Bridge Culvert Inspection

Bridge File Number	73273 -2 Bridge Culvert	Form Type	CUL1
Year Built	2010	Lot No.	4
Bridge or Town Name	DUNVEGAN	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO BOUCHER CREEK, 8.10.77.2, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	2:68 C1 7.217	Assistant Class	
Water Body Cl./Year		Inspection Date	10-Nov-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 27 TWP 80 RGE 4 W6M	Data Entry Date	14-Dec-2011
Longitude, Latitude	-118:32:55, 55:57:40	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	12-Dec-2011
Contract Main. Area	CMA04	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew		Dept. Review Date	10-Jan-2012
AADT/Year	2,670 / 2010 (A)	Follow-Up By	
Road Classification	RAU-213.4-120		
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	SSP	68.46			ROUND
Special Features		BARREL ELBOW						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	Buried in both ditches.	Gas	
Power		Municipal	
Others		Problem (Y/N)	Yes
Remarks	Both cables on fence currently		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Farm ent 75m N, twp rd 450m S. Slight sag.
Vertical Alignment		8	8	
Roadway Width (m)	13.000			
Embankment		9	9	Over structure, steepening to 4:1 N and S of structure.
Sideslope (__:1)	5.0			
(Height of Cover(m) : **6.8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		9	9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		9	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: SSP**)				
Barrel Last Accessible Date	10-Nov-2011			3m drop @ 2:1 on u/s end.
Special Features				
Special Feature			9	
(Type : **BARREL ELBOW**)				
Special Feature				
(Type :)				
Roof		9	8	at cl
Measured Rise (mm)	1830			
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		9	8	@ cl ring 3/4
Measured Span (mm)	1791			
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		9	8	ring 3/4
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	9	Welded
Separation (mm)				
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: SSP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	bend on u/s end will not pass fish.
Baffle		9	8	welded steel.
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**9**	**8**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		9	9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		9	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Downstream End General Rating		**9**	**9**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	7	Steep rapidly eroding channel down to Boocher Creek. 45m well armoured d/s of pipe.
Bank Stability		5	5	
HWM (m below Top of Culvert)				No HWM visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**7**	

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**100.0/88.9**	**Sufficiency Rating (Last/Now) (%)**	**97.0/92.5**	Est. Repl. Yr	2050	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection		Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy					
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Michael Shearer	Previous Assistant's Name			
Next Inspection Date	10-Aug-2013	Previous Inspection Date	27-Oct-2010		
Inspection Cycle (Default) (months)	21				
Comment					