

Attachment A

List of Minnesota Public Waters Crossed

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List of Public Water Inventory Features Crossed

MDNR ID No.	Survey ID	Missouri	Public Water Name (KITE Number when Assigned)	Public Water Label	County	Township	Range	Section	Foot	Ferry Desc.	Govt. Lot	Proposed Crossing Method ¹	Alternate Crossing Method	Crossing Length (feet) ²	Construction ROW Width (feet) ³	Temporary Workspace Width (feet)	Operational ROW Width (feet) ⁴	Bridge Type	Construction Timing Restrictions ⁵	Crossing Plans ⁶ Prepared (wide)	Comments ⁷	Depth of Cover (DOC)	DOC Extent from TOB (L. Bank / R. Bank)	Restoration Approach	
50	A0204WB	1051.4	Unnamed Stream (S-117-012-002)	Watercourse	Atlin	51	27	38	11	NENE	0	Dry Crossing	Modified Dry Crossing	10	95	45	50	Span	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020)	Regen Report A32: the site is within a broad alluvial fanland and expansive wetland, the site is not applicable to a Roagen geomorphic survey	4.0 (Standard DOC)	NA	SSRP	
51	s51n2w33-b	1066.8	Moore Lake (Public Water Basin) Tributary to Moore Lake (Non-Public Water)	Basin	Atlin	51	26	33	14	SENE	0	Modified Upland Wetland Open Cut (Basin) Modified Dry Crossing (Tributary)	Push Pull ⁸	568 (Basin) 4 (Tributary)	95	45	50	Span (Basin) / Span - in stream support (Tributary)	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020)	Moore Lake is the listed Public Water basin. Roagen was conducted on the Tributary to Moore Lake. Worksite within Public Water boundary but not within waterbody	4.0 (Standard DOC)	NA	SSRP	
52	s51n2w31-b	1066.5	Willow River (S-117)	Watercourse	Atlin	51	24	31	13	SWNE	0	HDD	N/A	134	50	0	50	N/A	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020) HDD Plan (10/2019)	Regen Report A34 (SOB: High, NPC: Partial S1-S3)	NA - HDD	NA	Public Water HDD Crossing Typical	
53	s51n2w27-a	1069.7	Missouri River (M)	Watercourse	Atlin	51	24	27	0	Meandered waterbody	99	HDD	N/A	245	50	0	50	N/A	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020) HDD Plan (10/2019)	Canoe Route Regen Report A36A	NA - HDD	NA	Public Water HDD Crossing Typical	
54	s51n2w26-a	1070.9	Unnamed Stream (S-122-001)	Trout Stream	Atlin	51	24	26	41	NESE	0	Modified Dry Crossing	N/A	37	95	45	50	Span in-stream support	MDNR Fisheries Exemption (Granted 10B/2020)	SSCP (10/2020)	Regen Report A37A	Regen Report A37: the burial processes at this site are impaired by a beaver dam downstream, the site is not applicable to a Roagen geomorphic survey	6.0	4 / 5	SSRP
55	s51n2w27-a	1075.5	Unnamed Stream (S-120-005-001-005)	Watercourse	Atlin	51	23	27	24	SENW	0	Modified Dry Crossing	Push Pull ⁸	16	95	45	50	Span	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020)	Regen Report A37C: the burial processes are impaired due to hydrologic impoundment; the site is not applicable to a Roagen geomorphic survey	4.7	2 / 2	SSRP	
56	s51n2w23-a	1076.9	West Savanna River (M-120-005-001)	Watercourse	Atlin	51	23	23	43	SWSE	0	Dry Crossing	Modified Dry Crossing	77	95	45	50	Span in-stream support	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020)	Regen Report A37C: the burial processes are impaired due to hydrologic impoundment; the site is not applicable to a Roagen geomorphic survey	6.1	2 / 2	SSRP	
57	s51n2w20-a	1085.9	East Savanna River (S-002-031)	Watercourse	St. Louis	51	21	20	31	NESE	0	HDD	N/A	79	50	0	50	Span	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020) HDD Plan (10/2019) HDD Bridge Plan (7/2019)	Regen Report A64	NA - HDD	NA	Public Water HDD Crossing Typical	
58	s51n2w27-a	1064.0	Unnamed Stream (S-002-028)	Watercourse	St. Louis	51	20	27	23	SWNW	0	Dry Crossing	N/A	41	95	45	50	Span in-stream support	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020)	Regen Report A76	6.7	2 / 2	SSRP	
59	s51n2w35-a	1065.9	Unnamed Stream (S-002-027)	Watercourse	St. Louis	51	20	35	31	NESE	0	Dry Crossing	Modified Dry Crossing	15	95	45	50	Span in-stream support	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020)	Regen Report A77	6.2	7.7 / 2	Public Water Watercourse (Managed as waterbody) Crossing Typical	
60	s50n2w2-a	1066.7	Atlin River (S-002-026)	Watercourse	St. Louis	50	20	2	11	NENE	1	Dry Crossing	Modified Dry Crossing	38	95	45	50	Span in-stream support	Public Water Cool/ Warm Water Fishery - No in-channel work from March 15-June 30	SSCP (10/2020)	Regen Report A78: the burial processes at this site are impaired by a beaver dam downstream, the site is not applicable to a Roagen geomorphic survey	5.3	2 / 2	SSRP	
63a	s48n17e4-a	1115.6	Unnamed Stream (S-002-009-001-002)	Trout Stream (non-designated)	Carlton	48	17	6	43	SWSE	0	Dry Crossing	Modified Dry Crossing	17	95	45	50	N/A (draw lane does not cross waterbody)	Public Water COLDWATER Fishery - no in-channel work from September 15-June 30; 48 hr notice required to FDL prior to initiation of crossing	SSCP (10/2020)	Regen Report 60	Aquatic Management Area (Regen Report 60) Pipeline crosses the river in two locations due to river meanders	4.3	58 / 69.8	SSRP
63b	s48n17e4-b	1115.6	Unnamed Stream (S-002-009-001-002)	Trout Stream (non-designated)	Carlton	48	17	6	43	SWSE	0	Dry Crossing	Modified Dry Crossing	11	95	45	50	Span in-stream support	Public Water COLDWATER Fishery - No in-channel work from September 15-June 30; 48 hr notice required to FDL prior to initiation of crossing	SSCP (10/2020)	MDNR Land ID No. 1791 Aquatic Management Area Regen Report 60	Pipeline crosses the river in two locations due to river meanders	4.3	100.5 / 23.9	SSRP
65	s48n17e16-f	1118.4	Little Otter Creek (S-002-009-001)	Trout Stream	Carlton	48	17	16	14	SENE	0	Modified Dry Crossing	N/A	74	95	45	50	Span in-stream support	Public Water COLDWATER Fishery - no in-channel work from September 15-June 30	SSCP (10/2020)	Reading Plan Regen Report 66	Pipeline crosses the river in two locations due to river meanders	6.2	2 / 2	SSRP
67	CR144WB	1126.2	Unnamed Stream (S-001-5-007)	Trout Stream (non-designated)	Carlton	48	16	34	12	NWNE	0	Dry Crossing	Open Cut	17	95	45	50	Span in-stream support	Public Water COLDWATER Fishery - no in-channel work from September 15-June 30	SSCP (10/2020)	Regen Report A48	Public Water HDD Crossing Typical	5.5	2 / 2	SSRP

¹Public Water watercourses, wetlands, and basins assessed from the Minnesota Geospatial Commons. Public Water features located on private lands are addressed in the Work in Public Waters application. Enbridge has reviewed ID Rec. 43, 61, 62, 64, and 66 from the application based on MDNR feedback received on 11/21/19. Enbridge created desktop waterbody data for some wetland features delineated as wetlands in the field, but to ensure a crossing method is proposed should perceptible flow develop at the time of construction.

²Proposed waterbody crossing methods are based on engineering investigations, cost/benefit, and environmental constraints. All Public Water features will be crossed "under", or below, Public Water features, as opposed to "over", or above. Low-impact crossing types such as horizontal directional drilling (HDD) are noted when applicable. It is possible that an HDD may encounter subsurface objects that prevent the drill from being successfully completed. If this occurs, Enbridge will try a slightly adjusted drill path to avoid the object.

³For delineated waterbodies, crossing length represents the proposed centerline length between the Top-of-Bank (TOB). TOB data was collected during field surveys when present. If TOB data was not available in the field, a typical 10-foot TOB was used. For Public Water basins, crossing length is the widest length of the Project where it intersects the Public Water layer and associated field delineated wetland features (if present).

⁴Construction right-of-way corridor contains both temporary workspace and operational right-of-way; the entire construction right-of-way is subject to the MDNR License to Cross Public Waters. For crossings where the HDD or bore method is proposed and no trenching or ground disturbance would occur within the licensed area if approved as proposed, a normal crossing width has been provided that represents conservative area of disturbance. Clearing over HDD paths will be limited to a 30-foot-wide area.

⁵Numbers are representative of new operational right-of-way across the Public Water feature. Enbridge will retain a 50-foot wide operational right-of-way for the Project. Crossings 18a / 18b operational right-of-ways overlap, which results in a 70-foot-wide operational right-of-way.

⁶In-channel working restrictions are not applicable to trenchless crossings (HDD or bore) or water appropriation activities.