



Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)

UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin Stationing	End Stationing	Diversions		Segment Length (mile)	Approximate Milepost	High Consequence Area
				Begin Stationing	End Stationing			
Diluent Condensate:								
Border to Clearbrook								
13	18-inch	4,100	13,045			1.69	Neché	US DW / SW Intake
13	18-inch	13,745	14,895			0.22	Neché	US DW / SW Intake
13	18-inch	15,950	26,490			2.00	Neché	US DW / SW Intake
13	18-inch	49,810	51,530			0.33	Carlisle	US DW / SW Intake
13	18-inch	64,750	66,750			0.38	Carlisle	US DW / SW Intake
13	18-inch	115,030	116,930			0.36	Joliette	ENB CNW / Red River of the North
13	18-inch	115,030	116,930			0.36	Joliette	ENB ESA / Red River of the North
13	18-inch	115,030	116,930			0.36	Joliette	US ESA
13	18-inch	122,480	124,480			0.38	Joliette	ENB CNW / Red River of the North
13	18-inch	122,480	124,480			0.38	Joliette	ENB ESA / Red River of the North
13	18-inch	122,480	124,480			0.38	Joliette	US ESA
13	18-inch	129,860	162,565			6.19	Joliette	ENB CNW / Red River of the North
13	18-inch	129,860	162,565			6.19	Joliette	ENB ESA / Red River of the North
13	18-inch	129,860	131,710			0.35	Joliette	US ESA
13	18-inch	137,260	139,110			0.35	Joliette	US ESA
13	18-inch	166,110	169,460			0.63	South Red River	ENB CNW / Red River of the North
13	18-inch	166,110	169,460			0.63	South Red River	ENB ESA / Red River of the North
13	18-inch	446,370	450,680			0.82	Rocksbury	US DW / SW Intake
13	18-inch	452,930	458,750			1.10	Rocksbury	US DW / SW Intake
13	18-inch	460,950	467,360			1.21	Rocksbury	US DW / SW Intake
13	18-inch	470,960	474,810			0.73	Rocksbury	US ESA
13	18-inch	471,710	474,110			0.45	Rocksbury	US DW / SW Intake
13	18-inch	476,581	481,400			0.91	Rocksbury	ENB DW / Wellhead
13	18-inch	535,270	541,800			1.24	Plummer	US DW / Wellhead



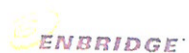
Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

</



Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin Stationing	End Stationing	Diversions		Segment Length (mile)	Approximate Milepost	High Consequence Area
				Begin Stationing	End Stationing			
Diluent Condensate:								
Clearbrook to Superior cont.								
13	20-inch	1,537,950	1,558,810			3.95	Grand Rapids	ENB DW / Wellhead
13	20-inch	1,571,490	1,572,250			0.14	La Prairie	ENB DW / Wellhead
13	20-inch	1,583,850	1,593,380			1.80	Blackberry	US ESA
13	20-inch	1,631,100	1,645,080			2.65	Warba	US ESA
13	20-inch	1,744,480	1,746,630			0.41	Floodwood	ENB DW / Wellhead
13	20-inch	1,889,650	1,891,400			0.33	Cloquet	ENB DW / Wellhead
13	20-inch	1,904,600	1,906,450			0.35	Cloquet	ENB DW / Wellhead
13	20-inch	1,929,860	1,930,810			0.18	Wrenshall	ENB DW / Wellhead
13	20-inch	1,988,060	1,995,430			1.40	Superior	US ESA
13	20-inch	2,003,930	2,006,700			0.52	Superior	ENB DW / Wellhead
13	20-inch	2,030,400	2,031,435			0.20	Superior	US DW / SW Intake
Superior to Delavan								
13	20-inch	0	3,150			0.60	Superior	US DW / SW Intake
13	20-inch	4,330	7,010			0.51	Superior	US DW / SW Intake
13	20-inch	12,590	15,040			0.46	Superior	US DW / SW Intake
13	20-inch	137,630	139,980			0.45	Solon Springs	US DW / Wellhead
13	20-inch	166,530	173,890			1.39	Gordon	US ESA
13	20-inch	198,310	205,770			1.41	Red Lake	US ESA
13	20-inch	208,600	216,480			1.49	Minong	US ESA
13	20-inch	284,820	290,750			1.12	Stanberry	US ESA
13	20-inch	301,610	303,310			0.32	Bass Lake	US ESA
13	20-inch	336,990	344,900			1.50	Stone Lake	US ESA
13	20-inch	347,080	357,440			1.96	Stone Lake	US ESA
13	20-inch	427,880	429,480			0.30	Exeland	US DW / Wellhead



Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Diversion		Segment Length (mile)	Approximate Milepost	High Consequence Area
		Begin Stationing	End Stationing			
Diluent Condensate:						
Superior to Delavan cont.						
13	20-inch	440,390	441,940	0.29	Exeland	US DW / Wellhead
13	20-inch	445,850	450,750	0.93	Murry	
13	20-inch	445,850	450,750	0.93	Murry	US ESA
13	20-inch	454,330	456,110	0.34	Murry	US ESA
13	20-inch	454,330	456,110	0.34	Murry	US ESA
13	20-inch	459,360	460,760	0.27	Murry	US ESA
13	20-inch	459,360	460,760	0.27	Murry	US ESA
13	20-inch	469,620	472,470	0.54	Murry	US ESA
13	20-inch	469,920	471,620	0.32	Murry	US ESA
13	20-inch	469,920	471,620	0.32	Murry	US ESA
13	20-inch	479,330	511,410	6.08	Thornapple	US ESA
13	20-inch	521,670	539,560	3.39	Ladysmith	US ESA
13	20-inch	528,600	533,850	0.99	Ladysmith	US ESA
13	20-inch	532,130	533,850	0.33	Ladysmith	US ESA

Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin Stationing	End Stationing	Diversion		Segment Length (mile)	Approximate Milepost	High Consequence Area
				Begin Stationing	End Stationing			
Crude Oil:								
Superior to Adams (0 - 1,201,097)								
14	24-inch	0	4,898			0.93	0	U.S. DW / SW
14	24-inch	6,098	10,949			0.92	2	U.S. DW / SW
14	24-inch	12,872	18,417			1.05	3	U.S. DW / SW
14	24-inch	139,268	141,724			0.47	27	U.S. DW / GW
14	24-inch	173,944	183,072			1.73	34	U.S. ESA
14	24-inch	173,944	183,072			1.73	34	U.S. ESA
14	24-inch	212,624	216,124			0.66	41	U.S. ESA
14	24-inch	212,624	216,124			0.66	41	U.S. ESA
14	24-inch	273,297	276,350			0.58	52	U.S. ESA
14	24-inch	280,550	286,414			1.11	54	U.S. ESA
14	24-inch	303,645	312,240			1.63	58	U.S. ESA
14	24-inch	353,278	355,189			0.36	67	U.S. ESA
14	24-inch	423,127	425,027			0.36	80	U.S. DW / GW
14	24-inch	435,220	437,220			0.38	83	U.S. DW / GW
14	24-inch	440,833	446,678			1.11	84	U.S. ESA
14	24-inch	440,833	446,678			1.11	84	U.S. ESA
14	24-inch	448,328	452,643			0.82	85	U.S. ESA
14	24-inch	448,328	452,643			0.82	85	U.S. ESA
14	24-inch	454,043	458,343			0.81	86	U.S. ESA
14	24-inch	454,043	458,343			0.81	86	U.S. ESA
14	24-inch	463,698	467,202			0.66	88	U.S. ESA
14	24-inch	463,698	467,202			0.66	88	U.S. ESA
14	24-inch	463,698	467,202			0.66	88	U.S. ESA
14	24-inch	467,812	469,919			0.40	89	U.S. ESA
14	24-inch	467,812	469,919			0.40	89	U.S. ESA

Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin		End		Segment Length (mile)	Approximate Milepost	High Consequence Area
		Stationing	Stationing	Stationing	Stationing			
Crude Oil:								
Superior to Adams (0-1-201097) cont.								
14	24-inch	467,812	469,919			0.40	89	U.S. ESA
14	24-inch	477,290	499,203			4.15	92	U.S. ESA
14	24-inch	504,946	506,657			0.32	96	U.S. ESA



Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin Stationing	End Stationing	Diversion		Segment Length (mile)	Approximate Milepost	High Consequence Area
				Begin Stationing	End Stationing			
Crude Oil:								
Superior to Delavan (0-1,703,457)								
61	42-inch	0	9,610			1.82	1	U.S. DW / SW
61	42-inch	12,490	17,490			0.95	3	U.S. DW / SW
61	42-inch	138,680	141,389			0.51	27	U.S. DW / GW
61	42-inch	172,740	182,639			1.87	34	U.S. ESA
61	42-inch	172,740	182,639			1.87	34	U.S. ESA
61	42-inch	201,690	202,940			0.24	38	U.S. ESA
61	42-inch	211,950	215,430			0.66	40	U.S. ESA
61	42-inch	211,950	215,430			0.66	40	U.S. ESA
61	42-inch	272,530	275,910			0.64	52	U.S. ESA
61	42-inch	280,040	285,920			1.11	54	U.S. ESA
61	42-inch	303,110	312,770			1.83	58	U.S. ESA
61	42-inch	352,716	354,806			0.40	67	U.S. ESA
61	42-inch	429,080	432,560			0.66	82	U.S. DW / GW
61	42-inch	441,265	443,848			0.49	84	U.S. DW / GW
61	42-inch	446,800	458,560			2.23	86	U.S. ESA
61	42-inch	446,800	458,560			2.23	86	U.S. ESA
61	42-inch	460,460	464,240			0.72	88	U.S. ESA
61	42-inch	460,460	464,240			0.72	88	U.S. ESA
61	42-inch	470,520	473,500			0.56	89	U.S. ESA
61	42-inch	470,520	473,500			0.56	89	U.S. ESA
61	42-inch	470,520	473,500			0.56	89	U.S. ESA
61	42-inch	474,450	476,800			0.45	90	U.S. ESA
61	42-inch	474,450	476,800			0.45	90	U.S. ESA
61	42-inch	474,450	476,800			0.45	90	U.S. ESA



Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin Stationing	End Stationing	Diversion		Segment Length (mile)	Approximate Milepost	High Consequence Area
				Begin Stationing	End Stationing			
Crude Oil:								
Superior to Delavan (0-1,703,457) cont.								
61	42-inch	483,630	506,580			4.35	94	U.S. ESA
61	42-inch	511,334	513,322			0.38	97	U.S. ESA



Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin Stationing	End Stationing	Diversion		Segment Length (mile)	Approximate Milepost	High Consequence Area
				Begin Stationing	End Stationing			
Crude Oil:								
U.S. Border to Clearbrook (0 - 721,214)								
65	20-inch	4,100	13,050			1.70	775	U.S. DW / SW
65	20-inch	13,400	15,350			0.37	776	U.S. DW / SW
65	20-inch	15,950	26,500			2.00	778	U.S. DW / SW
65	20-inch	49,476	51,376			0.36	783	U.S. DW / SW
65	20-inch	64,950	66,650			0.32	786	U.S. DW / SW
65	20-inch	115,250	117,200			0.37	796	Enbridge CNW / Red River
65	20-inch	115,250	117,200			0.37	796	U.S. ESA
65	20-inch	122,850	124,800			0.37	797	Enbridge CNW / Red River
65	20-inch	122,850	124,800			0.37	797	U.S. ESA
65	20-inch	130,100	132,200			0.40	799	Enbridge CNW / Red River
65	20-inch	130,100	132,200			0.40	799	U.S. ESA
65	20-inch	137,450	139,500			0.39	800	Enbridge CNW / Red River
65	20-inch	137,450	139,500			0.39	800	U.S. ESA
65	20-inch	143,500	146,350			0.54	801	Enbridge CNW / Red River
65	20-inch	147,000	149,100			0.40	802	Enbridge CNW / Red River
65	20-inch	155,900	158,650			0.52	804	Enbridge CNW / Red River
65	20-inch	166,500	169,500			0.57	806	Enbridge CNW / Red River
65	20-inch	449,530	453,720			0.79	859	U.S. DW / SW
65	20-inch	455,970	462,030			1.15	861	U.S. DW / SW
65	20-inch	464,180	470,630			1.22	862	U.S. DW / SW
65	20-inch	474,250	477,850			0.68	864	U.S. ESA
65	20-inch	474,850	477,200			0.45	864	U.S. DW / SW
65	20-inch	480,000	484,100			0.78	865	Enbridge DW / GW
65	20-inch	538,750	540,550			0.34	876	U.S. DW / GW



Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
 UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin Stationing	End Stationing	Diversion		Segment Length (mile)	Approximate Milepost	High Consequence Area
				Begin Stationing	End Stationing			
Crude Oil:								
U.S. Border to Clearbrook (0 - 721,214) cont.								
65	20-inch	541,880	544,980			0.59	877	U.S. DW / GW
65	20-inch	596,400	600,050			0.69	887	Enbridge DW / GW
65	20-inch	692,600	694,250			0.31	905	Enbridge DW / GW
65	20-inch	719,748	721,214			0.28	910	Enbridge DW / GW



Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin	End	Diversion		Segment Length (mile)	Approximate	High Consequence Area
		Stationing	Stationing	Begin Stationing	End Stationing		Milepost	
Crude Oil:								
Viking to Clearbrook (395,630-719,920) cont.								
67	36-inch	692,600	694,500			0.36	904	ENB DW / GW
67	36-inch	719,850	721,000			0.22	909	ENB DW / GW
Clearbrook to Deer River (719,920-1,177,820)								
67	36-inch	788,200	796,050			1.49	923	U.S. ESA
67	36-inch	799,050	809,600			2.00	925	U.S. ESA
67	36-inch	834,000	843,350			1.77	932	U.S. ESA
67	36-inch	870,550	883,850			2.52	939	U.S. ESA
67	36-inch	887,250	892,750			1.04	941	U.S. DW / GW
67	36-inch	910,000	927,550			3.32	946	U.S. DW / GW
67	36-inch	910,000	930,350			3.85	947	U.S. ESA
67	36-inch	910,000	934,900			4.72	947	U.S. ESA
67	36-inch	959,100	962,000			0.55	955	ENB DW / GW
67	36-inch	959,800	972,850			2.47	956	U.S. ESA
67	36-inch	982,000	996,750			2.79	960	U.S. ESA
67	36-inch	1,008,500	1,012,750			0.80	964	U.S. ESA
67	36-inch	1,023,600	1,036,300			2.41	968	U.S. ESA
67	36-inch	1,038,850	1,041,150			0.44	970	U.S. ESA
67	36-inch	1,043,250	1,051,000			1.47	971	U.S. ESA
67	36-inch	1,057,000	1,068,800			2.23	974	U.S. ESA
67	36-inch	1,066,300	1,078,150			2.24	976	U.S. ESA
67	36-inch	1,088,000	1,106,850			3.57	981	U.S. ESA
67	36-inch	1,116,500	1,128,400			2.25	985	U.S. ESA
67	36-inch	1,124,300	1,128,250			0.75	986	ENB CNW / Mississippi River
67	36-inch	1,129,650	1,146,800			3.25	988	U.S. ESA



Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin Stationing	End Stationing	Diversion		Segment Length (mile)	Approximate Milepost	High Consequence Area
				Begin Stationing	End Stationing			
Crude Oil:								
Viking to Clearbrook (395,630-719,920) cont.								
67	36-inch	692,600	694,500			0.36	904	ENB DW / GW
67	36-inch	719,850	721,000			0.22	909	ENB DW / GW
Clearbrook to Deer River (719,920-1,177,820)								
67	36-inch	788,200	796,050			1.49	923	U.S. ESA
67	36-inch	799,050	809,600			2.00	925	U.S. ESA
67	36-inch	834,000	843,350			1.77	932	U.S. ESA
67	36-inch	870,550	883,850			2.52	939	U.S. ESA
67	36-inch	887,250	892,750			1.04	941	U.S. DW / GW
67	36-inch	910,000	927,550			3.32	946	U.S. DW / GW
67	36-inch	910,000	930,350			3.85	947	U.S. ESA
67	36-inch	910,000	934,900			4.72	947	U.S. ESA
67	36-inch	959,100	962,000			0.55	955	ENB DW / GW
67	36-inch	959,800	972,850			2.47	956	U.S. ESA
67	36-inch	982,000	996,750			2.79	960	U.S. ESA
67	36-inch	1,008,500	1,012,750			0.80	964	U.S. ESA
67	36-inch	1,023,600	1,036,300			2.41	968	U.S. ESA
67	36-inch	1,038,850	1,041,150			0.44	970	U.S. ESA
67	36-inch	1,043,250	1,051,000			1.47	971	U.S. ESA
67	36-inch	1,057,000	1,068,800			2.23	974	U.S. ESA
67	36-inch	1,066,300	1,078,150			2.24	976	U.S. ESA
67	36-inch	1,088,000	1,106,850			3.57	981	U.S. ESA
67	36-inch	1,116,500	1,128,400			2.25	985	U.S. ESA
67	36-inch	1,124,300	1,128,250			0.75	986	ENB CNW / Mississippi River
67	36-inch	1,129,650	1,146,800			3.25	988	U.S. ESA

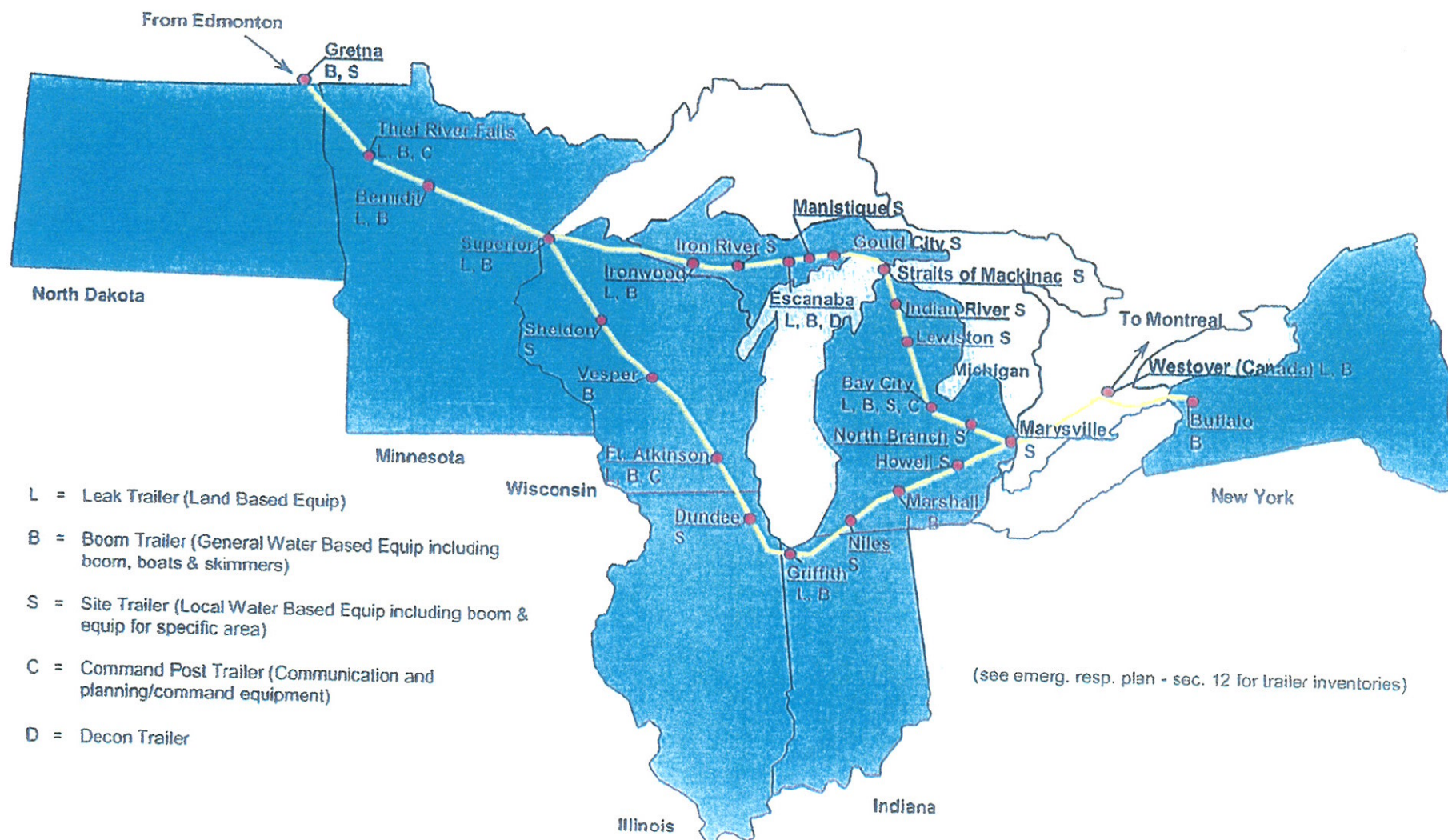


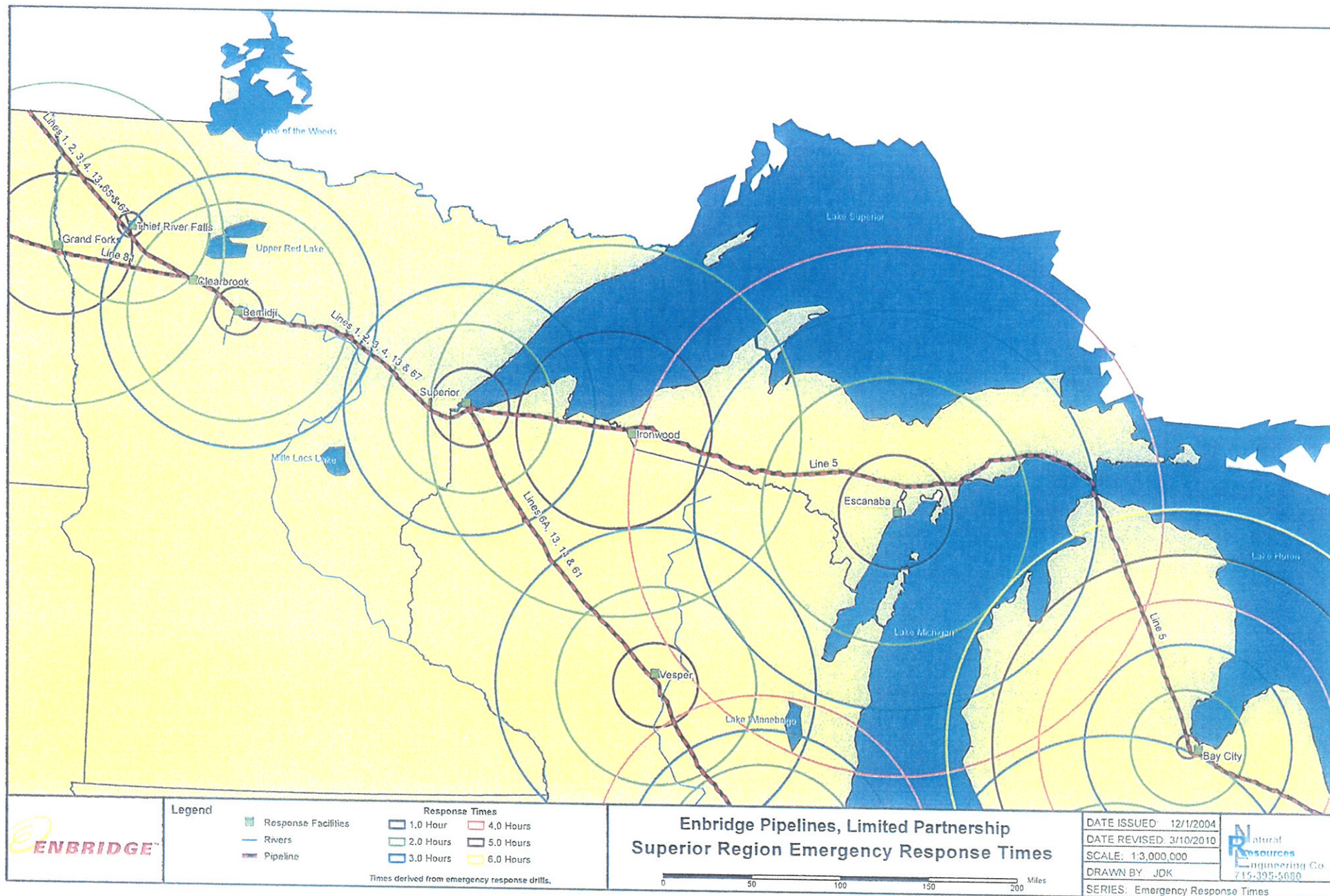
Superior Region Response Zone- Drinking Water (DW), Environmentally Sensitive Areas (ESA) and Commercially Navigable Waterways (CNW)
UNUSUALLY SENSITIVE AREA PIPE SEGMENTS BY STATIONING - TRANSPORT IMPACT

Line	Diameter	Begin	End	Diversion		Segment Length (mile)	Approximate Milepost	High Consequence Area
		Stationing	Stationing	Begin Stationing	End Stationing			
Crude Oil:								
Clearbrook to Deer River (719,920-1,177,820) cont.								
67	36-inch	1,143,550	1,146,800			0.62	990	ENB CNW / Mississippi River U.S. ESA / Deer River
67	36-inch	1,167,150	1,178,150			2.08	995	
Deer River to Superior (1,177,820-1,749,260)								
67	36-inch	1,188,800	1,195,050			1.18	998	U.S. ESA
67	36-inch	1,230,400	1,251,550			4.01	1008	ENB DW / GW
67	36-inch	1,264,000	1,264,800			0.15	1012	ENB DW / GW
67	36-inch	1,326,000	1,327,000			0.19	1023	U.S. ESA
67	36-inch	1,330,250	1,333,850			0.68	1024	U.S. ESA
67	36-inch	1,437,000	1,439,550			0.48	1044	ENB DW / GW
67	36-inch	1,582,250	1,584,150			0.36	1072	ENB DW / GW
67	36-inch	1,597,550	1,599,300			0.33	1074	ENB DW / GW
67	36-inch	1,622,550	1,623,850			0.25	1079	ENB DW / GW
67	36-inch	1,679,750	1,688,350			1.63	1091	U.S. ESA
67	36-inch	1,696,550	1,699,650			0.59	1093	ENB DW / GW
67	36-inch	1,712,700	1,714,500			0.34	1096	U.S. DW / SW
67	36-inch	1,719,300	1,723,800			0.85	1097	U.S. DW / SW

Enbridge Energy Limited Partnership

Major Response Equipment Staging Areas





Control Point Maps



CONTROL POINTS

Control Point Map Process
Control Point Map Record



CONTROL POINT MAPPING

Enbridge Transportation North Liquids System

As part of an emergency response readiness program Enbridge has developed Control Point Map sets to be used as a tool for training during spill response activities, and communications. Information gathered on other projects (High Consequence Area analysis, river bank stabilizations, stream risk ranking, etc...) is used in conjunction with relevant pre-existing information, data from governmental agencies such as the U.S. Army Corps of Engineers and the U.S. Geological Survey. Aerial and ground confirmation of the control points is performed as a means to field truth the data. Annual control point reviews are conducted and updates are incorporated into the control point maps. Efficiency and control point mapping enhancements are made by qualified emergency response personnel.

Refer to Book 7: Emergency Response for criteria relevant to Control Point Mapping procedures.

As required in the Federal Response Framework and Area Contingency Plans, attached is a list of the Control Point Maps significant to this region planning for low-probability, high consequence scenarios. Full sets of Control Point Maps are maintained in the regional offices.