Summary of Activities

Date: December, 2018

To: Ian Kitch
Sustainable Development – Fisheries Branch
cc. Jonathan Stephens, SVSFE Board

From: Brock Koutecky, Holly Urban, Megan Paterson, Swan Valley Sport Fishing Technical Staff
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Subject: 2018 Roaring River Trout Survey

Location: Roaring River - Duck Mountains and Swan River Valley, Manitoba

Objective: A fisheries inventory assessment was conducted on The Roaring River between October 9th and 10th, 2018. The objective was simple; to determine trout presence and absence at different reaches of the river. The data acquired from the survey would then be used to promote the fishery.

Background Information: The Roaring River has been stocked intermittently with reared trout since 1950. See historical stocking records to the present below:

Roaring River Stocking History (1950-2018)			
Year	Species	Number	Life Stage
1950	Brook Trout	3,900	Fingerling
1951	Brook Trout	2,000	Fingerling
1952	Brook Trout	8,000	Fingerling
1953	Brook Trout	8,000	Fingerling
1953	Brook Trout	1,600	1+
1953	Brook Trout	50	Adult
1954	Brook Trout	10,000	Fingerling
1955	Brook Trout	38,000	Fingerling
1956	Brook Trout	8,500	Fingerling
1957	Brook Trout	900	1+
1957	Brook Trout	10,000	Fingerling
1958	Brook Trout	10,000	Fingerling
1959	Brook Trout	2,500	Fingerling
1960	Brook Trout	7,000	Fingerling
1963	Brook Trout	7,000	Fingerling
1965	Brook Trout	10,000	Fingerling
1966	Brook Trout	2,500	Fingerling
1970	Brook Trout	2,000	1+
1975	Rainbow Trout	2,000	1+
1979	Brook Trout	2,000	2+
1979	Brook Trout	1,000	Fingerling
1979	Rainbow Trout	2,000	1+
1980	Brown Trout	4,000	1+
1988	Brown Trout	1,000	1+
1993	Rainbow Trout	30,000	Fingerling
1995	Brook Trout	5,000	12-15cm
1998	Brook Trout	5,000	Fingerling
2007	Brook Trout	2,000	12-15cm
2016	Brown Trout	5,000	12-15cm

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Background Information: In terms of historical angling reports, only a handful of fish stories were acquired. Much of the information collected came from Rick Wowchuk, a retired educator now provincial politician. Rick has been visiting the Jumper Plains area for many years and knows the area intimately. He mentioned stories from Erv Parachoniak and Dave Eisen who fished the area heavily back in the 1960s. Erv and Dave talked about 4-5lb brook trout, and having 15-20lbs of fish on stringers coming from the Jumper Plains area. Rick also talked about reports of brook trout in pools in the upper reaches near Designated Route W following plantings off PTH 366. He talked about a successful plantings of rainbows in the 1990s that had survived three winters and reached 16" before "disappearing". Rick was adamant that fall plantings in trout streams are ineffective, and that trout plantings in recent years have been unsuccessful due to lack of overwintering habitat (i.e. beaver dams). The most recent angling report comes from Chris Stock, who successfully fly fished brown trout near the Noel Ham Wildlife Refuge in the past few years.

Methods: Backpack electrofishing was the exclusive method for fish capture. Backpack sites were sampled in areas that were accessible by either truck or ATV. Shocking occurred by travelling upstream often traversing from bank to bank sampling the best looking habitat in the process. On occasion, primary habitat was spot shocked to avoid fish freight. Two dip-netters would follow the backpack operator, dip any stunned fish, and place in the portable 2 gallon live-well. Target for each transect was ~600 seconds, however final transect effort was decided by the captain/operator and would often continue until the live-well became full or the habitat changed drastically. All large bodied fish were measured, while all small bodied fish were counted. A total of ten transects were completed with five in the escarpment (RR-BS-18-001-005), and five in the lower reaches (RR-BS-18-006-010). Escarpment transects were considered middle reaches, while transects in the ag-land were considered lower reaches. No transects were completed in the upper reaches due to time constraints. An effort map can be viewed on page 3.

Results: Trout were not located during the 2018 assessments. Species captured included, white sucker, burbot, creek chub, blacknose dace, longnose dace, river shiner, common shiner, brassy minnow, blacksided darter, johnny darter, river darter, log perch, and brook stickleback. Of the larger white suckers captured (n=17), fish ranged from 100-310mm(FL) with an average length of 166mm(FL). The two burbot captured measured at 180 and 160mm(FL). Catch summaries from each transect can be found on pages 4-5, while a table representing the catch from the entire program can be viewed on page 6.

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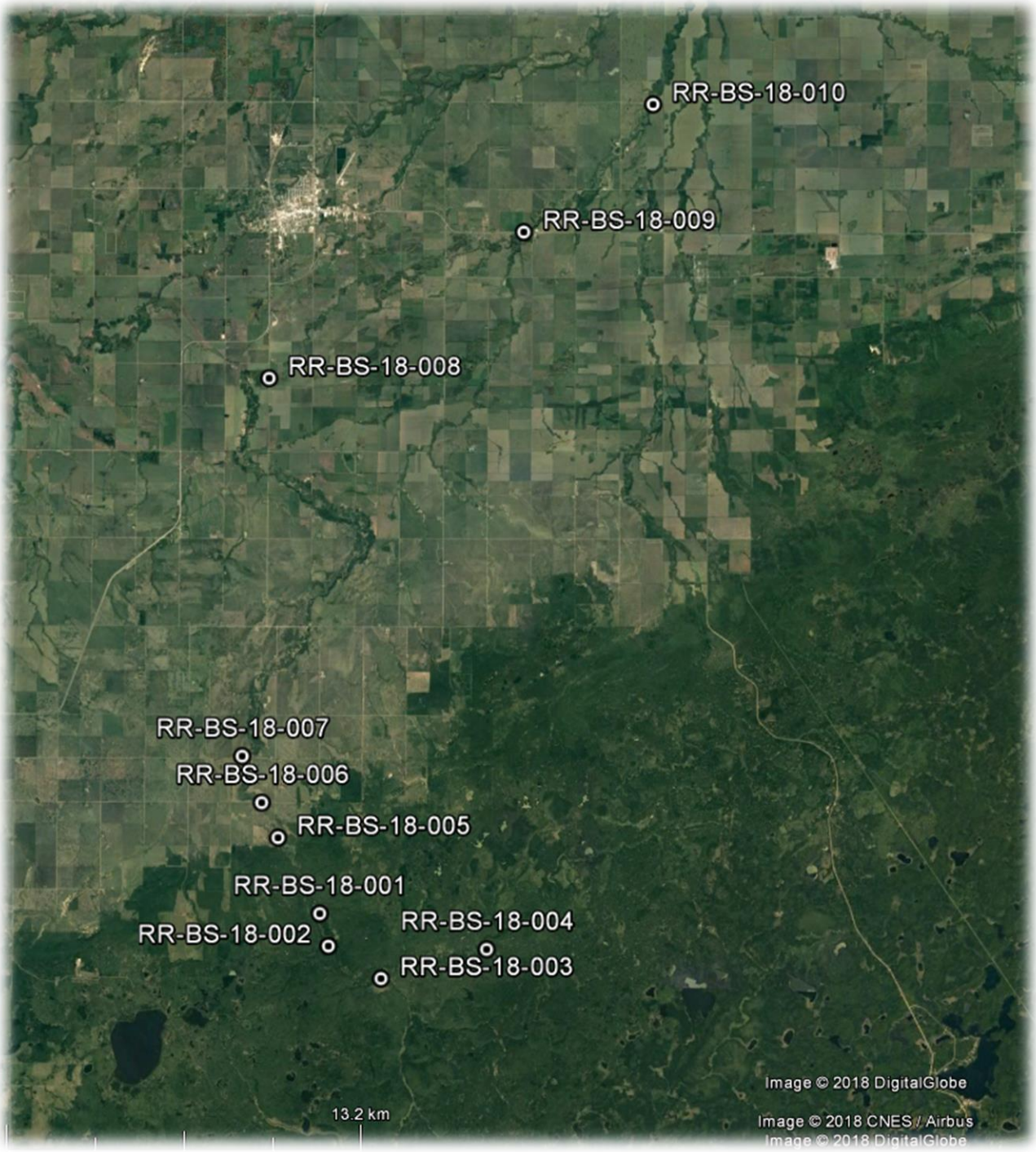
2018 Roaring River Effort Map



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Fish Captured in the Middle Reaches of the Roaring River in 2018

Species	RR-BS-18-001			RR-BS-18-002			RR-BS-18-003		
	Catch	%	CPUE (fish/hr)	Catch	%	CPUE (fish/hr)	Catch	%	CPUE (fish/hr)
Longnose Dace	17	22%	81	43	57%	80	11	25%	24
Creek Chub	2	3%	10	3	4%	6	8	18%	17
Blacknose Dace	17	22%	81	4	5%	7	11	25%	24
River Shiner	30	39%	143	16	21%	30	7	16%	15
Johnny Darter	0	0%	0	1	1%	2	0	0%	0
Brook Stickleback	0	0%	0	0	0%	0	2	5%	4
White Sucker	11	14%	52	8	11%	15	5	11%	11
TOTAL	77	100%	367	75	100%	139	44	100%	95

	RR-BS-18-004			RR-BS-18-005		
	Catch	%	CPUE (fish/hr)	Catch	%	CPUE (fish/hr)
Longnose Dace	11	17%	24	6	13%	23
Creek Chub	1	2%	2	8	17%	31
Blacknose Dace	23	37%	50	11	23%	43
River Shiner	15	24%	32	8	17%	31
Johnny Darter	6	10%	13	5	11%	19
Brook Stickleback	0	0%	0	0	0%	0
White Sucker	7	11%	15	9	19%	35
TOTAL	63	100%	136	47	100%	183

Summary of Activities

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Fish Captured in the Lower Reaches of the Roaring River in 2018

Species	RR-BS-18-006			RR-BS-18-007			RR-BS-18-008		
	Catch	%	CPUE (fish/hr)	Catch	%	CPUE (fish/hr)	Catch	%	CPUE (fish/hr)
Longnose Dace	8	35%	27	7	11%	10	1	3%	7
Creek Chub	0	0%	0	9	15%	13	1	3%	7
Blacknose Dace	5	22%	17	11	18%	16	6	21%	42
River Shiner	5	22%	17	15	25%	22	16	55%	112
Johnny Darter	0	0%	0	3	5%	4	3	10%	21
Common Shiner	4	17%	14	2	3%	3	1	3%	7
Blacksided Darter	0	0%	0	1	2%	1	0	0%	0
Log Perch	0	0%	0	0	0%	0	0	0%	0
River Darter	0	0%	0	0	0%	0	0	0%	0
Brassy Minnow	0	0%	0	0	0%	0	0	0%	0
White Sucker	1	4%	3	13	21%	19	1	3%	7
Burbot	0	0%	0	0	0%	0	0	0%	0
TOTAL	23	100%	78	61	100%	91	29	100%	202

	RR-BS-18-009			RR-BS-18-010		
	Catch	%	CPUE (fish/hr)	Catch	%	CPUE (fish/hr)
Longnose Dace	7	18%	16	1	4%	4
Creek Chub	3	8%	7	0	0%	0
Blacknose Dace	5	13%	12	4	17%	18
River Shiner	0	0%	0	7	29%	31
Johnny Darter	1	3%	2	1	4%	4
Common Shiner	8	21%	19	3	13%	13
Blacksided Darter	3	8%	7	1	4%	4
Log Perch	1	3%	2	1	4%	4
River Darter	1	3%	2	0	0%	0
Brassy Minnow	0	0%	0	1	4%	4
White Sucker	8	21%	19	5	21%	22
Burbot	2	5%	5	0	0%	0
TOTAL	39	100%	92	24	100%	106

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2018 Roaring River Total Fish			
Species	Count	CPUE/HR	Composition
White Sucker	64	18	13%
Burbot	5	1	1%
Blacknose Dace	97	28	20%
Blacksided Darter	5	1	1%
Brassy Minnow	1	0	0%
Brook Stickleback	2	1	0%
Common Shiner	18	5	4%
Creek Chub	35	10	7%
Johnny Darter	20	6	4%
Log Perch	2	1	0%
Longnose Dace	112	32	23%
River Darter	1	0	0%
River Shiner	119	34	25%
TOTAL	481	138	100%

Discussion: There does not appear to be a significant population of stocked trout in the Roaring River at this point in time. At different moments in the river's history, the system has supported targetable brook, rainbow, and brown trout populations. Based on the qualitative review, it is not evident the Roaring River provides brook trout with quality spawning or overwintering habitat to support a self-sustaining population.

Considerations for developing a stocking strategy in the Roaring River:

1)Supplemental stocking should occur on a more regular basis. Moreover, plantings should occur in the middle reaches where the trout habitat appeared to be the best.

2)A survey on trout habitat in the middle reaches should be inventoried. Beaver activity can create pools for trout to overwinter in. The river in the middle reaches (around Jumper Plains) appears to provide ample trout summer habitat, whereas it is still unknown if there is adequate overwintering habitat present.

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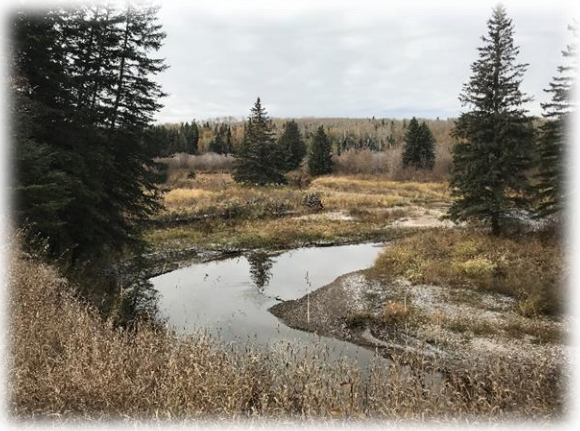
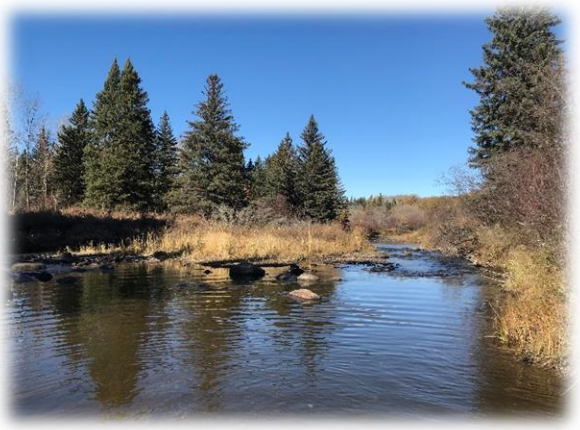


RR-BS-18-001



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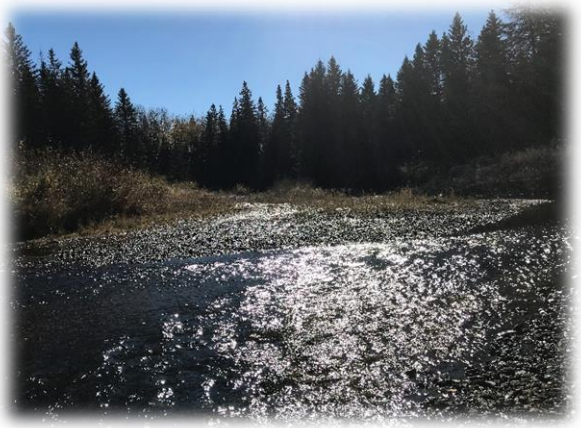

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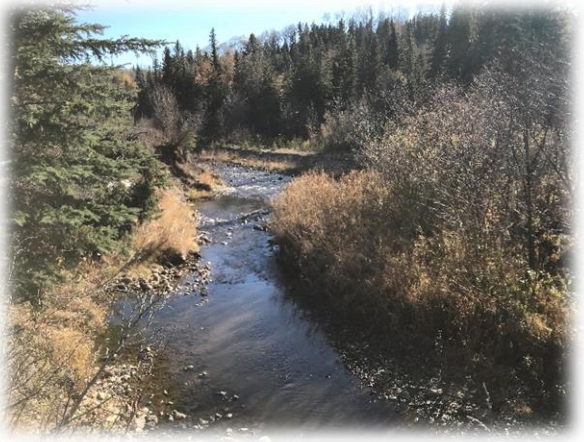

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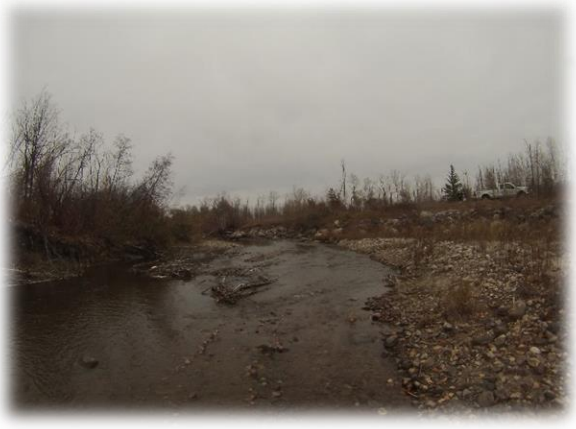

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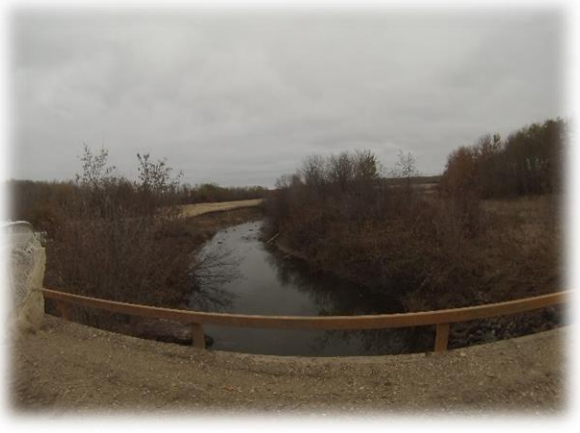

RR-BS-18-006

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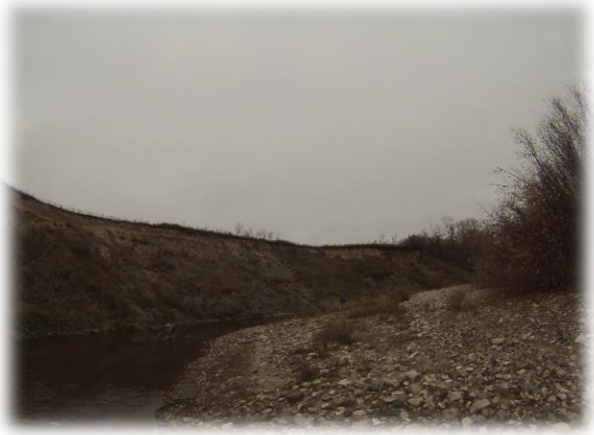

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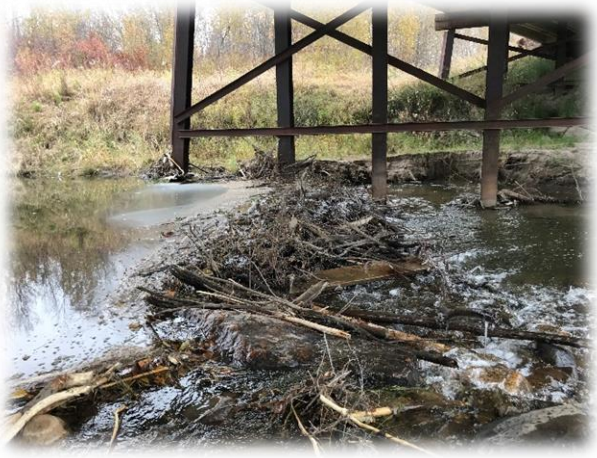

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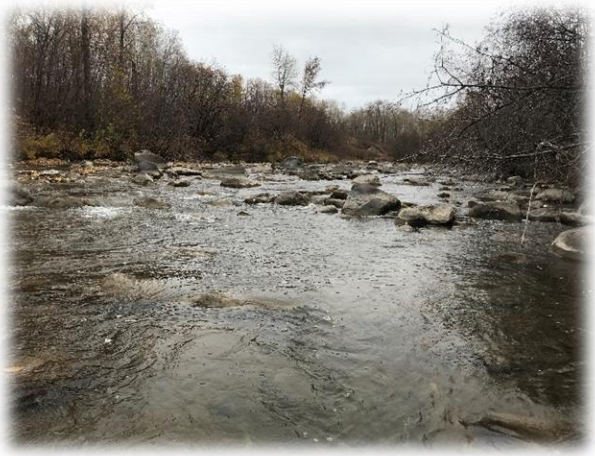

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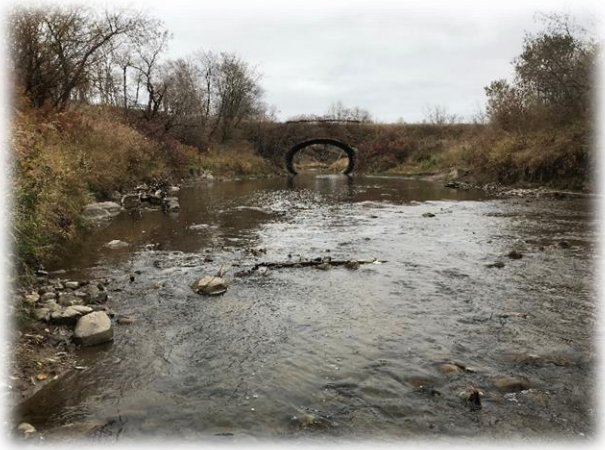

RR-BS-18-010

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