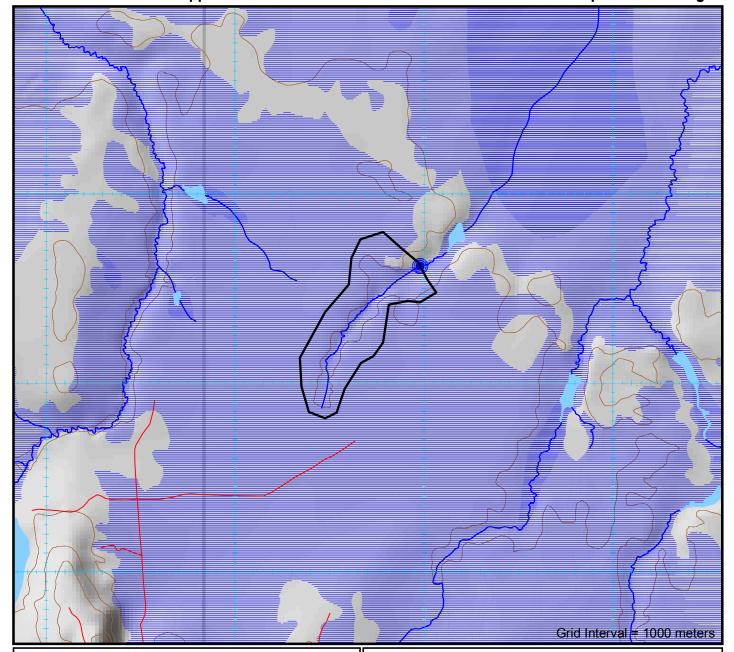
Abitibi River Forest Appendix 1: Form for Submission of Information on a Proposed Crossing



Watershed Characteristics

0.30 km² Watershed Area: 0.00 km² Lake Area: 0.00 km² Swamp Area: Retention Area: 0.00 km² Retention Factor 0.00 % Base Class: 0.00 Watercourse Type: Permanent

Crossing Location Characteristics

Evaluation ID No.: A3657

Geographic Township: McEvay UTM Coordinates (NAD83): 525980E, 5353620N

Road Type: Operational

Stream Gradient: 0% Slope > 30% (17°): **NO**

Installer Experience: As Per Approved Implementation Toolkit



Proposed Structures			
	Structure 1	Structure 2	Structure 3
Structure Type	Culvert	Bridge	Ice
Design Flow	Q25	Q25	Q2
Fill Material	Pit Run Gravel	Pit Run Gravel	Snow and Ice
Dates for In Start Water Work	July 16	July 16	
(if required) Finish	August 31	August 31	
Removal Timeframe	>2 Years	>7 Years	By March 31st

Calculations performed by First Resource Management Group (FRMG). Neither Abitibi River Forest Management Inc., nor FRMG guaratee the accuracy of any information presented on this form. Coordinates and map are UTM projection, Zone 17 NAD83 datum

Previously Used 2553 Shaded Area for ARFMI Road Crossing Evaluation Office Use Only Network No. Crossing ID Reference Number

Publication Date: December 14, 2023

Fisheries Operational Management Zone (OMZ): Abitibi River Forest - S.F.L. # 551832

Standard for Self-assessed Water Crossing Construction, Removal and/or Proponent: EACOM Timber Corporation

Decommissioning: Single, Small Closed-Bottom Round Culvert c/o P.O. Box 867 New Liskeard, Ontario Previous Assessment Year (incl. SA): 2024 P0J 1P0 SAR species likely to be impacted: (705) 680-0033 NO Preconstruction photos available: Plan Term: 2022-2032

Culvert Design Options		Q ₂₅	Q ₁₀	$Q_{\scriptscriptstyle{5}}$	Q _{2.33}
	Design Flow	0.000 m ³ /sec	0.000 m ³ /sec	0.000 m ³ /sec	0.000 m ³ /sec
	1 Round	450mm	450mm	450mm	450mm
2 Rou	2 Round	N/A	N/A	N/A	N/A
Ī	3 Round	N/A	N/A	N/A	N/A
Ì	1 Arch (BxD)	450x340mm	450x340mm	450x340mm	450x340mm
2 Arch (BxD)	N/A	N/A	N/A	-	
Ì	3 Arch (BxD)	N/A	N/A	N/A	-
	• Required Oper	ning for bridges is calculat	ed as per the Crown Land	Bridge Management Guide	elines.

Conditions on Culvert Design Options

- Initial Fisheries Review based on one pipe. Two or more pipes requires a re-assessment.
- Round culvert calculations assume 10% fill. For 20% fill, increase diameter to next highest standard diameter.
- For 40% fill, use a round culvert diameter of the Base distance of the corresponding Arch style culvert

General Standards

AWS Year: 2024-25

- No watercourse realignment, nor use of explosives is permitted.
 Minimize loss or disturbance to riparian vegetation. Restrict removal of riparian vegetation to the disturbance footprint required for construction, maintenance and decommissioning of the water crossing.
- Install erosion and sediment control measures prior to commencement of construction or decommissioning to prevent release of sediment or other deleterious substances into watercourse.
- Fill material placed below the normal high water mark must be erosion-resistant and/or protected from erosion. • Direct storm water runoff from bridge decks, side slopes, road approaches and ditches away from the watercourse
- and into a retention pond or vegetated area.

 Ensure erosion and siltation in ditch lines adjacent to the watercourse crossing approaches are controlled using
- sediment traps such as rock/soil dams or log jams as site conditions warrant.

 Do not block or impede the free passage of water and fish at any time of year up and down stream,
- with the exception of potential and temporary blockage due to water crossing construction/decommissioning activities. Abide by fisheries in-water timing windows in the approved FMP and/or forest management guides.
- Where fishery communities are not well documented, the most restrictive in-water timing window must be used.
- · Complete all in-water construction and decommissioning activities in an uninterrupted fashion and in an appropriate timeframe to minimize potential for site disturbance.
- If installation requires inwater work, do not locate within 100m of spawning or sensitive fish habitat eg, rapids, riffles, known overwintering areas.
- Maintain machinery free of fluid and fuel leaks. Wash, refuel and service machinery at least 30m from watercourse. Store fuel and other materials for machinery a minimum of 30m from the watercourse.
- Operate machinery on land with tracks/wheels above the normal high water mark, or on ice in a manner that avoids disturbance to the banks of the watercourse and adjacent riparian vegetation areas.
- Remove all debris from construction and decommissioning work from the site following completion of the undertaking.
- If machinery fording is required, limit to a one-time event (over and back) per piece of equipment essential to implementating the project, and only if using an existing crossing at another location is not available or practical.

 If minor rutting is likely, watercourse bank and bed protection methods (e.g., swamp mats, pads) are to
- be used provided they do not constrict flows or block fish passage;
- Grading of the watercourse banks for the approaches is not permitted;
- If the watercourse bed and banks are steep and highly erodible (e.g., dominated by organic materials and silts) and erosion or degradation is likely, use a temporary crossing structure or other practice to protect them;
- The one-time fording must adhere to the appropriate in-water timing windows; Fording must occur under low-flow conditions and not when flows are elevated due to local rain events or seasonal flooding

• All calculations are for projecting ends. Total pipe length normally not to exceed 20m.

NO

- All calculations assume a Headwater Depth of 1.0.
- MP = Multi-Plate (i.e. SPCSP)

Within 500m of Brook Trout stream:

Standards for Single, Small Closed-Bottom Round Culverts

- This standard applies to single, round, corrugated, closed-bottom steel, aluminum, or plastic culverts less than or equal to 1200mm in diameter that do not require site-specific engineering approval per MNRF's Crown Land Bridge Manual.
- This standard only applies if the project does not:
- Replace an existing open-bottom crossing (e.g., clear span bridge, arch culvert); - Replace an existing closed-bottom culvert larger in diameter than that being installed; or
- Involve the installation of more than one closed-bottom culvert at the crossing location.
- Locate, design and construct to minimize likelihood of ongoing outlet scour, culvert undermining or erosion of fill in order to provide stable, non-perched culverts that provide for fish passage
- Do not locate on meander bends, braided streams, or any other area inherently unstable that may result in alteration
- of natural stream functions or erosion and scouring of the structure. Size to a minimum Q25 design flow. If an unmapped stream is encountered and proper analysis cannot be
- completed to determine Q25, size to ensure it spans from bank to bank.
- Do not install where channel slope at crossing location is of a gradient greater than 2.0%.
- Do not install where slope of road approaches or either bank approach is greater than 30% (17°).
- · Locate where culvert can be embedded below grade of stream bed.
- · Use site-specific mitigation measures to ensure no ongoing erosion of fill. As a minimum:
- Stabilize both inlet and outlet ends with appropriately sized non-erodible material;
- Rock used is clean, free of fine materials and of sufficient size to resist peak flood events;
- Place rock at original bank grade to ensure no infilling or narrowing of watercourse;
- Fill material placed below normal high water mark must be erosion resistant and/or protected from erosion. The Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales refers to the normal high-water
- mark as the edge of vegetation communities capable of providing an effective barrier to the movement of sediment.

 Do not locate within 100 metres of fisheries spawning or sensitive habitat.
- Do not locate within 500 metres of any brook trout spawning or upwelling greas.
- Do not locate on watercourses that flow into, and are within 500m of, known naturally reproducing brook trout lakes. • Mix of size, length, slope & drainage area must not increase flows to consistently & predictably impede fish passage.
- Install under low-flow conditions and not when flows are elevated due to local rain events or seasonal flooding.
- Both interior and exterior of culverts must be corrugated to ensure structural stability and facilitate fish passage
- The grade of the culvert must reflect the grade of the natural watercourse bed.
- Compact backfill adequately around the culvert. Use only dean sand or gravel and compact around the culvert in layers.
- Length of culverts must permit banks to be sloped at an angle of 2:1 or a stable angle of repose for the materials used.

Self-assessed. Follow conditions of appropriate standard(s).

MNRF Appendix 2: Biologist Risk Evaluation

Concerns and Conditions on Construction

Watershed Thermal Code: UF

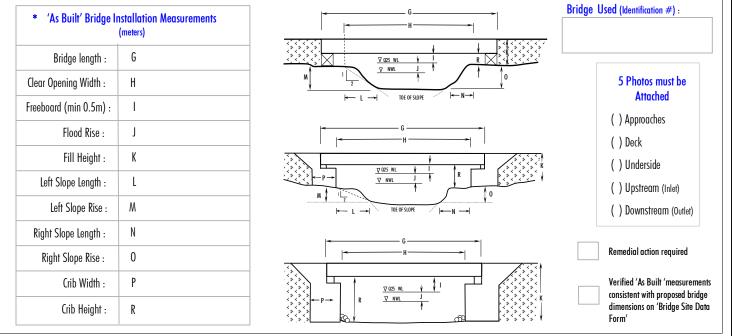


	Structure 1	Structure 2	Structure 3
Risk Evaluation:	LOW	LOW	LOW
Site Inspection Required:	NO	NO	NO

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Forest Management Inc

tion Keport (MI	st be completed for each crossing location)	Only Conne	a mapociora dio dilonodi lo condoc	. Toresi operani
	or so compressed for each or eaching recently		* 'As Built' Culvert In	n <mark>stallation M</mark> e (meters)
Block ID:			Installed Diameter :	
Poad Name:		H	Structure Length :	
			Road Width :	
		0	Depth of Cover:	
Date Measurements To	sken:		Water Depth in Pipe :	
			Number of Culverts :	
1	Foundation Soil Description :		Spacing Between Pipes :	
*				
A			* 'As Built' Bridge In	n <mark>stallation M</mark> e (meters)
B J	City			G
D(I) D(c) D(r)				Н
				 I
		農	, ,	J
	T VIII UIII		Fill Height :	K
	ARFMI Notification Provided: (ARFMI Advised-'(hange to Operation' made)	8	Left Slope Length :	L
	FRI Incorrect		Left Slope Rise :	M
	Unmapped		Right Slope Length :	N
			Right Slope Rise :	0
			Crib Width :	P
Date of installation:			Crib Height :	R
		Verific	ation :	
ar	Erosion Prevention and Control (X):		I have confirmed that the final cro	
			will not impede future transfer of	responsibility
Stable		Note	s:	
nent):				
Re-vegeto				
N	Divert drainage ditches to green belt			
f Fill:	Line drainage ditches with rock			
d Use ro	ck weirs in drainage ditches to impede water flow			
	Use filter cloth on upstream side of culverts			
e	No grubbing or stripping of ground vegetation			
	No grounding or simplify or ground vegetation			
	th (On top of ice if fill is used for Winter Crossings)	Note: All	of the above activities must be chec	cked. 🗸- Verii
	Block ID: Road Name: Date Measurements To Date of installation: Stable Re-vegeta N Fill: Use ro	Date Measurements Taken:	Block ID:	Block ID: Road Name: Structure Length: Installed Diameter: Structure Length: Read Width: Depth of Cover. Water Depth in Pipe: Reubble Depth of Cover. Depth of Cover. Water Depth in Pipe: Reubble Depth of Cover. Reubble Depth of Cover.

	ER CROSSING OPERATIONS CH	·	
	* 'As Built' Culvert Installation Measurements (meters)	Depth of Cover Covert Clearance (L.e. p. da or Uplican)	4 Photos must be Attached
₽	Installed Diameter :		() Approaches
CULVERT	Structure Length :	Describe Bacriff Waters1 Onginal Streambed	() Inlet
n.	Road Width :	72 Us Greenspacind Green Bedding (L. 3 Ximo Menuny)	() Outlet
0	Depth of Cover:	Laugh of Updram	() Inside Pipe
	Water Depth in Pipe :	Proteins Proteins 1 Cohert	
	Number of Culverts :	Flow Store 0 1%	
	Spacing Between Pipes :	Describe Existen Protection (a. Size Type)	Remedial action required
	* 'As Built' Bridge Installation Measurements (meters)	G H	Bridge Used (Identification #):



I have confirmed that the final crossing condition satisfies the mandatory water crossing standards and	Water crossing location same as AWS submission Installation of culvert and size same as described in AWS water shed calculations.
will not impede future transfer of responsibility	No sediments or woody debris left in water body or streams
	Construction materials removed from site
Notes:	Embankment sloped properly (e.g. 2:1) with no possibility of slumping
	Timing restriction met
	Culvert properly installed (i.e. refer to FMP Standards)
	Sediment Control Plan in AWS followed
	No Erosion or Sedimentation present (e.g. filter cloth used to prevent material from entering waterway)
	No signs of equipment or machinery in stream (i.e. culvert installed before equipment progresses past crossing)
	Coarse clean rock used on all culvert crossings
	Natural vegetation protected
	Additional measures used to prevent erosion (e.g. seed, filter cloth, rip rap etc.)
	Drainage ditches properly installed
	Crossing removed before March 31 unless left for silviculture activities
	Road right of way width through unallocated stands , no larger than FMP requirement
	Road right of way width through AOC's (reserves), no larger than FMP requirement
Note: All of the above activities must be checked.	ne within acceptable limits 🗶 - Outside of acceptable limits. Refer to comments for additional details N/A — Not applicable
11010. All of the above activities that be checked. Y - fertiled to be	Total despitable minis (Comments for additional additio