

**ALBERTA TRANSPORTATION SPRINGBANK OFF-STREAM RESERVOIR PROJECT
RESPONSE TO NRCB AND AEP SUPPLEMENTAL INFORMATION REQUEST 1, JULY 28, 2018**

Appendix IR360-1 Data Sheet for the Unnamed Tributary to the Elbow River (Tributary 1350)
May 2019

**APPENDIX IR360-1 DATA SHEET FOR THE UNNAMED
TRIBUTARY TO THE ELBOW RIVER
(TRIBUTARY 1350)**

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May 2019



Springbank Off-Stream Reservoir Project

Unnamed Tributary to the Elbow River (Tributary 1350)

UTM Location:	11U 677934E 5657175N	Survey Date:	September 20, 2016
Legal Location:	NW-11-024-05 W5M	Water Body Class:	Unmapped Class C
Crew Initials:	GS, BN, LA	Restricted Activity Period:	May 1-July 15 & Sept 16-April

Physical Channel Transect Data													Habitat Inventory / Reach Data																							
Transect # (Location)	1 (↑100)	2 (↑50)	3 (CL)	4 (↓100)	5 (↓200)	6 (↓300)																														
Channel Width (m)	0.8	1.0	1.0	0.5	0.5	1.0	Dom. Instream Cover: -						Dom. Overhead Cover: UC																							
Wetted Width (m)	0.5	0.5	0.8	0.3	0.3	0.5	Subdom. Instream Cover: -						Subdom. Overhead Cover: OV																							
Depth at LDB + 25% (m)	<0.1	≤0.1	0.10	<0.1	≤0.1	≤0.1	Maximum Depth (m) 0.1						Dom. Aquatic Veg. Type: -																							
Depth at LDB + 50% (m)	<0.1	≤0.1	0.10	<0.1	≤0.1	≤0.1	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Habitat Distribution</p> <p>FL 100%</p> </div> <div style="text-align: center;"> <p>Substrate Composition</p> <p>F 77%, O 10%, C 7%, SG 3%, LG 2%, BL 1%</p> </div> </div>																													
Depth at LDB + 75% (m)	<0.1	≤0.1	0.10	<0.1	≤0.1	≤0.1																														
Max. Depth (m)	<0.1	≤0.1	0.10	<0.1	≤0.1	≤0.1																														
Gradient (%)	-	-	-	-	-	-																														
Dominant Habitat Unit	FL	FL	FL	FL	FL	FL																														
Stream Bed													Water Quality Data				Channel Characteristics																			
Substrate (% of Transect Area)	Organics	30	10	0	10	0	10	Time of Day (HH:MM): -						Pattern: IM																						
	Fines	55	70	100	35	100	80	Water Temperature (°C): -						Islands: N																						
	Small Gravel	5	10	0	5	0	0	Dissolved Oxygen (mg/L): -						Bars: N																						
	Large Gravel	5	5	0	5	0	0	Sp. Conductivity (µs/cm): -						Coupling: CO																						
	Cobble	5	5	0	40	0	5	pH: -						Confinement: CO																						
	Boulder	0	0	0	5	0	5	Turbidity (NTU): -						Flow Stage: Pooled																						
Bedrock	0	0	0	0	0	0																														
Embeddedness	H	H	H	H	H	H																														
Bank Measurements													Fish Habitat Assessment Ratings																							
	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right																								
Bank Height (m)	0.60	-	-	-	-	-	0.40	-	-	-	-	-																								
Bank Slope (°)	-	-	-	-	-	-	-	-	-	-	-	-																								
Bank Stability	US	US	US	US	US	US	US	US	US	US	US	US																								
Dom. Bank Material	F	F	F	F	F	F	F	F	F	-	-	-																								
Subdom. Bank Material	O	O	O	O	O	O	O	O	O	-	-	-																								
Dom. Riparian Veg.	G	G	G	G	G	G	G	G	G	G	G	-																								
Subdom. Riparian Veg.	D	D	D	S	S	M	D	D	S	S	-	-																								
													<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Forage</th> <th>Coarse</th> <th>Sportfish</th> </tr> </thead> <tbody> <tr> <td>Spawning:</td> <td>None</td> <td>None</td> <td>None</td> </tr> <tr> <td>Overwintering:</td> <td>None</td> <td>None</td> <td>None</td> </tr> <tr> <td>Rearing:</td> <td>Poor</td> <td>None-Poor</td> <td>None</td> </tr> <tr> <td>Migration:</td> <td>Poor</td> <td>Poor</td> <td>None</td> </tr> </tbody> </table>					Forage	Coarse	Sportfish	Spawning:	None	None	None	Overwintering:	None	None	None	Rearing:	Poor	None-Poor	None	Migration:	Poor	Poor	None
	Forage	Coarse	Sportfish																																	
Spawning:	None	None	None																																	
Overwintering:	None	None	None																																	
Rearing:	Poor	None-Poor	None																																	
Migration:	Poor	Poor	None																																	



Photo 1: View upstream at T2.



Photo 2: View of wetted channel at T5.

Fish Sampling Data												
Method		Effort		Species		Efish Catch	Trap Catch	Efish CPUE	Trap CPUE	Rel. Abundance		
						(n)	(n)	(#fish/100s)	(#fish/hr)	(% of total)		
Backpack Electrofisher (EB)		300 (s)		BROOK STICKLEBACK		2	-	0.67	-	100.0%		
No Trapping		0.0 (hr)		-		-	-	-	-	-		
Electrofisher Settings												
Volts	Freq. (Hz)	Duty Cycle (%)	Dist. (m)									
225	30	12	50									

General Comments

