

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, though erosion was observed beneath the outlet and around the outlet-side road column. The stream provided high-quality habitat with known fish presence, including a salmon point downstream. The gradient at the crossing was steep, but conditions downstream at the Highway 5 crossing (PSICS 199278) featured lower gradients and abundant gravels. The crossing was on a small dirt road with minimal fill, making replacement relatively straightforward. Upstream of this crossing, a hiking trail follows Teepee Creek and provides access to Mount Terry Fox Provincial Park.			
Photos: PSCIS ID 4931. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			

Location and Stream Data	Crossing Characteristics
 2024-10-09 14:07:53 11U 344712 5862854	 2024-10-09 14:18:28 11U 344705 5862854
 2024-10-09 14:08:33 11U 344707 5862867	 2024-10-09 14:18:12 11U 344707 5862871
 2024-10-09 14:08:35 11U 344707 5862867	 2024-10-09 14:19:20 11U 344711 5862827

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. 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>2024-10-09 11:56:23 11U 343425 5862436</p>	 <p>2024-10-09 11:58:53 11U 343457 5862463</p>
 <p>2024-10-09 11:58:31 11U 343457 5862463</p>	 <p>2024-10-09 12:07:00 11U 343411 5862423</p>
 <p>2024-10-09 11:58:38 11U 343457 5862463</p>	 <p>2024-10-09 12:07:05 11U 343411 5862423</p>

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
 A photograph showing a paved road with a white dashed center line. To the right, there is a grassy shoulder and a metal culvert pipe. In the background, there is a forest with autumn-colored trees under a blue sky with white clouds.	•	 A close-up view of a large, corrugated metal culvert pipe lying on its side. It is surrounded by rocks and debris. A yellow ball is visible inside the pipe's opening. The pipe appears to be partially collapsed or damaged.
 A photograph of a damaged culvert pipe lying on its side in a rocky, uneven terrain. The pipe is surrounded by rocks and some low-lying vegetation. The date and location information is overlaid on the top left of the image.	•	 A photograph of a culvert pipe crossing a small, shallow stream. The water reflects the surrounding landscape. The pipe is partially buried in the ground and surrounded by rocks. The date and location information is overlaid on the top right of the image.
 A photograph of a culvert pipe partially buried in dense brush and foliage. The pipe is dark and blends into the surrounding greenery. The date and location information is overlaid on the top left of the image.	•	 A photograph of a culvert pipe crossing a brushy area. The pipe is partially buried in the ground and surrounded by fallen leaves. The date and location information is overlaid on the top right of the image.

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
 2023-09-28 13:42:21 10U 311557 6025367	•	 2023-09-28 13:45:20 10U 311576 6025380
 2023-09-28 13:44:08 10U 311574 6025375	•	 2023-09-28 13:47:39 10U 311569 6025358
 2023-09-28 13:42:49 10U 311569 6025368	•	 2023-09-28 13:47:05 10U 311567 6025358

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
 A photograph showing a paved road curving to the left. To the right is a dry, rocky embankment with sparse vegetation. A yellow rectangular marker is placed on the ground near the base of the embankment. The date and location information are overlaid at the top right of the image.	•	 A photograph looking down the interior of a large, corrugated metal culvert. The walls are ribbed and show some rust. A small white object is visible at the far end. The date and location information are overlaid at the top right of the image.
 A photograph of a black corrugated culvert lying on its side on a bed of rocks and fallen branches. The surrounding ground is covered in dry grass and fallen leaves. The date and location information are overlaid at the top right of the image.		 A photograph of a black corrugated culvert partially buried in the ground, surrounded by fallen branches and autumn-colored leaves. The date and location information are overlaid at the top right of the image.
 A photograph of a dense thicket of bare, tangled branches and twigs. Fallen leaves are scattered on the ground in front. The date and location information are overlaid at the top right of the image.	•	 A photograph of a dense thicket of bare, tangled branches and twigs. Fallen leaves are scattered on the ground in front. The date and location information are overlaid at the top right of the image.

Location and Stream Data	.	Crossing Characteristics	-
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.

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Location and Stream Data	•	Crossing Characteristics
 2023-09-29 12:12:22 10U 3465653 6001244	•	 2023-09-29 12:17:08 10U 346591 6001352
 2023-09-29 12:13:30 10U 346589 6001344	•	 2023-09-29 12:25:51 10U 346589 6001341
 2023-09-29 12:12:59 10U 346588 6001339	•	 2023-09-29 12:16:13 10U 346588 6001338

Location and Stream Data	.	Crossing Characteristics	–
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.

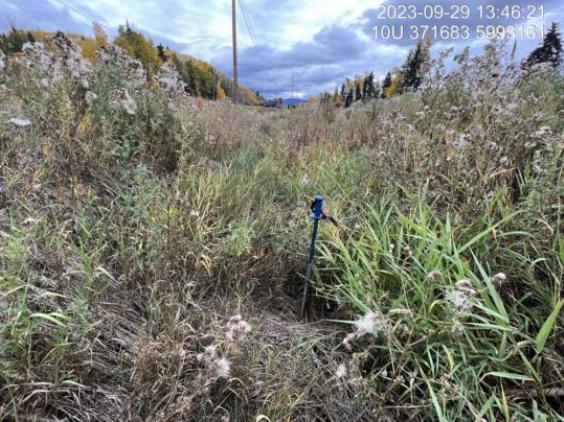
Location and Stream Data	•	Crossing Characteristics	
 A photograph showing a paved road curving away from the viewer. The roadside is lined with autumn-colored trees. A yellow rectangular marker is visible in the foreground, with the number "5400192" handwritten on it.	2023-09-29 12:42:21 10U 353724 5996642	 A photograph looking down the interior of a large, corrugated metal culvert. The walls are ribbed and show signs of rust and wear. Light at the end of the tunnel creates a bright glow.	2023-09-29 12:45:20 10U 353697 5996637
 A photograph of a culvert entrance partially hidden by dense vegetation and fallen leaves. The entrance is a dark, circular opening in the ground.	2023-09-29 12:45:47 10U 353697 5996637	 A photograph of another culvert entrance, this one more exposed. It's a dark, cylindrical pipe resting on a bed of soil and fallen leaves.	2023-09-29 12:53:18 10U 353714 5996659
 A photograph of a forest floor covered in fallen leaves and small plants. A few tree trunks are visible in the background.	2023-09-29 12:48:28 10U 353699 5996633	 A photograph of a forest floor with fallen leaves and some green foliage. A blue object, possibly a marker or tool, is visible on the ground.	2023-09-29 12:53:26 10U 353714 5996659

Location and Stream Data	.	Crossing Characteristics	–
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.

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Location and Stream Data	•	Crossing Characteristics
 2023-09-29 13:43:02 10U 371687 5993159	•	 2023-09-29 13:44:49 10U 371684 5993163
 2023-09-29 13:48:18 10U 371711 5993170	•	 2023-09-29 13:48:27 10U 371687 5993159
 2023-09-29 13:48:31 10U 371702 5993176	•	 2023-09-29 13:46:21 10U 371683 5993163

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
 2023-09-29 14:54:05 10U 391525 5991819	•	 2023-09-29 14:35:09 10U 391513 5991792
 2023-09-29 14:35:03 10U 391513 5991792	•	 2023-09-29 14:41:11 10U 391504 5991854
 2023-09-29 14:24:18 10U 391511 5991792	•	 2023-09-29 14:43:13 10U 391495 5991828

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
 2023-09-30 10:55:14 10U 377184 5993883	 2023-09-30 10:56:30 10U 377169 5993872
 2023-09-30 11:00:43 10U 377174 5993894	 2023-09-30 10:56:25 10U 377167 5993882
 2023-09-30 11:00:47 10U 377174 5993894	 2023-09-30 10:56:42 10U 377169 5993872

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
 2023-09-30 12:14:21 10U 388926 5997000	 2023-09-30 12:33:06 10U 388937 5997002
 2023-09-30 12:22:44 10U 388942 5996997	 2023-09-30 12:32:37 10U 388953 5996992
 2023-09-30 12:30:12 10U 388925 5997015	 2023-09-30 12:34:35 10U 388960 5997001

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
 2023-09-30 12:49:23 10U 388260 5996934		 2023-09-30 12:50:15 10U 388263 5996952
 2023-09-30 12:50:03 10U 388265 599694		 2023-09-30 13:00:48 10U 388285 5996961
 2023-09-30 12:54:43 10U 388256 5996970		 2023-09-30 13:02:23 10U 388289 5996931

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
 2023-09-30 13:46:24 10U 398941 5996369	 2023-09-30 14:01:42 10U 398928 5996358
 2023-09-30 13:47:54 10U 398936 5996381	 2023-09-30 13:55:53 10U 398932 5996357
 2023-09-30 13:50:42 10U 398920 5996388	 2023-09-30 13:57:40 10U 398937 5996345

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
 A photograph of a dirt road winding through a forest. The trees are mostly green with some yellow autumn leaves. A yellow evidence tag is visible in the bottom left corner of the image. <p>2023-09-30 14:19:35 10U 397157 5996566</p>	•	 A photograph looking down the interior of a large, corrugated metal culvert. The walls are ribbed and show signs of rust and wear. A small amount of gravel or debris is visible at the bottom. <p>2023-09-30 14:27:45 10U 397155 5996564</p>
 A photograph of a log jam in a stream. Several large logs are tangled together, creating a significant obstruction. A blue and pink evidence marker is stuck into the bank next to the logs. <p>2023-09-30 14:20:55 10U 397148 5996554</p>		 A photograph showing the entrance to a culvert. The pipe is dark and surrounded by fallen branches and rocks. A blue and pink evidence marker is placed near the entrance. <p>2023-09-30 14:27:40 10U 397155 5996554</p>
 A photograph of a streamside area with dense vegetation. There are patches of yellow autumn leaves on the ground and some green plants growing out of the soil. A blue and pink evidence marker is visible in the center-left. <p>2023-09-30 14:22:24 10U 397134 5996537</p>		 A photograph of a stream bed filled with fallen logs and branches. The water is shallow and rocky. A blue and pink evidence marker is standing upright in the center of the frame. <p>2023-09-30 14:29:00 10U 397155 5996564</p>

Location and Stream Data	.	Crossing Characteristics	-
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
 2023-10-01 09:42:49 10U 500734 5959820	•	 2023-10-01 09:57:56 10U 500730 6959814
 2023-10-01 09:44:05 10U 500734 5959820	•	 2023-10-01 09:52:40 10U 500735 5959837
 2023-10-01 09:44:50 10U 500734 5959820	•	 2023-10-01 09:49:10 10U 500741 5959825

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
 2023-10-01 10:15:50 10U498063 5955883	 2023-10-01 09:58:16 10U500730 5959814
 2023-10-01 10:18:01 10U498063 5955889	 2023-10-01 10:29:33 10U498054 5955880
 2023-10-01 10:17:31 10U498061 5955870	 2023-10-01 10:19:24 10U498060 5955879

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
 A photograph of a dirt road curving through a forest. The trees are showing autumn colors. A yellow and white marker is visible on the right side of the road.	•	 A photograph looking down the interior of a large, corrugated metal culvert. Water is flowing through it, creating ripples. The culvert has a ribbed, cylindrical structure.
 A photograph of a collapsed metal culvert lying on the ground. It appears to be crushed or bent. A blue marker pole is standing upright next to it.	•	 A photograph of a collapsed metal culvert partially buried in brush and debris. The culvert is surrounded by fallen branches and leaves.
 A photograph of a grassy field with some brush in the foreground. A small, dark metal structure is visible on the ground.	•	 A photograph of a brushy area with fallen branches and leaves. A yellow marker is visible on the ground.

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
 2023-10-01 13:12:55 10U 509121 5959586	•	 2023-10-01 13:19:21 10U 509107 5959576
 2023-10-01 13:16:03 10U 509120 5959583	•	 2023-10-01 13:18:23 10U 509102 5959559
 2023-10-01 13:17:54 10U 509109 5959569	•	 2023-10-01 13:17:54 10U 509109 5959569

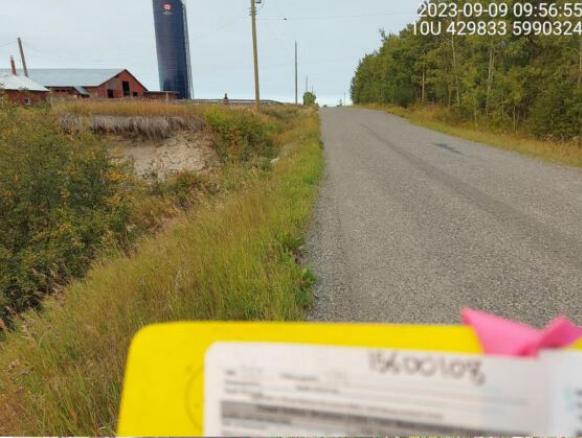
Location and Stream Data		Crossing Characteristics	
Date	2023-09-09	Crossing Sub Type	Round Culvert
PSCIS ID	199179	Diameter (m)	5
External ID	24716727	Length (m)	25
Crew	MW	Embedded	No
UTM Zone	10	Depth Embedded (m)	—
Easting	433506	Resemble Channel	No
Northing	5987089	Backwatered	No
Stream	Murray Creek	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
 2023-09-09 09:11:50 10U 433520 5987090	 2023-09-09 09:13:10 10U 433513 5987098
 2023-09-09 09:12:26 10U 433521 5987098	 2023-09-09 09:26:20 10U 433496 5987065
 2023-09-09 09:12:54 10U 433517 5987100	 2023-09-09 09:24:32 10U 433504 5987070

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
 2023-09-09 09:56:55 10U 429833 5990324	 2023-09-09 09:56:55 10U 429829 5990325
 2023-09-09 09:59:15 10U 429829 5990326	 2023-09-09 10:03:04 10U 429832 5990322
 2023-09-09 09:57:39 10U 429828 5990330	 2023-09-09 10:02:39 10U 429832 5990322

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.

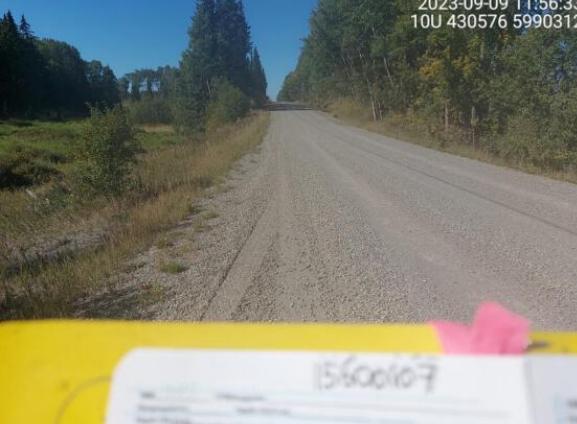
Location and Stream Data	Crossing Characteristics
 2023-09-09 10:15:47 10U 429900 5990226	 2023-09-09 10:20:29 10U 429918 5990192
 2023-09-09 10:16:16 10U 429886 5990217	 2023-09-09 10:21:59 10U 429922 5990194
 2023-09-09 10:16:28 10U 429885 5990218	NO IMAGE AVAILABLE

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.

Appendix - Phase 1 Fish Passage Ass...

Location and Stream Data	Crossing Characteristics
 <p>2023-09-09 11:56:33 10U 430576 5990312</p>	 <p>2023-09-09 11:59:31 10U 430575 5990299</p>
 <p>2023-09-09 12:06:54 10U 430592 5990324</p>	 <p>2023-09-09 11:59:20 10U 430573 5990296</p>
 <p>2023-09-09 12:06:30 10U 430599 5990320</p>	 <p>2023-09-09 12:04:18 10U 430555 5990262</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
 <p>2023-09-09 12:29:01 10U 431936 5991895</p>	 <p>2023-09-09 12:32:28 10U 431926 5991891</p>
 <p>2023-09-09 12:35:12 10U 431923 5991904</p>	 <p>2023-09-09 12:32:10 10U 431923 5991891</p>
 <p>2023-09-09 12:36:34 10U 431919 5991910</p>	 <p>2023-09-09 12:31:42 10U 431923 5991891</p>

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

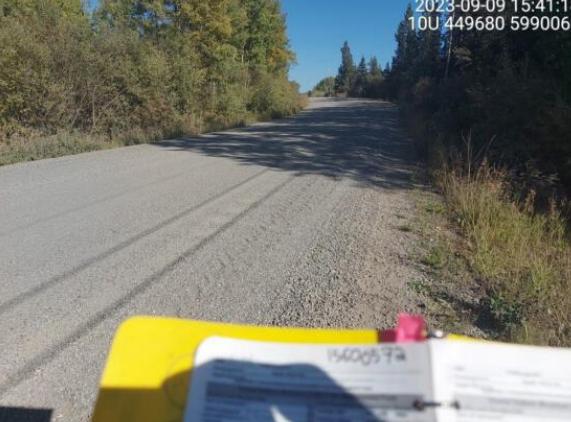
Photos: PSCIS ID 15603995. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 2023-09-09 13:56:25 10U 431909 5995599	 2023-09-09 13:57:07 10U 431909 5995589
 2023-09-09 13:59:54 10U 431912 5995605	 2023-09-09 13:57:00 10U 431908 5995584
 2023-09-09 14:06:51 10U 431921 5995607	 2023-09-09 13:57:19 10U 431908 5995587

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
 2023-09-09 15:08:50 10U 439541 5988461	•	 2023-09-09 15:10:24 10U 439532 5988466
 2023-09-09 15:13:04 10U 439555 5988469	•	 2023-09-09 15:10:10 10U 439530 5988472
 2023-09-09 15:13:22 10U 439559 5988468	•	 2023-09-09 15:15:20 10U 439537 5988468

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 10U 449680 5990069	 2023-09-09 15:42:01 10U 449677 5990072
 2023-09-09 15:44:05 10U 449680 5990082	 2023-09-09 15:42:31 10U 449676 5990075
 2023-09-09 15:43:49 10U 449677 5990079	 2023-09-09 15:42:44 10U 449677 5990071

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
 <p>2023-09-10 09:22:17 10U 425351 5991996</p> A photograph showing a paved road curving to the right. In the foreground, there is a yellow and red roadside marker. The date and time "2023-09-10 09:22:17" and coordinates "10U 425351 5991996" are overlaid on the top right of the image.	 <p>2023-09-10 09:22:12 10U 425345 5992011</p> A photograph looking down the interior of a large, corrugated metal culvert. The water inside is brownish. The date and time "2023-09-10 09:22:12" and coordinates "10U 425345 5992011" are overlaid on the top right.
 <p>2023-09-10 09:24:45 10U 425351 5992014</p> A photograph of the exterior of a culvert pipe partially buried in grass. The date and time "2023-09-10 09:24:45" and coordinates "10U 425351 5992014" are overlaid on the top right.	 <p>2023-09-10 09:32:47 10U 425342 5991978</p> A photograph showing the end of a culvert pipe submerged in water. A metal fence is visible on the right. The date and time "2023-09-10 09:32:47" and coordinates "10U 425342 5991978" are overlaid on the top right.
 <p>2023-09-10 09:24:24 10U 425347 5992010</p> A photograph of a small, shallow stream flowing through dense green vegetation. The date and time "2023-09-10 09:24:24" and coordinates "10U 425347 5992010" are overlaid on the top right.	 <p>2023-09-10 09:32:17 10U 425344 5991980</p> A photograph of a stream flowing through tall grass. A blue pole or stick is visible in the water on the right. The date and time "2023-09-10 09:32:17" and coordinates "10U 425344 5991980" are overlaid on the top right.

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
 2023-09-10 10:32:34 10U 425957 5997688	 2023-09-10 10:40:42 10U 425997 5997663
 2023-09-10 10:40:43 10U 425998 5997662	 2023-09-10 10:34:03 10U 425996 5997664
 2023-09-10 10:41:49 10U 425000 5997658	 2023-09-10 10:34:44 10U 425990 5997654

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 11:49:03 10U 424117 6000568
 2023-09-10 11:44:22 10U 424094 6000558	 2023-09-10 11:49:59 10U 424125 6000569
 2023-09-10 11:44:29 10U 424094 6000558	 2023-09-10 11:51:17 10U 424132 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 10U 425560 5996142</p>	 <p>2023-09-10 12:16:03 10U 425563 5996151</p>
 <p>2023-09-10 12:18:16 10U 425563 5996154</p>	 <p>2023-09-10 12:24:47 10U 425553 5996120</p>
 <p>2023-09-10 12:38:14 10U 425562 5996168</p>	 <p>2023-09-10 12:25:37 10U 425549 5996108</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
 2023-09-10 13:06:20 10U 422841 5993389	 2023-09-10 13:06:41
 2023-09-10 13:03:22 10U 422847 5993391	 2023-09-10 13:04:49 10U 422838 5993368
 2023-09-10 13:02:58 10U 422844 5993390	 2023-09-10 13:05:24 10U 422801 5993362

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 5993693	 2023-09-10 13:38:56 10U 427375 5988844
 2023-09-10 13:44:22 10U 420936 5993714	 2023-09-10 13:30:23 10U 420892 5993665
 2023-09-10 13:52:11 10U 427375 5988844	 2023-09-10 13:39:01 10U 420888 5993665

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
 2023-09-10 14:36:46 10U 419964 5995259	 2023-09-10 14:39:02 10U 419952 5995259
 2023-09-10 14:42:02 10U 419952 5995270	 2023-09-10 14:38:25 10U 419951 5995255
 2023-09-10 14:41:46 10U 419951 5995258	 2023-09-10 14:38:45 10U 419949 5995251

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
 2023-09-10 15:48:02 10U 449046 5977299	 2023-09-10 15:49:24 10U 449047 5977300
 2023-09-10 15:49:27 10U 449047 5977306	 2023-09-10 15:51:35 10U 449047 5977308
 2023-09-10 15:49:36 10U 449046 5977306	 2023-09-10 15:51:43 10U 449054 5977299

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 10:17:29 10U 442789 5991029	 2023-09-11 10:18:25 10U 442788 5991033
 2023-09-11 10:21:51 10U 442781 5991044	 2023-09-11 10:18:15 10U 442787 5991031
 2023-09-11 10:21:45 10U 442809 5991044	 2023-09-11 10:18:09 10U 442786 5991029

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
 2023-09-11 10:35:59 10U 441853 5990165	•	 2023-09-11 10:38:57 10U 441790 5990153
 2023-09-11 10:43:00 10U 441789 5990170	•	 2023-09-11 10:38:43 10U 441791 5990150
 2023-09-11 10:43:09 10U 441789 5990173	•	 2023-09-11 10:38:53 10U 441789 5990155

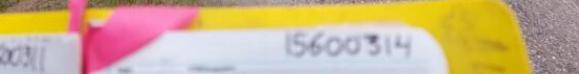
Location and Stream Data		Crossing Characteristics	
Date	2023-09-11	Crossing Sub Type	Round Culvert
PSCIS ID	199197	Diameter (m)	3
External ID	15600311	Length (m)	14
Crew	MW	Embedded	No
UTM Zone	10	Depth Embedded (m)	—
Easting	444371	Resemble Channel	No
Northing	5989869	Backwatered	No
Stream	Knight Creek	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
 2023-09-11 11:02:07 10U 444362 5989890	 2023-09-11 11:04:14 10U 444355 5989869
 2023-09-11 11:08:50 10U 444380 5989864	 2023-09-11 11:10:00 10U 444348 5989870
 2023-09-11 11:09:40 10U 444383 5989867	 2023-09-11 11:04:57 10U 444343 5989870

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
 2023-09-11 11:37:45 10U 446484 5982440	•	 2023-09-11 11:39:06 10U 446473 5982438
 2023-09-11 11:42:16 10U 446502 5982443	•	 2023-09-11 11:38:46 10U 446477 5982438
 2023-09-11 11:42:38 10U 446502 5982445	•	 2023-09-11 11:38:57 10U 446472 5982440

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
	2023-09-11 12:01:50 10U 442969 5985329	2023-09-11 12:03:44 10U 442983 5985312
	2023-09-11 12:08:28 10U 442948 5985344	2023-09-11 12:04:06 10U 442985 5985310
	2023-09-11 12:08:33 10U 442932 5985348	2023-09-11 12:04:21 10U 442984 5985306

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
 2023-09-11 12:33:03 10U 433136 5991239	 2023-09-11 12:34:27 10U 433128 5991213
 2023-09-11 12:38:32 10U 433138 5991218	 2023-09-11 12:34:38 10U 433126 5991203
 2023-09-11 12:38:49 10U 433167 5991227	 2023-09-11 12:36:41 10U 433120 5991203

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
 2023-09-11 12:58:44 10U 435073 5987010	 2023-09-11 13:04:24 10U 435115 5987038
 2023-09-11 13:04:09 10U 435114 5987038	 2023-09-11 13:18:14 10U 435106 5986982
 2023-09-11 13:05:54 10U 435120 5987038	 2023-09-11 13:19:04 10U 435095 5986956

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
 2023-09-11 15:29:33 10U 426196 5995519	 2023-09-11 15:31:43 10U 426256 5995487
 2023-09-11 15:31:32 10U 426261 5995471	 2023-09-11 15:36:21 10U 426225 5995487
 2023-09-11 15:34:06 10U 426257 5995489	 2023-09-11 15:36:47 10U 426234 5995485

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

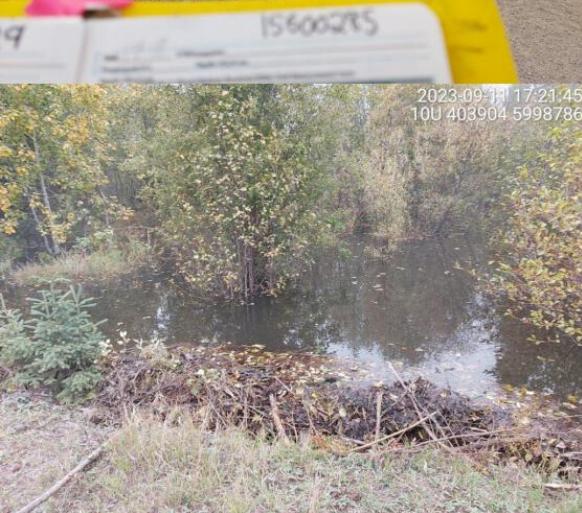
Photos: PSCIS ID 15603729. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 2023-09-11 16:51:34 10U 403782 6000772	 2023-09-11 16:56:38 10U 403775 6000772
 2023-09-11 16:52:15 10U 403777 6000778	 2023-09-11 16:58:08 10U 403786 6000763
 2023-09-11 16:53:03 10U 403775 6000784	 2023-09-11 16:53:03 10U 403775 6000784

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
 2023-09-11 17:21:19 10U 403916 5998778	
 2023-09-11 17:21:45 10U 403904 5998777	 2023-09-11 17:24:46 10U 403900 5998773
 2023-09-11 17:22:07 10U 403901 5998787	 2023-09-11 17:24:36 10U 403898 5998778

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
 2023-09-12 08:56:32 10U 424183 5985609	 2023-09-12 08:51:21 10U 424191 5985622
 2023-09-12 08:48:58 10U 424189 5985579	 2023-09-12 08:51:30 10U 424193 5985611
 2023-09-12 08:48:38 10U 424177 5985583	 2023-09-12 08:53:47 10U 424165 5985631

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 09:24:21 10U 418614 5987813	 2023-09-12 09:26:13 10U 418621 5987804
 2023-09-12 09:28:52 10U 418600 5987805	 2023-09-12 09:25:42 10U 418619 5987806
 2023-09-12 09:29:31 10U 418604 5987807	 2023-09-12 09:25:43 10U 418621 5987805

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
 2023-09-28 11:24:15 9U 693926 6032104	 2023-09-28 11:26:25 9U 693924 6032107
 2023-09-28 11:27:27 9U 693930 6032115	 2023-09-28 11:33:00 9U 693924 6032093
 2023-09-28 11:26:49 9U 693931 6032113	 2023-09-28 11:32:50 9U 693948 6032093

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	-
 A photograph showing a paved road curving away from the viewer. To the right is a grassy area with some fallen leaves. A yellow and pink plastic marker is in the foreground, pointing towards the road. The marker has the number "5400445" printed on it.	2023-09-28 12:50:58 10U 309125 6028924	•	 A photograph looking down the interior of a corrugated metal culvert. The walls are yellow and the floor is dark. Light comes from the open end at the top.	2023-09-28 12:43:05 10U 309137 6028935
 A photograph of a crushed corrugated metal culvert lying on its side in a grassy field. The metal is bent and broken.	2023-09-28 12:42:53 10U 309139 6028936	•	 A photograph of a culvert entrance partially obscured by bushes and tall grass. The opening is circular and dark.	2023-09-28 12:50:15 10U 309119 6028925
 A photograph of the ground surface covered in fallen autumn leaves and some low-lying vegetation.	2023-09-28 12:43:22 10U 309150 6028941	•	 A photograph of a culvert entrance hidden behind a wire fence and some bushes.	2023-09-28 12:50:13 10U 309120 6028922

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 13:13:54 10U 313607 6022377	 2023-09-28 13:15:10 10U 313570 6022422
 2023-09-28 13:24:28 10U 313600 6022429	 2023-09-28 13:15:04 10U 313560 6022430
 2023-09-28 13:24:50 10U 313597 6022426	 2023-09-28 13:16:07 10U 313571 6022405

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
 2023-09-28 13:56:56 10U 313557 6022347	 2023-09-28 13:44:22 10U 313522 6022411
 2023-09-28 13:43:57 10U 313533 6022409	 2023-09-28 13:48:48 10U 313510 6022398
 2023-09-28 13:44:04 10U 313530 6022403	 2023-09-28 13:48:53 10U 313510 6022393

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
 2023-09-28 14:34:29 10U 316232 6018702	 2023-09-28 14:12:36 10U 316223 6018680
 2023-09-28 14:21:07 10U 316240 6018700	 2023-09-28 14:12:10 10U 316218 6018671
 2023-09-28 14:21:06 10U 316252 6018716	 2023-09-28 14:11:58 10U 316212 6018726

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 14:43:53 10U 317342 6016918	 2023-09-28 14:48:36 10U 317306 6016962
 2023-09-28 14:55:14 10U 317327 6016947	 2023-09-28 14:48:09 10U 317305 6016961
 2023-09-28 14:55:20 10U 317327 6016947	 2023-09-28 14:47:44 10U 317300 6016960

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
 A photograph showing a paved road curving through a landscape with autumn-colored trees. In the foreground, a yellow marker is positioned next to a white sign. The sign has a pink ribbon attached and displays the number "5400956". <p>2023-09-28 15:34:21 10U 320731 6009598</p>	 A photograph looking down the interior of a corrugated metal culvert. The walls are ribbed and show signs of water damage. Light filters through the opening at the end of the tunnel. <p>2023-09-28 15:37:33 10U 320738 6009564</p>
 A photograph of a large, dark, cylindrical culvert entrance partially hidden by dense brush and fallen leaves. The ground in front is rocky and covered with autumn foliage. <p>2023-09-28 15:34:58 10U 320727 6009567</p>	 A photograph showing two culvert exits side-by-side. Water flows out from them into a stream bed filled with rocks and fallen leaves. The surrounding vegetation includes small trees and shrubs. <p>2023-09-28 15:44:45 10U 320750 6009608</p>
 A photograph of a small stream flowing through a bed of rocks and fallen leaves. The water is shallow and reflects the surrounding environment. Some small trees and shrubs are visible along the banks. <p>2023-09-28 15:35:14 10U 320725 6009589</p>	 A close-up photograph of a stream flowing over rocks and fallen leaves. The water is clear and reflects the surrounding red and orange autumn foliage. The banks are covered with dense brush. <p>2023-09-28 15:44:55 10U 320749 6009606</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
 2023-09-28 16:39:01 10U 322442 6011700	 2023-09-28 16:28:22 10U 322404 6011740
 2023-09-28 16:35:27 10U 321057 6011223	 2023-09-28 16:27:57 10U 322405 6011735
 2023-09-28 16:35:32 10U 322442 6011700	 2023-09-28 16:28:15 10U 322402 6011739

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

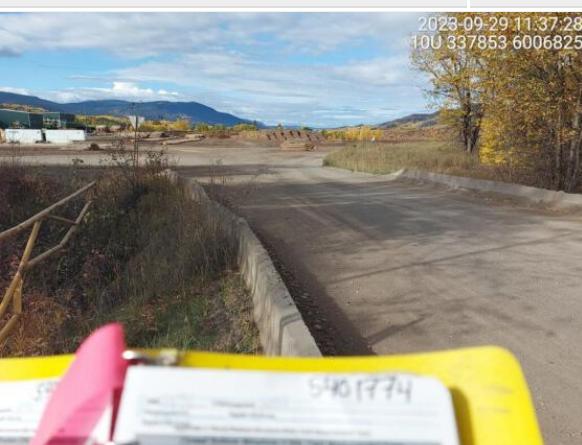
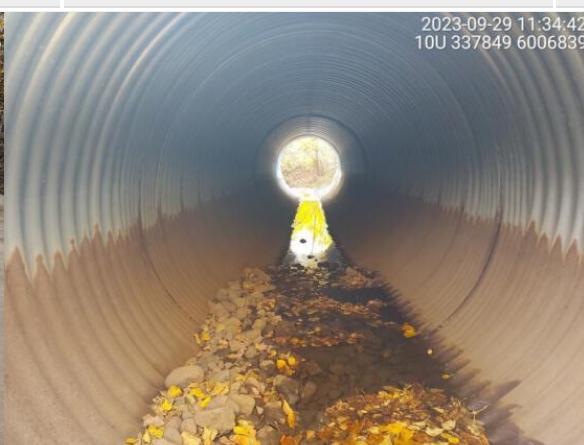
Photos: PSCIS ID 5400157. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 2023-09-29 10:38:26 10U 337683 6007173	 2023-09-29 10:43:12 10U 337783 6007120
 2023-09-29 10:42:50 10U 337792 6007125	 2023-09-29 11:04:02 10U 337765 6007059
 2023-09-29 10:42:26 10U 337795 6007128	 2023-09-29 11:04:14 10U 337761 6007061

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
 2023-09-29 11:37:28 10U 337853 6006825	 2023-09-29 11:34:42 10U 337849 6006839
 2023-09-29 11:34:26 10U 337850 6006839	 2023-09-29 11:38:38 10U 337848 6006807
 2023-09-29 11:30:50 10U 337847 6006876	 2023-09-29 11:38:20 10U 337843 6006803

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 13:13:21 10U 366643 5995264	•	 2023-09-29 13:03:42 10U 366643 5995264
 2023-09-29 13:03:32 10U 366643 5995307	•	NO IMAGE AVAILABLE
 2023-09-29 13:09:11 10U 366643 5995318	•	 2023-09-29 13:18:44 10U 366643 5995189

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

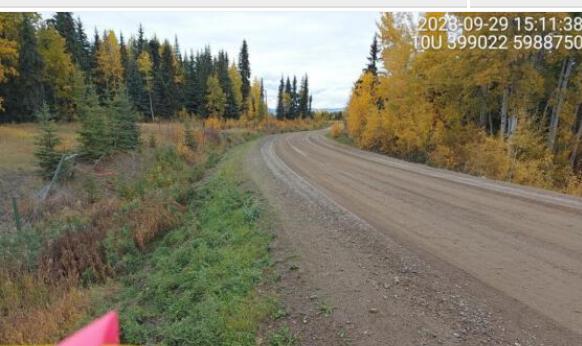
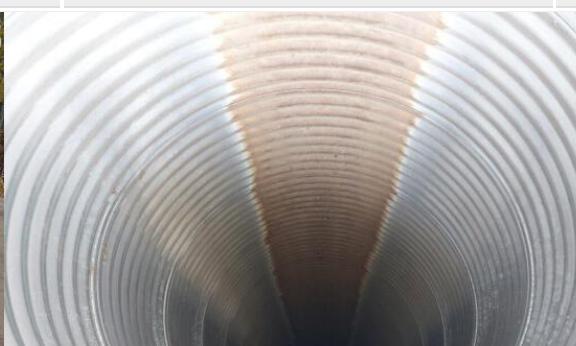
Photos: PSCIS ID 5400239. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 2023-09-29 14:32:04 10U 381889 5991178	 2023-09-29 14:32:37 10U 381845 5991178
 2023-09-29 14:08:05 10U 381840 5991157	 2023-09-29 14:24:11 10U 381845 5991217
 2023-09-29 14:08:15 10U 381843 5991158	 2023-09-29 14:24:17 10U 381846 5991218

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
 2023-09-29 15:11:38 10U 399022 5988750	
 15605365	 2023-09-29 15:12:07 10U 399016 5988752
 2023-09-29 15:11:59 10U 399022 5988750	 2023-09-29 15:13:30 10U 399030 5988766

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
 2023-09-29 15:37:22 10U 401108 5983682	 2023-09-29 15:44:11 10U 401110 5983398
 2023-09-29 15:41:24 10U 401092 5983397	 2023-09-29 15:42:57 10U 401117 5983408
 2023-09-29 15:43:53 10U 401114 5983408	 2023-09-29 15:43:06 10U 401114 5983408

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
 2023-09-29 16:03:59 10U 400879 5982502	 2023-09-29 16:06:47 10U 400878 5982473
 2023-09-29 16:13:30 10U 400848 5982478	 2023-09-29 16:05:45 10U 400888 5982481
 2023-09-29 16:13:35 10U 400850 5982480	 2023-09-29 16:06:48 10U 400880 5982475

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
 2023-09-30 09:13:44 10U 438431 5982156	 2023-09-30 09:19:00 10U 438411 5982137
 15600624 2023-09-30 09:17:25 10U 438414 5982146	 2023-09-30 09:20:57 10U 438433 5982172
 2023-09-30 09:19:07 10U 438409 5982146	 2023-09-30 09:22:14 10U 438433 5982173

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 09:34:04 10U 438524 5982147	 2023-09-30 09:38:12 10U 438524 5982163
 2023-09-30 09:34:54 10U 438525 5982144	 2023-09-30 09:37:56 10U 438512 5982173
 2023-09-30 09:35:11 10U 438524 5982144	 2023-09-30 09:40:03 10U 438533 5982168

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
 2023-09-30 10:40:31 10U 449865 5977814	 2023-09-30 10:22:50 10U 449817 5977816
 2023-09-30 10:23:48 10U 449817 5977815	 2023-09-30 10:29:24 10U 449851 5977856
 2023-09-30 10:24:08 10U 449810 5977813	 2023-09-30 10:29:30 10U 449854 5977855

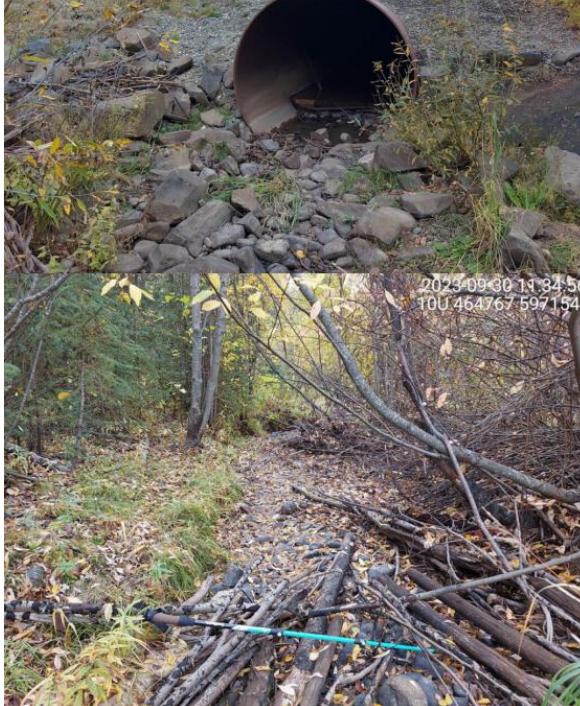
Location and Stream Data	.	Crossing Characteristics	–
Date	2023-09-30	Crossing Sub Type	Round Culvert
PSCIS ID	199225	Diameter (m)	1.5
External ID	15600629	Length (m)	90
Crew	MW	Embedded	No
UTM Zone	10	Depth Embedded (m)	–
Easting	451599	Resemble Channel	No
Northing	5975913	Backwatered	No
Stream	Hulatt 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
 2023-09-30 11:04:41 10U 451635 5975896	 2023-09-30 10:53:25 10U 451579 5975869
 2023-09-30 10:53:14 10U 451585 5975864	 2023-09-30 10:57:12 10U 451570 5975966
 2023-09-30 10:53:04 10U 451586 5975868	 2023-09-30 10:59:13 10U 451575 5975970

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>2023-09-30 11:44:23 10U 464742 5971593</p>	 <p>2023-09-30 11:30:55 10U 464778 5971569</p>
<p>NO IMAGE AVAILABLE</p>	 <p>2023-09-30 11:31:17 10U 464778 5971567</p>
<p>NO IMAGE AVAILABLE</p>	 <p>2023-09-30 11:34:56 10U 464767 5971541</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	
 A yellow roadside sign with a pink ribbon attached. The sign has the number "15603172" and some smaller text that is partially obscured.	2023-09-30 12:10:57 10U 462957 5969719	 A view looking down the inside of a large, corrugated metal culvert. The walls are reflective and show signs of water damage or staining. A small light fixture is visible at the far end.	2023-09-30 12:16:14 10U 462942 5969237
 A black culvert pipe lying on its side in a field of fallen branches and debris. Some brown, stagnant water is visible near the entrance.	2023-09-30 12:24:53 10U 462922 5969765	 A black culvert pipe partially hidden behind dense brush and low-hanging branches. It appears to be situated in a shallow, stagnant pool of water.	2023-09-30 12:17:19 10U 462925 5969251
 A stream flowing over rocks and pebbles. A large, fallen tree trunk lies across the path of the water. A blue tape measure is held horizontally across the stream to indicate its width.	2023-09-30 12:26:15 10U 462915 5969749	 A small, rocky stream bed. A fallen tree trunk is visible in the background. A blue tape measure is held horizontally across the stream to indicate its width.	2023-09-30 12:18:39 10U 462925 5969254

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
 2023-09-30 13:11:48 10U 474649 5969358	 2023-09-30 13:15:17 10U 474702 5969294
 2023-09-30 13:23:45 10U 474757 5969335	 2023-09-30 13:14:36 10U 474693 5969290
 2023-09-30 13:24:00 10U 474764 5969338	 2023-09-30 13:14:49 10U 474698 5969290

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

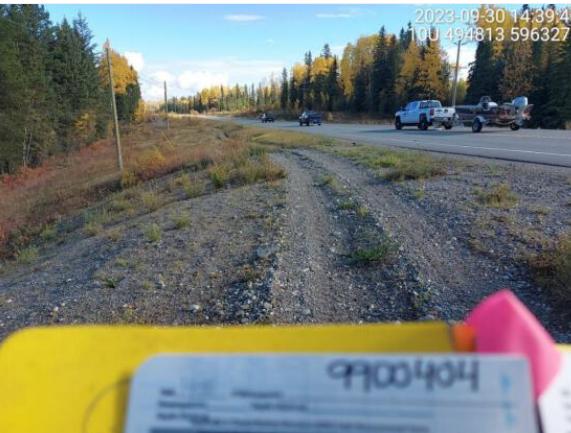
Photos: PSCIS ID 9903105. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 2023-09-30 13:56:48 10U 482708 5969832	 2023-09-30 14:02:25 10U 482711 5969816
 2023-09-30 14:04:12 10U 482688 5969809	 2023-09-30 13:59:34 10U 482708 5969816
 2023-09-30 14:05:15 10U 482689 5969822	 2023-09-30 13:59:54 10U 482709 5969812

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
	
	
	

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

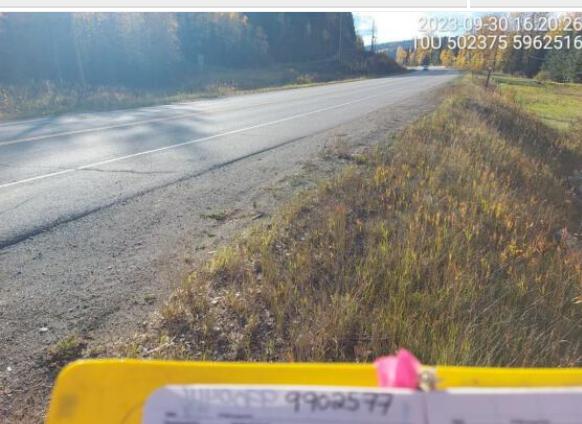
Photos: PSCIS ID 9900446. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 2023-09-30 15:18:48 10U 488852 5965802	 2023-09-30 15:32:26 10U 489000 5965743
 2023-09-30 15:37:04	 2023-09-30 15:22:58 10U 489009 5965754
 2023-09-30 15:36:03 10U 488985 5965700	 2023-09-30 15:24:07 10U 489022 5965750

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
 2023-09-30 16:20:26 10U 502375 5962516	 2023-09-30 16:23:44 10U 502364 5962524
 2023-09-30 16:28:28 10U 502365 5962537	 2023-09-30 16:22:05 10U 502366 5962529
 2023-09-30 16:28:42 10U 502365 5962489	 2023-09-30 16:21:55 10U 502369 5962529

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
 2023-09-30 16:54:41 10U 502605 5962449	 2023-09-30 16:54:10 10U 502614 5962454
 2023-09-30 16:41:29 10U 502617 5962447	 2023-09-30 16:44:47 10U 502595 5962429
 2023-09-30 16:41:00 10U 502630 5962465	 2023-09-30 16:45:50 10U 502507 5962401

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
 2023-10-01 09:44:15 10U 500452 5958636	 2023-10-01 09:53:35 10U 500460 5958650
 2023-10-01 10:01:39 10U 500467 5958636	 2023-10-01 10:09:52 10U 500453 5958645
 2023-10-01 09:58:57 10U 500478 5958634	 2023-10-01 09:49:35 10U 500455 5958641

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 10:23:59 10U 496342 5954598</p>	 <p>2023-10-01 10:30:33 10U 496361 5954583</p>
 <p>2023-10-01 10:26:30 10U 496350 5954594</p>	 <p>2023-10-01 10:33:17 10U 496375 5954594</p>
 <p>2023-10-01 10:29:31 10U 496350 5954594</p>	 <p>2023-10-01 10:33:27 10U 496329 5954591</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
 2023-10-01 13:10:23 10U 508129 5960680	 2023-10-01 13:12:55 10U 508124 5960670
 2023-10-01 13:11:12 10U 508119 5960668	 2023-10-01 13:15:50 10U 508121 5960691
 2023-10-01 13:11:22 10U 508120 5960664	 2023-10-01 13:15:27 10U 508125 5960679

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
 2023-09-12 10:56:43 10U 650759 5934862	•	 2023-09-12 11:12:28 10U 650780 5934844
 2023-09-12 11:06:17 10U 650768 5934813	•	 2023-09-12 10:59:29 10U 650780 5934913
 2023-09-12 11:07:34 10U 650757 5934757	•	 2023-09-12 11:00:18 10U 650763 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
 A dirt road leading through a dense forest. A yellow survey marker is visible on the left side of the road.	 A narrow stream crossing with several sticks and branches protruding from the water.
 A stream crossing with large green and yellow leaves floating on the surface.	 A stream crossing with a black plastic pipe partially submerged in the water.
 A close-up view of a large green leaf partially submerged in a stream.	 A stream crossing with many fallen leaves floating on the surface.

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
 2023-10-03 11:27:18 10U 612136 5967642	•	 2023-10-03 11:27:48 10U 612139 5967643
 2023-10-03 11:30:42 10U 612152 5967640	•	 2023-10-03 11:28:09 10U 612149 5967644
 2023-10-03 11:33:31 10U 612173 5967660	•	 2023-10-03 11:41:35 10U 612129 5967623

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

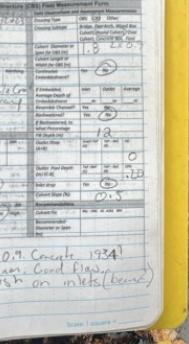
Photos: PSCIS ID 13900027. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	•	Crossing Characteristics	-
 2023-10-03 12:00:36 10U 610532 5969267		NO IMAGE AVAILABLE	
 2023-10-03 12:10:08 10U 610542 5969262		 2023-10-03 12:02:54 10U 610544 5969273	
 2023-10-03 12:02:01 10U 610541 5969260		 2023-10-03 12:02:01 10U 610541 5969260	

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>2023-10-03 12:20:29 10U 610572 5969317</p>		<p>2023-10-03 12:10:03 10U 610542 5969262</p>
	<p>2023-10-03 12:14:28 10U 610575 5969292</p>		<p>2023-10-03 12:09:46 10U 610542 5969262</p>
	<p>2023-10-03 12:18:51 10U 610580 5969298</p>		<p>2023-10-03 12:10:08 10U 610542 5969262</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
 2023-10-03 12:08:50 10U 608027 5970658	 2023-10-03 12:10:00 10U 608043 5970659
 2023-10-03 12:26:56 10U 608025 5970639	 2023-10-03 12:19:23 10U 608017 5970637
 2023-10-03 12:12:28 10U 608048 5970664	 2023-10-03 12:19:54 10U 608000 5970654

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
 2023-10-03 12:51:52 10U 607642 5971159	 2023-10-03 12:53:42 10U 607661 5971146
 2023-10-03 12:55:34 10U 607658 5971154	 2023-10-03 12:53:22 10U 607661 5971146
 2023-10-03 12:52:05 10U 607661 5971151	 2023-10-03 12:52:18 10U 607661 5971151

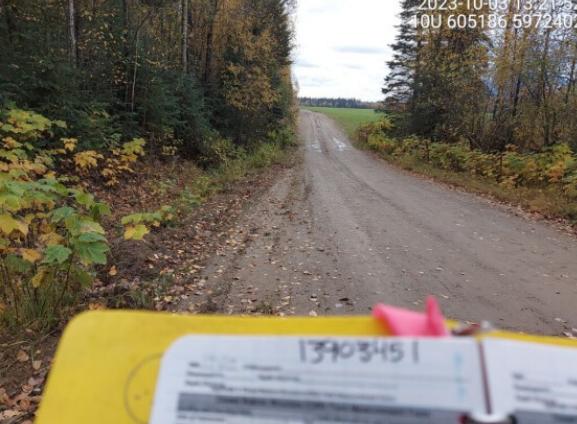
Location and Stream Data		Crossing Characteristics	
Date	2023-10-03	Crossing Sub Type	Round Culvert
PSCIS ID	199244	Diameter (m)	0.9
External ID	13900305	Length (m)	6
Crew	AI	Embedded	No
UTM Zone	10	Depth Embedded (m)	—
Easting	605976	Resemble Channel	No
Northing	5971827	Backwatered	No
Stream	Tributary 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
 2023-10-03 13:15:06 10U 605993 5971818	 2023-10-03 13:24:05 10U 605975 5971826
 2023-10-03 13:16:09 10U 605983 5971840	 2023-10-03 13:16:52 10U 605973 5971863
 2023-10-03 13:15:47 10U 605983 5971850	 2023-10-03 13:16:28 10U 605973 5971835

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
 <p>2023-10-03 13:21:52 10U 605186 5972402</p>	 <p>2023-10-03 13:29:49 10U 605202 5972367</p>
 <p>2023-10-03 13:22:58 10U 605208 5972380</p>	 <p>2023-10-03 13:26:42 10U 605198 5972367</p>
 <p>2023-10-03 13:23:53 10U 605209 5972380</p>	 <p>2023-10-03 13:26:50 10U 605198 5972366</p>

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
 2023-10-03 13:37:46 10U 604825 5973095	•	 2023-10-03 13:45:25 10U 604891 5973038
 2023-10-03 13:49:52 10U 604834 5973097	•	 2023-10-03 13:47:14 10U 604827 5973093
 2023-10-02 13:40:56 10U 604850 5973055	•	 2023-10-03 13:48:08 10U 604828 5973090

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
 2023-10-03 13:47:31 10U 604438 5973158	 2023-10-03 13:49:07 10U 604438 5973175
 2023-10-03 13:49:51 10U 604439 5973178	 2023-10-03 13:58:25 10U 604438 5973166
 2023-10-03 13:53:06 10U 604432 5973172	 2023-10-03 13:58:05 10U 604455 5973159

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
 2023-10-03 14:09:39 10U 603336 5973545	•	 2023-10-03 14:12:22 10U 603350 5973524
 2023-10-03 14:14:21 10U 603369 5973608	•	 2023-10-03 14:11:29 10U 603342 5973552
 2023-10-03 14:18:23 10U 603346 5973556	•	 2023-10-03 14:13:25 10U 603340 5973553

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
 <p>2023-10-03 14:41:56 10U 603328 5973550 2023100301</p>	 <p>2023-10-03 14:42:36 10U 603328 5973550</p>
 <p>2023-10-03 14:44:30 10U 601825 5974425</p>	 <p>2023-10-03 14:42:31 10U 603328 5973550</p>
 <p>2023-10-03 14:45:41 10U 601834 5974431</p>	 <p>2023-10-03 14:42:28 10U 603328 5973550</p>

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
 <p>2023-10-03 15:25:26 10U 587874 5985393</p>	 <p>2023-10-03 15:27:50 10U 587883 5985393</p>
 <p>2023-10-03 15:32:29 10U 587899 5985408</p>	 <p>2023-10-03 15:27:29 10U 587873 5985393</p>
 <p>2023-10-03 15:33:12 10U 587901 5985401</p>	 <p>2023-10-03 15:27:33 10U 587883 5985393</p>

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	-
 <p>2023-10-03 15:58:42 10U 587957 5985355</p>	•	NO IMAGE AVAILABLE	-
 <p>2023-10-03 16:05:53 10U 587977 5985306</p>	•	 <p>2023-10-03 16:05:02 10U 587956 5985305</p>	-
 <p>2023-10-03 16:06:16 10U 587975 5985303</p>	•	 <p>2023-10-03 16:05:03 10U 587956 5985302</p>	-

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
 A photograph of a dirt road through a forest. The road is graded and has some yellow markings. The surrounding trees are showing autumn colors. A yellow marker is visible on the right side of the road.	 A photograph looking down the interior of a large, corrugated metal culvert. The water inside is brown. Light is coming from the far end of the culvert.
 A photograph of a culvert entrance partially submerged in muddy water. A metal frame structure is leaning against the culvert. The ground is rocky and muddy.	 A photograph of a culvert entrance in a stream bed. The water is brown and shallow. A metal pipe is lying on the ground next to the culvert.
 A photograph of a culvert entrance in a wooded area. The ground is muddy and there are fallen leaves. A metal pipe is visible near the entrance.	 A photograph of a culvert entrance in a wooded area. The ground is muddy and there are fallen leaves. A blue and white marker is standing in the water.

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
 <p>2023-10-03 16:40:55 10U 582480 5989469</p>	 <p>2023-10-03 16:29:53 10U 582480 5989473</p>
 <p>2023-10-03 16:32:01 10U 582480 5989493</p>	 <p>2023-10-03 16:29:43 10U 582480 5989451</p>
 <p>2023-10-03 16:32:38 10U 582480 5989493</p>	 <p>2023-10-03 16:30:47 10U 582480 5989471</p>

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
 2023-10-03 17:22:25 10U 569851 5996568	 2023-10-03 17:15:51 10U 569887 5996548
 2023-10-03 17:15:17 10U 569876 5996559	 2023-10-03 17:30:48 10U 569903 5996598
 2023-10-03 17:17:19 10U 569886 5996534	 2023-10-03 17:33:08 10U 569906 5996609

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
 2023-10-04 09:30:55 10U 578672 5973032	•	 2023-10-04 09:33:47 10U 578668 5972991
 2023-10-04 09:33:22 10U 578658 5972997	•	 2023-10-04 09:33:38 10U 578668 5972991
 2023-10-04 09:49:06 10U 578610 5973091	•	 2023-10-04 09:33:03 10U 578669 5973000

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
 <p>2023-10-04 09:56:34 10U 582279 5975068</p> <p>13903184</p>	 <p>2023-10-04 10:05:14 10U 582279 5975068</p>
 <p>2023-10-04 10:12:30 10U 582260 5975042</p>	 <p>2023-10-04 10:11:31 10U 582277 5975099</p>
 <p>2023-10-04 09:58:02 10U 582275 5975050</p>	

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
 <p>2023-10-04 10:35:34 10U 582693 5975003</p>	 <p>2023-10-04 10:46:50 10U 582707 5975038</p>
 <p>2023-10-04 10:36:35 10U 582697 5974984</p>	 <p>2023-10-04 10:46:40 10U 582707 5975038</p>
 <p>2023-10-04 10:41:11 10U 582709 5974996</p>	 <p>2023-10-04 10:45:35 10U 582708 5975039</p>

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
 <p>2023-10-04 10:39:45 10U 585238 5973723</p> A photograph showing a paved road curving away from the viewer. A yellow GNSS antenna mounted on a tripod is positioned in the foreground, pointing towards the road. The surrounding area is a mix of green and yellow autumn foliage.	 <p>2023-10-04 10:40:51 10U 585243 5973706</p> A close-up view looking down the dark, ribbed interior of a corrugated metal culvert. Light reflects off the metallic surface.
 <p>2023-10-04 10:40:31 10U 585235 5973708</p> A photograph of a corrugated metal culvert lying horizontally on the ground, with water flowing out of its open end into a small stream bed.	 <p>2023-10-04 10:52:22 10U 585275 5973735</p> A photograph showing water flowing from the same corrugated culvert into a stream. The water is moving over fallen branches and rocks.
 <p>2023-10-04 10:46:55 10U 585217 5973690</p> A photograph of a stream flowing through a dense thicket of brush and fallen logs. A blue fishing rod is leaning against a log in the water.	 <p>2023-10-04 10:58:25 10U 585277 5973732</p> A photograph of a stream bed filled with large, fallen tree trunks and branches, creating a significant obstacle to flow.

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 forest. The trees are mostly green with some yellow autumn leaves. A yellow marker with the number "13900261" is visible on the right side of the road.	•	 A photograph looking down the interior of a corrugated metal culvert. The walls are ribbed and show signs of water damage or staining. Some dry branches are visible at the entrance.
 A photograph of a culvert opening surrounded by dense brush and fallen branches. Water is flowing out from under the culvert.	•	 A photograph showing water flowing out of a culvert into a stream. The water is turbulent and white. The culvert is dark and cylindrical.
 A photograph of a small stream flowing through a dense thicket of brush and fallen branches. The water is clear and reflects the surrounding foliage.	•	 A photograph of a stream flowing over rocks and logs. A large, fallen tree trunk lies across the stream, partially submerged in the water.

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

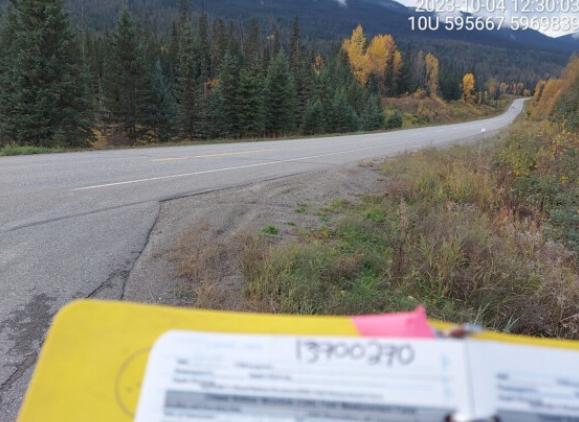
Photos: PSCIS ID 13900260. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 <p>2023-10-04 11:31:28 10U 587931 5972443</p>	 <p>2023-10-04 11:32:36 10U 587931 5972438</p>
 <p>2023-10-04 11:32:26 10U 587931 5972438</p>	 <p>2023-10-04 11:44:28 10U 587916 5972488</p>
 <p>2023-10-04 11:36:23 10U 587924 5972396</p>	 <p>2023-10-04 11:48:52 10U 587902 5972513</p>

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
 2023-10-04 12:30:03 10U 595667 5969839	 2023-10-04 12:35:57 10U 595591 5969846
 2023-10-04 12:42:49 10U 595610 5969807	 2023-10-04 12:32:47 10U 595589 5969842
 2023-10-04 12:41:59 10U 595613 5969793	 2023-10-04 12:33:18 10U 595585 5969851

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
 <p>2023-10-04 12:26:01 10U 596976 5969373</p>	 <p>2023-10-04 12:27:37 10U 596938 5969343</p>
 <p>2023-10-04 12:27:32 10U 596935 5969343</p>	 <p>2023-10-04 12:51:23 10U 596926 5969390</p>
 <p>2023-10-04 12:35:00 10U 596935 5969260</p>	 <p>2023-10-04 12:52:10 10U 596923 5969385</p>

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 601684 5967953	 2023-10-04 13:28:06 10U 601687 5968009
 2023-10-04 13:15:18 10U 601616 5967950	 2023-10-04 13:27:36 10U 601690 5968009
 2023-10-04 13:16:42 10U 601606 5967934	 2023-10-04 13:29:01 10U 601695 5968007

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
 <p>2023-10-04 13:46:37 10U 611002 5966577</p>	 <p>2023-10-04 14:00:14 10U 611000 5966586</p>
 <p>2023-10-04 13:47:55 10U 610993 5966570</p>	 <p>2023-10-04 14:05:07 10U 610991 5966591</p>
 <p>2023-10-04 13:50:24 10U 61009 5966522</p>	 <p>2023-10-04 13:59:43 10U 611000 5966586</p>

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
 2023-10-04 13:54:25 10U 604509 5966329	 2023-10-04 14:03:39 10U 604614 5966270
NO IMAGE AVAILABLE	 2023-10-04 14:03:17 10U 604616 5966275
 2023-10-04 13:58:56 10U 604503 5966252	 2023-10-04 14:04:06 10U 604624 5966274

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	-
 A photograph of a dirt road winding through a forest. An orange traffic cone is placed on the left side of the road. The date and coordinates are printed in the top right corner of the image. <p>2023-10-04 14:33:33 10U 608822 5966495</p>	•	NO IMAGE AVAILABLE	-
 A photograph showing a small, shallow stream or puddle flowing through a grassy area. A yellow marker with the number "13900053" is visible in the foreground. The date and coordinates are printed in the top right corner of the image. <p>2023-10-04 14:36:37 10U 608827 5966488</p>	•	 A photograph of a shallow pond surrounded by tall grass and autumn-colored leaves. A person's foot is visible near the water's edge. The date and coordinates are printed in the top right corner of the image. <p>2023-10-04 14:36:53 10U 608827 5966488</p>	-
 A photograph of a large, shallow wetland area with dense vegetation and a small body of water. The date and coordinates are printed in the top right corner of the image. <p>2023-10-04 14:33:54 10U 608820 5966489</p>	•	 A photograph of a wetland area with tall grasses and shrubs. The date and coordinates are printed in the top right corner of the image. <p>2023-10-04 14:34:53 10U 608825 5966499</p>	-

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
 2023-10-04 14:26:33 10U 606439 5965774	 2023-10-04 14:31:57 10U 606377 5965753
 2023-10-04 14:29:58 10U 606369 5965752	 2023-10-04 14:52:03 10U 606383 5965836
 2023-10-04 14:37:18 10U 606369 5965753	 2023-10-04 14:48:39 10U 606378 5965845

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
 2023-10-04 15:50:03 10U 645736 5940518  2023-10-04 15:50:03 10U 645727 5940490	
 2023-10-04 15:54:30 10U 645727 5940495	 2023-10-04 16:05:46 10U 645705 5940548
 2023-10-04 15:59:54 10U 645735 5940476	 2023-10-04 16:15:19 10U 645702 5940577

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 15:59:45 10U 660735 5929443</p>	 <p>2023-10-04 16:05:39 10U 660603 5929508</p>
 <p>2023-10-04 16:03:07 10U 660600 5929502</p>	 <p>2023-10-04 16:18:40 10U 660607 5929542</p>
 <p>2023-10-04 16:12:33 10U 660604 5929504</p>	 <p>2023-10-04 16:25:03 10U 660616 5929571</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
 <p>2023-10-04 17:00:01 10U 645690 5940578</p>	•	 <p>2023-10-04 17:05:59 10U 675443 5917402</p>
 <p>2023-10-04 17:06:20 10U 675447 5917402</p>	•	 <p>2023-10-04 17:21:33 10U 675499 5917497</p>
 <p>2023-10-04 17:08:59 10U 675428 5917412</p>	•	 <p>2023-10-04 17:20:17 10U 675512 5917481</p>

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 10U 677414 5916308	 2023-10-04 17:14:18 10U 677491 5916206
 2023-10-04 17:09:50 10U 677504 5916198	 2023-10-04 17:25:25 10U 677568 5916253
 2023-10-04 17:09:28 10U 677505 5916187	 2023-10-04 17:25:33 10U 677557 5916250

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
	•	 <p>2023-10-05 09:15:20 11U 345325 5856053</p>
	•	 <p>2023-10-05 09:16:32 11U 345354 5856035</p>
	•	 <p>2023-10-05 09:19:33 11U 345354 5856083</p>

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

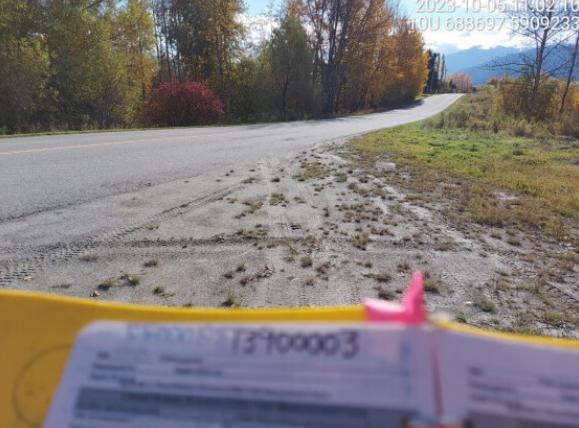
Photos: PSCIS ID 13900077. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 2023-10-05 10:41:12 10U 691815 5904876	 2023-10-05 10:44:01 10U 691832 5904875
 2023-10-05 10:51:14 10U 691811 5904866	 2023-10-05 10:43:45 10U 691834 5904877
 2023-10-05 10:51:19 10U 691809 5904866	 2023-10-05 10:43:32 10U 691828 5904879

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
 2023-10-05 11:02:10 10U 688697 5909233	 2023-10-05 11:13:32 10U 688727 5909209
 2023-10-05 11:03:48 10U 688701 5909207	 2023-10-05 11:11:08 10U 688736 5909231
 2023-10-05 11:03:04 10U 688700 5909204	 2023-10-05 11:11:58 10U 688732 5909209

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
	2023-10-05 11:42:29 10U 689545 5908851	
	2023-10-05 11:43:29 10U 689524 5908849	
	2023-10-05 11:43:51 10U 689523 5908854	

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
 <p>2023-10-05 11:56:17 11U 345399 5860890</p>	 <p>11U 345391 5860890 2023-10-05 12:18:11</p>
 <p>2023-10-05 12:10:33 11U 345400 5860900</p>	 <p>11U 345391 5860900 2023-10-05 12:10:33</p>
 <p>2023-10-05 12:10:26 11U 345400 5860900</p>	 <p>2023-10-05 12:01:50 11U 345400 5860856</p>

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
 2023-10-05 12:21:26 11U 345395 5860900	•	 2023-10-05 12:22:20 11U 345395 5860900
 2023-10-05 12:23:41 11U 345422 5860935	•	 2023-10-05 12:21:29 11U 345395 5860900
 2023-10-05 12:24:01 11U 345424 5860945	•	 2023-10-05 12:22:26 11U 345395 5860900

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

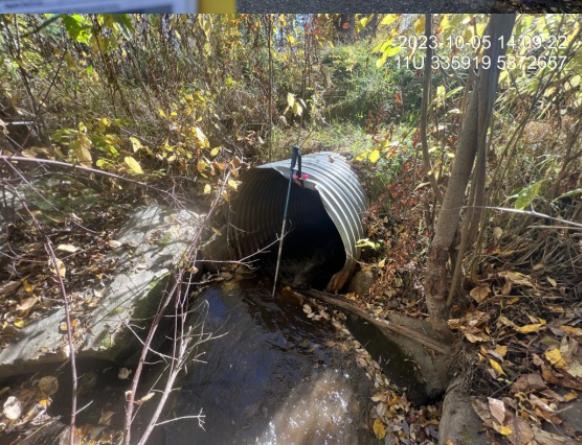
Photos: PSCIS ID 22201176. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	•	Crossing Characteristics
 A photograph showing a paved road curving away from the viewer. On the left, there's a grassy shoulder with a small black pole. A yellow metal barrier is positioned across the road. A large black corrugated pipe crosses the road at an angle, with water flowing out of its bottom. The date and time are displayed in the top right corner.	•	 A close-up view looking down the length of a large black corrugated pipe. Water is visible at the far end. The date and time are displayed in the top right corner.
 A close-up view of the pipe outlet where water is cascading out into a rocky stream bed. Some debris like sticks and leaves are visible. The date and time are displayed in the top right corner.		 A view of the pipe outlet with water flowing out into a stream. The surrounding area is overgrown with grass and small trees. The date and time are displayed in the top right corner.
 A view of a stream flowing through a forest. The ground is covered with fallen autumn leaves. The date and time are displayed in the top right corner.	•	 A close-up view of the stream flowing through dense brush and fallen branches. The water is clear and moving. The date and time are displayed in the top right corner.

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
 A photograph of a dirt road curving through a forest. A yellow survey marker is visible in the foreground. The date and coordinates are overlaid in the top right corner.	•	 A photograph looking down the inside of a large, corrugated metal culvert. The date and coordinates are overlaid in the top right corner.
 A photograph showing the entrance to a culvert, partially obscured by fallen branches and leaves. A red survey rod is pointing towards the opening. The date and coordinates are overlaid in the top right corner.	•	 A photograph showing the entrance to a culvert, partially obscured by fallen branches and leaves. The date and coordinates are overlaid in the top right corner.
 A photograph of a dense brush pile. A single wooden post stands upright in the center. The date and coordinates are overlaid in the bottom right corner.	•	 A photograph of a brush pile with a blue survey tape or pipe lying across it. The date and coordinates are overlaid in the bottom right corner.

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
 2023-10-05 14:02:12 11U 335915 5872656	•	 2023-10-05 14:04:11 11U 335911 5872637
 2023-10-05 14:09:22 11U 335919 5872657	•	 2023-10-05 14:07:59 11U 335909 5872637
 2023-10-05 14:10:47 11U 335917 5872657	•	 2023-10-05 14:07:53 11U 335922 5872629

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
 <p>2023-10-05 14:29:20 11U 335375 5873103</p>	 <p>2023-10-05 14:41:58 11U 335382 5873103</p>
 <p>2023-10-05 14:32:25 11U 335379 5873145</p>	 <p>2023-10-05 14:39:53 11U 335384 5873109</p>
 <p>2023-10-05 14:53:04 11U 335369 5873150</p>	 <p>2023-10-05 14:43:22 11U 335384 5873109</p>

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.

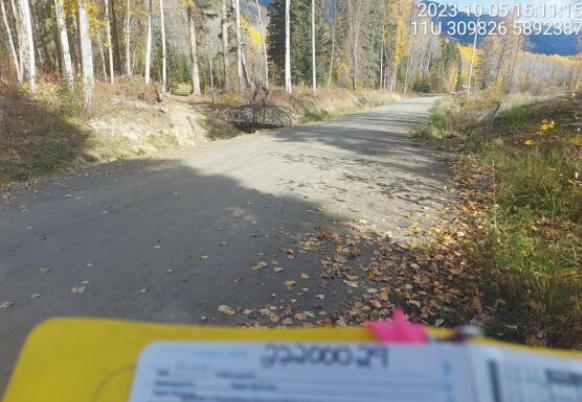
Location and Stream Data	Crossing Characteristics
 2023-10-05 14:33:14 11U 305947 5896002	 2023-10-05 14:28:18 11U 305932 5895994
 2023-10-05 14:34:26 11U 305991 5896038	 2023-10-05 14:26:33 11U 305923 5895997
 2023-10-05 14:37:09 11U 306021 5896037	 2023-10-05 14:26:55 11U 305923 5895996

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
 <p>2023-10-05 15:11:15 11U 309826 5892387</p>	 <p>2023-10-05 15:31:39 11U 309824 5892389</p>
 <p>2023-10-05 15:16:36 11U 309827 5892396</p>	 <p>2023-10-05 15:12:00 11U 309825 5892386</p>
 <p>2023-10-05 15:16:55 11U 309831 5892399</p>	 <p>2023-10-05 15:12:16 11U 309824 5892379</p>

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
	2023-10-05 15:56:08 11U 331570 5875579	 2023-10-05 15:58:21 11U 331572 5875598
	2023-10-05 15:57:35 11U 331571 5875696	 2023-10-05 15:59:32 11U 331562 5875574
	2023-10-05 15:57:00 11U 331567 5875595	 2023-10-05 15:59:34 11U 331562 5875574

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.

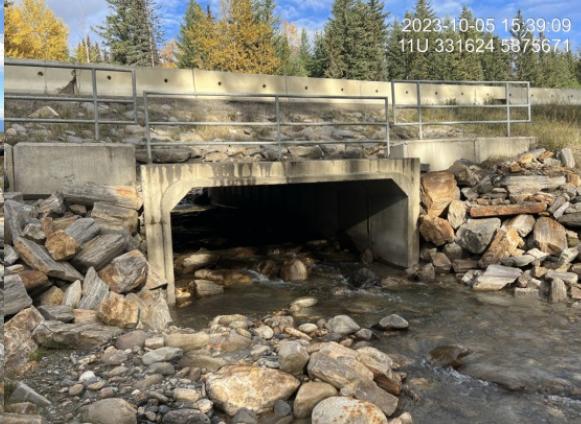
Location and Stream Data	Crossing Characteristics
 <p>2023-10-05 15:52:00 11U 312484 5891997</p>	 <p>2023-10-05 15:52:52 11U 312479 5891995</p>
 <p>2023-10-05 15:53:57 11U 312485 5892011</p>	 <p>2023-10-05 15:52:39 11U 312481 5891999</p>
 <p>2023-10-05 15:53:42 11U 312490 5892012</p>	 <p>2023-10-05 15:52:34 11U 312482 5891998</p>

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
 2023-10-05 15:17:24 11U 331628 5875682 22200061	 2023-10-05 15:19:05 11U 331644 5875694
 2023-10-05 15:18:56 11U 331644 5875694	 2023-10-05 15:39:09 11U 331624 5875674
 2023-10-05 15:32:48 11U 331721 5875733	 2023-10-05 15:38:58 11U 331624 5875671

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
 2023-09-28 12:02:41 10U 307443 6030655	•	 2023-09-28 12:04:16 10U 307441 6030650
 2023-09-28 12:04:07 10U 307441 6030650	•	 2023-09-28 12:15:08 10U 307431 6030648
 2023-09-28 12:09:53 10U 307446 6030676	•	 2023-09-28 12:15:48 10U 307435 6030647

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
 2023-09-28 14:12:06 10U 311152 6025092	 2023-09-28 14:25:22 10U 311149 6025081
 2023-09-28 14:13:26 10U 311160 6025101	 2023-09-28 14:15:40 10U 311148 6025083
 2023-09-28 14:12:32 10U 311152 6025106	 2023-09-28 14:15:11 10U 311157 6025079

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
 2023-09-29 09:44:57 10U 3274568 6011357	 2023-09-29 09:44:57 10U 3274568 6011357
 2023-09-29 09:44:42 10U 327460 6011368	 2023-09-29 09:52:27 10U 327470 6011354
 2023-09-29 09:44:25 10U 327468 6011362	 2023-09-29 09:51:41 10U 327464 6011373

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
 2023-09-29 11:34:30 10U 345688 6001214	 2023-09-29 11:38:51 10U 345688 6001251
 2023-09-29 11:50:12 10U 345653 6001244	 2023-09-29 11:45:51 10U 345682 6001272
 2023-09-29 11:48:17 10U 345676 6001257	 2023-09-29 11:34:59 10U 345683 6001223

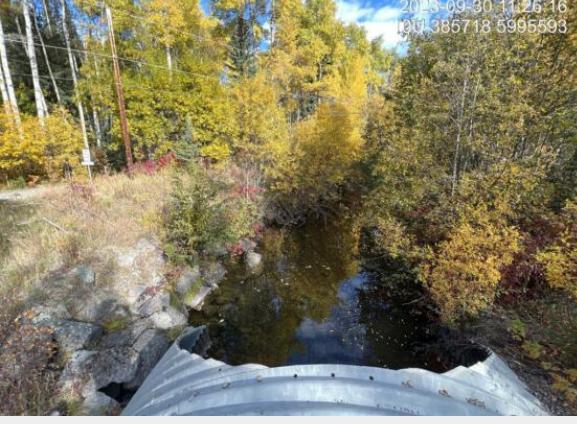
Location and Stream Data		Crossing Characteristics	
Date	2023-09-29	Crossing Sub Type	Round Culvert
PSCIS ID	199291	Diameter (m)	1.5
External ID	15600273	Length (m)	18
Crew	AI	Embedded	No
UTM Zone	10	Depth Embedded (m)	–
Easting	398480	Resemble Channel	No
Northing	5976390	Backwatered	Yes
Stream	Tahultzu 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
 2023-09-29 15:33:39 10U 398474 5976390	•	 2023-09-29 15:37:47 10U 398487 5976398
 2023-09-29 15:39:14 10U 398461 5976389	•	 2023-09-29 15:36:03 10U 398492 5976392
 2023-09-29 15:38:51 10U 398461 5976389	•	 2023-09-29 15:35:47 10U 398480 5976394

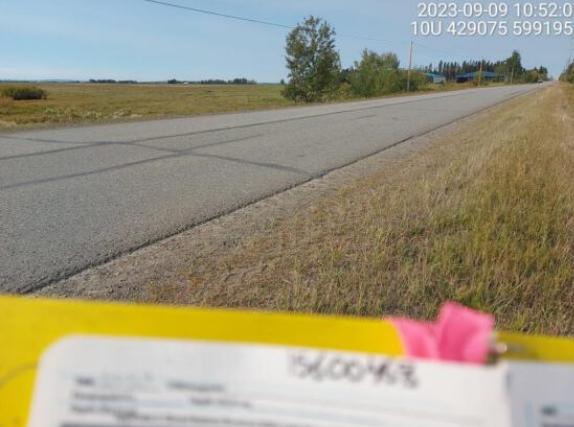
Location and Stream Data		.	Crossing Characteristics	-
Date	2023-09-30		Crossing Sub Type	Oval Culvert
PSCIS ID	199292		Diameter (m)	4.5
External ID	24727338		Length (m)	32
Crew	AI		Embedded	No
UTM Zone	10		Depth Embedded (m)	-
Easting	385711		Resemble Channel	No
Northing	5995594		Backwatered	Yes
Stream	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
 2023-09-30 11:24:28 10U 385697 5995582	 2023-09-30 11:27:56 10U 385702 5995563
 2023-09-30 11:26:38 10U 385709 5995599	 2023-09-30 11:28:03 10U 385702 5995563
 2023-09-30 11:26:16 10U 385718 5995599	 2023-09-30 11:28:11 10U 385702 5995563

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
 2023-09-09 10:52:07 10U 429075 5991957	 2023-09-09 10:54:17 10U 429075 5991962
 2023-09-09 10:55:28 10U 429073 5991963	 2023-09-09 10:58:15 10U 429075 5991935
 2023-09-09 10:53:52 10U 429076 5991963	 2023-09-09 10:57:12 10U 429077 5991945

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
 2023-09-09 11:21:57 10U 429941 5992724	 2023-09-09 11:24:37 10U 429933 5992718
 2023-09-09 11:28:00 10U 429956 5992722	 2023-09-09 11:24:51 10U 429934 5992712
 2023-09-09 11:29:13 10U 429954 5992724	 2023-09-09 11:24:51 10U 429930 5992718

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
 A photograph showing a paved road curving to the right. To the left is a grassy field with a white fence. A yellow and pink survey marker is in the foreground. The timestamp and coordinates are at the top right. <p>2023-09-09 13:06:45 10U 431503 5990594</p>	•	 A close-up view of a large, corrugated metal culvert pipe lying horizontally in a dark, shallow water channel. The timestamp and coordinates are at the top right. <p>2023-09-09 13:10:25 10U 431495 5990575</p>
 A photograph of a large, rusted piece of corrugated metal debris lying on the ground next to a pile of dry, broken wooden logs. The timestamp and coordinates are at the top right. <p>2023-09-09 13:28:37 10U 431508 5990569</p>	•	 A photograph of a large, corrugated metal culvert pipe partially submerged in a shallow, muddy water channel. The pipe is surrounded by tall green grass and reeds. The timestamp and coordinates are at the top right. <p>2023-09-09 13:08:42 10U 431498 5990588</p>
 A photograph of a wetland area with a small, shallow pond in the foreground. The water reflects the surrounding green vegetation and trees. The timestamp and coordinates are at the top right. <p>2023-09-09 13:16:35 10U 431514 5990573</p>	•	 A photograph of a wetland area with a small, shallow pond in the foreground. The water reflects the surrounding green vegetation and trees. The timestamp and coordinates are at the top right. <p>2023-09-09 13:07:58 10U 431500 5990556</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
 <p>2023-09-10 09:56:20 10U 427020 5994549</p>	 <p>2023-09-10 10:03:45 10U 427029 5994531</p>
 <p>2023-09-10 10:05:12 10U 427052 5994545</p>	 <p>2023-09-10 09:59:59 10U 427032 5994530</p>
 <p>2023-09-10 10:06:32 10U 427071 5994574</p>	 <p>2023-09-10 10:00:07 10U 427031 5994525</p>

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
 A photograph of a dirt road curving through a forested area. A yellow and red sign is visible in the foreground. <p>2023-09-10 11:02:50 10U 425987 5998872</p>	 A photograph looking down the interior of a corrugated metal culvert. Light is coming from the open end at the top. <p>2023-09-10 11:07:41 10U 426000 5998853</p>
 A photograph of a concrete culvert pipe partially submerged in a stream. Fallen logs are visible in the water. <p>2023-09-10 11:18:51 10U 426020 5998860</p>	 A photograph of a concrete culvert pipe partially submerged in a stream. Fallen leaves are visible in the water. <p>2023-09-10 11:08:03 10U 425998 5998855</p>
 A photograph of a concrete culvert pipe partially submerged in a stream. Fallen logs are visible in the water. <p>2023-09-10 11:16:23 10U 426020 5998875</p>	 A photograph of a concrete culvert pipe partially submerged in a stream. Fallen leaves are visible in the water. <p>2023-09-10 11:09:04 10U 425978 5998849</p>

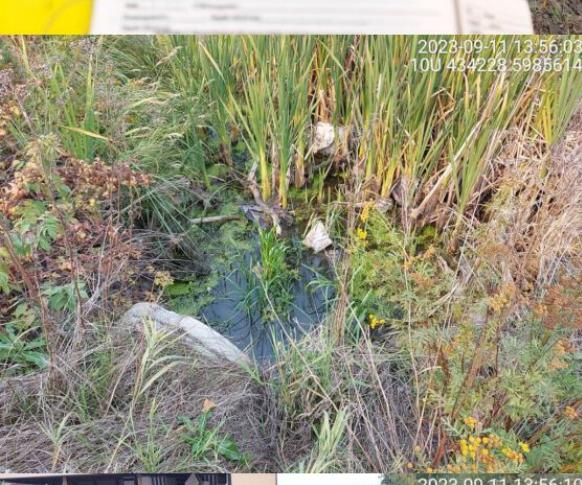
Location and Stream Data	.	Crossing Characteristics	–
Date	2023-09-11	Crossing Sub Type	Round Culvert
PSCIS ID	199298	Diameter (m)	0.8
External ID	15600158	Length (m)	16
Crew	MW	Embedded	No
UTM Zone	10	Depth Embedded (m)	–
Easting	434160	Resemble Channel	No
Northing	5985531	Backwatered	Yes
Stream	Tributary 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
 2023-09-11 13:46:08 10U 434171 5985491		
 2023-09-11 13:51:07 10U 434161 598542	 2023-09-11 13:50:37 10U 434164 5985540	
 2023-09-11 13:50:45 10U 434162 5985542		 2023-09-11 13:47:51 10U 434158 5985513

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
 2023-09-11 14:02:27 10U 434218 5985596	 2023-09-11 14:02:27 10U 434218 5985596
 2023-09-11 13:56:03 10U 434228 5985614	 2023-09-11 13:56:03 10U 434228 5985614
 2023-09-11 13:56:10 10U 434227 5985612	 2023-09-11 13:56:15 10U 434227 5985589

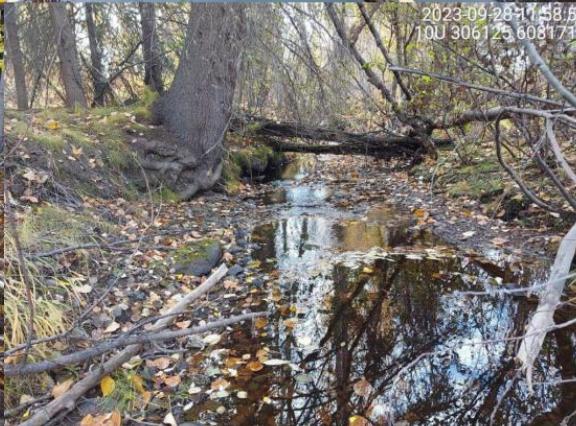
Location and Stream Data		Crossing Characteristics	
Date	2023-09-12	Crossing Sub Type	Round Culvert
PSCIS ID	199300	Diameter (m)	2.2
External ID	15600112	Length (m)	30
Crew	MW	Embedded	No
UTM Zone	10	Depth Embedded (m)	—
Easting	426644	Resemble Channel	No
Northing	5985671	Backwatered	Yes
Stream	Goldie 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
 2023-09-12 08:16:37 10U 426651 5985556	 2023-09-12 08:20:09 10U 426672 5985649
 2023-09-12 08:24:16 10U 426626 5985689	 2023-09-12 08:17:57 10U 426672 5985653
 2023-09-12 08:23:56 10U 426628 5985684	 2023-09-12 08:17:42 10U 426670 5985653

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
 2023-09-28 11:55:53 10U 306217 6031694	 2023-09-28 12:08:20 10U 306154 6031758
 2023-09-28 12:08:03 10U 306185 6031768	 2023-09-28 11:59:16 10U 306130 6031722
 2023-09-28 12:06:30 10U 306160 6031768	 2023-09-28 11:58:50 10U 306125 6031715

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	-
 2023-09-28 16:52:27 10U 321875 6012106		NO IMAGE AVAILABLE	
 2023-09-28 16:58:52 10U 321892 6012123		 2023-09-28 16:56:19 10U 321853 6012130	
 2023-09-28 16:59:23 10U 321884 6012126		 2023-09-28 16:56:42 10U 321856 6012141	

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

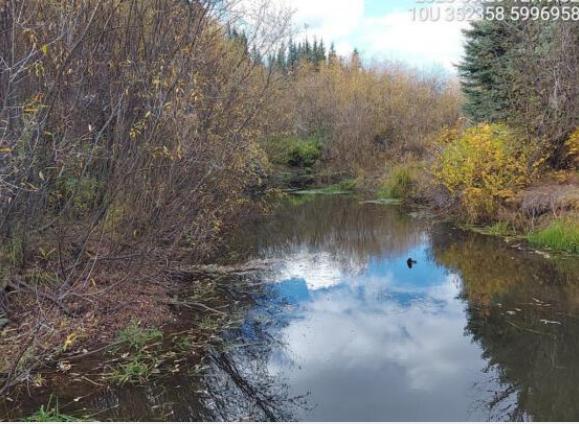
Photos: PSCIS ID 5403082. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 <p>2023-09-29 09:08:42 10U 327638 6010430</p>	 <p>2023-09-29 09:10:39 10U 327612 6010437</p>
 <p>2023-09-29 09:17:45 10U 327630 6010455</p>	 <p>2023-09-29 09:10:03 10U 327609 6010437</p>
 <p>2023-09-29 09:17:55 10U 327631 6010453</p>	 <p>2023-09-29 09:10:14 10U 327605 6010435</p>

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
 <p>2023-09-29 12:12:23 10U 352419 5996959</p>	 <p>2023-09-29 12:22:20 10U 352354 5996960</p>
 <p>2023-09-29 12:19:07 10U 352357 5996950</p>	 <p>2023-09-29 12:34:06 10U 352361 5997001</p>
 <p>2023-09-29 12:19:32 10U 352358 5996958</p>	 <p>2023-09-29 12:27:57 10U 352356 5996990</p>

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 12:18:18 10U 492349 5956652</p>	 <p>2023-10-01 12:25:08 10U 492372 5956643</p>
 <p>2023-10-01 12:23:25 10U 492378 5956632</p>	 <p>2023-10-01 12:20:16 10U 492373 5956634</p>
 <p>2023-10-01 12:23:42 10U 492374 5956664</p>	 <p>2023-10-01 12:20:26 10U 492369 5956634</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
	•	
		
	•	

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
 2023-10-03 12:48:09 10U 607134 5971310	 2023-10-03 13:06:26 10U 607099 5971317
 2023-10-03 12:50:07 10U 607092 5971323	 2023-10-03 12:44:24 10U 607103 5971303
 2023-10-03 12:55:29 10U 607106 5971328	 2023-10-03 12:47:06 10U 607112 5971301

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
 2023-10-03 14:43:06 10U 590784 5982777	 2023-10-03 14:44:42 10U 590795 5982771
 2023-10-03 14:44:08 10U 590791 5982778	 2023-10-03 14:49:09 10U 590787 5982782
 2023-10-03 14:44:21 10U 590793 5982771	 2023-10-03 14:47:58 10U 590788 5982763

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
 2023-10-03 16:32:58 10U 582088 5989834	 2023-10-03 16:36:24 10U 582097 5989833
 2023-10-03 16:36:14 10U 582100 5989837	 2023-10-03 16:34:54 10U 582087 5989827
 2023-10-03 16:39:44 10U 582093 5989835	 2023-10-03 16:34:05 10U 582084 5989836

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
 2023-10-03 18:00:24 10U 558683 5995862	•	 2023-10-03 18:04:51 10U 558705 5995817
 2023-10-03 18:02:04 10U 558687 5995820	•	 2023-10-03 18:04:24 10U 558709 5995823
 2023-10-03 18:01:40 10U 558687 5995820	•	 2023-10-03 18:03:38 10U 558709 5995804

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 09:27:13 10U 579545 5977453	 2023-10-04 09:16:39 10U 579535 5977406
 2023-10-04 09:35:01 10U 579508 5977417	 2023-10-04 09:30:06 10U 579534 5977413
 2023-10-04 09:35:50 10U 579509 5977419	 2023-10-04 09:30:19 10U 579533 5977411

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
 A photograph of a dirt road through a forest. A yellow marker is visible in the foreground.	•	 A photograph looking down the length of a metal culvert. Water is flowing through it.
 A photograph of a small wooden structure, possibly a fish ladder or weir, in a stream.	•	 A photograph of a stream with a pipe partially submerged in the water.
 A photograph of a stream with a stick or branch in the water.	•	 A photograph of a stream with autumn foliage and trees reflected in the water.

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

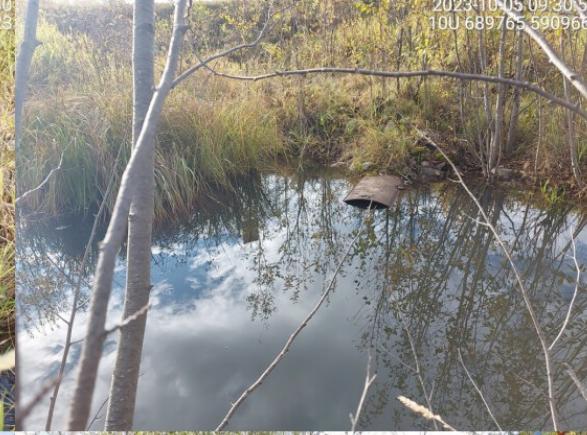
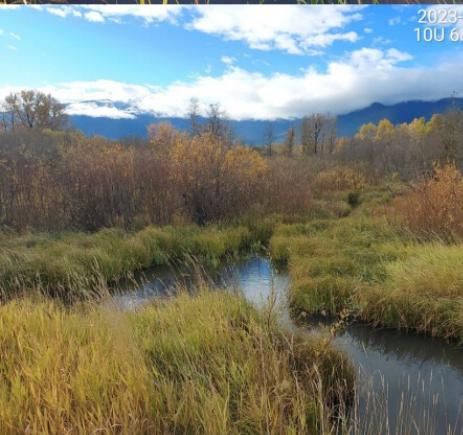
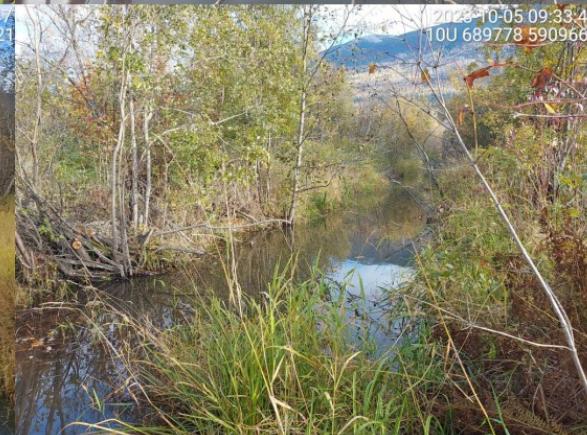
Photos: PSCIS ID 13900193. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	Crossing Characteristics
 2023-10-04 11:15:07 10U 585961 5973278	 2023-10-04 11:26:12 10U 585711 5973380
 2023-10-04 11:19:48 10U 585700 5973380	 2023-10-04 11:29:13 10U 585723 5973396
 2023-10-04 11:21:28 10U 585701 5973348	 2023-10-04 11:29:45 10U 585726 5973398

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
 <p>2023-10-05 09:47:18 10U 689716 5909659</p>	 <p>2023-10-05 09:37:42 10U 689758 5909659</p>
 <p>2023-10-05 09:36:30 10U 689764 5909629</p>	 <p>2023-10-05 09:30:52 10U 689765 5909661</p>
 <p>2023-10-05 09:40:47 10U 689762 5909621</p>	 <p>2023-10-05 09:33:42 10U 689778 5909663</p>

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.

Appendix - Phase 1 Fish Passage Ass...

Location and Stream Data	•	Crossing Characteristics
 2023-10-05 10:46:17 HU 344982 5860580	•	 2023-10-05 11:25:13 11U 345038 5860627
 2023-10-05 11:25:41 11U 345025 5860610	•	 2023-10-05 11:39:20 11U 344981 5860551
 2023-10-05 11:28:17 11U 345025 5860603	•	 2023-10-05 11:14:43 11U 344961 5860521

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
 2023-09-28 15:28:44 10U 319472 6012986	•	 2023-09-28 15:32:43 10U 319495 6013005
 2023-09-28 15:34:47 10U 319495 6012989	•	 2023-09-28 15:29:19 10U 319461 6012973
 2023-09-28 15:36:25 10U 319499 6013003	•	 2023-09-28 15:27:16 10U 319472 6013003

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
 2023-09-09 14:38:22 10U 438065 5986301	 2023-09-09 14:42:04 10U 438075 5986302
 2023-09-09 14:41:42 10U 438070 5986307	 2023-09-09 14:47:53 10U 438072 5986278
 2023-09-09 14:42:35 10U 438092 5986309	 2023-09-09 14:48:18 10U 438061 5986270

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
 2023-09-10 14:15:50 10U 415988 5993740	
 2023-09-10 14:16:58 10U 415994 5993744	 2023-09-10 14:16:47 10U 415998 5993744
 2023-09-10 14:16:39 10U 415990 5993739	 2023-09-10 14:17:28 10U 415996 5993722

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
		 <p>2023-09-29 09:50:24 10U 330247 6009373</p>
NO IMAGE AVAILABLE		 <p>2023-09-29 09:50:05 10U 330251 6009472</p>
 <p>2023-09-29 09:46:08 10U 330273 6009372</p>		 <p>2023-09-29 09:56:35 10U 330210 6009364</p>

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
 2023-10-03 15:21:08 10U 590809 5982774	•	 2023-10-03 15:21:36 10U 590816 5982783
 2023-10-03 15:25:51 10U 590827 5982815	•	 2023-10-03 15:21:25 10U 590809 5982774
 2023-10-03 15:29:10 10U 590855 5982886	•	 2023-10-03 15:22:59 10U 590813 5982792

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

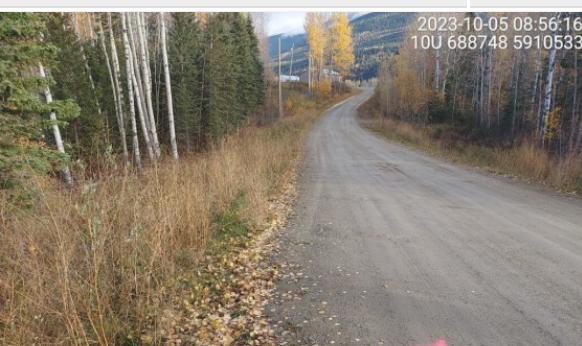
Photos: PSCIS ID 13900265. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	•	Crossing Characteristics	-
 A photograph showing a paved road curving away from the viewer through a forested area with autumn-colored trees. In the foreground, a yellow survey marker is visible, labeled with the number 13900265.	2023-10-04 11:51:12 10U 591184 5971087	 A photograph looking down the interior of a corrugated metal culvert. The floor is rocky and covered in fallen leaves. Light filters through the opening at the end of the tunnel.	2023-10-04 11:56:04 10U 591254 5971070
 A photograph of a small stream flowing over rocks and fallen leaves. A dark, corrugated culvert is partially buried in the bank on the left side of the stream.	2023-10-04 12:01:10 10U 591244 5971029	 A photograph of a culvert entrance partially obscured by dense brush and fallen branches. Water flows out from the opening.	2023-10-04 11:53:25 10U 591257 5971060
 A photograph of a stream flowing over a bed of large, smooth stones and fallen leaves. The water is clear and moves quickly.	2023-10-04 12:05:42 10U 591224 5971008	 A photograph of a stream flowing through a dense forest. The water is clear and reflects the surrounding green and yellow foliage.	2023-10-04 11:53:38 10U 591259 5971059

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
 A photograph of a dirt road curving through a forest of birch trees with white bark and yellow autumn leaves. The date and time are 2023-10-05 08:56:16. <p>2023-10-05 08:56:16 10U 688748 5910533</p>	•	 A photograph looking down the interior of a corrugated metal culvert. The date and time are 2023-10-05 08:57:43. <p>2023-10-05 08:57:43 10U 688745 5910561</p>
 A photograph of the entrance to a corrugated metal culvert, partially buried in rocks and surrounded by autumn foliage. The date and time are 2023-10-05 08:57:18. <p>2023-10-05 08:57:18 10U 688742 5910561</p>	•	 A photograph looking out from the exit of a corrugated metal culvert, showing a stream flowing through rocks and autumn leaves. The date and time are 2023-10-05 09:08:25. <p>2023-10-05 09:08:25 10U 689351 5909981</p>
 A photograph of a small stream flowing through tall grass and autumn leaves. The date and time are 2023-10-05 09:01:38. <p>2023-10-05 09:01:38 10U 688733 5910544</p>	•	 A photograph of a larger stream flowing through dense vegetation and autumn foliage. The date and time are 2023-10-05 09:09:38. <p>2023-10-05 09:09:38 10U 688733 5910572</p>

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
 2023-10-05 09:39:05 11U-345872 5855402 22200082	 2023-10-05 09:40:48 11U 345884 5855401
 2023-10-05 09:40:24 11U 345887 5855401	 2023-10-05 09:45:17 11U 345869 5855413
 2023-10-05 09:40:02 11U 345879 5855403	 2023-10-05 09:46:33 11U 345870 5855407

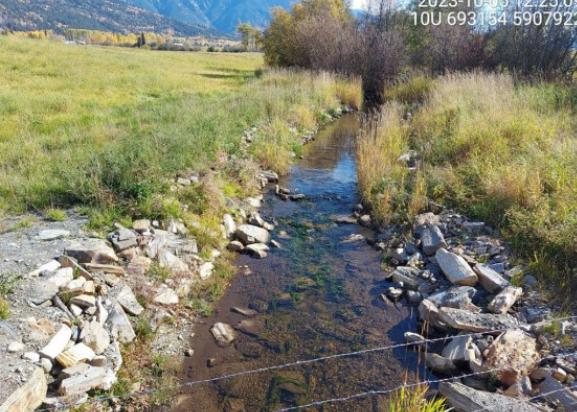
Location and Stream Data		Crossing Characteristics	
Date	2023-10-05	Crossing Sub Type	Round Culvert
PSCIS ID	199324	Diameter (m)	3.7
External ID	13900015	Length (m)	30
Crew	MW	Embedded	Yes
UTM Zone	10	Depth Embedded (m)	0.2
Easting	688844	Resemble Channel	Yes
Northing	5909209	Backwatered	No
Stream	Dominion 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
 2023-10-05 09:55:41 10U 688835 5909201 	 2023-10-05 09:57:12 10U 688823 5909198
 2023-10-05 09:56:47 10U 688815 5909201 	 2023-10-05 10:02:20 10U 688847 5909213
 2023-10-05 09:57:32 10U 688818 5909201 	 2023-10-05 10:02:38 10U 688857 5909218

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 12:19:48 10U 693141 5907927	 2023-10-05 12:22:04 10U 689114 5909649
 2023-10-05 12:25:23 10U 693155 5907925	 2023-10-05 12:23:53 10U 693135 5907924
 2023-10-05 12:25:09 10U 693154 5907922	 2023-10-05 12:26:29 10U 693134 5907921

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

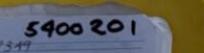
Photos: PSCIS ID 13900012. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	•	Crossing Characteristics	-
 2023-10-05 13:16:31 10U 695694 5906549		 2023-10-05 12:52:44 10U 693858 5908056	
 2023-10-05 12:55:12 10U 693890 5908081		 2023-10-05 12:47:40 10U 693855 5908055	
 2023-10-05 12:55:35 10U 693894 5908084		 2023-10-05 12:47:50 10U 693847 5908053	

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
 2023-09-29 16:02:34 10U 397525 5976163	•	 2023-09-29 16:02:52 10U 397523 5976151
 2023-09-29 16:03:20 10U 397515 5976160	•	 2023-09-29 16:05:29 10U 397513 5976157
 2023-09-29 16:03:04 10U 397515 5976160	•	 2023-09-29 16:05:58 10U 397525 5976165

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
 2023-09-30 11:56:10 10U 388357 5996769 	 2023-09-30 11:58:28 10U 388368 5996768
 2023-09-30 11:58:18 10U 388368 5996768	 2023-09-30 12:01:22 10U 388378 5996769
 2023-09-30 11:56:36 10U 388368 5996773	 2023-09-30 12:01:30 10U 388378 5996768

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
 <p>2023-10-03 16:57:02 10U 576120 5992819</p>	 <p>2023-10-03 17:02:45 10U 576137 5992841</p>
 <p>2023-10-03 17:04:52 10U 576163 5992808</p>	 <p>2023-10-03 16:58:15 10U 576137 5992794</p>
 <p>2023-10-03 17:02:02 10U 576162 5992832</p>	 <p>2023-10-03 16:58:24 10U 576137 5992794</p>

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
 2023-09-28 14:54:53 10U 319792 601293	 2023-09-28 14:58:00 10U 319787 6012956
 2023-09-28 14:58:30 10U 319796 6012950	 2023-09-28 14:57:52 10U 319787 6012956
 2023-09-28 14:58:27 10U 319796 6012950	 2023-09-28 14:57:58 10U 319789 6012944

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
 A photograph showing a dirt road leading towards a stream crossing. The road is surrounded by autumn-colored foliage. A yellow sign is visible on the right side of the road.		 A photograph looking down the interior of a corrugated metal culvert. The floor is covered with rocks and fallen leaves. The entrance to the culvert is visible on the left.
 A photograph showing a damaged culvert structure partially buried in rocks and debris. A wooden fence post is visible in the foreground.		 A photograph showing the exterior of a culvert crossing. The ground is covered with fallen leaves and brush. The culvert entrance is visible on the right.
 A photograph showing a close-up of a stream crossing. A wooden fence is visible in the foreground, and the water is flowing over rocks and debris.		 A photograph showing a close-up of a stream crossing. A wooden fence is visible in the foreground, and the water is flowing over rocks and debris.

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
 2023-09-30 14:43:08 10U 396150 5997720	 2023-09-30 14:44:40 10U 396120 5997708
 2023-09-30 14:44:53 10U 396120 5997720	 2023-09-30 14:44:53 10U 396120 5997708
 2023-09-30 14:43:30 10U 396120 5997720	 2023-09-30 14:44:02 10U 396116 5997718

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
 <p>2023-09-30 15:00:37 10U 395481 6003132</p>	•	 <p>2023-09-30 15:02:05 10U 395493 6003142</p>
 <p>15604704 2023-09-30 15:02:00 10U 395493 6003142</p>	•	 <p>2023-09-30 15:04:05 10U 395494 6003133</p>
 <p>2023-09-30 15:01:38 10U 395503 6003143</p>	•	 <p>2023-09-30 15:01:41 10U 395505 6003143</p>

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
 2023-09-11 09:57:36 10U 441137 5989543	 2023-09-11 10:00:51 10U 441146 5989598
 2023-09-11 10:00:29 10U 441143 5989597	 2023-09-11 10:00:15 10U 441138 5989595
 2023-09-11 10:00:33 10U 441143 5989597	 2023-09-11 10:00:19 10U 441139 5989595

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.				

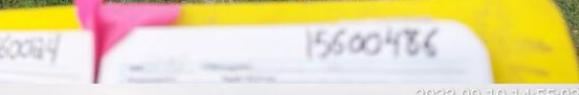
Location and Stream Data	Crossing Characteristics
 <p>2023-10-03 11:09:33 10U 613206 5966891</p>	 <p>2023-10-03 11:10:31 10U 613205 5966882</p>
 <p>2023-10-03 11:09:51 10U 613213 5966884</p>	 <p>2023-10-03 11:10:05 10U 613210 5966884</p>
 <p>2023-10-03 11:09:55 10U 613214 5966885</p>	 <p>2023-10-03 11:10:11 10U 613209 5966886</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 11:49:12 10U 485547 5954834	•	 2023-10-01 11:49:46 10U 485547 5954834
 2023-10-01 11:49:37 10U 485547 5954834	•	 2023-10-01 11:49:35 10U 485547 5954834
 2023-10-01 11:49:23 10U 485547 5954834	•	 2023-10-01 11:49:28 10U 485547 5954834

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.				

Appendix - Phase 1 Fish Passage Ass...

Location and Stream Data	Crossing Characteristics
 2023-09-10 14:57:22 10U 420116 5994754	 2023-09-10 14:54:52 10U 420114 5994740
 2023-09-10 14:55:03 10U 420114 5994741	 2023-09-10 14:55:27 10U 420114 5994741
 2023-09-10 14:54:57 10U 420113 5994739	 2023-09-10 14:55:33 10U 420113 5994732

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
	 <p>2023-09-11 16:15:19 10U 412265 6001835</p>
 <p>2023-09-11 16:15:27 10U 412265 6001840</p>	 <p>2023-09-11 16:15:37 10U 412264 6001836</p>
 <p>2023-09-11 16:15:24 10U 412264 6001830</p>	 <p>2023-09-11 16:15:36 10U 412265 6001836</p>

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
 <p>2023-09-29 10:02:20 10U 330327 6009410</p>	 <p>2023-09-29 10:02:34 10U 330327 6009409</p>
 <p>2023-09-29 10:02:54 10U 330330 6009409</p>	 <p>2023-09-29 10:02:38 10U 330326 6009409</p>
 <p>2023-09-29 10:03:00 10U 330331 6009415</p>	 <p>2023-09-29 10:02:45 10U 330325 6009406</p>

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.

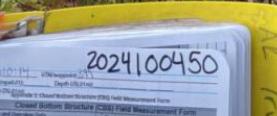
Photos: PSCIS ID 2024100701. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.

Location and Stream Data	•	Crossing Characteristics
 2024-10-07 16:19:42 10U 578672 5973065	•	 2024-10-07 16:21:05 10U 578663 5973058
 2024-10-07 16:20:52 10U 578663 5973058	•	 2024-10-07 16:29:57 10U 578682 5973049
 2024-10-07 16:30:30 10U 578667 5973055	•	 2024-10-07 16:29:47 10U 578682 5973049

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
 <p>2024-10-04 10:17:14 10U 388200 5997077</p>	 <p>2024-10-04 10:19:28 10U 388203 5997050</p>
 <p>2024-10-04 10:23:05 10U 388192 5997070</p>	 <p>2024-10-04 10:18:22 10U 388207 5997065</p>
 <p>2024-10-04 10:38:11 10U 388179 5997068</p>	 <p>2024-10-04 10:18:25 10U 388207 5997065</p>

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
 <p>2024-10-05 12:47:11 10U 506081 5962276</p>	 <p>2024-10-05 12:52:16 10U 506077 5962281</p>
 <p>2024-10-05 12:52:08 10U 506077 5962281</p>	
 <p>2024-10-05 13:01:10 10U 506077 5962286</p>	 <p>2024-10-05 12:49:23 10U 506083 5962274</p>

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
	
	
	

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
	•	 2024-10-09 12:53:34 11U 343956 5862718
	•	 2024-10-09 12:53:50 11U 343956 5862718
	•	 2024-10-09 12:54:45 11U 343964 5862728

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
 <p>2024-10-04 16:44:08 10U 425629 5995919</p>	 <p>2024-10-04 16:44:46 10U 425629 5995919</p>
 <p>2024-10-04 16:44:32 10U 425629 5995919</p>	 <p>2024-10-04 16:44:43 10U 425629 5995919</p>
 <p>2024-10-04 16:44:21 10U 425629 5995919</p>	 <p>2024-10-04 16:44:23 10U 425629 5995919</p>

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.