

## Appendix - Phase 1 Fish Passage Assessment Data and Photos

Location and Stream Data		.	Crossing Characteristics	-
Date	2021-07-27	Crossing Sub Type	Bridge	
PSCIS ID	197780	Diameter (m)	7.5	
External ID	4601993	Length (m)	5	
Crew	AI TS	Embedded	-	
UTM Zone	11	Depth Embedded (m)	-	
Easting	656655	Resemble Channel	-	
Northing	5431721	Backwatered	-	
Stream	Rabbit Creek	Percent Backwatered	-	
Road	-	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	Passable	
Fix type	-	Fix Span / Diameter	-	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197780. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
 2021-07-27, 4:09 PM 11U 656657 5431713		<b>NO IMAGE AVAILABLE</b>	
 2021-07-27, 4:12 PM 11U 656647 5431707		 2021-07-27, 4:12 PM 11U 656647 5431707	
 2021-07-27, 4:11 PM 11U 656657 5431713		 2021-07-27, 4:11 PM 11U 656657 5431713	

Comments: Bridge has collapsed but is not blocking channel. 16:08

Location and Stream Data		.	Crossing Characteristics	–
Date	2021-07-27	Crossing Sub Type	Bridge	
PSCIS ID	197781	Diameter (m)	14	
External ID	4601995	Length (m)	5	
Crew	AI TS	Embedded	–	
UTM Zone	11	Depth Embedded (m)	–	
Easting	655890.2	Resemble Channel	–	
Northing	5431860	Backwatered	–	
Stream	Rabbit Creek	Percent Backwatered	–	
Road	–	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	Passable	
Fix type	–	Fix Span / Diameter	–	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197781. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-07-27, 4:39 PM 11U 655902 5431882	 2021-07-27, 4:42 PM 11U 655896 5431873
 2021-07-27, 4:40 PM 11U 655896 5431873	 2021-07-27, 4:42 PM 11U 655896 5431873
 2021-07-27, 4:40 PM 11U 655902 5431882	 2021-07-27, 4:40 PM 11U 655902 5431882
Comments: Bridge has collapsed but is not blocking channel. 16:36	

Location and Stream Data		.	Crossing Characteristics	–
Date	2021-07-27	Crossing Sub Type	Bridge	
PSCIS ID	197782	Diameter (m)	12	
External ID	4602359	Length (m)	5	
Crew	AI TS	Embedded	–	
UTM Zone	11	Depth Embedded (m)	–	
Easting	655618	Resemble Channel	–	
Northing	5431721	Backwatered	–	
Stream	Rabbit Creek	Percent Backwatered	–	
Road	–	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	Passable	
Fix type	–	Fix Span / Diameter	–	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197782. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A yellow rectangular card with the number "4602359" printed on it, placed in front of a stream flowing through a forest.	 A view of a stream with a large log across it, with a yellow barrel resting on the log.
 A view of a stream outlet where water flows from a pipe into a rocky stream bed.	 A view downstream, showing a rocky stream bed with fallen logs and dense green vegetation.
 A view upstream, showing a rocky stream bed with fallen logs and dense green vegetation.	 A view of a stream inlet where water flows into a larger stream, with fallen logs and dense green vegetation.
 A view of a collapsed bridge structure lying across the stream bed, partially submerged in water.	 A view of the same collapsed bridge structure from a different angle, showing its length and how it spans the stream.

Comments: Bridge has collapsed but is not blocking channel. 16:59

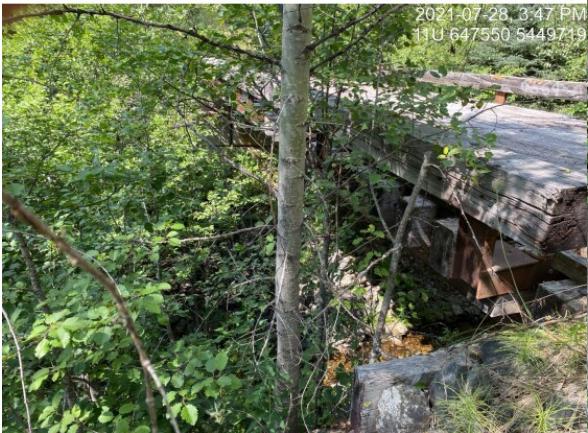
Location and Stream Data		Crossing Characteristics	
Date	2021-07-28	Crossing Sub Type	Round Culvert
PSCIS ID	197783	Diameter (m)	0.4
External ID	4605937	Length (m)	12
Crew	AI TS	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	662247	Resemble Channel	No
Northing	5431294	Backwatered	No
Stream	Tributary to Wigwam River	Percent Backwatered	–
Road	Wigwam FSR	Fill Depth (m)	2
Road Tenure	Canfor R08380	Outlet Drop (m)	0
Channel Width (m)	0.6	Outlet Pool Depth (m)	0
Stream Slope (%)	3.5	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

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197783. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-07-28, 12:03 PM 11U 662240 5431278	 2021-07-28, 12:05 PM 11U 662253 5431281
 2021-07-28, 12:05 PM 11U 662253 5431281	 2021-07-28, 12:06 PM 11U 662235 5431291
 2021-07-28, 12:04 PM 11U 662253 5431281	 2021-07-28, 12:05 PM 11U 662235 5431291
Comments: Dry with poorly defined downstream channel. 12:03	

Location and Stream Data		Crossing Characteristics –	
Date	2021-07-28	Crossing Sub Type	Bridge
PSCIS ID	197784	Diameter (m)	14
External ID	4605216	Length (m)	4
Crew	AI TS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	647551	Resemble Channel	–
Northing	5449746	Backwatered	–
Stream	Tributary to Wigwam River	Percent Backwatered	–
Road	–	Fill Depth (m)	–
Road Tenure	Unknown	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197784. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
		 2021-07-28, 3:48 PM 11U 647550 5449719	
 2021-07-28, 3:47 PM 11U 647550 5449719		 2021-07-28, 3:47 PM 11U 647550 5449719	
 2021-07-28, 3:46 PM 11U 647558 5449724		 2021-07-28, 3:45 PM 11U 647558 5449724	
Comments: Suspect that this stream is mapped incorrectly. 15:41			

Location and Stream Data		Crossing Characteristics	
Date	2021-07-28	Crossing Sub Type	Round Culvert
PSCIS ID	197785	Diameter (m)	1
External ID	4606129	Length (m)	28
Crew	AI TS	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	649481.2	Resemble Channel	No
Northing	5446732	Backwatered	No
Stream	Tributary to Wigwam River	Percent Backwatered	–
Road	–	Fill Depth (m)	4
Road Tenure	Canfor R08380	Outlet Drop (m)	0.4
Channel Width (m)	0	Outlet Pool Depth (m)	0
Stream Slope (%)	5	Inlet Drop	No
Beaver Activity	No	Slope (%)	1.5
Habitat Value	Low	Valley Fill	Deep Fill
Final score	28	Barrier Result	Barrier
Fix type	Replace Structure with Streambed Simulation CBS	Fix Span / Diameter	3

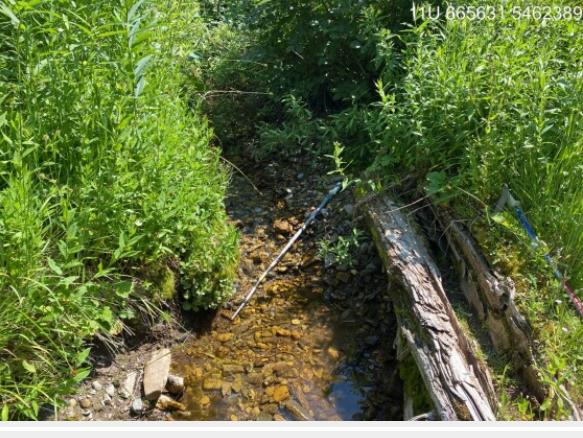
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197785. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-07-28, 4:28 PM 11U 649489 5446732	 2021-07-28, 4:31 PM 11U 649494 5446716
 2021-07-28, 4:31 PM 11U 649494 5446729	 2021-07-28, 4:33 PM 11U 649485 5446743
 2021-07-28, 4:43 PM 11U 649539 5446630	 2021-07-28, 4:30 PM 11U 649488 5446728

Comments: Drains Snowshoe Lake. No visible channel. No fish habitat present as the channel empties into large natural depression area ~60m upstream of the road. 16:25

Location and Stream Data		Crossing Characteristics	
Date	2021-07-29	Crossing Sub Type	Round Culvert
PSCIS ID	197786	Diameter (m)	1.2
External ID	4606398	Length (m)	10
Crew	AI TS	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	665796.1	Resemble Channel	No
Northing	5462152	Backwatered	No
Stream	Lodgepole Creek	Percent Backwatered	—
Road	Harvey FSR	Fill Depth (m)	0.1
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	0
Channel Width (m)	2	Outlet Pool Depth (m)	0.1
Stream Slope (%)	3.8	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	1.7
Habitat Value	Medium	Valley Fill	Deep Fill
Final score	21	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197786. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-07-29, 10:31 AM 11U 665794 5462154		2021-07-29, 10:32 AM 11U 665786 5462160
	2021-07-29, 10:32 AM 11U 665783 5462147		2021-07-29, 10:33 AM 11U 665783 5462160
	2021-07-29, 10:31 AM 11U 665794 5462154		2021-07-29, 10:45 AM 11U 665631 5462389

Comments: Small stream with good flow. Abundant gravels just upstream with gradients increasing to 6-7% near 540m upstream of culvert where large (~30m high) waterfall is located. 10:18

Location and Stream Data		Crossing Characteristics	
Date	2021-07-29	Crossing Sub Type	Round Culvert
PSCIS ID	197787	Diameter (m)	2
External ID	4606370	Length (m)	2
Crew	AI TS	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	664905.1	Resemble Channel	No
Northing	5462562	Backwatered	No
Stream	Lodgepole Creek	Percent Backwatered	—
Road	Harvey FSR	Fill Depth (m)	1.5
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	0
Channel Width (m)	3.26	Outlet Pool Depth (m)	0.1
Stream Slope (%)	2.8	Inlet Drop	Yes
Beaver Activity	Yes	Slope (%)	0.5
Habitat Value	Medium	Valley Fill	Deep Fill
Final score	16	Barrier Result	Potential
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

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Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197787. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
	 <p>2021-07-29, 3:39 PM 11U 664918 5462564</p>
 <p>4606370</p> <p>2021-07-29, 3:42 PM 11U 664912 5462558</p>	 <p>2021-07-29, 3:43 PM 11U 664920 5462584</p>
 <p>2021-07-29, 3:45 PM 11U 664925 5462551</p>	 <p>2021-07-29, 3:53 PM 11U 664894 5462562</p>

Location and Stream Data		Crossing Characteristics –	
Date	2021-07-30	Crossing Sub Type	Ford
PSCIS ID	197788	Diameter (m)	–
External ID	4603788	Length (m)	–
Crew	AI TS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	660450.9	Resemble Channel	–
Northing	5461352	Backwatered	–
Stream	Lodgepole Creek	Percent Backwatered	–
Road	–	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	–

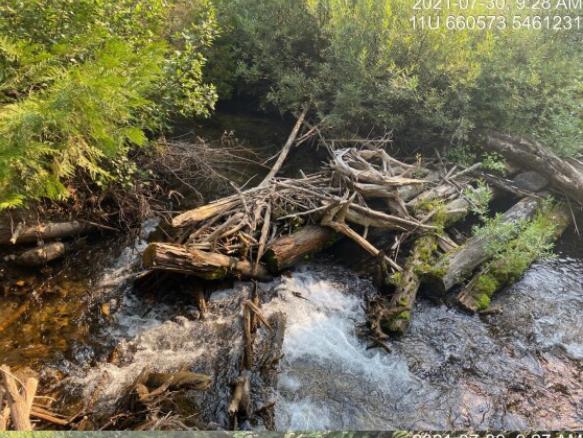
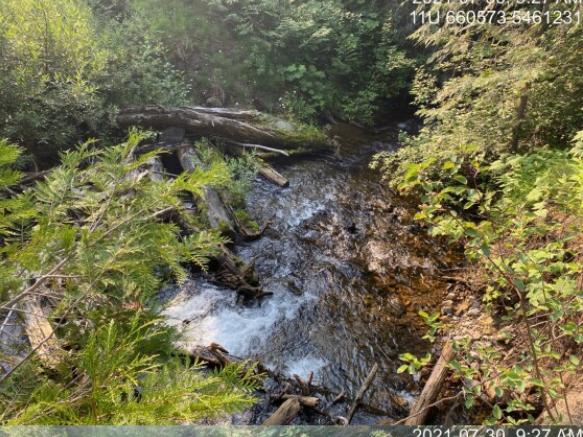
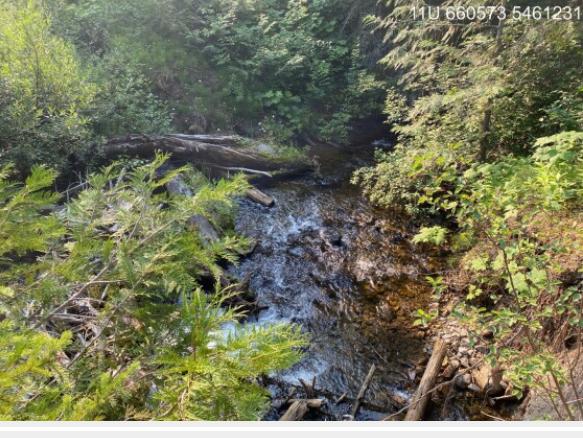
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197788. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-07-30, 9:51 AM 11U 660423 5461365		2021-07-30, 9:52 AM 11U 660423 5461365
	2021-07-30, 9:52 AM 11U 660423 5461365		2021-07-30, 9:52 AM 11U 660423 5461365
	2021-07-30, 9:52 AM 11U 660423 5461365		2021-07-30, 9:52 AM 11U 660423 5461365

Comments: Bridge has been removed. No issues. 9:50

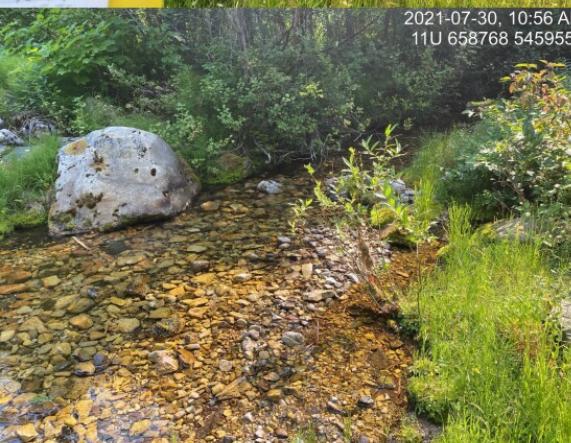
Location and Stream Data		Crossing Characteristics –	
Date	2021-07-30	Crossing Sub Type	Ford
PSCIS ID	197789	Diameter (m)	–
External ID	4603791	Length (m)	–
Crew	AI TS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	660586	Resemble Channel	–
Northing	5461227	Backwatered	–
Stream	Tributary to Lodgepole Creek	Percent Backwatered	–
Road	–	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197789. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-07-30, 9:27 AM 11U 660573 5461231		2021-07-30, 9:28 AM 11U 660573 5461231
	2021-07-30, 9:27 AM 11U 660573 5461231		2021-07-30, 9:27 AM 11U 660573 5461231
	2021-07-30, 9:27 AM 11U 660573 5461231		2021-07-30, 9:27 AM 11U 660573 5461231
Comments: Bridge has been removed. No issues. 9:25			

Location and Stream Data		Crossing Characteristics –	
Date	2021-07-30	Crossing Sub Type	Ford
PSCIS ID	197790	Diameter (m)	–
External ID	4606411	Length (m)	–
Crew	AI TS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	658765	Resemble Channel	–
Northing	5459547	Backwatered	–
Stream	Tributary to Lodgepole Creek	Percent Backwatered	–
Road	–	Fill Depth (m)	–
Road Tenure	Canfor R08388	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	–

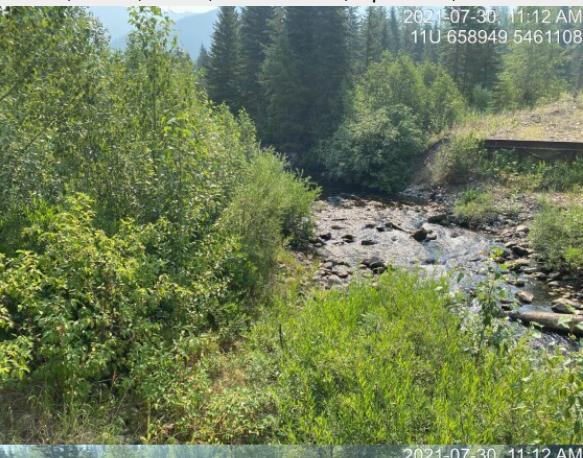
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197790. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-07-30, 10:56 AM 11U 658768 5459563		2021-07-30, 10:57 AM 11U 658768 5459551
	2021-07-30, 10:56 AM 11U 658768 5459551		2021-07-30, 10:56 AM 11U 658768 5459551
	2021-07-30, 10:56 AM 11U 658768 5459551		2021-07-30, 10:56 AM 11U 658768 5459551

Comments: Ford. No fish passage issues. 10:55

Location and Stream Data		Crossing Characteristics –	
Date	2021-07-30	Crossing Sub Type	Ford
PSCIS ID	197791	Diameter (m)	–
External ID	24706666	Length (m)	–
Crew	AI TS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	658955.9	Resemble Channel	–
Northing	5461097	Backwatered	–
Stream	Lodgepole Creek	Percent Backwatered	–
Road	–	Fill Depth (m)	–
Road Tenure	Canfor R08388	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197791. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-07-30, 11:12 AM 11U 658949 5461108		2021-07-30, 11:12 AM 11U 658949 5461108
	2021-07-30, 11:12 AM 11U 658949 5461108		2021-07-30, 11:12 AM 11U 658949 5461108
	2021-07-30, 11:12 AM 11U 658949 5461108		2021-07-30, 11:12 AM 11U 658949 5461108

Comments: ATV ford. No fish passage issues. 11:10

Location and Stream Data		Crossing Characteristics –	
Date	2021-07-30	Crossing Sub Type	Bridge
PSCIS ID	197792	Diameter (m)	8
External ID	4605499	Length (m)	7
Crew	AI TS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	650057.1	Resemble Channel	–
Northing	5463543	Backwatered	–
Stream	Bean Creek	Percent Backwatered	–
Road	Ram FSR	Fill Depth (m)	–
Road Tenure	FLNR DRM 5466	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197792. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A photograph of a yellow rectangular sign with the number "4605499" handwritten on it. It is positioned on the side of a dirt road. The road has a wooden guardrail and is surrounded by green trees and bushes under a clear blue sky. 2021-07-30, 11:55 AM 11U 650046 5463539	 A photograph showing a concrete bridge structure over a rocky stream bed. The water is shallow and flows through a bed of large, light-colored rocks. Some green plants are growing on the rocks and the bridge supports. 2021-07-30, 11:56 AM 11U 650061 5463553
 A photograph of a small stream flowing through a rocky area. The water is brownish and shallow. There are some purple flowers in the foreground on the left. A wooden bridge is visible in the background. 2021-07-30, 11:56 AM 11U 650061 5463523	 A photograph of a grassy bank next to a stream. The grass is tall and green. A wooden bridge is visible on the right side of the frame. 2021-07-30, 11:57 AM 11U 650061 5463553
 A photograph of a rocky stream bed with water flowing over stones. The water is clear and shallow. The surrounding vegetation includes green bushes and some yellow wildflowers. 2021-07-30, 11:55 AM 11U 650046 5463539	 A photograph of a stream flowing through dense green bushes and trees. The water is dark and appears to be flowing into a larger body of water or another stream. 2021-07-30, 11:55 AM 11U 650054 5463545

Comments: Bridge. 11:53

Location and Stream Data		Crossing Characteristics	
Date	2021-07-30	Crossing Sub Type	Round Culvert
PSCIS ID	197793	Diameter (m)	1.5
External ID	4606347	Length (m)	14
Crew	AI TS	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	650414.6	Resemble Channel	No
Northing	5463819	Backwatered	No
Stream	Tributary to Bean Creek	Percent Backwatered	—
Road	Lodgepole FSR	Fill Depth (m)	1
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	0
Channel Width (m)	5.3	Outlet Pool Depth (m)	0.2
Stream Slope (%)	2.7	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 with New Open Bottom Structure	Fix Span / Diameter	12

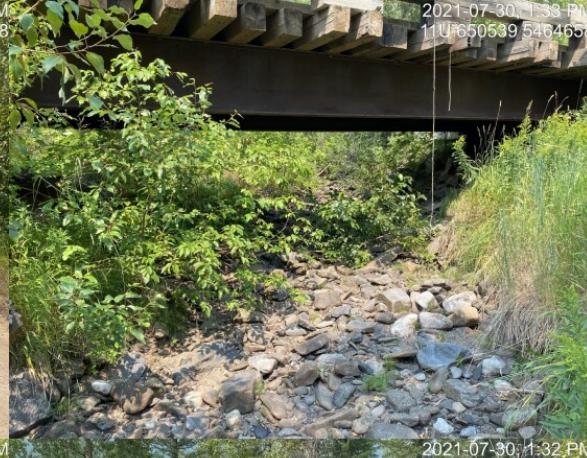
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197793. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-07-30, 12:12 PM 11U 650418 5463822		2021-07-30, 12:14 PM 11U 650418 5463822
	2021-07-30, 12:13 PM 11U 650418 5463822		2021-07-30, 12:15 PM 11U 650407 5463809
	2021-07-30, 12:13 PM		2021-07-30, 12:13 PM

Comments: Large channel but stream is completely dry. 12:11

Location and Stream Data		Crossing Characteristics –	
Date	2021-07-30	Crossing Sub Type	Bridge
PSCIS ID	197794	Diameter (m)	14
External ID	4603480	Length (m)	5
Crew	AI TS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	650539	Resemble Channel	–
Northing	5464640	Backwatered	–
Stream	Tributary to Bean Creek	Percent Backwatered	–
Road	Gasline	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	Passable
Fix type	–	Fix Span / Diameter	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197794. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-07-30, 1:31 PM 11U 650562 5464658	 2021-07-30, 1:33 PM 11U 650539 5464658
 2021-07-30, 1:32 PM 11U 650542 5464661	 2021-07-30, 1:32 PM 11U 650542 5464661
 2021-07-30, 1:31 PM 11U 650539 5464665	 2021-07-30, 1:31 PM 11U 650529 5464661
Comments: Bridge on the pipeline right of way. 13:30	

Location and Stream Data		•		Crossing Characteristics –	
Date	2021-09-27	Crossing Sub Type		Bridge	
PSCIS ID	197795	Diameter (m)		18	
External ID	24733953	Length (m)		5	
Crew	AI	Embedded		–	
UTM Zone	11	Depth Embedded (m)		–	
Easting	652220.8	Resemble Channel		–	
Northing	5461435	Backwatered		–	
Stream	Tributary to Lodgepole Creek	Percent Backwatered		–	
Road	Spur	Fill Depth (m)		–	
Road Tenure	Unknown	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		–	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197795. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-09-27, 3:02 PM 11U 652215 5461441	 2021-09-27, 3:03 PM 11U 652217 5461441 3532
 2021-09-27, 3:02 PM 11U 652217 5461441	 2021-09-27, 3:03 PM 11U 652217 5461441 3532
 2021-09-27, 3:02 PM 11U 652217 5461441	 2021-09-27, 3:02 PM 11U 652217 5461441
Comments: Gated access management area. 15:00	

Location and Stream Data		Crossing Characteristics	
Date	2021-09-27	Crossing Sub Type	Round Culvert
PSCIS ID	197796	Diameter (m)	1.6
External ID	4601984	Length (m)	14
Crew	AI	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	654301.7	Resemble Channel	No
Northing	5458678	Backwatered	No
Stream	Tributary to Lodgepole Creek	Percent Backwatered	—
Road	Spur	Fill Depth (m)	2
Road Tenure	Unclassified	Outlet Drop (m)	0.6
Channel Width (m)	3.8	Outlet Pool Depth (m)	0.8
Stream Slope (%)	8.5	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	5
Habitat Value	Low	Valley Fill	Deep Fill
Final score	36	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

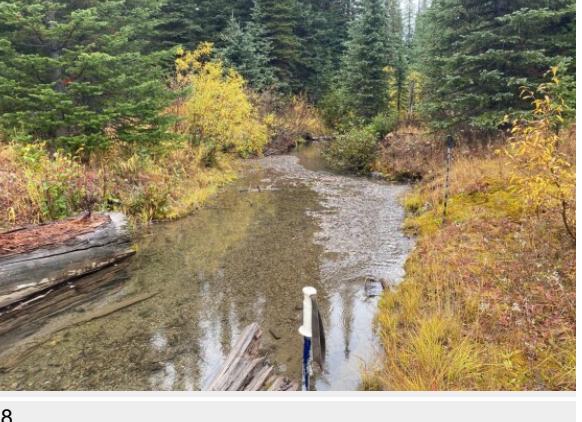
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197796. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-09-27, 3:46 PM 11U 654306 5458696	 2021-09-27, 4:01 PM 11U 654295 5458697
 2021-09-27, 4:03 PM 11U 654315 5458687	 2021-09-27, 3:57 PM 11U 654299 5458683
 2021-09-27, 4:15 PM 11U 654316 5458637	 2021-09-27, 4:24 PM 11U 654352 5458595

Comments: Gated access management area. Falls located ~60m upstream of the crossing. 15:45

Location and Stream Data		Crossing Characteristics –	
Date	2021-09-28	Crossing Sub Type	Ford
PSCIS ID	197797	Diameter (m)	–
External ID	4606926	Length (m)	–
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	663230	Resemble Channel	–
Northing	5447429	Backwatered	–
Stream	Tributary to Bighorn 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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197797. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-28, 11:45 AM 11U 664092 5445222		2021-09-28, 11:46 AM 11U 664092 5445222
	2021-09-28, 11:46 AM 11U 664092 5445222		2021-09-28, 11:46 AM 11U 664092 5445222
	2021-09-28, 11:46 AM 11U 664092 5445222		2021-09-28, 11:46 AM 11U 664092 5445222
Comments: Ford. No road present on far side of stream. 11:28			

Location and Stream Data		Crossing Characteristics	
Date	2021-09-28	Crossing Sub Type	Round Culvert
PSCIS ID	197798	Diameter (m)	0.6
External ID	4605518	Length (m)	11
Crew	AI	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	664404.6	Resemble Channel	No
Northing	5445263	Backwatered	No
Stream	Tributary to Bighorn Creek	Percent Backwatered	–
Road	Cabin FSR	Fill Depth (m)	1
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	0.6
Channel Width (m)	1	Outlet Pool Depth (m)	0
Stream Slope (%)	4	Inlet Drop	No
Beaver Activity	No	Slope (%)	4
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

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197798. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-28, 12:02 PM 11U 664408 5445266		2021-09-28, 12:03 PM 11U 664397 5445265
	2021-09-28, 12:02 PM 11U 664403 5445266		2021-09-28, 12:03 PM 11U 664393 5445266
	2021-09-28, 12:02 PM 11U 664403 5445266		2021-09-28, 12:03 PM 11U 664393 5445266

Comments: Culvert installed in road prism which creates 1m step, steep gradients and outlet drop. Small system. 12:00

Location and Stream Data		Crossing Characteristics	
Date	2021-09-28	Crossing Sub Type	Round Culvert
PSCIS ID	197799	Diameter (m)	0.6
External ID	4605522	Length (m)	16
Crew	AI	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	664642.1	Resemble Channel	No
Northing	5444852	Backwatered	No
Stream	Tributary to Bighorn Creek	Percent Backwatered	–
Road	Cabin FSR	Fill Depth (m)	3
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	1.2
Channel Width (m)	1.3	Outlet Pool Depth (m)	0.2
Stream Slope (%)	9	Inlet Drop	No
Beaver Activity	No	Slope (%)	5
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

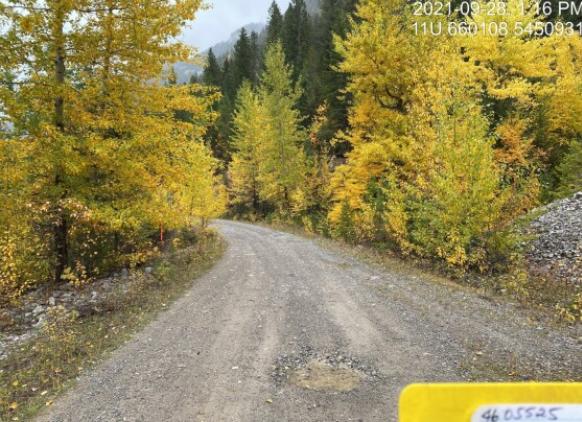
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197799. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-28, 12:22 PM 11U 664636 5444866		2021-09-28, 12:22 PM 11U 664641 5444857
	2021-09-28, 12:22 PM 11U 664641 5444857		2021-09-28, 12:27 PM 11U 664626 5444837
	2021-09-28, 12:22 PM 11U 664641 5444857		2021-09-28, 12:27 PM 11U 664626 5444837

Comments: Nice gravels with good flow but small stream with steeper grade for size of channel. LWD drop of ~90cm located at ~55m upstream. Borderline moderate habitat value. 12:20

Location and Stream Data		Crossing Characteristics	
Date	2021-09-28	Crossing Sub Type	Round Culvert
PSCIS ID	197800	Diameter (m)	1.75
External ID	4605525	Length (m)	17
Crew	AI	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	660106.9	Resemble Channel	No
Northing	5450958	Backwatered	No
Stream	Tributary to Bighorn Creek	Percent Backwatered	–
Road	Cabin FSR	Fill Depth (m)	2.5
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	1.5
Channel Width (m)	1.9	Outlet Pool Depth (m)	0
Stream Slope (%)	15	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	7
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

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197800. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-09-28, 1:16 PM 11U 660108 5450931	 2021-09-28, 1:18 PM 11U 660115 5450933
 2021-09-28, 1:18 PM 11U 660115 5450938	 2021-09-28, 1:19 PM 11U 660102 5450939
 2021-09-28, 1:29 PM 11U 660090 5450963	 2021-09-28, 1:19 PM 11U 660132 5450941

Comments: Dredged upstream. Nice stream with boulder habitat but very steep. 13:15

Location and Stream Data		Crossing Characteristics –	
Date	2021-09-28	Crossing Sub Type	Ford
PSCIS ID	197801	Diameter (m)	–
External ID	4603688	Length (m)	–
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	658120	Resemble Channel	–
Northing	5452872	Backwatered	–
Stream	Tributary to Bighorn Creek	Percent Backwatered	–
Road	Cabin FSR	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197801. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-28, 1:44 PM 11U 658110 5452887		2021-09-28, 1:44 PM 11U 658110 5452887
	2021-09-28, 1:44 PM 11U 658110 5452887		2021-09-28, 1:44 PM 11U 658110 5452887
	2021-09-28, 1:44 PM 11U 658110 5452887		2021-09-28, 1:44 PM 11U 658110 5452887

Comments: Ford. 13:43

Location and Stream Data		Crossing Characteristics	
Date	2021-09-28	Crossing Sub Type	Round Culvert
PSCIS ID	197802	Diameter (m)	0.9
External ID	4605540	Length (m)	12
Crew	AI	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	654192.9	Resemble Channel	No
Northing	5452980	Backwatered	No
Stream	Tributary to Bighorn Creek	Percent Backwatered	–
Road	Cabin FSR	Fill Depth (m)	1
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	0.13
Channel Width (m)	1.6	Outlet Pool Depth (m)	0
Stream Slope (%)	11	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

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197802. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-09-28, 2:00 PM 11U 654212 5452990	 2021-09-28, 2:40 PM 11U 654219 5452990
 2021-09-28, 2:09 PM 11U 654224 5453012	 2021-09-28, 2:10 PM 11U 654223 5453001
 2021-09-28, 2:01 PM 11U 654220 5452976	 2021-09-28, 2:02 PM 11U 654216 5452986

Comments: Dry with partially vegetated channel. 14:00

Location and Stream Data		Crossing Characteristics –	
Date	2021-09-29	Crossing Sub Type	Ford
PSCIS ID	197803	Diameter (m)	–
External ID	4602514	Length (m)	–
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	659393	Resemble Channel	–
Northing	5517830	Backwatered	–
Stream	Harmer Creek	Percent Backwatered	–
Road	–	Fill Depth (m)	–
Road Tenure	Sparwood 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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197803. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-29, 4:07 PM 11U 659381 5517866		2021-09-29, 4:08 PM 11U 659381 5517866
	4602514 2021-09-29, 4:08 PM 11U 659381 5517866		2021-09-29, 4:08 PM 11U 659381 5517866
	2021-09-29, 4:07 PM 11U 659381 5517866		2021-09-29, 4:08 PM 11U 659381 5517866

Comments: Appears that bridge may have been removed recently. 16:06

Location and Stream Data		Crossing Characteristics –	
Date	2021-09-30	Crossing Sub Type	Ford
PSCIS ID	197804	Diameter (m)	–
External ID	4606350	Length (m)	–
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	668801.1	Resemble Channel	–
Northing	5458712	Backwatered	–
Stream	Kisoo Creek	Percent Backwatered	–
Road	Spur	Fill Depth (m)	–
Road Tenure	FLNR DRM 5466	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197804. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-09-30 11:47 AM 11U 668801 5458709	 2021-09-30 11:48 AM 11U 668801 5458709
 2021-09-30 11:48 AM 11U 668801 5458709	 2021-09-30 11:48 AM 11U 668801 5458709
 2021-09-30 11:48 AM 11U 668801 5458709	 2021-09-30 11:48 AM 11U 668801 5458709
Comments: Crossing removed. 11:45	

Location and Stream Data		Crossing Characteristics –	
Date	2021-09-29	Crossing Sub Type	Ford
PSCIS ID	197805	Diameter (m)	–
External ID	4601280	Length (m)	–
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	659427	Resemble Channel	–
Northing	5517583	Backwatered	–
Stream	Harmer Creek	Percent Backwatered	–
Road	Unnamed	Fill Depth (m)	–
Road Tenure	Sparwood 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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197805. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A photograph showing a yellow rectangular card with the number "1601280" handwritten on it, positioned in front of a stream. The stream flows through a forested area with fallen logs and mossy rocks. 2021-09-29, 4:21 PM 11U 659435 5517584	 A photograph of a stream flowing through a forest. A black barrel is visible in the water, partially submerged. Fallen logs and mossy rocks are scattered along the bank. 2021-09-29, 4:21 PM 11U 659435 5517584
 A photograph of a stream flowing through a forest. A long, curved log or root system extends across the water, acting as a natural outlet. The surrounding vegetation includes fallen logs and mossy rocks. 2021-09-29, 4:21 PM 11U 659435 5517584	 A photograph of a stream flowing downstream through a forest. Fallen logs and mossy rocks are visible in the water. The surrounding vegetation includes fallen logs and mossy rocks. 2021-09-29, 4:21 PM 11U 659435 5517584
 A photograph of a stream flowing upstream through a forest. Fallen logs and mossy rocks are visible in the water. The surrounding vegetation includes fallen logs and mossy rocks. 2021-09-29, 4:21 PM 11U 659435 5517584	 A photograph of a stream flowing through a forest. Fallen logs and mossy rocks are visible in the water. The surrounding vegetation includes fallen logs and mossy rocks. 2021-09-29, 4:21 PM 11U 659435 5517584

Comments: No crossing present. 16:20

Location and Stream Data		Crossing Characteristics –	
Date	2021-09-30	Crossing Sub Type	Ford
PSCIS ID	197806	Diameter (m)	–
External ID	4601687	Length (m)	–
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	670843	Resemble Channel	–
Northing	5469802	Backwatered	–
Stream	Tributary to Flathead River	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197806. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-30, 4:54 PM 11U 670837 5469811		2021-09-30, 4:55 PM 11U 670837 5469811
	2021-09-30, 4:54 PM 11U 670837 5469811		2021-09-30, 4:55 PM 11U 670837 5469811
	2021-09-30, 4:54 PM 11U 670837 5469811		2021-09-30, 4:55 PM 11U 670837 5469811

Comments: Ford. 16:52

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-01	Crossing Sub Type	Pipe Arch
PSCIS ID	197807	Diameter (m)	1.8
External ID	4605451	Length (m)	15
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	686581.3	Resemble Channel	–
Northing	5436976	Backwatered	–
Stream	Nettie Creek	Percent Backwatered	–
Road	Flathead FSR	Fill Depth (m)	–
Road Tenure	FLNR DRM 0030	Outlet Drop (m)	–
Channel Width (m)	–	Outlet Pool Depth (m)	–
Stream Slope (%)	–	Inlet Drop	–
Beaver Activity	–	Slope (%)	–
Habitat Value	–	Valley Fill	–
Final score	3	Barrier Result	Passable
Fix type	–	Fix Span / Diameter	–

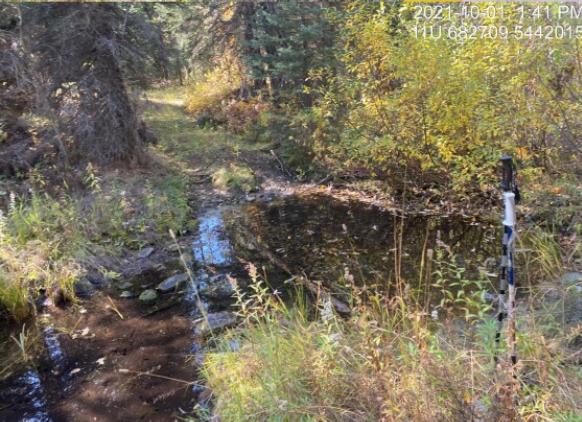
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197807. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-01, 12:32 PM 11U 686566 5436908	 2021-10-01, 12:36 PM 11U 686566 54369087
 2021-10-01, 12:33 PM 11U 686562 5436909	 2021-10-01, 12:35 PM 11U 686565 5436907
 2021-10-01, 12:32 PM 11U 686571 5436997	 2021-10-01, 12:34 PM 11U 686570 5437001

Comments: Overflow pipe on river left is ~1.4m diameter. Aggrading happening upstream of structure because undersized. Aggrading is 8-9% gradient for rise of 0.55m over a distance of 2.3m. Channel width is 4.0m. 12:32

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-01	Crossing Sub Type	Ford
PSCIS ID	197808	Diameter (m)	–
External ID	4602728	Length (m)	–
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	682706	Resemble Channel	–
Northing	5442018	Backwatered	–
Stream	Tributary to Flathead River	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197808. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-01, 1:40 PM 11U 682709 5442015	 2021-10-01, 1:42 PM 11U 682710 5442009
 2021-10-01, 1:41 PM 11U 682709 5442015	 2021-10-01, 1:41 PM 11U 682709 5442015
 2021-10-01, 1:41 PM 11U 682709 5442015	 2021-10-01, 1:41 PM 11U 682709 5442015

Comments: ATV access road. Small beaver dam along road. Good flow but very small channel. 13:39

Location and Stream Data		Crossing Characteristics	
Date	2021-10-01	Crossing Sub Type	Round Culvert
PSCIS ID	197809	Diameter (m)	0.3
External ID	4606597	Length (m)	12
Crew	AI	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	683097	Resemble Channel	No
Northing	5444416	Backwatered	No
Stream	Tributary to Flathead River	Percent Backwatered	–
Road	Commerce FSR	Fill Depth (m)	1
Road Tenure	FLNR DRM 0030	Outlet Drop (m)	0
Channel Width (m)	0.9	Outlet Pool Depth (m)	0
Stream Slope (%)	1	Inlet Drop	No
Beaver Activity	No	Slope (%)	3
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

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197809. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-01, 1:54 PM 11U 683092 5444415  4606597	 2021-10-01, 1:59 PM 11U 683092 5444431
 2021-10-01, 1:58 PM 11U 683101 5444426	 2021-10-01, 1:59 PM 11U 683092 5444431
 2021-10-01, 1:57 PM 11U 683100 5444417	 2021-10-01, 1:59 PM 11U 683092 5444431

Comments: Dry channel. Very poorly defined channel upstream. Inlet perched. Unlikely fish habitat. 13:53

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Bridge
PSCIS ID	197810	Diameter (m)	10
External ID	2021100301	Length (m)	4
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	679699	Resemble Channel	–
Northing	5433877	Backwatered	–
Stream	Tributary to Calder Creek	Percent Backwatered	–
Road	Spur 1000	Fill Depth (m)	–
Road Tenure	Unknown	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197810. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-03, 10:42 AM 11U 679703 5433877	 2021-10-03, 10:46 AM 11U 679703 5433877
 2021-10-03, 10:44 AM 11U 679703 5433877	 2021-10-03, 10:44 AM 11U 679703 5433877
 2021-10-03, 10:43 AM 11U 679703 5433877	 2021-10-03, 10:43 AM 11U 679703 5433877

Comments: WCT captured just upstream of this site in 2014 <https://a100.gov.bc.ca/pub/acat/public/viewReport.do?reportId=50581> . 10:40

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Ford
PSCIS ID	197811	Diameter (m)	–
External ID	4605202	Length (m)	–
Crew	AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	680079.5	Resemble Channel	–
Northing	5433197	Backwatered	–
Stream	Calder Creek	Percent Backwatered	–
Road	Spur 1000	Fill Depth (m)	–
Road Tenure	FLNR DRM 0030	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197811. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-10-03, 11:00 AM 11U 680091 5433213		2021-10-03, 11:00 AM 11U 680091 5433213
	2021-10-03, 11:00 AM 11U 680091 5433213		2021-10-03, 11:00 AM 11U 680091 5433213
	2021-10-03, 11:00 AM 11U 680091 5433213		2021-10-03, 11:00 AM 11U 680091 5433213

Comments: Road deactivated. Full rehab. No ATV access. 10:58

Location and Stream Data		.	Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Ford	
PSCIS ID	197812	Diameter (m)	–	
External ID	2021100302	Length (m)	–	
Crew	AI	Embedded	–	
UTM Zone	11	Depth Embedded (m)	–	
Easting	678863	Resemble Channel	–	
Northing	5434967	Backwatered	–	
Stream	Couldrey Creek	Percent Backwatered	–	
Road	Spur	Fill Depth (m)	–	
Road Tenure	Unknown	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	–	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197812. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
			
			
			

Comments: No modelled crossing on maps. 14:28

Location and Stream Data		.	Crossing Characteristics –	
Date	2021-10-04	Crossing Sub Type	Ford	
PSCIS ID	197813	Diameter (m)	–	
External ID	4603820	Length (m)	–	
Crew	AI	Embedded	–	
UTM Zone	11	Depth Embedded (m)	–	
Easting	676011	Resemble Channel	–	
Northing	5459528	Backwatered	–	
Stream	Morris 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	–	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197813. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-10-04 11:04 AM 11U 676018 5459514	<b>NO IMAGE AVAILABLE</b>	
	2021-10-04 11:04 AM 11U 676018 5459514		2021-10-04 11:04 AM 11U 676018 5459514
	2021-10-04 11:04 AM 11U 676018 5459514		2021-10-04 11:04 AM 11U 676018 5459514

Comments: Wildlife trail. No structure. Road does not appear to be used by ATVs. Main flow of Morris Creek is actually north of here and flows in from the north. Small amount of flow on trail. No indication of channel. 11:02

Location and Stream Data		.	Crossing Characteristics –	
Date	2021-10-04	Crossing Sub Type	Ford	
PSCIS ID	197814	Diameter (m)	–	
External ID	4603821	Length (m)	–	
Crew	AI	Embedded	–	
UTM Zone	11	Depth Embedded (m)	–	
Easting	676015	Resemble Channel	–	
Northing	5459481	Backwatered	–	
Stream	Morris 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	–	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197814. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-04, 11:09 AM 11U 676009 5459452	 2021-10-04, 11:10 AM 11U 676009 5459452
 2021-10-04, 11:10 AM 11U 676009 5459452	 2021-10-04, 11:10 AM 11U 676009 5459452
 2021-10-04, 11:10 AM 11U 676009 5459452	 2021-10-04, 11:10 AM 11U 676009 5459452

Comments: Wildlife trail. No structure. Road does not appear to be used by ATVs. Main flow of Morris Creek is actually north of here and flows in from the north. Small amount of flow on trail. No indication of channel. 11:07

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-04	Crossing Sub Type	Round Culvert
PSCIS ID	197815	Diameter (m)	4.5
External ID	4607464	Length (m)	60
Crew	AI	Embedded	Yes
UTM Zone	11	Depth Embedded (m)	1.5
Easting	682774	Resemble Channel	Yes
Northing	5448438	Backwatered	No
Stream	Tributary to Flathead River	Percent Backwatered	–
Road	Flathead FSR	Fill Depth (m)	9.99
Road Tenure	FLNR DRM 0030	Outlet Drop (m)	0
Channel Width (m)	3	Outlet Pool Depth (m)	0
Stream Slope (%)	4	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	2
Habitat Value	High	Valley Fill	Deep Fill
Final score	11	Barrier Result	Passable
Fix type	–	Fix Span / Diameter	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197815. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
2021-10-04, 3:56 PM 11U 682770 5448412	2021-10-04, 15:57 11U 682794 5448446
	
2021-10-04, 3:59 PM 11U 682744 5448422	2021-10-04, 15:57 11U 682794 5448446
	
2021-10-04, 3:58 PM 11U 682744 5448422	2021-10-04, 15:57 11U 682794 5448446
	

Comments: Newly replaced culvert with natural embedded substrate. Likely PSCIS point 50071 however the coordinates for that site appear to be input incorrectly. 15:55

Location and Stream Data		.	Crossing Characteristics	-
Date	2021-10-05	Crossing Sub Type	Ford	
PSCIS ID	197816	Diameter (m)	-	
External ID	4602949	Length (m)	-	
Crew	AI	Embedded	-	
UTM Zone	11	Depth Embedded (m)	-	
Easting	647247	Resemble Channel	-	
Northing	5534524	Backwatered	-	
Stream	Weigert Creek	Percent Backwatered	-	
Road	Weigert FSR	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	-	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197816. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-05 10:27 11U 647229 5534545	 2021-10-05 10:37 AM 11U 647223 5534576
 2021-10-05 10:36 AM 11U 647232 5534578	 2021-10-05 10:27 11U 647237 5534530
 2021-10-05 10:31 AM 11U 647233 5534570	 2021-10-05 10:31 AM 11U 647241 5534567

Comments: Ford within access management area. 10:26

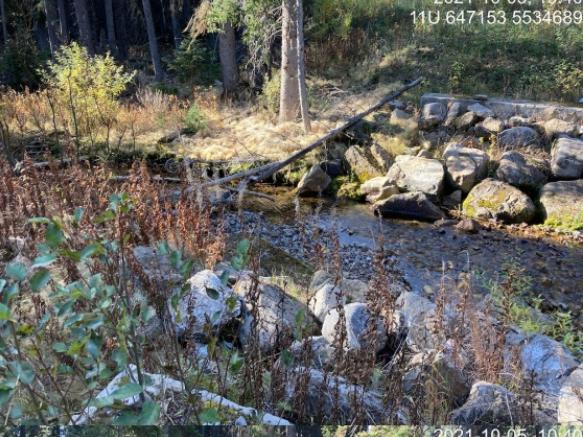
Location and Stream Data		CROSSING CHARACTERISTICS	
Date	2021-10-05	Crossing Sub Type	Round Culvert
PSCIS ID	197817	Diameter (m)	1
External ID	4605995	Length (m)	15
Crew	AI	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	647526	Resemble Channel	No
Northing	5533149	Backwatered	No
Stream	Tributary to Weigert Creek	Percent Backwatered	—
Road	Weigert FSR	Fill Depth (m)	1
Road Tenure	FLNR DRM 8633	Outlet Drop (m)	1.7
Channel Width (m)	2.4	Outlet Pool Depth (m)	0.3
Stream Slope (%)	17	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	5
Habitat Value	Low	Valley Fill	Deep Fill
Final score	39	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197817. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
			
<b>NO IMAGE AVAILABLE</b>			
	2021-10-05 10:48 AM 11U 647516 5533144		2021-10-05 10:53 AM 11U 647523 5533147
	2021-10-05 10:48 AM 11U 647521 5533154		2021-10-05 10:54 AM 11U 647523 5533149

Comments: Dry and very steep stream channel. Likely to steep for WCT. 10:47

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-05	Crossing Sub Type	Ford
PSCIS ID	197818	Diameter (m)	–
External ID	4606007	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	647156.3	Resemble Channel	–
Northing	5534676	Backwatered	–
Stream	Weigert Creek	Percent Backwatered	–
Road	Spur	Fill Depth (m)	–
Road Tenure	FLNR DRM 8633	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197818. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
	2021-10-05, 10:40 11U 647160 5534687
	2021-10-05, 10:40 11U 647153 5534689
	2021-10-05, 10:40 11U 647153 5534689
	2021-10-05, 10:40 11U 647153 5534689
	2021-10-05, 10:40 11U 647153 5534689
Comments: Road deactivated at entrance and crossings pulled. 10:37	

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-05	Crossing Sub Type	Ford
PSCIS ID	197819	Diameter (m)	–
External ID	24735034	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	647195	Resemble Channel	–
Northing	5534741	Backwatered	–
Stream	Tributary to Weigert Creek	Percent Backwatered	–
Road	Spur	Fill Depth (m)	–
Road Tenure	FLNR DRM 8633	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	–

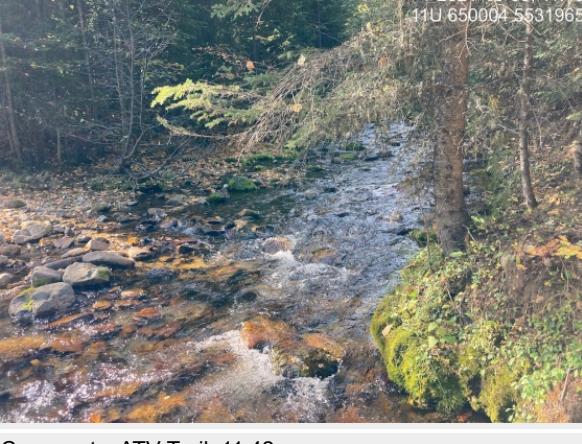
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197819. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-10-05, 10:46 11U 647185 5534741		2021-10-05, 10:46 11U 647185 5534741
	2021-10-05, 10:46 11U 647185 5534741		2021-10-05, 10:46 11U 647185 5534741
	2021-10-05, 10:46 11U 647185 5534741		2021-10-05, 10:46 11U 647185 5534741

Comments: Road deactivated. Multiple crossings pulled out. Appears to be a tributary on map but on ground appears that it is possibly a side channel to Weigert. 10:42

Location and Stream Data		.	Crossing Characteristics	-
Date	2021-10-05	Crossing Sub Type	Ford	
PSCIS ID	197820	Diameter (m)	-	
External ID	24735049	Length (m)	-	
Crew	KP	Embedded	-	
UTM Zone	11	Depth Embedded (m)	-	
Easting	650009.9	Resemble Channel	-	
Northing	5531958	Backwatered	-	
Stream	Weigert Creek	Percent Backwatered	-	
Road	Spur	Fill Depth (m)	-	
Road Tenure	Unknown	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	-	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197820. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
 A yellow rectangular card with black text and numbers. A hand is visible holding the top edge. The text includes "24735049" and "11U 650004 5531965".	2021-10-05, 11:44 11U 650004 5531965	 A dark barrel lies across a rocky stream bed. The water is shallow and clear, reflecting sunlight.	2021-10-05, 11:45 11U 650004 5531965
 A view looking upstream at a rocky stream bed. The water is clear and shallow, flowing over rocks.	2021-10-05, 11:45 11U 650004 5531965	 A view looking downstream at a rocky stream bed. The water is clear and shallow, flowing over rocks.	2021-10-05, 11:45 11U 650004 5531965
 A view looking upstream at a rocky stream bed. The water is clear and shallow, flowing over rocks.	2021-10-05, 11:45 11U 650004 5531965	 A view looking downstream at a rocky stream bed. The water is clear and shallow, flowing over rocks.	2021-10-05, 11:45 11U 650004 5531965

Comments: ATV Trail. 11:42

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-05	Crossing Sub Type	Ford
PSCIS ID	197821	Diameter (m)	–
External ID	4606545	Length (m)	–
Crew	AI KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	644862	Resemble Channel	–
Northing	5520738	Backwatered	–
Stream	Cummings Creek	Percent Backwatered	–
Road	Cummings FSR	Fill Depth (m)	–
Road Tenure	FLNR DRM 0142	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197821. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
 2021-10-05, 13:02 11U 644850 5520727		 2021-10-05, 13:02 11U 644850 5520727	
 2021-10-05, 13:02 11U 644850 5520727		 2021-10-05, 13:02 11U 644850 5520727	
 2021-10-05, 13:02 11U 644850 5520727		 2021-10-05, 13:02 11U 644850 5520727	
Comments: ATV Trail. 13:00			

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-05	Crossing Sub Type	Ford
PSCIS ID	197822	Diameter (m)	–
External ID	4602093	Length (m)	–
Crew	AI KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	639326	Resemble Channel	–
Northing	5520829	Backwatered	–
Stream	Cummings Creek	Percent Backwatered	–
Road	Cummings FSR	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	–

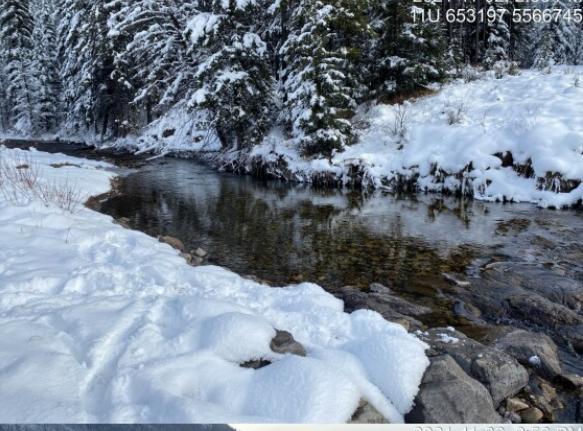
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197822. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-10-05 1:40 PM 11U 639332 5520827		2021-10-05 1:41 PM 11U 639332 5520827
	2021-10-05 1:41 PM 11U 639332 5520827		2021-10-05 1:41 PM 11U 639332 5520827
	2021-10-05 1:40 PM 11U 639332 5520827		2021-10-05 1:40 PM 11U 639332 5520827

Comments: Sporty ATV access only ;). 13:40

Location and Stream Data		.	Crossing Characteristics	–
Date	2021-11-02	Crossing Sub Type	Ford	
PSCIS ID	197823	Diameter (m)	–	
External ID	24706614	Length (m)	–	
Crew	AI SS RA	Embedded	–	
UTM Zone	11	Depth Embedded (m)	–	
Easting	653180.2	Resemble Channel	–	
Northing	5566732	Backwatered	–	
Stream	Henretta Creek	Percent Backwatered	–	
Road	–	Fill Depth (m)	–	
Road Tenure	Teck	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	–	

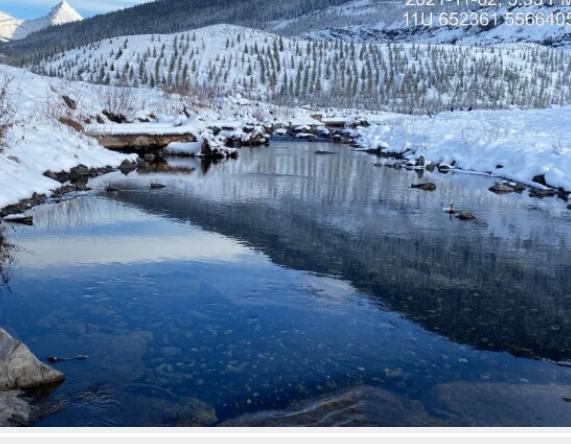
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197823. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-11-02, 2:52 PM 11U 653197 5566745	 2021-11-02, 2:53 PM 11U 653197 5566745
 2021-11-02, 2:53 PM 11U 653197 5566745	 2021-11-02, 2:53 PM 11U 653197 5566745
 2021-11-02, 2:53 PM 11U 653197 5566745	 2021-11-02, 2:53 PM 11U 653197 5566745

Comments: Transmission line crossing. May have been a bridge historically. 14:49

Location and Stream Data		.	Crossing Characteristics	–
Date	2021-11-02	Crossing Sub Type	Ford	
PSCIS ID	197824	Diameter (m)	–	
External ID	4604696	Length (m)	–	
Crew	AI SS RA	Embedded	–	
UTM Zone	11	Depth Embedded (m)	–	
Easting	652346.1	Resemble Channel	–	
Northing	5566461	Backwatered	–	
Stream	Henretta Creek	Percent Backwatered	–	
Road	–	Fill Depth (m)	–	
Road Tenure	Teck	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	–	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197824. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-11-02, 3:33 PM 11U 652361 5566405		2021-11-02, 3:33 PM 11U 652361 5566405
	2021-11-02, 3:33 PM 11U 652361 5566405		2021-11-02, 3:39 PM 11U 652378 5566401
	2021-11-02, 3:33 PM 11U 652361 5566405		2021-11-02, 3:33 PM 11U 652361 5566405
Comments: Approximately 60m downstream of modelled location. 15:25			

Location and Stream Data		Crossing Characteristics	
Date	2021-11-02	Crossing Sub Type	Round Culvert
PSCIS ID	197825	Diameter (m)	2.7
External ID	4604677	Length (m)	99
Crew	AI SS RA	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	652123.3	Resemble Channel	No
Northing	5566424	Backwatered	Yes
Stream	Henretta Creek	Percent Backwatered	100
Road	—	Fill Depth (m)	2.4
Road Tenure	Teck	Outlet Drop (m)	0
Channel Width (m)	12	Outlet Pool Depth (m)	0.4
Stream Slope (%)	3.5	Inlet Drop	No
Beaver Activity	No	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	18

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197825. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-11-02, 3:50 PM 11U 652164 5566467	 2021-11-02, 3:53 PM 11U 652185 5566454
 2021-11-02, 3:52 PM 11U 652181 5566466	 2021-11-02, 4:03 PM 11U 652073 5566467
 2021-11-02, 3:50 PM 11U 652164 5566467	 2021-11-02, 4:07 PM 11U 652073 5566402

Comments: Two pipes (2.7 x 2.2). Length of pipes is 130m! Biomark station installed to document fish movement through culvert. Four concrete weirs (~0.3m drops) located downstream of outlet. 15:50

Location and Stream Data		.	Crossing Characteristics	-
Date	2021-11-03	Crossing Sub Type	Ford	
PSCIS ID	197826	Diameter (m)	-	
External ID	4603334	Length (m)	-	
Crew	AI SS RA	Embedded	-	
UTM Zone	11	Depth Embedded (m)	-	
Easting	651460.9	Resemble Channel	-	
Northing	5566706	Backwatered	-	
Stream	Fording River	Percent Backwatered	-	
Road	-	Fill Depth (m)	-	
Road Tenure	Teck	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	-	

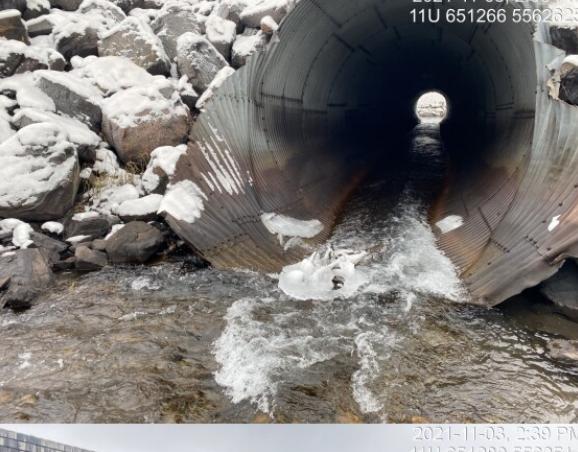
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197826. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
		<b>NO IMAGE AVAILABLE</b>	
			
			

Comments: Staff gauge and transducer upstream. 12:30

Location and Stream Data		Crossing Characteristics	
Date	2021-11-03	Crossing Sub Type	Round Culvert
PSCIS ID	197827	Diameter (m)	5
External ID	4600762	Length (m)	40
Crew	AI SS RA	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	651282	Resemble Channel	No
Northing	5562574	Backwatered	No
Stream	Fording River	Percent Backwatered	—
Road	FRO Coal Haul	Fill Depth (m)	9.99
Road Tenure	Teck	Outlet Drop (m)	0
Channel Width (m)	16	Outlet Pool Depth (m)	4
Stream Slope (%)	2	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	2
Habitat Value	High	Valley Fill	Deep Fill
Final score	27	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	33

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197827. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-11-03, 2:03 PM 11U 651266 5562628	 2021-11-03, 2:06 PM 11U 651266 5562625
 2021-11-03, 2:06 PM 11U 651270 5562626	 2021-11-03, 2:39 PM 11U 651280 5562514
 2021-11-03, 2:12 PM 11U 651252 5562691	 2021-11-03, 2:39 PM 11U 651280 5562514

Comments: Very large culvert on main coal haul road. Outlet appears to have been backwatered by downstream wiers.  
14:04

Location and Stream Data		Crossing Characteristics	
Date	2021-10-14	Crossing Sub Type	Round Culvert
PSCIS ID	197828	Diameter (m)	1.1
External ID	4605671	Length (m)	12
Crew	AI BK SS RA	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	647549	Resemble Channel	No
Northing	5574967	Backwatered	No
Stream	Tributary to Elk River	Percent Backwatered	–
Road	Elk FSR	Fill Depth (m)	0.7
Road Tenure	FLNR DRM 0103	Outlet Drop (m)	0.05
Channel Width (m)	1.3	Outlet Pool Depth (m)	0.23
Stream Slope (%)	5	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	3.5
Habitat Value	Low	Valley Fill	Deep Fill
Final score	23	Barrier Result	Barrier
Fix type	Replace Structure with Streambed Simulation CBS	Fix Span / Diameter	3

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197828. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
 A photograph of a yellow rectangular site card lying on a snow-covered ground. A person in an orange jacket stands on a dirt road in the background. The date and time stamp in the top right corner reads "2021-10-14, 11:53 AM" and "11U 647550 5574968".		 A close-up photograph of a large black corrugated pipe or barrel lying on its side in a snowy forest. A small stream of water is visible flowing out from a hole in the side. The date and time stamp in the top right corner reads "2021-10-14, 11:54 AM" and "11U 647539 5574972".	
 A photograph showing a view downstream through a dense forest. Fallen logs and branches are scattered across a snow-covered ground. The date and time stamp in the top right corner reads "2021-10-14, 11:55 AM" and "11U 647532 5574963".		 A photograph looking upstream through a forest. The ground is covered in snow and fallen leaves. The date and time stamp in the top right corner reads "2021-10-14, 11:54 AM" and "11U 647539 5574972".	
 A photograph looking upstream through a forest. The ground is covered in snow and fallen leaves. A blue and white barrel is visible on the left side. The date and time stamp in the top right corner reads "2021-10-14, 11:54 AM" and "11U 647539 5574972".		 A photograph looking upstream through a forest. The ground is covered in snow and fallen leaves. The date and time stamp in the top right corner reads "2021-10-14, 11:51 AM" and "11U 647539 5574972".	

Comments: Dry at the time of the assessment. Inlet drop of 10cm. 11:51

Location and Stream Data		Crossing Characteristics	
Date	2021-10-14	Crossing Sub Type	Round Culvert
PSCIS ID	197829	Diameter (m)	0.5
External ID	4605698	Length (m)	11
Crew	AI BK SS RA	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	646781	Resemble Channel	No
Northing	5572308	Backwatered	No
Stream	Tributary to Elk River	Percent Backwatered	–
Road	Elk FSR	Fill Depth (m)	0.7
Road Tenure	FLNR DRM 0103	Outlet Drop (m)	0.15
Channel Width (m)	0.95	Outlet Pool Depth (m)	0.1
Stream Slope (%)	14	Inlet Drop	Yes
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

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197829. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A photograph of a dirt road in a forested area. A yellow ruler is placed horizontally across the road to indicate its width. The road surface is dark and appears to be made of asphalt or a similar material.	 A close-up view of a black plastic barrel partially buried in the ground. It is surrounded by rocks, sticks, and some sparse vegetation. The barrel appears to be a standard 55-gallon drum.
 A view of a dark, cylindrical outlet pipe embedded in the ground. The pipe is surrounded by rocks and debris. A large white rock is visible in the foreground on the right side of the frame.	 A view of a stream flowing downstream. The water is brownish and flows over rocks and debris. The surrounding area is covered in snow and fallen leaves.
 A view of a stream flowing upstream. The water is brownish and flows over rocks and debris. The surrounding area is covered in snow and fallen leaves.	 A view of a stream inlet. The water is brownish and flows into a rocky, debris-filled area. The surrounding area is covered in snow and fallen leaves.

Comments: Inlet drop ~5cm. 13:15

Location and Stream Data		Crossing Characteristics	
Date	2021-10-14	Crossing Sub Type	Round Culvert
PSCIS ID	197830	Diameter (m)	0.6
External ID	4605731	Length (m)	14
Crew	AI BK SS RA	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	646748	Resemble Channel	No
Northing	5571001	Backwatered	No
Stream	Tributary to Elk River	Percent Backwatered	—
Road	Elk FSR	Fill Depth (m)	1.32
Road Tenure	FLNR DRM 0103	Outlet Drop (m)	0.4
Channel Width (m)	2	Outlet Pool Depth (m)	0
Stream Slope (%)	9	Inlet Drop	No
Beaver Activity	No	Slope (%)	4.5
Habitat Value	Medium	Valley Fill	Deep Fill
Final score	36	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197830. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A photograph of a dirt road winding through a forest. A yellow and black site card is visible on the left side of the road.	 A close-up view of a large, dark-colored barrel or drum lying on its side in a snowy, overgrown area. Water is flowing out from a hole in the side of the barrel.
 A view of a stream flowing through a snowy landscape. A black pipe or outlet is visible, with water flowing out into the stream. The ground is covered in snow and rocks.	 A view of a stream flowing downstream. A black pipe or outlet is visible, with water flowing out into the stream. The ground is covered in snow and rocks.
 A view of a stream flowing upstream. A black pipe or outlet is visible, with water flowing out into the stream. The ground is covered in snow and rocks.	 A view of a stream flowing downstream. A black pipe or outlet is visible, with water flowing out into the stream. The ground is covered in snow and rocks.

Comments: Good flow with some decent lower gradient habitat upstream of the FSR. 13:24

Location and Stream Data		Crossing Characteristics	
Date	2021-10-15	Crossing Sub Type	Ford
PSCIS ID	197831	Diameter (m)	–
External ID	2021101501	Length (m)	–
Crew	AI BK SS RA	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	646931	Resemble Channel	–
Northing	5494699	Backwatered	–
Stream	Hosmer 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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197831. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-15 2:18 PM 11U 646930 5494705	 2021-10-15 2:19 PM 11U 646930 5494705
 2021-10-15 2:16 PM 11U 646930 5494705	 2021-10-15 2:18 PM 11U 646930 5494705
 2021-10-15 2:16 PM 11U 646930 5494705	 2021-10-15 2:16 PM 11U 646930 5494705

Comments: Ford. 14:15

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-15	Crossing Sub Type	Round Culvert
PSCIS ID	197832	Diameter (m)	5
External ID	4600087	Length (m)	12
Crew	AI BK SS RA	Embedded	Yes
UTM Zone	11	Depth Embedded (m)	0.5
Easting	647133.2	Resemble Channel	Yes
Northing	5495082	Backwatered	Yes
Stream	Tributary to Hosmer Creek	Percent Backwatered	100
Road	3rd Avenue	Fill Depth (m)	1
Road Tenure	MoTi Local	Outlet Drop (m)	0
Channel Width (m)	5	Outlet Pool Depth (m)	0.5
Stream Slope (%)	0	Inlet Drop	Yes
Beaver Activity	Yes	Slope (%)	0
Habitat Value	Medium	Valley Fill	Deep Fill
Final score	8	Barrier Result	Passable
Fix type	–	Fix Span / Diameter	–

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197832. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	

Comments: Four round culverts (1.4, 1.4, 1.0, 1.0m). Width used is equal to estimated channel width because the crossing is fully backwatered with wetland type habitat. Very unlikely that there are other crossings on this tributary upstream or downstream (it is Hosmer Creek downstream) as there does not appear to be any roads. Confirmed that modelled crossing 4603285 (30m upstream) does not exist. 14:35

Location and Stream Data		Crossing Characteristics	
Date	2021-10-15	Crossing Sub Type	Round Culvert
PSCIS ID	197833	Diameter (m)	1.5
External ID	4600129	Length (m)	22
Crew	AI BK SS RA	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	647141.4	Resemble Channel	No
Northing	5494823	Backwatered	No
Stream	Hosmer Creek	Percent Backwatered	—
Road	Highway 3	Fill Depth (m)	3
Road Tenure	MoTi Arterial	Outlet Drop (m)	0
Channel Width (m)	3	Outlet Pool Depth (m)	0.4
Stream Slope (%)	2.5	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	4.5
Habitat Value	Medium	Valley Fill	Deep Fill
Final score	29	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197833. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
	
	
 2021-10-15, 3:19 PM 11U 647168 5494808	

Comments: Inlet drop ~0.75m. Backwatering done in past to reduce outlet drop. Water intake downstream from the culvert. 15:12

Location and Stream Data		Crossing Characteristics	
Date	2021-10-15	Crossing Sub Type	Round Culvert
PSCIS ID	197834	Diameter (m)	1.75
External ID	4606711	Length (m)	30
Crew	AI BK SS RA	Embedded	Yes
UTM Zone	11	Depth Embedded (m)	0.3
Easting	647221.7	Resemble Channel	Yes
Northing	5494759	Backwatered	No
Stream	Hosmer Creek	Percent Backwatered	—
Road	CP Railway	Fill Depth (m)	1.5
Road Tenure	Canadian Pacific	Outlet Drop (m)	0
Channel Width (m)	3.9	Outlet Pool Depth (m)	0.4
Stream Slope (%)	5	Inlet Drop	No
Beaver Activity	No	Slope (%)	2
Habitat Value	High	Valley Fill	Deep Fill
Final score	22	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197834. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
	 <p>2021-10-15, 3:57 PM 11U 647224 5494752</p>
 <p>2021-10-15, 3:56 PM 11U 647224 5494752</p>	 <p>2021-10-15, 3:51 PM 11U 647209 5494756</p>
 <p>2021-10-15, 4:03 PM 11U 647267 5494757</p>	

Comments: Concrete structure has been built to facilitate fish passage. There are baffles and installed within one side of the culvert which embedded this area of the culvert with substrate. 15:45

Location and Stream Data		Crossing Characteristics	
Date	2021-10-15	Crossing Sub Type	Round Culvert
PSCIS ID	197835	Diameter (m)	2.5
External ID	4600088	Length (m)	17
Crew	AI BK SS RA	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	647446.7	Resemble Channel	No
Northing	5494639	Backwatered	No
Stream	Hosmer Creek	Percent Backwatered	—
Road	Stephenson Road	Fill Depth (m)	0.35
Road Tenure	MoTi Local	Outlet Drop (m)	0.24
Channel Width (m)	4.1	Outlet Pool Depth (m)	0.15
Stream Slope (%)	7	Inlet Drop	No
Beaver Activity	No	Slope (%)	3
Habitat Value	Medium	Valley Fill	Deep Fill
Final score	34	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197835. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A photograph showing a yellow "SASIONAZZI" surveyor's pole standing on a grassy bank next to a paved road. The road curves to the right through a forested area with fallen leaves on the ground.	 A photograph looking upstream through a corrugated metal culvert. The water inside is dark and turbulent. A timestamp in the top right corner reads "2021-10-15, 4:34 PM" and "11U 647448 5494620".
 A photograph looking upstream at the entrance of a corrugated metal culvert. A person stands on the bank to the left, providing a sense of scale. The water inside the pipe is visible, flowing over rocks and debris.	 A photograph looking downstream from the entrance of the culvert. The water is flowing rapidly and turbulent, with fallen leaves floating on the surface. A red surveyor's pole is positioned vertically in the water near the entrance.
 A photograph showing a small stream flowing over rocks and debris. A white barrel lies across the stream, partially submerged. The surrounding area is covered in fallen autumn leaves.	 A photograph looking downstream from the outlet of the culvert. The water is flowing rapidly and turbulent, with fallen leaves floating on the surface. A red surveyor's pole is positioned vertically in the water near the outlet.

Comments: Adjacent landowner reports that this crossing was a bridge ~50 years ago and that the culvert is known to overflow during floods. Several 1m boulders are lodged approximately 4m inside of the the pipe. 16:20

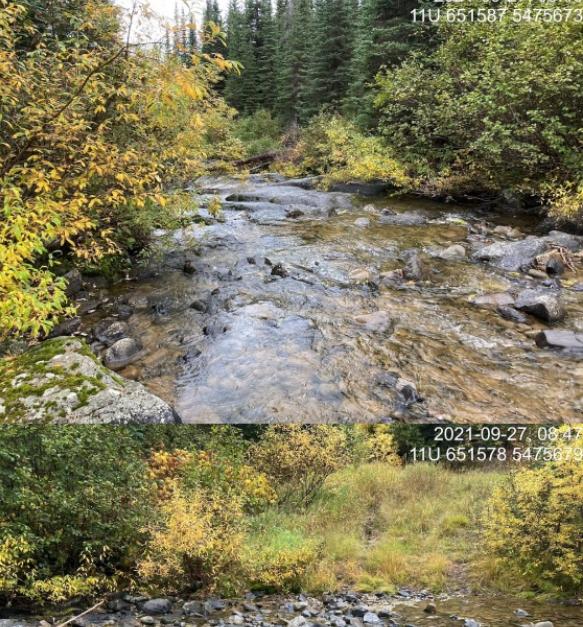
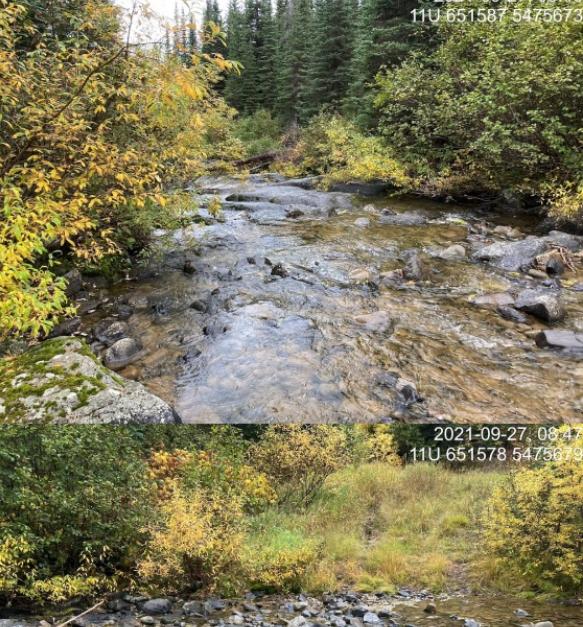
Location and Stream Data		Crossing Characteristics –	
Date	2021-10-15	Crossing Sub Type	Bridge
PSCIS ID	197836	Diameter (m)	10
External ID	24734199	Length (m)	4
Crew	AI BK SS RA	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	647622.9	Resemble Channel	–
Northing	5494599	Backwatered	–
Stream	Hosmer Creek	Percent Backwatered	–
Road	Transmisson Line	Fill Depth (m)	–
Road Tenure	Unknown	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	–

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197836. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
	
	NO IMAGE AVAILABLE
	

Comments: Bridge. 16:55

Location and Stream Data		Crossing Characteristics	
Date	2021-09-27	Crossing Sub Type	Ford
PSCIS ID	197837	Diameter (m)	–
External ID	4602163	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	651609.1	Resemble Channel	–
Northing	5475661	Backwatered	–
Stream	Morrisey 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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197837. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-27, 08:46 11U 651613 5475655		2021-09-27, 08:48 11U 651587 5475673
	2021-09-27, 08:47 11U 651578 5475679		2021-09-27, 08:47 11U 651578 5475679
	2021-09-27, 08:47 11U 651578 5475679		2021-09-27, 08:47 11U 651578 5475679

Comments: Ford on old road. Road is grassy. 8:44

Location and Stream Data		Crossing Characteristics	
Date	2021-09-27	Crossing Sub Type	Ford
PSCIS ID	197838	Diameter (m)	–
External ID	4601704	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	650166	Resemble Channel	–
Northing	5473852	Backwatered	–
Stream	Morrisey 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	–

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197838. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-28 15:50 11U 650156 5473848		2021-09-28 15:51 11U 650164 5473849
	2021-09-28 15:50 11U 650164 5473850		2021-09-28 15:51 11U 650164 5473849
	2021-09-28 15:50 11U 650164 5473850		2021-09-28 15:50 11U 650164 5473850

Comments: This road is not detectable in the field. There is no crossing structure. 15:48

Location and Stream Data		.	Crossing Characteristics –
Date	2021-09-27	Crossing Sub Type	Ford
PSCIS ID	197839	Diameter (m)	–
External ID	4607022	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	648168.1	Resemble Channel	–
Northing	5499879	Backwatered	–
Stream	McCool Creek	Percent Backwatered	–
Road	Spur	Fill Depth (m)	–
Road Tenure	Resource	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197839. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-27 11:33 11U 648224 5499805		2021-09-27 11:35 11U 648204 5499797
	2021-09-27 11:33 11U 648215 5499803		2021-09-27 11:35 11U 648209 5499807
	2021-09-27 11:34 11U 648219 5499805		2021-09-27 11:35 11U 648209 5499807

Comments: Well used ford. Actually crossing location does not align exceptionally well with modelled location but we have left the modelled location to facilitate the best modelling. Actual UTM (11U 648220 5499799). 11:29

Location and Stream Data		Crossing Characteristics -	
Date	2021-09-28	Crossing Sub Type	Bridge
PSCIS ID	197840	Diameter (m)	15
External ID	24706675	Length (m)	4
Crew	KP	Embedded	-
UTM Zone	11	Depth Embedded (m)	-
Easting	663336.5	Resemble Channel	-
Northing	5447766	Backwatered	-
Stream	Tributary to Bighorn Creek	Percent Backwatered	-
Road	Cabin FSR	Fill Depth (m)	-
Road Tenure	Unknown	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	-

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197840. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-09-28, 11:40 11U 663332 5447759	 2021-09-28, 11:40 11U 663332 5447759
 2021-09-28, 11:40 11U 663332 5447759	 2021-09-28, 11:40 11U 663332 5447759
 2021-09-28, 11:40 11U 663332 5447759	 2021-09-28, 11:40 11U 663332 5447759

Comments: Bridge. 11:38

Location and Stream Data		Crossing Characteristics	
Date	2021-09-28	Crossing Sub Type	Ford
PSCIS ID	197841	Diameter (m)	–
External ID	4603555	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	662659	Resemble Channel	–
Northing	5447839	Backwatered	–
Stream	Bighorn 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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197841. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-28, 11:50 11U 662668 5447860		2021-09-28, 11:52 11U 662660 5447910
	2021-09-28, 11:52 11U 662660 5447919		2021-09-28, 11:52 11U 662660 5447919
	2021-09-28, 11:52 11U 662658 5447852		2021-09-28, 11:52 11U 662660 5447919

Comments: Some use of ATVs evident. Open gate on far side. 11:48

Location and Stream Data		Crossing Characteristics	
Date	2021-09-28	Crossing Sub Type	Round Culvert
PSCIS ID	197842	Diameter (m)	1.15
External ID	4605504	Length (m)	12
Crew	KP	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	663661.2	Resemble Channel	No
Northing	5447169	Backwatered	No
Stream	Tributary to Bighorn Creek	Percent Backwatered	—
Road	Cabin FSR	Fill Depth (m)	1
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	0.21
Channel Width (m)	2.1	Outlet Pool Depth (m)	0.6
Stream Slope (%)	7.5	Inlet Drop	No
Beaver Activity	No	Slope (%)	7
Habitat Value	Medium	Valley Fill	Deep Fill
Final score	31	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197842. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A yellow rectangular site card with a white label. The label has handwritten text "4605504" and printed text "PSCIS ID 197842". 2021-09-28, 12:24 11U 663672 5447168	 A view looking down a large, corrugated metal culvert. The interior walls are ribbed and show some brown staining or rust at the bottom. Light comes from the opening at the far end. 2021-09-28, 12:29 11U 663665 5447163
 A blue plastic barrel lies horizontally on the ground next to a stream. It appears to be partially buried in soil and surrounded by fallen leaves and brush. 2021-09-28, 12:29 11U 663673 5447172	 A view looking upstream at a small stream flowing through dense green and yellow autumn foliage. The water is clear and shallow. 2021-09-28, 12:30 11U 663668 5447167
 A view looking downstream at a small stream flowing through dense green and yellow autumn foliage. The water is clear and shallow. 2021-09-28, 12:29 11U 663673 5447172	 A view looking upstream at a small stream flowing through dense green and yellow autumn foliage. The water is clear and shallow. 2021-09-28, 12:30 11U 663659 5447164

Comments: Nice stream with big pool. 12:22

Location and Stream Data		Crossing Characteristics	
Date	2021-09-28	Crossing Sub Type	Round Culvert
PSCIS ID	197843	Diameter (m)	0.6
External ID	4605502	Length (m)	9
Crew	KP	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	663915.4	Resemble Channel	No
Northing	5446488	Backwatered	No
Stream	Tributary to Bighorn Creek	Percent Backwatered	–
Road	Cabin FSR	Fill Depth (m)	0.5
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	0.51
Channel Width (m)	1.8	Outlet Pool Depth (m)	0.19
Stream Slope (%)	6.5	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	5
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

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197843. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A photograph of a yellow and white site card standing in a field of tall grass and small shrubs. The card has a red ribbon tied to it. The date "2021-09-28 12:42" and code "11U 663910 5446480" are printed at the top right of the image.	 A photograph looking down the inside of a large, corrugated metal culvert. The walls are rusty and the floor is dark. The date "2021-09-28 12:53" and code "11U 663911 5446480" are printed at the top right of the image.
 A photograph of a black pipe outlet in a dense thicket of bushes and small trees. A blue hose is connected to the pipe. The date "2021-09-28 12:47" and code "11U 663916 5446489" are printed at the top right of the image.	 A photograph of a black pipe outlet in a thicket. Water is flowing out of the pipe. The date "2021-09-28 12:53" and code "11U 663911 5446480" are printed at the top right of the image.
 A photograph of a black pipe outlet in a thicket. The pipe is partially buried in the ground. The date "2021-09-28 12:47" and code "11U 663918 5446477" are printed at the top right of the image.	 A photograph of a black pipe inlet in a thicket. Water is flowing into the pipe. The date "2021-09-28 12:53" and code "11U 663911 5446480" are printed at the top right of the image.

Comments: Inlet drop of 0.2m. Small stream, good flow. Steep downstream below pool. 12:42

Location and Stream Data		Crossing Characteristics	
Date	2021-09-28	Crossing Sub Type	Round Culvert
PSCIS ID	197844	Diameter (m)	1.2
External ID	4605514	Length (m)	12
Crew	KP	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	657919.7	Resemble Channel	No
Northing	5452802	Backwatered	No
Stream	Tributary to Bighorn Creek	Percent Backwatered	—
Road	Cabin FSR	Fill Depth (m)	1
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	1.2
Channel Width (m)	2.2	Outlet Pool Depth (m)	0.93
Stream Slope (%)	5	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	12

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197844. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-09-28, 13:25 11U 657932 5452805	 2021-09-28, 13:29 11U 657920 5452802
 2021-09-28, 13:29 11U 657932 5452810	 2021-09-28, 13:32 11U 657923 5452780
 2021-09-28, 13:25 11U 657946 5452789	 2021-10-04, 17:43 11U 657945 5452795

Comments: Cobble substrate and abundant overhanging vegetation. Decent sized stream. 13:24

Location and Stream Data		Crossing Characteristics	
Date	2021-09-28	Crossing Sub Type	Round Culvert
PSCIS ID	197845	Diameter (m)	0.6
External ID	4605531	Length (m)	11
Crew	KP	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	655961.7	Resemble Channel	No
Northing	5453504	Backwatered	No
Stream	Tributary to Bighorn Creek	Percent Backwatered	—
Road	Cabin FSR	Fill Depth (m)	0.3
Road Tenure	FLNR DRM 5466	Outlet Drop (m)	0.6
Channel Width (m)	2.5	Outlet Pool Depth (m)	0.5
Stream Slope (%)	13	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	4
Habitat Value	Low	Valley Fill	Deep Fill
Final score	36	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197845. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A photograph of a white rectangular site card with a red ribbon tied to its top edge. The card has handwritten text "4605331" and "11U 655963 5453517". The background shows a dirt road through a forest with autumn foliage.	 A photograph looking down the interior of a large, corrugated metal culvert. The walls are dark and reflective, showing concentric circles. Light comes from the far end, illuminating a small amount of water or debris at the bottom.
 A photograph of a black PVC culvert lying horizontally on a rocky, gravelly bank. It is surrounded by fallen autumn leaves and some low-lying vegetation.	 A photograph of a black PVC culvert standing upright on a rocky, gravelly bank. It is surrounded by fallen autumn leaves and some low-lying vegetation.
 A photograph of a rocky, gravelly stream bed. A large log lies across the center. The banks are covered with fallen autumn leaves and some green shrubs.	 A photograph of a rocky, gravelly stream bed. The water appears shallow and clear. The banks are covered with fallen autumn leaves and some green shrubs.

Comments: New PVC culvert. Creek appears to have been dredged often. Channel dry. Inlet drop of ~0.15m. 13:47

Location and Stream Data		Crossing Characteristics –	
Date	2021-09-29	Crossing Sub Type	Ford
PSCIS ID	197846	Diameter (m)	–
External ID	4607449	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	659283.9	Resemble Channel	–
Northing	5547544	Backwatered	–
Stream	Tributary to Ewin Creek	Percent Backwatered	–
Road	Spur	Fill Depth (m)	–
Road Tenure	Resource	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics
Photos: PSCIS ID 197846. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.		
2021-09-29, 10:45 11U 659289 5547539	•	2021-09-29, 10:45 11U 659289 5547539
 A photograph showing a yellow rectangular card held by a person's hand. The card has "460749" handwritten on it. The background shows a steep hillside covered in green and yellow vegetation.	•	 A photograph of a large, dark wooden barrel lying horizontally on a rocky ground surface. It is surrounded by fallen branches and low-lying plants.
2021-09-29, 10:45 11U 659289 5547539	•	2021-09-29, 10:45 11U 659289 5547539
 A photograph of a small stream flowing over rocks. The water is clear and reflects the surrounding green and yellow foliage. A person's shadow is visible on the bank to the left.	•	 A photograph of a rocky stream bed with clear water flowing downstream. The banks are lined with green coniferous trees and yellow autumn-colored shrubs.
2021-09-29, 10:45 11U 659289 5547539	•	2021-09-29, 10:45 11U 659289 5547539
 A photograph of a rocky stream bed with clear water flowing upstream. The banks are covered with dense green coniferous trees and yellow autumn-colored shrubs.	•	 A photograph of a rocky stream bed with clear water flowing into the main stream. The banks are covered with dense green coniferous trees and yellow autumn-colored shrubs.

Comments: Deactivated road. 10:43

Location and Stream Data		.	Crossing Characteristics	
Date	2021-09-29	Crossing Sub Type	Ford	
PSCIS ID	197847	Diameter (m)	–	
External ID	4600533	Length (m)	–	
Crew	KP AI	Embedded	–	
UTM Zone	11	Depth Embedded (m)	–	
Easting	656890	Resemble Channel	–	
Northing	5554160	Backwatered	–	
Stream	Chauncey 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	–	

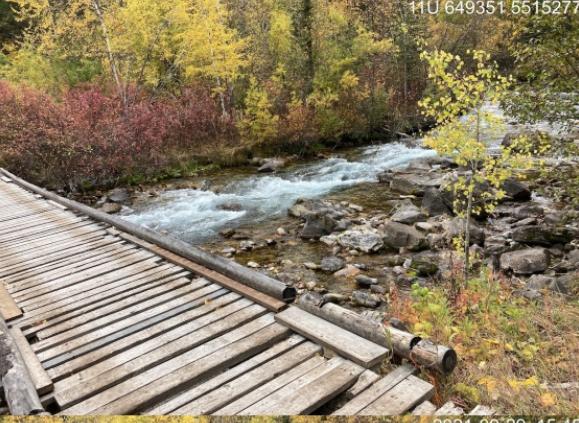
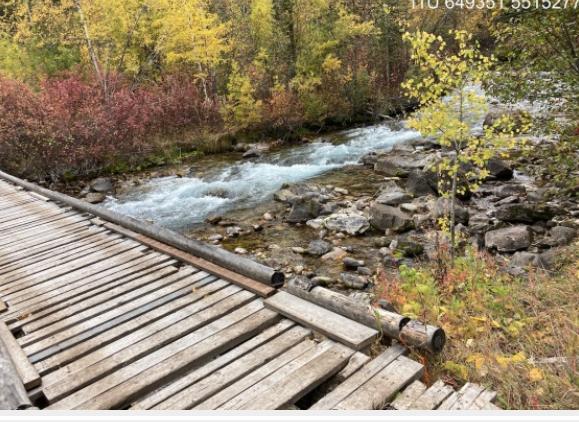
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197847. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-09-29, 12:02 11U 656883 5554179	 2021-09-29, 12:02 11U 656886 5554190
 2021-09-29, 12:02 11U 656886 5554190	 2021-09-29, 12:02 11U 656886 5554190
 2021-09-29, 12:02 11U 656886 5554190	 2021-09-29, 12:02 11U 656886 5554190

Comments: Old road but possible ford site not actually on road and road mapped on other side of creek. Access management area. Restoration site downstream. 12:00

Location and Stream Data		Crossing Characteristics –	
Date	2021-09-29	Crossing Sub Type	Bridge
PSCIS ID	197848	Diameter (m)	20
External ID	2021092950	Length (m)	2
Crew	KP AI	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	649364	Resemble Channel	–
Northing	5515290	Backwatered	–
Stream	Cummings Creek	Percent Backwatered	–
Road	Cummings FSR	Fill Depth (m)	–
Road Tenure	FLNR DRM 0142	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197848. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-09-29, 15:45 11U 649358 5515286	 2021-09-29, 15:45 11U 649351 5515277
 2021-09-29, 15:45 11U 649351 5515277	 2021-09-29, 15:45 11U 649351 5515277
 2021-09-29, 15:45 11U 649351 5515277	 2021-09-29, 15:45 11U 649351 5515277

Comments: Homemade ATV bridge built with logs and slats. 15:41

Location and Stream Data		Crossing Characteristics	
Date	2021-10-01	Crossing Sub Type	Round Culvert
PSCIS ID	197849	Diameter (m)	0.5
External ID	4605585	Length (m)	10
Crew	KP	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	687464	Resemble Channel	No
Northing	5432111	Backwatered	No
Stream	Tributary to Sage Creek	Percent Backwatered	–
Road	Flathead-Nettie FSR	Fill Depth (m)	2
Road Tenure	FLNR DRM 0030	Outlet Drop (m)	0
Channel Width (m)	1.7	Outlet Pool Depth (m)	0
Stream Slope (%)	4	Inlet Drop	Yes
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

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197849. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 <p>2021-10-01, 11:54 11U 687469 5432123</p>	 <p>2021-10-01, 11:55 11U 687472 5432115</p>
 <p>2021-10-01, 11:55 11U 687472 5432115</p>	 <p>2021-10-01, 11:59 11U 687462 5432120</p>
 <p>2021-10-01, 11:55 11U 687472 5432115</p>	 <p>2021-10-01, 11:59 11U 687462 5432120</p>

Comments: Overflow culvert is 0.12m and 2%. Almost backwatered by slowly trickling. Inlet is almost fully clogged and has inlet drop of 0.4m. Slope of primary culvert estimated as very difficult to measure. 11:41

Location and Stream Data		Crossing Characteristics	
Date	2021-10-01	Crossing Sub Type	Round Culvert
PSCIS ID	197850	Diameter (m)	0.6
External ID	4605584	Length (m)	11
Crew	KP	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	686674	Resemble Channel	No
Northing	5434139	Backwatered	No
Stream	Tributary to Sage Creek	Percent Backwatered	—
Road	Flathead-Nettie FSR	Fill Depth (m)	2
Road Tenure	FLNR DRM 0030	Outlet Drop (m)	0.13
Channel Width (m)	2.1	Outlet Pool Depth (m)	0.33
Stream Slope (%)	3.5	Inlet Drop	No
Beaver Activity	No	Slope (%)	4.5
Habitat Value	Low	Valley Fill	Deep Fill
Final score	26	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197850. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-01, 12:13 11U 686670 5434138	 2021-10-01, 12:18 11U 686686 5434143
 2021-10-01, 12:14 11U 686666 5434150	 2021-10-01, 12:24 11U 686670 5434119
 2021-10-01, 12:14 11U 686681 5434135	 2021-10-01, 12:24 11U 686670 5434119

Comments: Channel heavily vegetated with moss indicating it flows intermittently. Very low flow at time of assessment.  
12:12

Location and Stream Data		Crossing Characteristics	
Date	2021-10-01	Crossing Sub Type	Round Culvert
PSCIS ID	197851	Diameter (m)	0.6
External ID	4605462	Length (m)	29
Crew	KP	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	682932.9	Resemble Channel	No
Northing	5442156	Backwatered	No
Stream	Tributary to Flathead River	Percent Backwatered	–
Road	Kishinea FSR	Fill Depth (m)	7
Road Tenure	FLNR DRM 0030	Outlet Drop (m)	0.09
Channel Width (m)	1.2	Outlet Pool Depth (m)	0.17
Stream Slope (%)	2	Inlet Drop	No
Beaver Activity	No	Slope (%)	3.5
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

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197851. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-01, 13:35 11U 682914 5442142	 2021-10-01, 13:39 11U 682936 5442176
 2021-10-01, 13:37 11U 682929 5442161	 2021-10-01, 13:48 11U 682903 5442179
 2021-10-01, 13:37 11U 682907 5442163	 2021-10-01, 13:48 11U 682903 5442179

Comments: Upstream channel is wet meadow with grass, moss and willow. Inlet appears to be above where the channel would be. Downstream is willow area with poorly defined channel. Dry at time of survey. 13:36

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Bridge
PSCIS ID	197852	Diameter (m)	16
External ID	4606241	Length (m)	5
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	679965	Resemble Channel	–
Northing	5434092	Backwatered	–
Stream	Tributary to Calder Creek	Percent Backwatered	–
Road	Calder Creek Main	Fill Depth (m)	–
Road Tenure	Unknown	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197852. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-10-03, 10:38 11U 679963 5434090		2021-10-03, 10:41 11U 679963 5434090
	2021-10-03, 10:41 11U 679963 5434090		2021-10-03, 10:41 11U 679963 5434090
	2021-10-03, 10:40 11U 679963 5434090		2021-10-03, 10:41 11U 679963 5434090

Comments: Crossing is in slightly different location than mapped. 10:35

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Bridge
PSCIS ID	197853	Diameter (m)	6
External ID	4605203	Length (m)	4
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	680152.1	Resemble Channel	–
Northing	5433553	Backwatered	–
Stream	Calder Creek	Percent Backwatered	–
Road	Spur 1000	Fill Depth (m)	–
Road Tenure	FLNR DRM 0030	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197853. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-03 10:55 11U 680137 5433535	 2021-10-03 10:56 11U 680150 5433544
 2021-10-03 10:56 11U 680151 5433534	 2021-10-03 10:56 11U 680150 5433544
 2021-10-03 10:56 11U 680146 5433534	 2021-10-03 10:56 11U 680150 5433545
Comments: Bridge. 10:54	

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Pipe Arch
PSCIS ID	197854	Diameter (m)	2
External ID	24740602	Length (m)	10
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	680543.7	Resemble Channel	–
Northing	5432522	Backwatered	–
Stream	Tributary to Calder Creek	Percent Backwatered	–
Road	Spur 1000	Fill Depth (m)	–
Road Tenure	Unknown	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197854. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-03, 11:05 11U 680554 5432537	 2021-10-03, 11:09 11U 680537 5432531
 2021-10-03, 11:07 11U 680547 5432568	 2021-10-03, 11:13 11U 680552 5432516
	

Comments: Black plastic arch. Structure appears to be lifting off ground where placed. Bend in middle of pipe where road crosses. 11:04

Location and Stream Data		Crossing Characteristics	
Date	2021-10-03	Crossing Sub Type	Round Culvert
PSCIS ID	197855	Diameter (m)	0.8
External ID	24740603	Length (m)	10
Crew	KP	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	680584.5	Resemble Channel	No
Northing	5432219	Backwatered	No
Stream	Tributary to Calder Creek	Percent Backwatered	–
Road	Spur 1000	Fill Depth (m)	0.3
Road Tenure	Unknown	Outlet Drop (m)	0
Channel Width (m)	0.8	Outlet Pool Depth (m)	0
Stream Slope (%)	2.5	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	4
Habitat Value	Low	Valley Fill	Deep Fill
Final score	23	Barrier Result	Barrier
Fix type	Replace Structure with Streambed Simulation CBS	Fix Span / Diameter	3

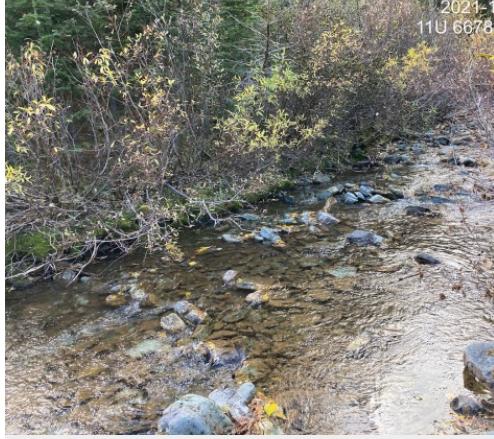
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics	-
Photos: PSCIS ID 197855. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.		
 2021-10-03, 11:21 11U 680579 5432146	 2021-10-03, 11:23 11U 680574 5432171	-
 2021-10-03, 11:23 11U 680579 5432161	 2021-10-03, 11:25 11U 680598 5432162	-
 2021-10-03, 11:23 11U 680579 5432161	 2021-10-03, 11:25 11U 680589 5432173	-

Comments: Inlet drop from debris ~0.35m. Heavily logged to stream upstream. Culvert is steeper for first 1/2 on upstream side. Slightly embedded on outlet but unlikely to hold due to small size of substrate. 11:20

Location and Stream Data		.	Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Ford	
PSCIS ID	197856	Diameter (m)	–	
External ID	4602869	Length (m)	–	
Crew	KP	Embedded	–	
UTM Zone	11	Depth Embedded (m)	–	
Easting	667844	Resemble Channel	–	
Northing	5434398	Backwatered	–	
Stream	Couldrey 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	–	

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197856. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 A yellow rectangular card held by a person's hand. The number "4102869" is printed on it. The background shows a rocky stream bed and some green vegetation. 2021-10-03, 15:02 11U 667843 5434390	 A person wearing a red vest and tan pants stands in shallow water, holding a black barrel. The barrel has a yellow band around its middle. The background shows a rocky stream bed and some green vegetation. 2021-10-03, 15:02 11U 667843 5434390
 A view of a rocky stream bed with clear water flowing over stones. Some fallen leaves are scattered on the rocks. 2021-10-03, 15:02 11U 667843 5434390	 A view of a rocky stream bed with clear water flowing over stones. Some fallen leaves are scattered on the rocks. 2021-10-03, 15:02 11U 667843 5434390
 A view of a rocky stream bed with clear water flowing over stones. Some fallen leaves are scattered on the rocks. 2021-10-03, 15:02 11U 667843 5434390	 A view of a rocky stream bed with clear water flowing over stones. Some fallen leaves are scattered on the rocks. 2021-10-03, 15:02 11U 667843 5434390

Comments: Ford. Adjacent stream channel dry. 15:01

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Ford
PSCIS ID	197857	Diameter (m)	–
External ID	4605874	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	668597.1	Resemble Channel	–
Northing	5434527	Backwatered	–
Stream	Couldrey Creek	Percent Backwatered	–
Road	Spur	Fill Depth (m)	–
Road Tenure	FLNR DRM 0030	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	–

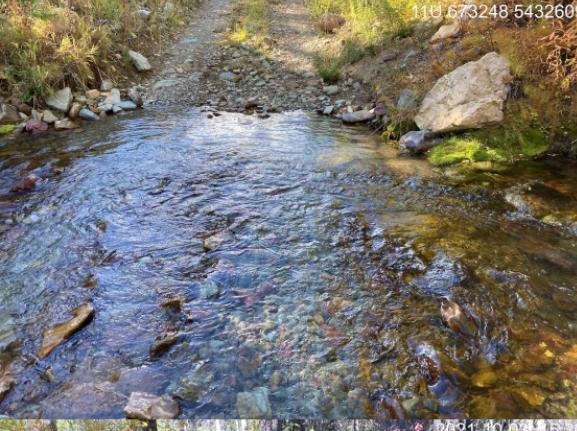
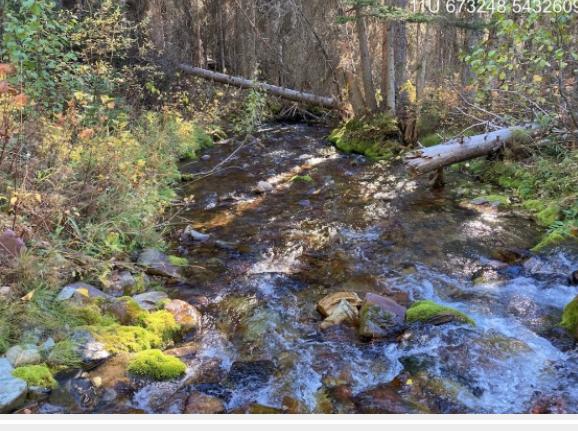
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197857. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-10-03, 15:11 11U 668589 5434522		2021-10-03, 15:12 11U 668589 5434519
	2021-10-03, 15:13 11U 668589 5434519		2021-10-03, 15:13 11U 668589 5434519
	2021-10-03, 15:12 11U 668589 5434519		2021-10-03, 15:13 11U 668589 5434519

Comments: Ford. 15:11

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Ford
PSCIS ID	197858	Diameter (m)	–
External ID	4605863	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	673247.1	Resemble Channel	–
Northing	5432618	Backwatered	–
Stream	Tributary to Cauldrey Creek	Percent Backwatered	–
Road	Cauldrey FSR	Fill Depth (m)	–
Road Tenure	FLNR DRM 0030	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197858. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-03, 15:29 11U 673254 5432605	 2021-10-03, 15:29 11U 673248 5432609
 2021-10-03, 15:30 11U 673248 5432609	 2021-10-03, 15:30 11U 673248 5432609
 2021-10-03, 15:30 11U 673248 5432609	 2021-10-03, 15:30 11U 673248 5432609

Comments: Good flow. 15:28

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Bridge
PSCIS ID	197859	Diameter (m)	12.5
External ID	4605748	Length (m)	4
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	673297	Resemble Channel	–
Northing	5432419	Backwatered	–
Stream	Cauldrey Creek	Percent Backwatered	–
Road	Frozen Lake	Fill Depth (m)	–
Road Tenure	FLNR DRM 0030	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197859. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-03, 15:33 11U 673285 5432417	 2021-10-03, 15:33 11U 673295 5432409
 2021-10-03, 15:33 11U 673295 5432409	 2021-10-03, 15:33 11U 673295 5432409
 2021-10-03, 15:33 11U 673295 5432409	 2021-10-03, 15:34 11U 673295 5432409

Comments: Bridge. 15:32

Location and Stream Data		Crossing Characteristics –	
Date	2021-07-27	Crossing Sub Type	Ford
PSCIS ID	197860	Diameter (m)	–
External ID	4605826	Length (m)	–
Crew	AI TS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	658807	Resemble Channel	–
Northing	5431373	Backwatered	–
Stream	Rabbit Creek	Percent Backwatered	–
Road	Phillips Creek Main	Fill Depth (m)	–
Road Tenure	FLNR DRM 0064	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197860. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-07-27, 3:18 PM 11U 658801 5431369		2021-07-27, 3:19 PM 11U 658801 5431369
	2021-07-27, 3:19 PM 11U 658801 5431369		2021-07-27, 3:19 PM 11U 658801 5431369
	2021-07-27, 3:18 PM 11U 658801 5431369		2021-07-27, 3:18 PM 11U 658801 5431369

Comments: Ford. No card filled out. 15:17

Location and Stream Data		Crossing Characteristics –	
Date	2021-07-28	Crossing Sub Type	Ford
PSCIS ID	197861	Diameter (m)	–
External ID	4602646	Length (m)	–
Crew	AI TS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	647364	Resemble Channel	–
Northing	5452095	Backwatered	–
Stream	Tributary to Wigwam River	Percent Backwatered	–
Road	Wigwam Lookout Trail	Fill Depth (m)	–
Road Tenure	Unknown	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	–

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197861. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			

**NO IMAGE AVAILABLE**

**NO IMAGE AVAILABLE**



Comments: No crossing present. 14:20

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-13	Crossing Sub Type	Bridge
PSCIS ID	197862	Diameter (m)	10
External ID	2021101301	Length (m)	2
Crew	AI BK SS	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	636963	Resemble Channel	–
Northing	5483993	Backwatered	–
Stream	Tributary to Lizard Creek	Percent Backwatered	–
Road	Lazy Lizard Lower Trail	Fill Depth (m)	–
Road Tenure	Unknown	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197862. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-13, 12:44 PM 11U 636944 5483973	 2021-10-13, 12:49 PM 11U 636956 5483994
 2021-10-13, 12:48 PM 11U 636967 5483994	 2021-10-13, 12:48 PM 11U 636967 5483994
 2021-10-13, 12:48 PM 11U 636969 5483984	 2021-10-13, 12:48 PM 11U 636967 5483994

Comments: Bridge on walking/bike trail. 12:44

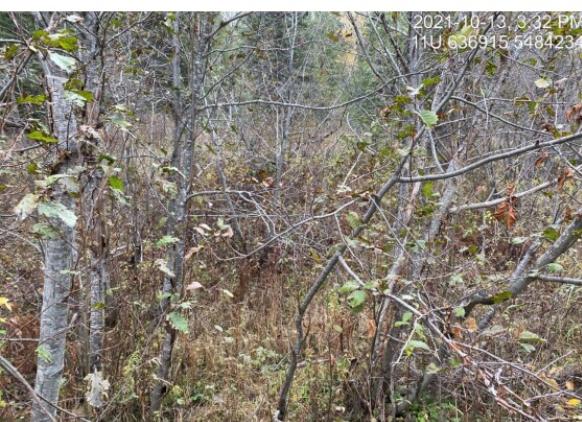
Location and Stream Data		Crossing Characteristics	
Date	2021-10-13	Crossing Sub Type	Round Culvert
PSCIS ID	197863	Diameter (m)	0.9
External ID	4600761	Length (m)	8
Crew	AI BK SS	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	637007	Resemble Channel	No
Northing	5484415	Backwatered	No
Stream	Tributary to Lizard Creek	Percent Backwatered	—
Road	Unnamed	Fill Depth (m)	1
Road Tenure	Unknown	Outlet Drop (m)	0.5
Channel Width (m)	2	Outlet Pool Depth (m)	0.28
Stream Slope (%)	12.6	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	6
Habitat Value	Low	Valley Fill	Deep Fill
Final score	36	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197863. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-13, 1:39 PM 11U 637000 5484403	 2021-10-13, 1:40 PM 11U 637011 5484390
 2021-10-13, 1:43 PM 11U 637015 5484424	 2021-10-13, 1:40 PM 11U 637006 5484396
 2021-10-13, 1:39 PM 11U 637000 5484403	 2021-10-13, 1:43 PM 11U 637016 5484409

Comments: Very steep immediately upstream of crossing. 13:33

Location and Stream Data		Crossing Characteristics	
Date	2021-10-13	Crossing Sub Type	Round Culvert
PSCIS ID	197864	Diameter (m)	0.6
External ID	2021101302	Length (m)	9
Crew	AI BK SS	Embedded	No
UTM Zone	11	Depth Embedded (m)	–
Easting	636912	Resemble Channel	No
Northing	5484249	Backwatered	No
Stream	Tributary to Lizard Creek	Percent Backwatered	–
Road	Unnamed	Fill Depth (m)	1
Road Tenure	Unknown	Outlet Drop (m)	0.29
Channel Width (m)	0.5	Outlet Pool Depth (m)	0.21
Stream Slope (%)	11	Inlet Drop	Yes
Beaver Activity	No	Slope (%)	2
Habitat Value	Low	Valley Fill	Deep Fill
Final score	20	Barrier Result	Barrier
Fix type	Replace Structure with Streambed Simulation CBS	Fix Span / Diameter	3

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197864. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
 A yellow rectangular site card lies on the ground in a forested area. The card has "DO NOT DISTURB" printed on it. The background shows a dirt road and dense evergreen trees.	2021-10-13, 3:31 PM 11U 636915 5484234	 A view looking down the inside of a large, corrugated metal culvert. The walls are ribbed and show some rust. Light filters through the opening at the bottom.	2021-10-13, 3:32 PM 11U 636915 5484234
<b>NO IMAGE AVAILABLE</b>		 A blue corrugated pipe outlet is shown, partially buried in the ground and surrounded by fallen branches and leaves. It appears to be leaking or has a hole.	2021-10-13, 3:32 PM 11U 636915 5484234
 A view of a stream channel flowing through a dense thicket of small trees and bushes. The water is clear and shallow.	2021-10-13, 3:32 PM 11U 636915 5484234	 A view of a stream channel flowing through a dense thicket of small trees and bushes. The water is clear and shallow.	2021-10-13, 3:33 PM 11U 636918 5484240

Comments: Drop of 1.1m just below outlet. Very unlikely to be fish habitat. Stream mapped incorrectly. Main channel is S and crosses road approximately 200m up the road. 15:30

Location and Stream Data		Crossing Characteristics	
	•		-
Date	2021-10-14	Crossing Sub Type	Round Culvert
PSCIS ID	197865	Diameter (m)	0.3
External ID	4605652	Length (m)	1
Crew	AI BK SS RA	Embedded	No
UTM Zone	11	Depth Embedded (m)	-
Easting	647282	Resemble Channel	No
Northing	5574968	Backwatered	No
Stream	Tributary to Elk River	Percent Backwatered	-
Road	Elk River Main FSR	Fill Depth (m)	0.25
Road Tenure	FLNR DRM 0103	Outlet Drop (m)	0.2
Channel Width (m)	1	Outlet Pool Depth (m)	0.06
Stream Slope (%)	26	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

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197865. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			

**NO IMAGE AVAILABLE**

Comments: Very steep stream. Culvert failing just downstream of inlet. Stream braids upstream. 13:15

Location and Stream Data		CROSSING CHARACTERISTICS	
Date	2021-10-15	Crossing Sub Type	Round Culvert
PSCIS ID	197866	Diameter (m)	2.3
External ID	4600992	Length (m)	13
Crew	AI BK	Embedded	No
UTM Zone	11	Depth Embedded (m)	—
Easting	647734	Resemble Channel	No
Northing	5494404	Backwatered	No
Stream	Hosmer Creek	Percent Backwatered	—
Road	Unnamed	Fill Depth (m)	0.5
Road Tenure	Resource	Outlet Drop (m)	0.25
Channel Width (m)	4.1	Outlet Pool Depth (m)	0.57
Stream Slope (%)	11	Inlet Drop	No
Beaver Activity	No	Slope (%)	2
Habitat Value	High	Valley Fill	Deep Fill
Final score	26	Barrier Result	Barrier
Fix type	Replace with New Open Bottom Structure	Fix Span / Diameter	12

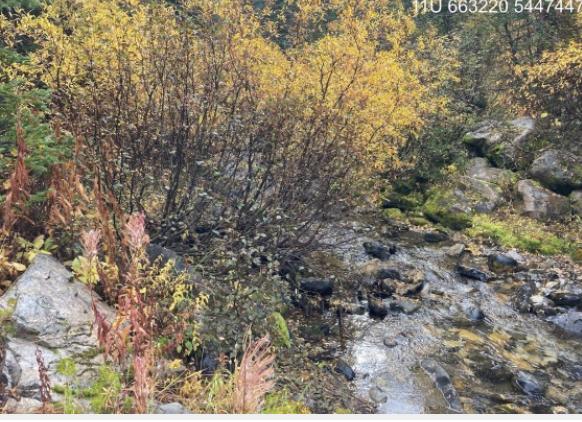
Appendix - Phase 1 Fish Passage As...

Location and Stream Data	Crossing Characteristics
Photos: PSCIS ID 197866. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.	
 2021-10-15 17:03 11U 647730 5494398	 2021-10-15 17:07 11U 647722 5494397
 2021-10-15 17:05 11U 647723 5494391	 2021-10-15 17:09 11U 647720 5494407
 2021-10-15 17:04 11U 647722 5494399	 2021-10-15 17:04 11U 647724 5494403

Comments: Embedded for approximately 8m from the inlet. Small water supply dam located upstream of culvert ~45m. Structure is ~1m high. 17:00

Location and Stream Data		Crossing Characteristics –	
Date	2021-09-28	Crossing Sub Type	Ford
PSCIS ID	197867	Diameter (m)	–
External ID	4603553	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	664112	Resemble Channel	–
Northing	5445241	Backwatered	–
Stream	Tributary to Bighorn Creek	Percent Backwatered	–
Road	Spur	Fill Depth (m)	–
Road Tenure	Unknown	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197867. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-09-28, 11:30 11U 663222 5447430		2021-09-28, 11:31 11U 663225 5447436
	2021-09-28, 11:31 11U 663220 5447447		2021-09-28, 11:31 11U 663225 5447436
	2021-09-28, 11:31 11U 663220 5447447		2021-09-28, 11:31 11U 663220 5447447

Comments: Inactive road. Thick alders. Walked in from Cabin FSR. 11:28

Location and Stream Data		Crossing Characteristics –	
Date	2021-10-03	Crossing Sub Type	Ford
PSCIS ID	197868	Diameter (m)	–
External ID	4602849	Length (m)	–
Crew	KP	Embedded	–
UTM Zone	11	Depth Embedded (m)	–
Easting	681898	Resemble Channel	–
Northing	6430912	Backwatered	–
Stream	Tributary to Calder Creek	Percent Backwatered	–
Road	Spur	Fill Depth (m)	–
Road Tenure	Unknown	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	–

Appendix - Phase 1 Fish Passage As...

Location and Stream Data	•	Crossing Characteristics	-
Photos: PSCIS ID 197868. From top left clockwise: Road/Site Card, Barrel, Outlet, Downstream, Upstream, Inlet.			
	2021-10-03, 12:31 11U 681894 5430911		2021-10-03, 12:33 11U 681892 5430909
	2021-10-03, 12:33 11U 681892 5430909		2021-10-03, 12:33 11U 681892 5430909
	2021-10-03, 12:33 11U 681893 5430922		2021-10-03, 12:33 11U 681892 5430909

Comments: Inactive road. Site was assessed because of good flows upstream at PSCIS crossing 50092 and documentation of culvert at 50090. However, no culvert or evidence of stream channel located in area. 12:24