Appendix A Riparian Vegetation Community and Water Course Characteristics at Water Crossings of Preferred Route

			Additional Comments				Additional Comments	em e	Water course dry at 100m upstream		Additional Comments
Ash, aspen, hazel, high bush cranberry	50-75	퓨	9.0-50	Ash, oak, aspen, high bush cranberry	50-75	푺	4.6-50	Balsam poplar, willow, high bush cranberry hazel	75-100%	퓨	2.6 – 50
	75-100	S/G	0-9.0		75-100	S/G	0-4.6	,	75-100%	S/G	0-2.6
Dominant Tree or Shrub Species	% Cover	Community Type	Distance from Water (m)	Dominant Tree or Shrub Species	% Cover	Community Type	Distance from Water (m)	Dominant Tree or Shrub Species	% Cover	Community Type	Distance from Water (m)
based Data)	Riparian Vegetation (Field-based Data)	Riparian Ve		based Data)	Riparian Vegetation (Field-based Data)	Riparian Ve		sed Data)	Riparian Vegetation (Field-based Data)	Riparian V	
				ITU)	Turbidity (NTU)		pН				
					TSS (mg/L)	7.2	Diss. Oxygen (mg/L)				
				ър (°C) 10.8	Water Temp (°C)	Not Determined	Discharge (m³/sec)				
Cover elm)	C										
In-Stream AM, LWD, OC (ash,		Same as bankfull	Floodplain Width (m)	Cover LWD, AM	In-Stream Cover	N/A	Floodplain Width (m)	OC (willow, balsam poplar)	In-Stream Cover	NA In-S	Floodplain (m)
Bank Stability Moderate	В	13.0	Bankfull Width (m)	lity Moderate	Bank Stability	2.6	Bankfull Width (m)	Moderate	Bank Stability	2.6 Bar	Bankfull Width (m)
	(c		,								
Bank Slope 3	В	8.0	Wetted Width (m)	Bank Slope (degrees) 10	Bank Slope	1.7	Wetted Width (m)	10	Bank Slope (degrees) 10		Wetted Width (m) 0 (Dry)
Stage Low	S	Intermittent	Flow Regime	Low	Stage	Ephemeral	Flow Regime	Dry	ge	Ephemeral Stage	Flow Regime Eph
(m)		W -96.1539				W -961552				W -96.1564	W
Water Depth 1.50	<u> </u>	N 50.5826	GPS Location	th (m) 0.22	Water Depth (m)	N 50.5829	GPS Location	0 (Dry)	Water Depth (m)	N 50.5832 War	GPS Location N 5
n	00m Downstream	10		on	Crossing Location	C			100m Upstream		
										9)	

Water flow direction indicated by yellow arrow



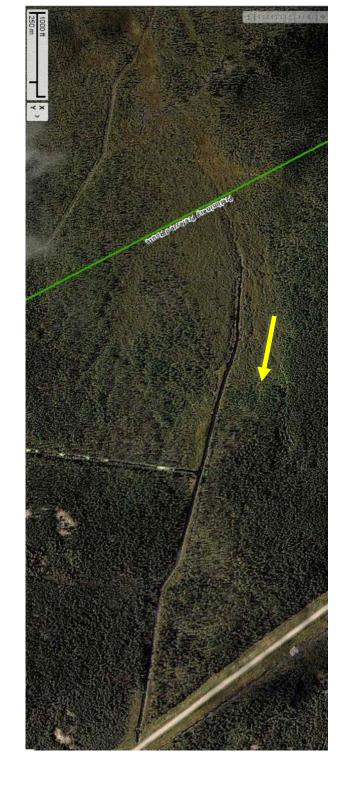
			Additional Comments	ge of field	Significant amount of bear scat along edge of field	Significant amo	Additional Comments	am	Water course dry at 100m upstream		Additional Comments
Soybeans	75-100	AG	11.4-50	Soybeans	75-100	AG	3.4-50	Soybeans	75-100%	AG	4.6 – 50
Ash, elm, dogwood, chokecherry	25-50	퓨	0-11.4	•	75-100	S/G	0-3.4	Alder, willow, hawthorne	50-75%	HS.	0-4.6
		Туре	(m)			Type	(m)			Type	Water (m)
Dominant Tree or Shrub Species	% Cover	Community	Distance from Water	Dominant Tree or Shrub Species	% Cover Domi	Community	Distance from Water	Dominant Tree or Shrub Species	ity % Cover	Community	Distance from
sed Data)	egetation (Field-based Data)	Riparian Ve		ata)	Riparian Vegetation (Field-based Data)	Riparian Ve		sed Data)	Riparian Vegetation (Field-based Data)	Riparia	
chokecherry)											
ver dogwood,	Cover										
In-Stream LWD, OC (elm, ash,	ln-s	NA A	Floodplain Width (m)	AM, OC (dead ash trees)	In-Stream Cover	N/A	Floodplain Width (m)	OC (willow)	In-Stream Cover	NA I	Floodplain (m)
Bank Stability Moderate	Bar	8.0	Bankfull Width (m)	High	Bank Stability	1.7	Bankfull Width (m)	Moderate	Bank Stability	2.8 E	Bankfull Width (m)
(degrees)	(de										
Bank Slope 10	Bar	8.0	Wetted Width (m)	s) 40	Bank Slope (degrees)	1.7	Wetted Width (m)	10	Bank Slope (degrees) 10		Wetted Width (m) 0 (Dry)
ige Low	Stage	Intermittent	Flow Regime	_	Stage	Ephemeral	Flow Regime	Dry	Stage	Ephemeral S	Flow Regime E
	(m)	W -96.1539				W -96.1551				W -96.1565	×
Water Depth 1.50	Wa	N 50.5824	GPS Location	0.22	Water Depth (m)	N 50.2829	GPS Location	0 (Dry)	Water Depth (m)	N 50.5831	GPS Location N
	00m Downstream	1			Crossing Location	C			100m Upstream		

Preliminary Preferred Route Crossing 2

North Bank (Shore)

			Water (m)	Distance from		Flow Regime NA		GPS Location NA	
			(Years)	Stand Type Age	Riparian Vegetation (GIS-based Data)			Water Course Type NA	100m Upstream
				Dominant Species	ed Data)			NA	
		0-50	(m)	Distance from Water		Flow Regime		GPS Location	
		Will/Ald		Stand Type	Riparian	Perennial	W -96.1189	N 50.6991	
		-	(Years)	Age	Riparian Vegetation (GIS-based Data)			Water Course Type	Crossing Location
		Willow, alder		Dominant Species	а)		Channel	Highway Drainage	
)		0-50	(m)	Distance from Water Stand Type		Flow Regime		GPS Location	
		Will/Ald		Stand Type	Riparian	Perennial	W -96.117	N 50.6993	
		1	(Years)	Age	ian Vegetation (GIS-based Data)			Water C	100m Downstream
		Willov		Dominar	ed Data)			ວurse Type	
		Willow, alder		Dominant Species			Channel	Water Course Type Highway Drainage	

Water flow direction indicated by yellow arrow



			Additional Comments				Additional Comments	ocation	does not exist at this Ic	Highway ditch	Additional Comments Highway ditch does not exist at this location
Willow, alder		Will/Ald	0-50	Willow, alder		Will/Ald	0-50				
	(Years)		(m)		(Years)		(m)		(Years)		Water (m)
Dominant Species	e Age	Stand Type	Distance from Water	Dominant Species	Age	Stand Type	Distance from Water	Dominant Species	Age	Stand Type	Distance from
/egetation (GIS-based Data)	Riparian Vegetation	Ri		Data)	Riparian Vegetation (GIS-based Data)	Riparian Veç		Data)	Riparian Vegetation (GIS-based Data)	Riparian Ve	
	iial	Perennial	Flow Regime			Perennial	Flow Regime				Flow Regime NA
Channel	117	W -96.117				W -96.1189					
Water Course Type Highway Drainage	993	N 50.6993	GPS Location	be Highway Drainage	Water Course Type	N 50.6991	GPS Location		Water Course Type NA	Water	GPS Location NA
nstream	100m Downstream				Crossing Location	Cro			100m Upstream	1	

Preliminary Preferred Route Crossing 3

North Bank (Shore)

_			_			Crossing	Crossing Location	I	1		100m Downs	100m Downs
	GPS Location N 50.7142	142 Water Course Type	Beaver Flood	GPS Location	N 50.7143	Water Course Type	Highway Drainage	GPS Location	N 50.7150		W	Water Course Type Highway Drainage
	W -96.1329	1329			W -96.1314		Channel		W -96.1303			
	Flow Regime Perennial	iial		Flow Regime	Perennial			Flow Regime	Perennial			
_		Riparian Vegetation (GIS-based Data)	S-based Data)		Riparian \	Riparian Vegetation (GIS-based Data))		Riparian	= 1	_	n Vegetation (GIS-based Data)
	Distance from	Stand Type Age	Dominant Species	Distance from Water	Stand Type		Dominant Species	Distance from Water Stand Type	Stand Type		Age	Age Dominant Species
_	Water (m)	(Years)		(m)		(Years)		(m)			(Years)	(Years)
_	0-50	Beaver -	Beaver flood (aquatic macrophyte)	0-50	Beaver	- Beaver fl	Beaver flood (aquatic macrophytes)	0-44	Will/Ald		•	- Willow, alder
								44-50	TA		45	45 Trembling aspen, balsam poplar
_												
_												
	Additional Comments			Additional Comments				Additional Comments				

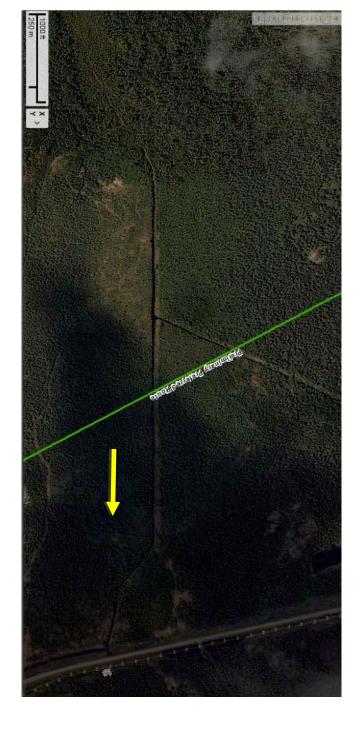
Water flow direction indicated by yellow arrow



Toom opstream			<u>.</u>	Crossing Location				Toum Downstream		
GPS Location N 50.7142 Water Course Type B	Beaver Flood	GPS Location	N 50.7143	Water Course Type	Highway Drainage	GPS Location	N 50.7150	Water Cour	Water Course Type Highway Drainage	
			W -96.1314		Channel		W -96.1303		Channel	
Flow Regime Perennial		Flow Regime	Perennial			Flow Regime	Perennial			
Riparian Vegetation (GIS-based Data)	d Data)		Riparian Ve	Riparian Vegetation (GIS-based Data)			Riparian V	າ Vegetation (GIS-based Data)	Data)	
Distance from Stand Type Age	Dominant Species	Distance from Water	Stand Type	Age C	Dominant Species	Distance from Water	Stand Type	Age	Dominant Species	
		(m)		(Years)		(m)		(Years)		
0-50 Beaver - B	Beaver flood (aquatic macrophyte)	0-50	BS	12	Black spruce	0-50	BS	12	Black spruce	
Additional Comments		Additional Comments				Additional Comments				

						_		_	<u> </u>
Additional Comments Water course may not exist at this location		0-50	Water (m)	Distance from		Flow Regime Ephemeral	W	GPS Location N 50.7470	
ts Water c		T		Stand Type	Ripar	hemeral	W -96.1600	50.7470	
ourse may not exist		40	(Years)	ype Age	Riparian Vegetation (GIS-based Data)			Water Course Type	Toum upstream
at this locati					S-based Dat				am
on		Tamarack, black spruce		Dominant Species	a)			Highway Drainage Channel	
Additional		0		Distance		Flow Regime		GPS Location	
Additional Comments		0-50	(m)	Distance from Water		ime		ation	
		T		Stand Type	Riparian	Perennial	W -96.1586	N 50.7470	
		40	(Years)	Age	Riparian Vegetation (GIS-based Data)			Water Course Type	Crossing Location
		Tan		_	-based Data)			urse Type	ion
		Tamarack, black spruce		Dominant Species			Channel	Highway Drainage	
Additio				Distan		Flow F		GPSL	
Additional Comments		0-50	(m)	Distance from Water Stand Type		Flow Regime		GPS Location	
		TL		Stand Type	Riparian	Perennial	W -96.1570	N 50.7470	
		40	(Years)	Age					Toum Downstream
		Та		Age D	GIS-based Data			Water Course Type Highway Drainage	stream
		Tamarack, black spruce		Dominant Species	ני		Cha	⁻ype High	
		k spruce		pecies			Channel	հway Drainage	

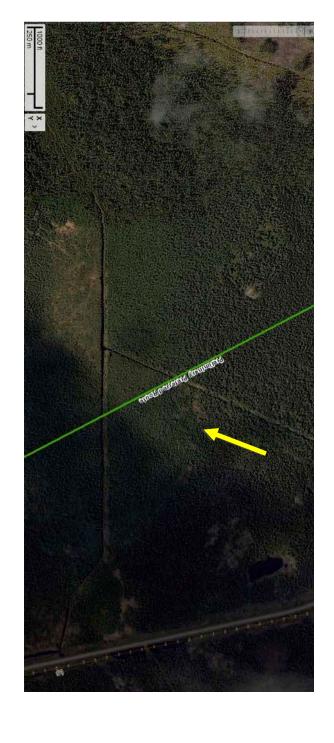
Water flow direction indicated by yellow arrow



	0-50 TI	Water (m)	Distance from Stand	Rip	Flow Regime Perennial	W -96.1600	GPS Location N 50.7470	
	L 40	(Years)		arian Vegetation (GI			Water Course Typ	100m Upstream
	Tamarack		Dominant Species	S-based Data)			e Highway Drainage Channel	am
	0-50	(m)	Distance from Water		Flow Regime		GPS Location	
	TL		Stand Type	Riparian V	Perennial	W -96.1586	N 50.7470	
	40	(Years)	Age	egetation (GIS-based Date			Water Course Type	Crossing Location
	Tamarack		Dominant Species	a)		Channel	Highway Drainage	
	0-50	(m)	Distance from Water		Flow Regime		GPS Location	
	TL		Stand Type	Riparia	Perennial	W -96.1570	N 50.7470	
	40	(Years)	Age	n Vegetation (GIS-based			Water Cou	100m Downstream
	Tamarack		Dominant Species	1 Data)		Channel	ırse Type Highway Drainage	
		TL 40 Tamarack 0-50 TL 40 Tamarack 0-50 TL 40 B 1 1 40 40 1 40 40 1 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40	(Years) (m) (Years) (m) (Years) TL 40 Tamarack 0-50 TL 40 <td< td=""><td>Stand Type Age (Years) Dominant Species Distance from Water (m) Stand Type (Years) Age (Years) Dominant Species (m) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Tump (Years)<</td><td>Riparian Vegetation (GIS-based Data) Riparian Vegetation (GIS-based Data) CIS-based Data Distance from Water (SIS-based Data) Age (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) Tamarack Distance from Water (Years) Tamarack Tamarack O-50 T 40 Tamarack O-50 T 40 Tamarack O-50 T 40 H O-50 T 40 O-50 T 40 O-50 O-50 T 40 O-50 O-50 O-50 O-50 O-50 O-50 O-50 O-50 O-50</td><td>Riparian Vegetation (GIS-based Data) Flow Regime Perennial Vegetation (GIS-based Data) Flow Regime Perennial Riparian Vegetation (GIS-based Data) Flow Regime Perennial Riparian Vegetation (GIS-based Data) Flow Regime Perennial Riparian Vegetation (GIS-based Data) Perennial Riparian Vegetation (GIS-based Data) Perennial <th< td=""><td>NO Image: Image:</td><td> Water Course Type Highway Drainage Channel GPS Location W -96.1586 W -96.1586 W -96.1586 W -96.1586 W -96.1586 W -96.1586 W -96.1570 W -96.1586 W -96.1570 W -96</td></th<></td></td<>	Stand Type Age (Years) Dominant Species Distance from Water (m) Stand Type (Years) Age (Years) Dominant Species (m) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Tump (Years)<	Riparian Vegetation (GIS-based Data) CIS-based Data Distance from Water (SIS-based Data) Age (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) Tamarack Distance from Water (Years) Tamarack Tamarack O-50 T 40 Tamarack O-50 T 40 Tamarack O-50 T 40 H O-50 T 40 O-50 T 40 O-50 O-50 T 40 O-50 O-50 O-50 O-50 O-50 O-50 O-50 O-50 O-50	Riparian Vegetation (GIS-based Data) Flow Regime Perennial Vegetation (GIS-based Data) Flow Regime Perennial Riparian Vegetation (GIS-based Data) Flow Regime Perennial Riparian Vegetation (GIS-based Data) Flow Regime Perennial Riparian Vegetation (GIS-based Data) Perennial Riparian Vegetation (GIS-based Data) Perennial Perennial <th< td=""><td>NO Image: Image:</td><td> Water Course Type Highway Drainage Channel GPS Location W -96.1586 W -96.1586 W -96.1586 W -96.1586 W -96.1586 W -96.1586 W -96.1570 W -96.1586 W -96.1570 W -96</td></th<>	NO Image:	Water Course Type Highway Drainage Channel GPS Location W -96.1586 W -96.1586 W -96.1586 W -96.1586 W -96.1586 W -96.1586 W -96.1570 W -96.1586 W -96.1570 W -96

_	_	_	 _		_	_	_			_
Additional Comments Water course may not exist at this location			0-50	Water (m)	Distance from		Flow Regime Ephemeral	W -!	GPS Location N 50.7477	
Water course			BS		Stand Type	Riparian Ve	emeral	W -96.1606		10
may not exist at the			99	(Years)	Age	Riparian Vegetation (GIS-based Data)			Water Course Type	loom bownstream
nis location			Black Spruce, tamarack		Dominant Species	sed Data)			Highway Drainage Channel	
Additional Comments			0-50	(m)	Distance from Water		Flow Regime		GPS Location	
Water course			BS		Stand Type	Riparian \	Ephemeral	W -96.15.99	N 50.7486	
Water course may not exist at this location			10	(Years)	Age	Riparian Vegetation (GIS-based Data)			Water Course Type	Crossing Location
			Black spruce		Dominant Species)		Channel	Highway Drainage	
Additional Comments			0-50	(m)	Distance from Water Stand Type		Flow Regime		GPS Location	
Water cours			BS		Stand Type	Riparian	Ephemeral	W -96.1592	N 50.7495	
Water course may not exist at this location			99	(Years)	Age	an Vegetation (GIS-based Data)			V	Toom opstream
his location			Black spi		Domin	કે-based Data)			ater Course Type	īm
			Black spruce, tamarack		Dominant Species			Channel	Water Course Type Highway Drainage	

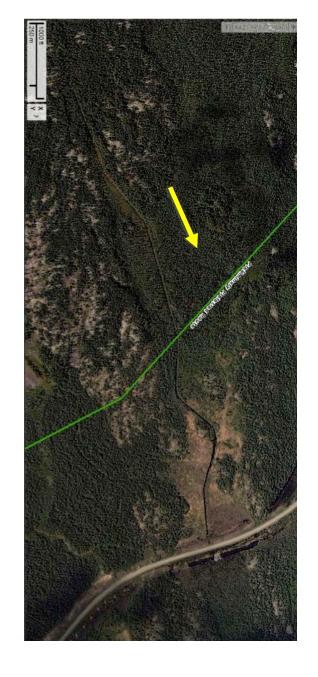
Water flow direction indicated by yellow arrow



		Ę		<u>آ</u>	
Distance from		Flow Regime Ep	*	GPS Location N 50.7477	
Stand Type	Ripar	Ephemeral	W -96.1606		
,	Riparian Vegetation (GIS-based Data)			Water Course Type	TOOM DOWNSHEAM
Age	। (GIS-base।				listiealli
Dominant Species	d Data)			Highway Drainage Channel	
Distance from Water		Flow Regime		GPS Location	
Stand Type	Riparian	Ephemeral	W -96.15.99	N 50.7486	
Age	Riparian Vegetation (GIS-based Data)			Water Course Type	Crossing Location
Dominant Species	ta)		Channel	Highway Drainage	
Distance from Water		Flow Regime		GPS Location	
Stand Type	Riparian	Ephemeral	W -96.1592	N 50.7495	
Age	_			∀	Toom opsirean
Domi	/egetation (GIS-based Data)			'ater Course Type	alli
Dominant Species			Channel	Water Course Type Highway Drainage	
	ant Species	ant Species	ant Species	Channelant Species	Highway Drainage Channel ant Species

Additional Comments Water course may not exist at this location		0-50	Water (m)	Distance from		Flow Regime Ephemeral	W -	GPS Location N 50.7577	
Water cours		TL		Stand Type	Riparian '	emeral	W -96.1703		
e may not exist at		90	(Years)	Age	Riparian Vegetation (GIS-based Data)			Water Course Type	100m Upstream
this location		Tamarack		Dominant Species	ased Data)			Highway Drainage Channel	
Additional Comments		0-50	(m)	Distance from Water		Flow Regime		GPS Location	
Water course		TL		Stand Type	Riparian	Ephemeral	W -96.1689	N 50.7580	
Water course may not exist at this location		90	(Years)	Age	Riparian Vegetation (GIS-based Data)			Water Course Type	Crossing Location
_		Tamarack		Dominant Species	a)		Channel	Highway Drainage	
Additional Comments		0-50	(m)	Distance from Water Stand Type		Flow Regime		GPS Location	
Water course i		TL		Stand Type	Riparian	Ephemeral	W -96.1673	N 50.7579	
se may not exist at this location		15	(Years)	Age	_				100m Downstream
at this location		Tan		Domina	/egetation (GIS-based Data)			Water Course Type Highway Drainage	tream
		Tamarack		Dominant Species			Channel	Highway Drainage	

Water flow direction indicated by yellow arrow



Flow Regime Ephemeral Riparian Vegetation (G Distance from Stand Type Age Water (m) 0-50 RS 132
IS-based Data) Dominant Species Black spruce tamarack
Flow Regime Distance from Water (m) 0-50
Stand Type
id Type Age Dominant Species (Years) Rlack Spruce tamarack
Distance from Water Stand Type (m) Ck 0-50 BS
BS BS
Age (Years)
Dominant Species Black spruce halsam fir

ater's edge there is a steep slope (45°), 4 m high	water's edge ther	At 9m from w	Additional Comments	50m	Mature forest (82 years) from 5.0 to 50m	Mature forest	Additional Comments	At 30m from water's edge there is a rapid rise in slope (to 30°)	water's edge there is	At 30m from	Additional Comments
				Balsam fir, ash, aspen, hazel	75-100	MF	25.5-50				
7	;	:				,		pine		:	-0.0
Jack pine, aspen	25-50	MF	4.3-50	Ash, balsam fir	75-100	S	5.0-25.5	Aspen, balsam fir, white birch, lack	25-50	MF	23.5-50
Ash, arrow wood, willow, balsam fir	50-75	S/G, SH	0-4.3	Hazel, ash, balsam fir	75-100	S/G, SH	0-5.0	standing dead ash trees	75-100%	S/G, HF	0-23.5
		Туре	(m)			Туре	(m)			Type	Water (m)
Dominant Tree or Shrub Species	% Cover	Community	Distance from Water	Dominant Tree or Shrub Species	% Cover D	Community	Distance from Water	Dominant Tree or Shrub Species	% Cover	Community	Distance from
based Data)	Riparian Vegetation (Field-based Data)	Riparian Ve		d Data)	Riparian Vegetation (Field-based Data)	Riparian V		sed Data)	Riparian Vegetation (Field-based Data)	Riparian Vo	
					Turbidity (NTU)		pН				
					TSS (mg/L)	9.4	Diss. Oxygen (mg/L)				
) 11.3	Water Temp (°C)	0.67	Discharge (m³/sec)				
In-Stream Cover AM, LWD	lr	4.3	Floodplain Width (m)	· LWD, OC (balsam fir, ash)	In-Stream Cover	N/A	Floodplain Width (m)	AM. LWD, OC (dead ash)	In-Stream Cover /	23.5 In-S	Floodplain (m)
Bank Stability High-Moderate	В	22	Bankfull Width (m)	Moderate	Bank Stability	18	Bankfull Width (m)	Moderate	Bank Stability I	24 Banl	Bankfull Width (m)
(degrees)	(0										
Bank Slope 3	B	22	Wetted Width (m)	rees) 5	Bank Slope (degrees)	18	Wetted Width (m)	1%	Bank Slope (degrees) 1%	24 Banl	Wetted Width (m)
Stage Moderate	S	Perennial	Flow Regime	Moderate	Stage	Perennial	Flow Regime	Moderate		nnial Stage	Flow Regime Perennial
		W -96.2165				W -96.2176				W -96.2186	9- W
Water Depth (m) Not Determined	<u> </u>	N 50.7878	GPS Location	Not Determined	Water Depth (m)	N 50.7871	GPS Location	Not Determined	Water Depth (m)	N 50.7877 Wat	GPS Location N 50
	100m Upstream				Crossing Location				100m Downstream	_	
	100 II								7		

Water flow direction indicated by yellow arrow



		100m Downstream	_		_	Crossing Location	tion				100m Upstream	3	
GPS Location N 50.7876		Water Depth (m)	Not Determined	GPS Location	N 50.7869	Water Depth (m)	epth (m)	Not Determined	GPS Location	N 50.7876		Water Depth (m) Not Determined	Not Determined
W -96.2188					W -96.2176					W -96.2164			
Flow Regime Perennial		Stage	Moderate	Flow Regime	Perennial	Stage		Moderate	Flow Regime	Perennial		Stage	Moderate
Wetted Width (m)	24 B	ank Slope (degrees)	Bank Slope (degrees) 90 (1m high vertical bank)	Wetted Width (m)	18	Bank Slo	Bank Slope (degrees)	90 (vertical bank 1m high)	Wetted Width (m)	22		Bank Slope (degrees)	3
Bankfull Width (m)	24 B	Bank Stability	Moderate	Bankfull Width (m)	18	Bank Stability	bility	High	Bankfull Width (m)	22		Bank Stability	Moderate
Floodplain (m)	NA Ir	In-Stream Cover	LWD	Floodplain Width (m) N/A	N/A	In-Stream Cover	n Cover	LWD, BOULD	Floodplain Width (m)	з		In-Stream Cover	In-Stream Cover AM, LWD, OC (Ash)
	Ripariar	Riparian Vegetation (Field-based Data)	ased Data)		Riparian V	Riparian Vegetation (Field-based Data)	d-based Data)			Riparian Ve	egetation (Field-based Data)	d-based Data)	
Distance from	Community	ty % Cover	Dominant Tree or Shrub Species	Distance from Water	Community	% Cover	Dominant	Dominant Tree or Shrub Species	Distance from Water	Community	% Cover	Dominant Tree	Dominant Tree or Shrub Species
Water (m)	Type			(m)	Туре				(m)	Type			
0-50	MF	0-25	Balsam fir, white birch, hazel	0-18	MF	0-25	White bir	White birch, black spruce, hazel	0-3.0	S/G	75-100		
	AG			18-50	MF	75-100	Aspen, white b	Aspen, white birch, jack pine, black spruce	3.0-50	MF	0-25	Balsam fir	Balsam fir (many dead)
				> L	Mat fam	/75) 6	0 1 7 0 1		> 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	2		ad (daad) balaaa 6:	
Additional Comments	Large nur	nber of downed (deac	Large number of downed (dead) balsam fir, due to budworm	Additional Comments	Mature forest	Mature forest (75 years) from 0 to 50m	U to 50m		Additional Comments	Significant	amount of down	Significant amount of downed (dead) balsam fir	

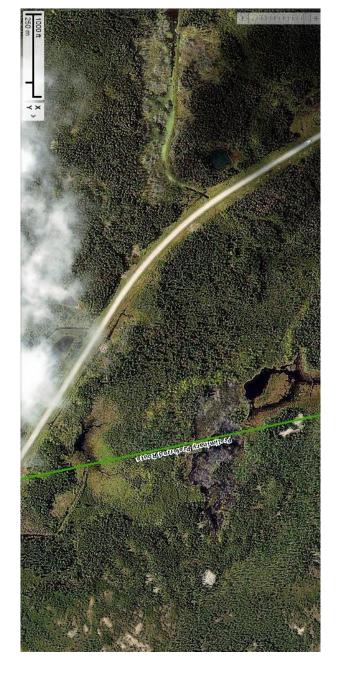
l						FIC		ଦ୍		
		0-50	Water (m)	Distance from				S Location		
		Bea			Ripa	Intermittent	W -96.2205	N 50.7935		
		/er	(rian Vegetatio			Water Course	100111	
		- В	'ears)	Age	າກ (GIS-based			e Type Cı	Downstream	
		eaver flood (aquatic macrophyte)		Dominant Species	l Data)			reek		
		0-50	(m)	Distance from Water		Flow Regime		GPS Location		
		Beaver		Stand Type	Riparian	Intermittent	W -96.2197	N 50.7938		
			(Years)	Age	Vegetation (G			Water 0	CIOSSING FOCALION	
		Beaver flood (aquatic macrophytes)		Dominant Species	IS-based Data)			Course Type Creek	alion	
		0-50	(m)	Distance from Water		Flow Regime		GPS Location		
		Beaver		Stand Type	Ripari	Ephemeral	W -96.2188	N 50.7936		
		-	(Years)	Age	_		3		Toom opsirean	
		Beaver flood (aquatic macrophytes)		Dominant Species	(GIS-based Data)			Water Course Type Creek	Stredill	
			Beaver - Beaver flood (aquatic macrophyte) 0-50 Beaver - Beaver flood (aquatic macrophytes) 0-50 Beaver - Beaver flood (aquatic macroph	Beaver - Beaver flood (aquatic macrophyte) 0-50 Beaver - Beaver flood (aquatic macrophytes) - Beaver - Beaver flood (aquatic macrophyte) - Beaver - Beaver flood (aquatic macrophytes) - Beaver - Beaver - Beaver flood (aquatic macrophytes) - Beaver - Beaver - Beaver - Beaver - Beaver flood (aquatic macrophytes) - Beaver - Beaver - Beaver flood (aquatic macrophytes) - Beaver -	m Stand Type Age (Years)	Riparian Vegetation (GIS-based Data) Riparian Vegetation (GIS-based Data) Riparian Vegetation (GIS-based Data) Stand Type Age Dominant Species Distance from Water (Years) Distance from Water (Years) Distance from Water (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) <th col<="" td=""><td>Intermittent Flow Regime Flow Regime Flow Regime Ephemeral Riparian Vegetation (GIS-based Data) Riparian Vegetation (GIS-based Data) Flow Regime Ephemeral Riparian Vegetation (GIS-based Data) Placetation (GIS-based Data) Colspan="8">Riparian Vegetation (GIS-based Data) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Distance from Water (Years) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Beaver</td><td>W -96.2205 Seaver Beaver Bea</td><td>N 50.7935 Water Course Type Creek GPS Location W-96.2197 Water Course Type (Age) Flow Regime (Age) Ephemeral Riparian Vegetation (GIS-based Data) Water Course Type (Age) Water Course Type (Age) Water Course Type (Age) Plow Regime (Age) Flow Regime (Age) Water Course Type (Age) Water Course Type (Age) Plow Regime (Age) Flow Regime (Age) Plow Re</td></th>	<td>Intermittent Flow Regime Flow Regime Flow Regime Ephemeral Riparian Vegetation (GIS-based Data) Riparian Vegetation (GIS-based Data) Flow Regime Ephemeral Riparian Vegetation (GIS-based Data) Placetation (GIS-based Data) Colspan="8">Riparian Vegetation (GIS-based Data) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Distance from Water (Years) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Beaver</td> <td>W -96.2205 Seaver Beaver Bea</td> <td>N 50.7935 Water Course Type Creek GPS Location W-96.2197 Water Course Type (Age) Flow Regime (Age) Ephemeral Riparian Vegetation (GIS-based Data) Water Course Type (Age) Water Course Type (Age) Water Course Type (Age) Plow Regime (Age) Flow Regime (Age) Water Course Type (Age) Water Course Type (Age) Plow Regime (Age) Flow Regime (Age) Plow Re</td>	Intermittent Flow Regime Flow Regime Flow Regime Ephemeral Riparian Vegetation (GIS-based Data) Riparian Vegetation (GIS-based Data) Flow Regime Ephemeral Riparian Vegetation (GIS-based Data) Placetation (GIS-based Data) Colspan="8">Riparian Vegetation (GIS-based Data) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Distance from Water (Years) Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) Beaver	W -96.2205 Seaver Beaver Bea	N 50.7935 Water Course Type Creek GPS Location W-96.2197 Water Course Type (Age) Flow Regime (Age) Ephemeral Riparian Vegetation (GIS-based Data) Water Course Type (Age) Water Course Type (Age) Water Course Type (Age) Plow Regime (Age) Flow Regime (Age) Water Course Type (Age) Water Course Type (Age) Plow Regime (Age) Flow Regime (Age) Plow Re

Water flow direction indicated by yellow arrow



										_
	Additional Comments		0-50	Water (m)	Distance from		Flow Regime Intermittent	M	GPS Location N 50.7935	
	nts		Beaver		Stand Type	Riparia	ntermittent	W -96.2205		
					pe Age	Riparian Vegetation (GIS-based Data)			Water Course Type Creek	100m Downstream
			Beaver flood (a		Domin	S-based Data)			Creek	eam
			Beaver flood (aquatic macrophyte)		Dominant Species					
•	Additional Comments		0-50	(m)	Distance from Water		Flow Regime		GPS Location	
			Beaver		Stand Type	Riparian V	Intermittent	W -96.2197	N 50.7938	
				(Years)	Age	egetation (GI			Water C	Crossing Location
			Beaver flood (aquatic macrophytes)		Dominant Species	Riparian Vegetation (GIS-based Data)			Water Course Type Creek	ation
	Additional Comments		0-50	(m)	Distance from Water Stand Type		Flow Regime		GPS Location	
	Water course		Beaver		Stand Type	Riparian	Ephemeral	W -96.2188	N 50.7936	
***	may not exist		-	(Years)	Age	_				100m Upstream
	Water course may not exist at this location		Beaver flood (aquatic macrophytes)		Dominant Species	/egetation (GIS-based Data)			Water Course Type Creek	tream

	100	100m Downstream			0	Crossing Location				100m Upstream	ream	
GPS Location N 50.7967		Water Course Type NA	AN	GPS Location		Water Course Type	Beaver Pond	GPS Location	N 50.7965		Water Course Type Beaver Ponc	Beaver Pond
W -96.2223	-				W -96.2207				W -96.2191			
Flow Regime NA				Flow Regime	Intermittent			Flow Regime	Ephemeral			
	Riparian Veg	Riparian Vegetation (GIS-based Data)	d Data)		Riparian V	Riparian Vegetation (GIS-based Data)	ta)		Riparian		Vegetation (GIS-based Data)	
Distance from	Stand Type	Age	Dominant Species	Distance from Water	Stand Type	Age	Dominant Species	Distance from Water	Stand Type	Age	Domina	Dominant Species
Water (m)		(Years)		(m)		(Years)		(m)		(Years)		
				0-50	TA	35	Trembling aspen	0-50	TA	35	Trembli	Trembling aspen
Additional Comments Water course does not exist at this location	Water course do	bes not exist at this	s location	Additional Comments				Additional Comments	Water course	e may not exist	may not exist at this location	



	100m Dov	100m Downstream			Cro	Crossing Location				100m Upstream	
GPS Location N 50.7967 W -96.2223	67 Water Course Type	Type NA		GPS Location	N 50.7966 W -96.2207	Water Course Type	Beaver Pond	GPS Location	N 50.7965 W -96.2191	Water Course Type Beaver Pond	Beaver Pond
Flow Regime NA				Flow Regime	Intermittent			Flow Regime	Ephemeral		
	Riparian Vegetation (GIS-based Data)	n (GIS-based Data)			Riparian Veg	Riparian Vegetation (GIS-based Data)	а)		Riparian V	າ Vegetation (GIS-based Data)	
Distance from	Stand Type /		Dominant Species	Distance from Water	Stand Type	Age	Dominant Species	Distance from Water	Stand Type		Dominant Species
Water (m)		(Years)		(m)		(Years)		(m)		(Years)	
				0-50	Beaver	- Beaver	Beaver flood (aquatic macrophytes)	0-50	TA	26 Trembling	Trembling aspen, jack pine
Additional Comments Water course does not exist at this location	Water course does no	t exist at this location		Additional Comments				Additional Comments	Water course m	may not exist at this location	

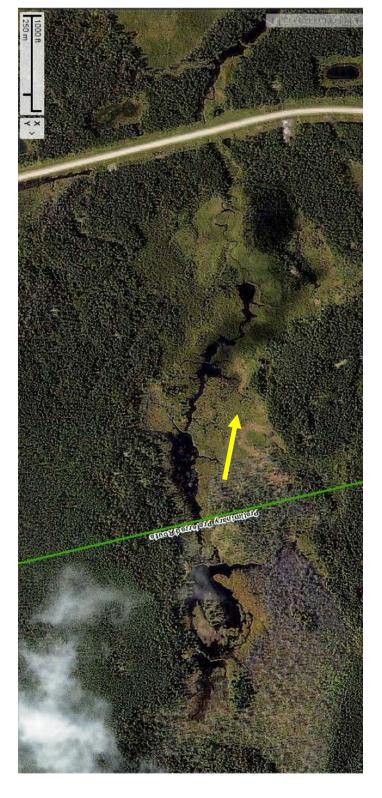
Water flow direction indicated by yellow arrow



	TOUTH DOWNStream	din		Ç.	Crossing Location			100m Opstream
GPS Location N 50.7967	7 Water Course Type	NA	GPS Location	N 50.7999	Water Course Type Creek	GPS Location	N 50.7999	Water Course Type Creek
W -96.2223	~			W -96.2218			W -96.2203	
Flow Regime NA			Flow Regime	Ephemeral		Flow Regime	Ephemeral	
	Riparian Vegetation (GIS-based Data)	s-based Data)		Riparian Ve	Riparian Vegetation (GIS-based Data)		Riparian V	n Vegetation (GIS-based Data)
Distance from S	Stand Type Age	Dominant Species	Distance from Water	Stand Type	Age Dominant Species	Distance from Water	Stand Type	Age Dominant Species
Water (m)	(Years)		(m)		(Years)	(m)		(Years)
0-50	Beaver -	Beaver flood (aquatic macrophyte)	0-50	Beaver	- Beaver flood (aquatic macrophytes)	0-50	Beaver	- Beaver flood (aquatic macrophytes)
Additional Comments Th	This creek could be an old logging road	ogging road	Additional Comments	This creek could	This creek could be an old logging road	Additional Comments	This creek could	ould be an old logging road

			_	D.		Flow		GPS L	
		0-50	Water (m)	stance from		Regime Ir	V	Location N	
		Beav		Stand T	Ripar	ntermittent	/ -96.2271	50.8104	
		er -			ian Vegetation			Water Course T	100m Downstream
		Be	ars)	ě	(GIS-based			⊺ype Cr	nstream
		eaver flood (aquatic macrophyte)		Dominant Species	Data)			eek	
00 00	38-50	0-38	(m)	Distance from Water		Flow Regime		GPS Location	
17.5	AT	Beaver		Stand Type	Riparian	Intermittent	W -96.2257	N 50.8107	
	35		(Years)	Age	Vegetation (G	Discha		Water	Crossing Location
noning adjoin,	Trembling aspen	Beaver flood (aquatic macrophytes)		Dominant Species	ilS-based Data)	rge (m³/sec) 0.09		Course Type Creek	ation
		0-50	(m)	Distance from Water		Flow Regime		GPS Location	
		Beaver		Stand Type	Ripariar	Intermittent	W -96.2241	N 50.8107	
			(Years)	Age					100m Upstream
		Beaver flood (aquatic macrophytes)		Dominant Species	(GIS-based Data)			Water Course Type Creek	stream
		38-50 TA 35 Trembling aspen,	Beaver - Beaver flood (aquatic macrophyte) 0-38 Beaver - Beaver flood (aquatic macrophytes) 0-50 Beaver TA 35 Trembling aspen,	n) (Years) (m) (Years) (m) (Years) (m) (Years) Beaver - Beaver flood (aquatic macrophyte) 0-38 Beaver flood (aquatic macrophytes) 0-50 Beaver - Trembling aspen, 38-50 TA 35 Trembling aspen, - -	m Stand Type Age (Years)	Riparian Vegetation (GIS-based Data) Stand Type Age Dominant Species Distance from Water Stand Type Age (Years) Dominant Species Distance from Water Stand Type (Years) Age (Years) Deaver flood (aquatic macrophytes) <	Intermittent Riparian Vegetation (GIS-based Data) Flow Regime Intermittent Discharge (m³/sec) 0.09 Flow Regime Intermittent Plow Regime Intermittent Intermittent Discharge (m³/sec) 0.09 Flow Regime Intermittent Riparian Vegetation (GIS-based Data) Flow Regime Intermittent Discharge (m³/sec) 0.09 Flow Regime Intermittent Riparian Vegetation (GIS-based Data) Intermittent Plow Regime Intermittent Intermittent Discharge (m³/sec) 0.09 Plow Regime Intermittent Riparian Vegetation (GIS-based Data) Plow Regime Age Age Plow Regime Age Age Plow Regime Age Plow Regime Plow Regime Plow Regime Plow Regime Plow Regime	W-96.2257 W-96.2257 W-96.2257 W-96.2257 W-96.2257 W-96.225	Water Course Type Creek GPS Location Water Course Type Water Course Type Creek GPS Location Water Course Type Creek Water Course Type Creek GPS Location Water W-96.2257 Water Course Type Water Course Type Creek GPS Location Water W-96.2257 Water Course Type Creek GPS Location W-96.2257 Water Course Type W-96.2257 Water Course Type Creek GPS Location W-96.2257 W -96.2257 Water Course Type Creek GPS Location W-96.2241 W -96.2257 Water Course Type Creek Creek W -96.2257 Water Course Type Creek Creek W -96.2257 Water Course Type W-96.2257 Creek W -96.2257 Water Course Type W-96.2257 Creek W -96.2257 Water Course Type W-96.2257 Creek W -96.2257 Plow Regime Intermittent Properties (GIS-based Data) W -96.2257 Plow Regime Intermittent Properties (GIS-based Data) Colon Water Stand Type (Years) Colon Water Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Distance from Water (Years) Stand Type (Years) Beaver flood (aquatic macrophytes) Beaver Good (aquatic macrophytes) <th< td=""></th<>

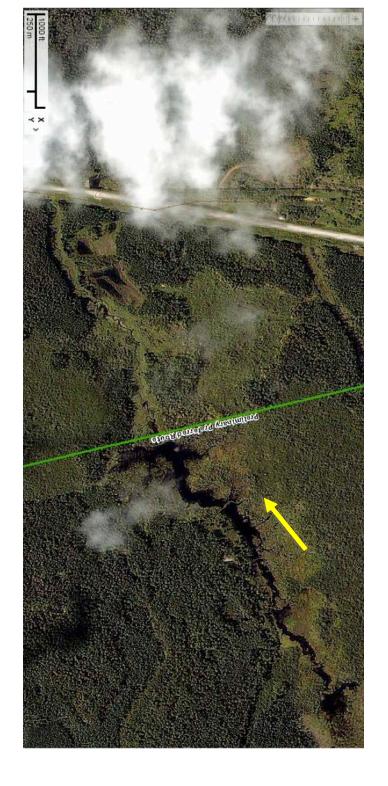
Water flow direction indicated by yellow arrow



	Toom Downstream	a			Crossing Location			100m upstream	am
GPS Location N 50.8104 W: -96.2271	Water Course Type	Creek	GPS Location	N 50.8107	Water Course Type Creek	GPS Location	N 50.8107	W.	Water Course Type Creek
Flow Regime Intermittent			Flow Regime	Intermittent		Flow Regime	Intermittent		
Riparian	Riparian Vegetation (GIS-based Data)	ased Data)		Riparian Ve	Riparian Vegetation (GIS-based Data)		Riparian \	ın Vegetation (GIS-based Data)	S-based Data)
Distance from Stand Type	Age	Dominant Species	Distance from Water	Stand Type	Age Dominant Species	Distance from Water	Stand Type	Age	Dominant Species
Water (m)	((m)		(Years)	(m)		(Years)	
0-42 Beaver	-	Beaver flood (aquatic macrophyte)	0-38	Beaver	 Beaver flood (aquatic macrophytes) 	hytes) 0-31	Beaver		Beaver flood (aquatic macrophytes)
42-50 TA	70	Trembling aspen	38-50	TA	70 Trembling aspen	31-50	TA	70	Trembling aspen
Additional Comments			Additional Comments			Additional Comments			

	100m	loom Downstream				Crossing Location	ation			100m Upstream	ream
GPS Location N 50.8206		Water Course Type	Creek	GPS Location	N 50.8214	Water C	Water Course Type Creek	GPS Location	N 50.8218		Water Course Type Creek
W -96.2310)				W -96.2297				W -96.2284		
Flow Regime Intermittent	nt			Flow Regime	Intermittent	Discharg	Discharge (m³/sec) 0.19	Flow Regime	Intermittent		
	Riparian Vegetation (GIS-based Data)	tation (GIS-ba	sed Data)		Riparian V	egetation (GI	Riparian Vegetation (GIS-based Data)		Riparian V	/egetation (d	Vegetation (GIS-based Data)
Distance from S	Stand Type	Age	Dominant Species	Distance from Water	Stand Type	Age	Dominant Species	Distance from Water	Stand Type	Age	Dominant Species
Water (m)		(Years)		(m)		(Years)		(m)	((Years)	
0-34	Beaver		Beaver flood (aquatic macrophyte)	0-50	Beaver		Beaver flood (aquatic macrophytes)	0-50	Beaver		Beaver flood (aquatic macrophytes)
34-50	TA	35	Trembling aspen								
Additional Comments				Additional Comments				Additional Comments			

Water flow direction indicated by yellow arrow



GPS Location N 50.8206 Water Course Type Creek GPS Location N 50.8214 Water Course Type GPS Location N 50.8216 Water Course Type Water Cou	Toolii Downstieani			Clossing Focation			Toolii opaneani	IGAIII
W-96.2310 W-96.2310 W-96.2310 W-96.2297 W-96.2297 W-96.2297 W-96.2297 Flow Regime W-96.2297 Flow Regime W-96.2297 Flow Regime How Regime How Regime How Regime Intermittent Flow Regime How Regime Flow Regime How Regi	Water Course Type	GPS Location	N 50.8214		GPS Location	N 50.8218		Water Course
Intermittent			W -96.2297			W -96.2284		
Riparian Vegetation (GIS-based Data) Age (Years) Dominant Species Distance from Water (m) Stand Type (m) Age (Years) Dominant Species (m) Distance from Water (Years) Stand Type (Years) Age (Years) Dominant Species (m) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years)	Flow Regime Intermittent	Flow Regime	Intermittent		Flow Regime	Intermittent		
Stand Type Age (Years) Dominant Species Distance from Water (m) Stand Type (Years) Age (Years) Dominant Species (m) Distance from Water (Years) Stand Type (Years) Age (Years) Dominant Species (m) Distance from Water (Years) Stand Type (Years) Age (Years) Dominant Species (m) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years) Age (Years) Distance from Water (Years) Stand Type (Years) Age (Years)	Riparian Vegetation (GIS-based Data)		Riparian Veg	etation (GIS-based Data)		Ripariar	า Vegetation (เ	SIS-based Da
Beaver - Beaver flood (aquatic macrophyte) 0-50 Beaver flood (aquatic macrophytes) Beaver flood (aquatic macrophytes) 0-50 Beave	Stand Type Age				Distance from Water	Stand Type	Age	
Beaver Incomposition of the Seaver		(m)	_	(Years)	(m)		(Years)	
Will/Ald - Willow, alder -	Beaver -		Beaver	- Beaver flood (aquatic macrophytes)	0-50	Beaver		Beaver f
	Will/Ald -	er						
Additional Comments Additional Comments								
Additional Comments								
	Additional Comments	Additional Comments			Additional Comments			

				•							
	1	100m Downstream	n			Crossing Location				100m Upstream	im
GPS Location N 50.8652	Wa	Water Depth (m)	3.0	GPS Location	N 50.8656	Water Depth (m)	3.0	GPS Location	N 50.8662		Water Depth (m) 3.7
W -96.2475					W -96.2460				W -96.2445		
Flow Regime Perennial	ial Stage	9	Moderate	Flow Regime	Perennial	Stage	Moderate	Flow Regime	Perennial		Stage Moderate
Wetted Width (m) 26		Bank Slope (degrees)	3-4	Wetted Width (m)	26	Bank Slope (degrees)) 1-2	Wetted Width (m)	36		Bank Slope 12
											(degrees)
Bankfull Width (m) 34		Bank Stability	Low	Bankfull Width (m)	35.2	Bank Stability	Low	Bankfull Width (m)	43.3		Bank Stability Low
Floodplain (m) N	NA In-Str	In-Stream Cover	AM. BD	Floodplain Width (m)	28.7	In-Stream Cover	None	Floodplain Width (m)	NA		In-Stream Cover
				Discharge (m³/sec)	3.59	Water Temp (°C)	12.9				
				Diss. Oxygen (mg/L)	7.8	TSS (mg/L)					
				рН		Turbidity (NTU)					
	2	(1)	7							ì	7
	Riparian Ve	Riparian Vegetation (Field-based Data)	ased Data)		Riparian V	Riparian Vegetation (Field-based Data)	ta)		Riparian Vege	egetation (Field	tation (Field-based Data)
Distance from	Community	% Cover	Dominant Tree or Shrub Species	Distance from Water	Community	% Cover Domir	Dominant Tree or Shrub Species	Distance from Water	Community	% Cover	Dominant Tree or Shrub Species
Water (m)	Type			(m)	Type			(m)	Туре		
0-8.0	S/G	50-75		0-7.2	S/G	75-100	-	0-7.3	S/G	75-100	
8.0-23.0	SH	25-50	Dogwood, alder, Saskatoon, willow	7.2-42.0	Ħ	50-75	Ash	7.3-21.0	SH	50-75	Ash, dogwood
23.0-50	HF	50-75	Aspen, oak	42.0-50	뜌	75-100	Aspen	21.0-50	ŦF	75-100	Ash, aspen
Additional Comments	Wildlife: wood	frog, deer tracks,	Wildlife: wood frog, deer tracks, beaver runways. Shore burned in	Additional Comments	Shore burned in 1999	in 1999		Additional Comments	Shore burned	ed in 1999	
	1999										

Water flow direction indicated by yellow arrow



	າed in 1999	Shore burned	Additional Comments	ed in 1999	Wildlife: wolf tracks. Shore burned in 1999	Wildlife: wol	Additional Comments		Shore burned in 1999		Additional Comments
Aspen	75-100	퓨	31.0-50	Aspen	75-100	퓨	26.0-50	Aspen	75-100	퓨	26.0-50
Aspen, alder, dogwood, ash	75-100	퓨	15.0-31.0	Dogwood, hazel, willow, aspen	25-50	SH	12.0-26.0	Willow, alder	75-100	SH	3.3-26.0
	75-100	S/G	0-15.0		75-100	S/G	0-12.0		75-100	S/G	0-3.3
		Туре	(m)			Type	(m)			Type	Water (m)
Dominant Tree or Shrub Species	% Cover	Community	Distance from Water	Dominant Tree or Shrub Species	% Cover	Community	Distance from Water	Dominant Tree or Shrub Species	nity % Cover	Community	Distance from
etation (Field-based Data)	egetation (Field	Riparian Veg		based Data)	Riparian Vegetation (Field-based Data)	Riparian		ased Data)	Riparian Vegetation (Field-based Data)	Riparia	
In-Stream Cover AM, BH		NA	Floodplain Width (m)	over AM, LWD, BH	In-Stream Cover	N/A	Floodplain Width (m)	LWD, AM	In-Stream Cover	NA I	Floodplain (m)
Bank Stability Unstable		41	Bankfull Width (m)	ity Low	Bank Stability	38	Bankfull Width (m)	Low	Bank Stability	29.3 E	Bankfull Width (m)
(degrees)											
Bank Slope 3		36	Wetted Width (m)	(degrees) 13	Bank Slope (degrees)	26	Wetted Width (m)		Bank Slope (degrees) 1	26 E	Wetted Width (m)
Stage Moderate		Perennial	Flow Regime	Moderate	Stage	Perennial	Flow Regime	Moderate	Stage	Perennial S	Flow Regime Per
	2	W -96.2442				W -96.2456				W -962473	W
Water Depth (m) 3.7		N 50.8660	GPS Location	h (m) 3.0	Water Depth (m)	N 50.8654	GPS Location	3.0	Water Depth (m)		GPS Location N 50.8648
m	100m Upstream			<u> </u>	Crossing Location				100m Downstream		

	ed in 1999	Shore burned	Additional Comments		d in 1999	Shore burned in 1999	Additional Comments		d in 1999	Shore burned in 1999	Additional Comments
								Aspen, white birch	25-50	퓨	33.0-50
								aspen			
								Willow, hazel, high bush cranberry,	0-25	£	9.0-33.0
Aspen	50-75	퓨	16.0-50	Aspen, white birch	50-75	퓨	25.0-50	Ash (dead standing)	25-50	퓨	4.0-9.0
Ash, alder	0-25	SH	0-16.0	Ash, dogwood, hazel	0-25	SH	0-25.0	-	75-100	S/G	0-4.0
		Туре	(m)			Туре	(m)			Type	Water (m)
Dominant Tree or Shrub Species	% Cover	Community	Distance from Water	Dominant Tree or Shrub Species	% Cover	Community	Distance from Water	Dominant Tree or Shrub Species	% Cover	Community	Distance from
etation (Field-based Data)	egetation (Field	Riparian Veg		sed Data)	Riparian Vegetation (Field-based Data)	Riparian \		sed Data)	Riparian Vegetation (Field-based Data)	Riparian Ve	
				U)	Turbidity (NTU)		pH				
					TSS (mg/L)	6.3	Diss. Oxygen (mg/L)				
				(°C) 14.2	d	Not Determined	Discharge (m³/sec)				
In-Stream Cover LWD, AM		NA	Floodplain Width (m)	ver AM, LWD, OC	In-Stream Cover	NA	Floodplain Width (m)	AM, LWD	In-Stream Cover	NA In-St	Floodplain (m)
Bank Stability Moderate		28	Bankfull Width (m)	Low	Bank Stability	31	Bankfull Width (m)	Moderate	Bank Stability	41 Bank	Bankfull Width (m)
(degrees)											
Bank Slope 16		26	Wetted Width (m)	Bank Slope (degrees) 15	Bank Slope (c	30	Wetted Width (m)	_	Bank Slope (degrees) 1	32 Bank	Wetted Width (m)
Stage Moderate		Perennial	Flow Regime	Moderate	Stage	Perennial	Flow Regime	Moderate	le .	Perennial Stage	Flow Regime Per
		W -96.2238				W -96.2254				W -96.2269	W
Water Depth (m) 1.75		N 50.9768	GPS Location	(m) 1.6	Water Depth (m)	N 50.9765	GPS Location	1.7	Water Depth (m)	N 50.9765 Wate	GPS Location N 5
m	100m Upstream				Crossing Location				100m Downstream	1	

Water flow direction indicated by yellow arrow



		100m Downstream			0	Crossing Location	tion			100m Upstream	m	
GPS Location N 50.9762		Water Depth (m)	1.7	GPS Location	N 50.9762	Water Depth (m)	pth (m) 1.6	GPS Location	N 50.9765		Water Depth (m) 1.75	1.75
W -96	W -96.2267				W -96.2254				W -96.2240)		
Flow Regime Perennial	າnial Stage	age	Moderate	Flow Regime	Perennial	Stage	Moderate	Flow Regime	Perennial		Stage	Moderate
Wetted Width (m) 32		Bank Slope (degrees) 15	15	Wetted Width (m)	30	Bank Slop	Bank Slope (degrees) 5	Wetted Width (m)	26		Bank Slope	ω
		pk Otobility	Moderate	Dookfull Width (m)	2	Dank Otak		Dookfull Midth (m)	26			A color colo
(111)		b Ctroping	IND AM OC (Ask)		1/2	Daily Graping			2 0			AM IMP OF
Floodplain (m)	NA In-	In-Stream Cover	LWD, AM, OC (Ash)	Floodplain Width (m)	N/A	In-Stream Cover	n Cover AM, LWD, OC (Ash)	Floodplain Width (m)	NA		In-Stream Cover	AM, LWD, OC (Ash)
	Riparian \	Riparian Vegetation (Field-based Data)	ased Data)		Riparian Ve	Riparian Vegetation (Field-based Data)	d-based Data)		Riparian Veç	egetation (Fiel	getation (Field-based Data)	
Distance from	Community	/ % Cover	Dominant Tree or Shrub Species	Distance from Water	Community	% Cover	Dominant Tree or Shrub Species	Distance from Water	Community	% Cover	Dominant Tree or Shrub Species	Shrub Species
Water (m)	Type			(m)	Туре			(m)	Туре			
0-2.0	MF	50-75	Ash, black spruce	0-14.0	퓨	75-100	Ash (mature)	0-19.0	SH	0-25	Willow, aspen	nspen en
2.0-20.0	CF	50-75	Balsam fir	14.0-34.0	픆	75-100	Ash, aspen (mature)	19.0-50	퓨	75-100	Aspen, ash (young, regenerating)	য়, regenerating)
20.0-50	HF	50-75	Aspen, white birch	34.0-50	퓨	50-75	Aspen (young, regenerating)					
Additional Comments	This locatio	n has mature forest	This location has mature forest (escaped the 1999 fire)	Additional Comments	Fire (1999 buri	n) did not burn (Fire (1999 burn) did not burn crossing location (burned east of crossing)	Additional Comments	Shore burned	ed in 1999		

						Flow Regime Intermitter	W -96.231	GPS Location N 50.9866	
seaver -	seaver -				≀iparian Vegetation (GI				100m Downstream
Beaver flood (aquatic macrophyte)				Dominant Species	S-based Data)				ream
0-50	(m) 0-50	(m)		Distance from Water		Flow Regime		GPS Location	
Beaver	Beaver			Stand Type	Riparian \	Intermittent	W -96.2297	N 50.9869	
(Teals)	(Teals)	(Tedis)	(<)	Age	egetation (GIS			Water Co	Crossing Location
Beaver flood (aquatic macrophytes)	Beaver flood (aquatic macrophytes)	Donor flood (paretic moorphytho)		Dominant Species	S-based Data)				ition
(m) 0-50	(m) 0-50	(m)		Distance from Water		Flow Regime		GPS Location	
Beaver	Beaver			Stand Type	Riparian	Intermittent	W -96.2285	N 50.9874	
	-	((Years)	Age	_				100m Upstream
Beaver flood (aquatic macrophytes)	Beaver flood (aquatic macrophytes)	Doors flood (paretic moores buton)	_	Dominant Species	(GIS-based Data)		Channel	Water Course Type Highway Drainage	stream
			Deaver Took (advance Hacrophyte) C-50 Deaver Took (advance Hacrophytes) C-50 Deaver Took (advance Hacrophytes)	Beaver - Beaver flood (aquatic macrophyte) 0-50 Beaver - Beaver flood (aquatic macrophytes) 0-50 Beaver - Beaver - Beaver flood (aquatic macrophytes) 0-50 Beaver - B	m Stand Type Age (Years)	Riparian Vegetation (GIS-based Data) Stand Type Age Distance from Water Stand Type Age Distance from Water Stand Type Age Cyears) Beaver flood (aquatic macrophytes) Distance from Water Stand Type (Years) Cyears) Beaver flood (aquatic macrophytes) Distance from Water Stand Type (Years) Cyears) Beaver flood (aquatic macrophytes) Distance from Water Stand Type (Years) Cyears) Beaver - Beaver flood (aquatic macrophytes) 0-50 Beaver - Beaver	Intermittent Riparian Vegetation (GIS-based Data) Stand Type (Years) Beaver Beaver flood (aquatic macrophyte) Riparian Vegetation (GIS-based Data) Flow Regime Intermittent Riparian Vegetation (GIS-based Data) Riparian	Flow Regime Intermittent Flow Regime Flow Regime Intermittent Flow Regime Flow Regime Flow Regime Intermittent Flow Regime Flow Regime Intermittent Flow Regime Intermittent	Water Course Type Highway Drainage Channel GPS Location W50.9869 Water Course Type Water Course Type Highway Drainage Channel M 50.9874 Water Course Type W-96.2297 Water Course Type Channel Highway Drainage Channel M 50.9874 W-96.2295 Water Course Type Channel Highway Drainage Channel M 50.9874 W-96.2295 Water Course Type Channel Highway Drainage Channel M 50.9874 W-96.2295 Water Course Type Channel Highway Drainage Channel M 50.9874 W-96.2295 Water Course Type Channel Highway Drainage Channel M 50.9874 W-96.2295 Water Course Type Channel Highway Drainage Channel M 50.9874 W-96.2295 Water Course Type Channel Highway Drainage Channel M 50.9874 W-96.2295 W -96.2297 Water Course Type Channel Highway Drainage Channel Highway Drainage Channel M 50.9874 W-96.2295 Water Course Type Channel Highway Drainage Channel Highway Drainage Channel M 96.2285 Water Course Type Channel Highway Drainage Channel Highway Drainage Channel Highway Drainage Channel Highway Drainage Channel W 46.2285 Water Course Type Channel Highway Drainage Channel <t< td=""></t<>

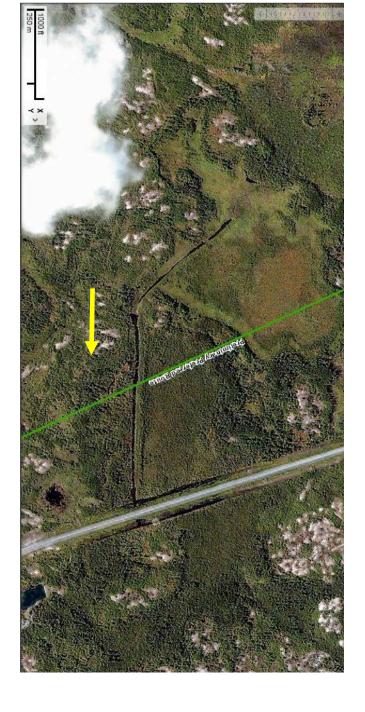
Water flow direction indicated by yellow arrow



ļ						딛		<u>Ф</u>		
		0-50	Water (m)	Distance from		рw Regime		S Location		
	<u> </u>			Stand	Ripa	ntermittent	N -96.2311	V 50.9866		
			(ırian Vegetati			Water Cours	100m Do	
	5	אַ	Years)	Age	on (GIS-base				00m Downstream	
	מסקטוו וווין וויטוווישן מסקטוו	Raleam fir trembling aspen		Dominant Species	ed Data)			Highway Drainage Channel		
		0-50	(m)	Distance from Water		Flow Regime		GPS Location		
	<u> </u>	R		Stand Type	Riparian	Intermittent	W -96.2297	N 50.9869		
	ō	17	(Years)	Age	Vegetation (GIS-based			Water Course Typ	Crossing Location	
		Raleam fir trembling aspen		Dominant Species	Data)					
		0-50	(m)	Distance from Water		Flow Regime		GPS Location		
	Ü	BS.		Stand Type	Ripar	Intermitten	W -96.228	N 50.9874		
	ā	177	(Years)	Age	_	nt			100m Upstream	
	Ţ			Dom.	S-based Data)			'ater Course Type	am	
	ack object	ack enrice		inant Species			Channel	Highway Drainage		
			0-50 BF 15 Balsam fir, trembling aspen 0-50 BF 15 Balsam fir, trembling aspen 0-50 BS 15 Black spruce	(Years) (m) (Years) (m) (Years) (m) (Years) (m) (Years) (Years)	Stand Type Age (Years)	Riparian Vegetation (GIS-based Data) Stand Type Age (Years) Distance from Water (Years) Stand Type (Years) Distance from Water (Years) Distance from Water (Years) Distance from Water (Years) <th col<="" td=""><td>Intermittent Flow Regime Intermittent Riparian Vegetation (GIS-based Data) Description (GIS-based Data) Age Description (GIS-based Data) Description (GIS-based Data) Age Age Class of Colspan="8">Age Class of Colspan="8">Class of Colspan="8">Cla</td><td>Image: Image: Image:</td><td>Water Course Type Highway Drainage Channel GPS Location W-96.2937 Water Course Type Highway Drainage Channel GPS Location W-96.2985 Water Course Type Highway Drainage Channel GPS Location W-96.2985 Water Course Type Highway Drainage Channel Moder Course Type Highway Drainage Channel Moder Course Type Highway Drainage Channel Moder Course Type W-96.2985 Highway Drainage Channel W -96.2985 Water Course Type W-96.2985 Highway Drainage Channel W -96.2985 Water Course Type W-96.2985 Highway Drainage Channel W -96.2985 W -9</td></th>	<td>Intermittent Flow Regime Intermittent Riparian Vegetation (GIS-based Data) Description (GIS-based Data) Age Description (GIS-based Data) Description (GIS-based Data) Age Age Class of Colspan="8">Age Class of Colspan="8">Class of Colspan="8">Cla</td> <td>Image: Image: Image:</td> <td>Water Course Type Highway Drainage Channel GPS Location W-96.2937 Water Course Type Highway Drainage Channel GPS Location W-96.2985 Water Course Type Highway Drainage Channel GPS Location W-96.2985 Water Course Type Highway Drainage Channel Moder Course Type Highway Drainage Channel Moder Course Type Highway Drainage Channel Moder Course Type W-96.2985 Highway Drainage Channel W -96.2985 Water Course Type W-96.2985 Highway Drainage Channel W -96.2985 Water Course Type W-96.2985 Highway Drainage Channel W -96.2985 W -9</td>	Intermittent Flow Regime Intermittent Riparian Vegetation (GIS-based Data) Description (GIS-based Data) Age Description (GIS-based Data) Description (GIS-based Data) Age Age Class of Colspan="8">Age Class of Colspan="8">Class of Colspan="8">Cla	Image:	Water Course Type Highway Drainage Channel GPS Location W-96.2937 Water Course Type Highway Drainage Channel GPS Location W-96.2985 Water Course Type Highway Drainage Channel GPS Location W-96.2985 Water Course Type Highway Drainage Channel Moder Course Type Highway Drainage Channel Moder Course Type Highway Drainage Channel Moder Course Type W-96.2985 Highway Drainage Channel W -96.2985 Water Course Type W-96.2985 Highway Drainage Channel W -96.2985 Water Course Type W-96.2985 Highway Drainage Channel W -96.2985 W -9

Toom open call		Crossing Econori	Janon		Toom Downsaigan	HSGEAIN
GPS Location N 50.9961 Water Course Type Highway Drainage Channel	GPS Location N 50.9961		Water Course Type Highway Drainage	GPS Location	N 50.9961	Water Course Type Highway Drainage
3	W -96.2363				W -96.2349	Channel
Flow Regime Intermittent	Flow Regime Intermittent	ittent		Flow Regime	Intermittent	
Riparian Vegetation (GIS-based Data)	R	Riparian Vegetation (GIS-based Data)	ilS-based Data)		Riparian Vegetation	/egetation (GIS-based Data)
Distance from Stand Type Age Dominant Species	Distance from Water Stand	Stand Type Age	Dominant Species	Distance from Water Stand Type	Stand Type Age	Dominant Species
Water (m) (Years)	(m)	((m)	(Years)	
0-50 TA 15 Trembling aspen, jack pine	0-50 Will	Will/Ald -	Willow, alder	0-50	Will/Ald -	Willow, alder
Additional Comments	Additional Comments			Additional Comments		

Water flow direction indicated by yellow arrow



			Additional Comments				Additional Comments			etne	Additional Comments
Trembling aspen	15	TA	0-50	Trembling aspen	15	TA	0-50	Trembling aspen	15	TA	0-50
	(Years)		(m)		(Years)		(m)		(Years)		Water (m)
Dominant Species	Age	Stand Type	Distance from Water	Dominant Species	Age	Stand Type	Distance from Water	Dominant Species	Age	Stand Type	Distance from
ased Data)	an Vegetation (GIS-based Data)	Riparian V		ta)	Riparian Vegetation (GIS-based Data)	Riparian Ve		ed Data)	Riparian Vegetation (GIS-based Data)	Riparian	
		Intermittent	Flow Regime			Intermittent	Flow Regime			ntermittent	Flow Regime Intermittent
Channel		W -96.2349		Channel		W -96.2363				W -96.2378	
Water Course Type Highway Drainage	Wate	N 50.9961	GPS Location	Highway Drainage	Water Course Type	N 50.9961	GPS Location	Highway Drainage Channel	Water Course Type		GPS Location N 50.9961
n	100m Downstream				Crossing Location	C			100m Upstream		

	100m	100m Downstream				Crossing Location				100m Upstream	am
GPS Location N 51.0259	Water Depth (m)	oth (m)	>2	GPS Location	N 51.0258	Water Depth (m)) >2	GPS Location	N 51.0257		Water Depth (m) >2
W -96.2593					W -96.2579	,			W -96.2564	4	
Flow Regime Perennial	Stage		Flood	Flow Regime	Perennial	Stage	Flood	Flow Regime	Perennial		Stage Flood
Wetted Width (m) >50		Bank Slope (degrees) 0	0	Wetted Width (m)	>50	Bank Slope (degrees)	yrees) 0	Wetted Width (m)	>50		Bank Slope 0
											(degrees)
Bankfull Width (m) 10	Bank Stability	oility	No bank	Bankfull Width (m)	4	Bank Stability	No bank	Bankfull Width (m)	3.5		Bank Stability No bank
Floodplain (m) >50	In-Stream Cover	Cover	AM, BD	Floodplain Width (m)	>50	In-Stream Cover	r AM, LWD	Floodplain Width (m)	>50		In-Stream Cover AM
				Discharge (m³/sec)	0.52	Water Temp (°C)) 9.6				
				Diss. Oxygen (mg/L)	5.2	TSS (mg/L)					
				pН		Turbidity (NTU)					
77	Riparian Vegetation (Field-based Data)	tion (Field-bas	sed Data)		Riparian	Riparian Vegetation (Field-based Data)	d Data)		Riparian Vege	egetation (Fie	tation (Field-based Data)
Distance from Co	Community	% Cover	Dominant Tree or Shrub Species	Distance from Water	Community	% Cover [Dominant Tree or Shrub Species	Distance from Water	Community	% Cover	Dominant Tree or Shrub Species
Water (m)	Туре			(m)	Type			(m)	Type		
0-50	S/G	75-100	Aquatic macrophytes	0-50	S/G	75-100	Aquatic macrophytes	0-50	S/G	75-100	Aquatic macrophytes
Additional Comments Be	Beaver dam at location. Very wide beaver flood	ation. Very wid	e beaver flood	Additional Comments	Very wide be	Very wide beaver flood. Actual channel width = 4.0m	nel width = 4.0m	Additional Comments	Very wide beav	beaver flood. A	ver flood. Actual channel width = 3.5m

Water flow direction indicated by yellow arrow



		100m Downstream	am			Crossing Location	ion			100m Upstream	3	
GPS Location N 51.0260		Water Depth (m)	>2	GPS Location	N 51.0258	Water Depth (m)	oth (m) >2	GPS Location	N 51.0257		Water Depth (m) >2	>2
W-9	W -96.2593				W -96.2579				W -96.2564	1		
Flow Regime Perennial		Stage	Flood	Flow Regime	Perennial	Stage	Flood	Flow Regime	Perennial		Stage F	Flood
Wetted Width (m)	>50	Bank Slope (degrees) 0	3) 0	Wetted Width (m)	>50	Bank Slop	Bank Slope (degrees) 0	Wetted Width (m)	>50		Bank Slope C	O
											(degrees)	
Bankfull Width (m)	10	Bank Stability	No bank	Bankfull Width (m)	4.0	Bank Stability	oility No bank	Bankfull Width (m)	3.5		Bank Stability N	No bank
Floodplain (m)	>50	In-Stream Cover	AM, BD	Floodplain Width (m)	>50	In-Stream Cover	Cover AM, LWD	Floodplain Width (m)	>50		In-Stream Cover A	AM
	Riparia	Riparian Vegetation (Field-based Data)	-based Data)		Riparian V	Riparian Vegetation (Field-based Data)	l-based Data)		Riparian Ve	Riparian Vegetation (Field-based Data)	1-based Data)	
Distance from	Community	nity % Cover	Dominant Tree or Shrub Species	Distance from Water	Community	% Cover	Dominant Tree or Shrub Species	Distance from Water	Community	% Cover	Dominant Tree or Shrub Species	Shrub Species
Water (m)	Type			(m)	Туре			(m)	Type			
0-50	S/G	75-100	Aquatic macrophytes	0-25	S/G	75-100	Aquatic macrophytes	0-50	S/G	75-100	Aquatic macrophytes	rophytes
				25-50	SH	75-100	Hazel					
Additional Comments	Beaver	Beaver dam at location		Additional Comments	Very wide bea	aver flood. Actua	Very wide beaver flood. Actual channel width = 4.0 m	Additional Comments	Very wide b	eaver flood. Ac	Very wide beaver flood. Actual channel width = 3.5m	m

Preliminary Preferred Route Crossing 18

North Bank (Shore)

Additional Comments		0-50	(m)	Distance from Water		Flow Regime		GPS Location	
Borrow pit do		WS		Stand Type	Riparian	Perennial	W -96.2612	N 51.0359	
es not exist 10		15	(Years)	Age	Vegetation (G	Wetted		Water C	Crossing Location
0m east or wes		White spruce			Riparian Vegetation (GIS-based Data)	Wetted Width (m)		Water Course Type	ation
Borrow pit does not exist 100m east or west of the crossing location		White spruce, Balsam fir, Trembling aspen		Dominant Species)	45		Borrow Pit	



Borrow pit does not exist 100m east or west of the crossing location	0m east or we	oes not exist 10	Borrow pit d	Additional Comments
Trembling Aspen		15	TA	0-50
		(Years)		(m)
Dominant Species		Age	Stand Type	Distance from Water
(a)	S-based Dat	Riparian Vegetation (GIS-based Data)	Riparian	
			Perennial	Flow Regime
			W -96.2611	
Borrow Pit	Water Course Type	Water C	N 51.0355	GPS Location
	ation	Crossing Location		

Preliminary Preferred Route Crossing 19

North Bank (Shore)

Borrow pit does not exist 100m east or west of the crossing location	oes not exist 10	Borrow pit d	Additional Comments
Trembling aspen, jack pine	15	TA	0-50
	(Years)		(m)
Dominant Species	Age	Stand Type	Distance from Water
S-based Data)	Riparian Vegetation (GIS-based Data)	Riparian	
Wetted Width (m) 25	Wetted 1	Perennial	Flow Regime
		W -96.2614	
Water Course Type Borrow Pit	Water C	N 51.0384	GPS Location
ation	Crossing Location		



Borrow pit does not exist 100m east or west of the crossing location	0m east or w	s not exist 10	Borrow pit doe	Additional Comments
Frembling aspen, jack pine	Tre	15	TA	0-50
		(Years)		(m)
Dominant Species		Age	Stand Type	Distance from Water
ta)	IS-based Dat	Riparian Vegetation (GIS-based Data)	Riparian V	
			Perennial	Flow Regime
			W -96.2614	
Borrow Pit	Water Course Type	Water C	N 51.0382	GPS Location
	ation	Crossing Location		

Additional Comments				3.5-50	0-3.5	Water (m)	Distance from					Floodplain (m)	Bankfull Width (m)	-	Wetted Width (m)	Flow Regime Perennial	W -96.2702	GPS Location N 51.1037	
				퓨	S/G, SH	Type	Community	Riparian V				NA In-S	41.5 Bar		38 Bar	nial Stage			
				50-75	50-75		% Cover	Riparian Vegetation (Field-based Data)				In-Stream Cover	Bank Stability		Bank Slope (degrees) 4	де		Water Depth (m)	100m Downstream
				Aspen, hazel	Ash, willow		Dominant Tree or Shrub Species	d-based Data)				AM, LWD	Moderate		98) 4	Moderate		4.3	eam
Additional Comments	38.0-50	32.0-38.0	13.0-32.0	2.0-13.0	0-2.0	(m)	Distance from Water		pН	Diss. Oxygen (mg/L)	Discharge (m³/sec)	Floodplain Width (m)	Bankfull Width (m)		Wetted Width (m)	Flow Regime		GPS Location	
ATV trail parallel to shore	퓨	S/G	퓨	SH	S/G	Туре	Community	Riparian V		9.1	Not Determined	NA	46		45	Perennial	W -96.2688	N 51.1043	
allel to shore	75-100	75-100	75-100	75-100	75-100		% Cover	Riparian Vegetation (Field-based Data)	Turbidity (NTU)	TSS (mg/L)	⅓ Water Temp (°C)	In-Stream Cover	Bank Stability		Bank Slo	Stage		Water Depth (m)	Crossing Location
	Aspen	ATV trail	Aspen, hazel	Hazel, willow, aspen, dogwood			Dominant Tree or Shrub Species	d-based Data)	(NTU)	<u>(1)</u>	mp (°C) 13.0	n Cover AM, BOULD	bility High		Bank Slope (degrees) 11	Moderate		pth (m) 4.4	tion
Additional Comments	38.0-50	27.0-38.0	9.0-27.0	3.0-9.0	0-3.0	(m)	Distance from Water					Floodplain Width (m)	Bankfull Width (m)		Wetted Width (m)	Flow Regime		GPS Location	
ATV trail p	HF	S/G	HF	SH	S/G	Туре	Community	Riparian \				NA	59		58	Perennial	W -96.2673	N 51.1046	
arallel to shore.	75-100	75-100	75-100	75-100	75-100		% Cover	Riparian Vegetation (Field-based Data)									3		100m Upstream
ATV trail parallel to shore. Wildlife: leopard frog. Fresh mink tracks	Aspen	ATV trail	Aspen, willow	Hazel, chokecherry, mountain maple			Dominant Tree or Shrub Species	d-based Data)				In-Stream Cover LWD, AM	Bank Stability Moderate	(degrees)	Bank Slope 13	Stage Moderate		Water Depth (m) 4.4	m

Water flow direction indicated by yellow arrow



Appendix B

Riparian Vegetation Community and Water Course Characteristics of Waterbodies Located within 50 m of Final Preferred Route

Adjacent Water Course 1a

1			Non Forest	0-14
		(Years)		(m)
Dominant Species		Age	Stand Type	Distance from Water \$
	based Data)	tation (GIS-	Riparian Vegetation (GIS-based Data)	
			Perennial	Flow Regime
) (m)	Course (m)		Preferred Route
14	Distance to Water	Distant	South	Location relative to Final
		0	W -96.1740	
Winnipeg River	Water Course Type		N 50.5702	GPS Location
	ocation	Adjacent Riparian Location	Adjacent	

Adjacent Water Course 1b

-	ļ	Aspen	
Trembling Aspen	20	Trembling	0-14
	(Years)		(m)
Dominant Species	Age	Stand Type	Distance from Water
based Data)	Riparian Vegetation (GIS-based Data)	Riparian Ve	
	al	Perennial	Flow Regime
(m)	Course (m)		Preferred Route
Distance to Water 14	Distanc	South	Location relative to Final
		W -96.1703	
Water Course Type Winnipeg River		N 50.5703	GPS Location
cation	Adjacent Riparian Location	Adjac	

Adjacent Water Course 1c

Aspen	0-22 Trembling 45	(m) (Years)	Distance from Water Stand Type Age	Riparian Vegetation (GIS-based Data)	Flow Regime Perennial	Preferred Route Course (m)	Location relative to Final Southeast Distar	W -96.1664	GPS Location N 50.5704 Water
Ö	Trembling Aspen		Dominant Species	based Data)		! (m)	Distance to Water 22		Water Course Type Pine Creek

Adjacent Water Course 1d

0-38 Non-Forest	(m)	Distance from Water Stand Type	Ripa	Flow Regime	Preferred Route	Location relative to Final		GPS Location	
orest		Type	Riparian Vegetation (GIS-based Data)	Perennial		East	W -96.1652	N 50.5715	Adjacent F
	Years)	Age	ation (GIS-k		Course (m)	Distanc		Water C	Adjacent Riparian Locatior
		Domi	pased Data)		(m)	Distance to Water		Water Course Type	cation
		Dominant Species				38		Pine Creek	

Adjacent Water Course 1e

		Aspen	
Trembling Aspen	42	Trembling	0-47
	(Years)		(m)
Dominant Species	Age	Stand Type	Distance from Water
based Data)	Riparian Vegetation (GIS-based Data)	Riparian Vec	
		Perennial	Flow Regime
(m)	Course (m)		Preferred Route
Distance to Water 47	Distanc	East	Location relative to Final
		W -96.1641	
Water Course Type Pine Creek		N 50.5732	GPS Location
cation	Adjacent Riparian Location	Adjace	



Adjacent Water Course 2

Beaver flood (aquatic macrophytes)	Beave		Beaver	0-8
		(Years)		(m)
Dominant Species		Age	Stand Type	Distance from Water
ata)	-based Da	Riparian Vegetation (GIS-based Data)	Riparian Ve	
		lent	Intermittent	Flow Regime
	e (m)	Course (m)		Preferred Route
er 8	Distance to Water	Distar	East	Location relative to Final
			W -96.1247	
ype Creek	Water Course Type		N 50.6297	GPS Location
	.טכמנוטוו	Aujacelii Kipaliali Eucalioi	Aujace	



Adjacent Water Course 3

0-33 BS 45	(m) (Years)	Distance from Water Stand Type Age I	Riparian Vegetation (GIS-based Data	Flow Regime Intermittent	Preferred Route Course (m)	Location relative to Final East Distance to Water	W -96.1843	GPS Location N 50.7670 Water Course Type	Adjacent Riparian Location
Black spruce		Dominant Species	based Data)		(m)	to Water 33	Channel	Course Type Highway Drainage	ocation

