  <p>2023-09-10 14:57:27 101.423116 59.94754</p> |
|  <p>2023-09-10 14:57:27 101.423116 59.94754</p> |  <p>2023-09-10 14:57:27 101.423116 59.94754</p> |
|  <p>2023-09-10 14:57:27 101.423116 59.94754</p> |  <p>2023-09-10 14:57:27 101.423116 59.94754</p> |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--|----------------------------|-----------------------|--------------------------|---|
| Date | 2023-09-11 | Crossing Sub Type | Ford | |
| PSCIS ID | 199338 | Diameter (m) | - | |
| External ID | 15604176 | Length (m) | - | |
| Crew | MW | Embedded | - | |
| UTM Zone | 10 | Depth Embedded (m) | - | |
| Easting | 412266 | Resemble Channel | - | |
| Northing | 6001835 | Backwatered | - | |
| Stream | Tributary to Nechako River | Percent Backwatered | - | |
| Road | Spur | Fill Depth (m) | - | |
| Road Tenure | Canfor R09185 | Outlet Drop (m) | - | |
| Channel Width (m) | - | Outlet Pool Depth (m) | - | |
| Stream Slope (%) | - | Inlet Drop | - | |
| Beaver Activity | - | Slope (%) | - | |
| Habitat Value | - | Valley Fill | - | |
| Final score | 0 | Barrier Result | Unknown | |
| Fix type | - | Fix Span / Diameter | - | |
| Comments: Deactivated road. Old culverts seen in pictures, now a ford.. 16:15:48 | | | | |
| Photos: PSCIS ID 15604176. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|--|---|
|  2023-09-11 16:15:10 JCU 412265 6001835 |  2023-09-11 16:15:16 JCU 412265 6001336 |
|  2023-09-11 16:16:27 JCU 412265 6001940 |  2023-09-11 16:15:37 JCU 412264 6001590 |
|  2023-09-11 16:16:21 JCU 412264 6001931 |  2023-09-11 16:15:30 JCU 412264 6001930 |

| Location and Stream Data | | • | Crossing Characteristics | - |
|---|----------------|-----------------------|--------------------------|---|
| Date | 2023-09-29 | Crossing Sub Type | Ford | - |
| PSCIS ID | 199339 | Diameter (m) | - | - |
| External ID | 5401513 | Length (m) | - | - |
| Crew | MW | Embedded | - | - |
| UTM Zone | 10 | Depth Embedded (m) | - | - |
| Easting | 330328 | Resemble Channel | - | - |
| Northing | 6009420 | Backwatered | - | - |
| Stream | Tintagel Creek | Percent Backwatered | - | - |
| Road | Unnamed | Fill Depth (m) | - | - |
| Road Tenure | Unclassified | Outlet Drop (m) | - | - |
| Channel Width (m) | - | Outlet Pool Depth (m) | - | - |
| Stream Slope (%) | - | Inlet Drop | - | - |
| Beaver Activity | - | Slope (%) | - | - |
| Habitat Value | - | Valley Fill | - | - |
| Final score | 0 | Barrier Result | Unknown | - |
| Fix type | - | Fix Span / Diameter | - | - |
| Comments: Small trail, wide channel.. 10:00:48 | | | | |
| Photos: PSCIS ID 5401513. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
|---|---|---|
|  | | 2023-09-29 10:02:34 10U 330326 6009409 |
|  | | 2023-09-29 10:02:38 10U 330326 6009409 |
|  | | 2023-09-29 10:02:39 10U 330326 6009409 |

| Location and Stream Data | . | Crossing Characteristics | - |
|---------------------------------|---|---------------------------------|---------------|
| Date | 2024-10-07 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 203296 | Diameter (m) | 0.5 |
| External ID | 2024100701 | Length (m) | 20 |
| Crew | AI | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | - |
| Easting | 578677 | Resemble Channel | No |
| Northing | 5973049 | Backwatered | No |
| Stream | Tributary To Kenneth Creek | Percent Backwatered | - |
| Road | Bowron FSR | Fill Depth (m) | 1 |
| Road Tenure | MoF | Outlet Drop (m) | 0.1 |
| Channel Width (m) | 0 | Outlet Pool Depth (m) | 0.15 |
| Stream Slope (%) | 0 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 3 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 23 | Barrier Result | Barrier |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 3 |

Comments: This was an overflow pipe for PSCIS crossing 199255, located 60m south. It may have been present and dry in 2023 when PSCIS crossing 199255 was initially assessed, but this is uncertain. Habitat confirmations were conducted upstream and downstream. Upstream habitat was a low-gradient gravel system with mature riparian vegetation and stable banks.

Photos: PSCIS ID 2024100701. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|---|
|  | • |  2023-10-07 16:21:35 10U 578663 5073056 |
|  | • |  2023-10-07 16:28:57 10U 578663 5073069 |
|  | • |  2023-10-07 16:29:47 10U 578663 5073070 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2024-10-04 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 203297 | Diameter (m) | 1.05 |
| External ID | 2024100450 | Length (m) | 8 |
| Crew | LS | Embedded | No |
| UTM Zone | 10 | Depth Embedded (m) | — |
| Easting | 388199 | Resemble Channel | No |
| Northing | 5997060 | Backwatered | No |
| Stream | Scotch Creek | Percent Backwatered | — |
| Road | Private Driveway | Fill Depth (m) | 2 |
| Road Tenure | Private | Outlet Drop (m) | 0.7 |
| Channel Width (m) | 2.5 | Outlet Pool Depth (m) | 0.55 |
| Stream Slope (%) | 4 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 2 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 31 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Two pipes, 0.6m and 0.45m in diameter, were present. There was a 0.7m outlet drop, and only the larger pipe conveyed flow. The inlet side of the road had completely eroded into the stream, obstructing the view of the inlet. No light was visible through the culverts from the outlet side, though water was still flowing. A landowner had placed a barricade across the road, likely to prevent access due to severe erosion of the road. The stream provided high-quality habitat with abundant large woody debris creating pools and gravels suitable for spawning. Just downstream, a functioning water intake shack was located in the middle of the stream, likely supplying the adjacent landowner's property. Plastic pipes extended from the intake shack downstream to the lower Stella Road crossing. The heavily overgrown and collapsing road appeared to be private access and would be a good candidate for removal. Due to inlet erosion, culvert length and slope were estimated as the inlet could not be located.

Photos: PSCIS ID 2024100450. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  | |  |
|  | | |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|---|--------------------------|---------------|
| Date | 2024-10-05 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 203298 | Diameter (m) | 0.8 |
| External ID | 9902948 | Length (m) | 17 |
| Crew | LS | Embedded | Yes |
| UTM Zone | 10 | Depth Embedded (m) | 0.1 |
| Easting | 506082 | Resemble Channel | Yes |
| Northing | 5962275 | Backwatered | Yes |
| Stream | Tributary To Beaverley Creek | Percent Backwatered | 100 |
| Road | Muralt Road | Fill Depth (m) | 7 |
| Road Tenure | MOTI | Outlet Drop (m) | 0 |
| Channel Width (m) | 1.8 | Outlet Pool Depth (m) | 0.5 |
| Stream Slope (%) | 3 | Inlet Drop | No |
| Beaver Activity | No | Slope (%) | 1 |
| Habitat Value | Low | Valley Fill | Deep Fill |
| Final score | 19 | Barrier Result | Potential |
| Fix type | Replace Structure with Streambed Simulation CBS | Fix Span / Diameter | 27 |

Comments: The culvert was fully backwatered, with the outlet completely submerged. The stream flowed through a grassy valley on private property upstream. The road column on the inlet side was eroding significantly. A V-shaped fence was positioned in front of the inlet for unknown reasons. Culvert slope and length were estimated, as the inlet was completely submerged and not visible. The culvert was embedded at the inlet and assumed to be fully embedded, though this could not be confirmed due to the submerged outlet. Just upstream of the inlet, remnants of a possible old dam were observed, with large piles of dirt on both sides and a dugout middle section allowing stream flow. See photos for details. MoTi chris_culvert_id: 1976182

Photos: PSCIS ID 9902948. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

| Location and Stream Data | • | Crossing Characteristics |
|---|---|--|
|  | |  |
|  | |  |
|  | |  |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--|---------------|-----------------------|--------------------------|---|
| Date | 2024-10-04 | Crossing Sub Type | Bridge | |
| PSCIS ID | 203299 | Diameter (m) | 10 | |
| External ID | 15606280 | Length (m) | 2 | |
| Crew | LS | Embedded | - | |
| UTM Zone | 10 | Depth Embedded (m) | - | |
| Easting | 425644 | Resemble Channel | - | |
| Northing | 5995962 | Backwatered | - | |
| Stream | Clear Creek | Percent Backwatered | - | |
| Road | Private Drive | Fill Depth (m) | - | |
| Road Tenure | Private | Outlet Drop (m) | - | |
| Channel Width (m) | - | Outlet Pool Depth (m) | - | |
| Stream Slope (%) | - | Inlet Drop | - | |
| Beaver Activity | No | Slope (%) | - | |
| Habitat Value | - | Valley Fill | - | |
| Final score | 0 | Barrier Result | Passable | |
| Fix type | - | Fix Span / Diameter | - | |
| Comments: The bridge crosses Clear Creek and appeared to provide access to private land. | | | | |
| Photos: PSCIS ID 15606280. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | Crossing Characteristics |
|---|--------------------------|
| <p>The collage consists of six photographs arranged in a grid:</p> <ul style="list-style-type: none">Top-left: A wooden boardwalk crossing a stream. A yellow L-shaped marker is placed on the boardwalk.Top-right: A close-up view of a metal grating or screen installed under a bridge to facilitate fish passage.Middle-left: A concrete structure with a metal grate, likely a culvert or pipe outlet, surrounded by dense green vegetation.Middle-right: A view of a stream flowing under a bridge, with aquatic plants like lily pads visible.Bottom-left: A view from a wooden boardwalk looking down at a stream flowing through a rocky bed.Bottom-right: A view from a wooden boardwalk looking across a stream towards a dense forest. | |

| Location and Stream Data | | • | Crossing Characteristics | - |
|--|--------------|-----------------------|--------------------------|---|
| Date | 2024-10-09 | Crossing Sub Type | Bridge | |
| PSCIS ID | 203300 | Diameter (m) | 4 | |
| External ID | 2024100950 | Length (m) | 2 | |
| Crew | LS | Embedded | - | |
| UTM Zone | 11 | Depth Embedded (m) | - | |
| Easting | 343964 | Resemble Channel | - | |
| Northing | 5862720 | Backwatered | - | |
| Stream | Teepee Creek | Percent Backwatered | - | |
| Road | Private Road | Fill Depth (m) | - | |
| Road Tenure | Private | Outlet Drop (m) | - | |
| Channel Width (m) | - | Outlet Pool Depth (m) | - | |
| Stream Slope (%) | - | Inlet Drop | - | |
| Beaver Activity | No | Slope (%) | - | |
| Habitat Value | - | Valley Fill | - | |
| Final score | 0 | Barrier Result | Passable | |
| Fix type | - | Fix Span / Diameter | - | |
| Comments: A small wooden bridge crossed Teepee Creek on private land. | | | | |
| Photos: PSCIS ID 2024100950. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
|---|---|---|
|  | • |  <p>02-08-12-08-12-63-54 11-03-0666-5662718</p> |
|  | • |  <p>02-08-12-08-12-50 11-03-0666-5662718</p> |
|  | • |  <p>02-08-12-08-12-50 11-03-0666-5662718</p> |

| Location and Stream Data | | . | Crossing Characteristics | - |
|--|--------------|-----------------------|--------------------------|---|
| Date | 2024-10-04 | Crossing Sub Type | Ford | |
| PSCIS ID | 203301 | Diameter (m) | - | |
| External ID | 15602083 | Length (m) | - | |
| Crew | LS | Embedded | - | |
| UTM Zone | 10 | Depth Embedded (m) | - | |
| Easting | 425630 | Resemble Channel | - | |
| Northing | 5995920 | Backwatered | - | |
| Stream | Clear Creek | Percent Backwatered | - | |
| Road | Private Road | Fill Depth (m) | - | |
| Road Tenure | Private | Outlet Drop (m) | - | |
| Channel Width (m) | - | Outlet Pool Depth (m) | - | |
| Stream Slope (%) | - | Inlet Drop | - | |
| Beaver Activity | No | Slope (%) | - | |
| Habitat Value | - | Valley Fill | - | |
| Final score | 0 | Barrier Result | Unknown | |
| Fix type | - | Fix Span / Diameter | - | |
| Comments: Ford crossing over Clear Creek on private land. | | | | |
| Photos: PSCIS ID 15602083. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet. | | | | |

| Location and Stream Data | • | Crossing Characteristics |
|--|---|---|
|  2024-10-04 11:54:09 103-325629-0000019 | • |  2024-10-04 11:54:36 103-325629-0000019 |
|  2024-10-04 11:54:37 103-325629-0000019 | • |  2024-10-04 11:54:37 103-325629-0000019 |
|  2024-10-04 11:54:21 103-325629-0000019 | • |  2024-10-04 11:54:21 103-325629-0000019 |

| Location and Stream Data | | Crossing Characteristics | |
|--------------------------|--|--------------------------|---------------|
| Date | 2024-10-09 | Crossing Sub Type | Round Culvert |
| PSCIS ID | 203302 | Diameter (m) | 2.7 |
| External ID | 22202142 | Length (m) | 14 |
| Crew | AI | Embedded | No |
| UTM Zone | 11 | Depth Embedded (m) | — |
| Easting | 344222 | Resemble Channel | No |
| Northing | 5862742 | Backwatered | No |
| Stream | Teepee Creek | Percent Backwatered | — |
| Road | Railway | Fill Depth (m) | 2 |
| Road Tenure | CN Rail | Outlet Drop (m) | 0.75 |
| Channel Width (m) | 4.2 | Outlet Pool Depth (m) | 0.25 |
| Stream Slope (%) | 7 | Inlet Drop | Yes |
| Beaver Activity | No | Slope (%) | 6 |
| Habitat Value | Medium | Valley Fill | Deep Fill |
| Final score | 36 | Barrier Result | Barrier |
| Fix type | Replace with New Open Bottom Structure | Fix Span / Diameter | 15 |

Comments: Three concrete pipes, each 0.9m in diameter, were present, along with two 0.9m corrugated overflow pipes above. A stamp on the structure indicated it was built in 1944. All three concrete pipes were clogged at the inlet, ranging from 80% to 100% clogged with debris. This was a known fish-bearing stream, with a salmon point documented ~100m downstream in the FISS database. At this location, the stream was a mid-sized, steeper cobble-boulder step-pool system with only rare pockets of unembedded gravels. Deep pools were present, formed by boulder and large woody debris scour. Numerous small steps, ranging from 30–60cm, were present due to the steep, boulder-dominated nature of the stream. Downstream of the highway crossing, the stream had a lower gradient with frequent pools 0.3–0.5m deep, providing good overwintering habitat for fish and abundant gravels suitable for spawning.

Photos: PSCIS ID 22202142. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.