Attachment B

Minnesota Public Utilities Commission Route Permit Proceedings, Selected Findings and Conclusions from the October 26, 2018 Minnesota Public Utilities Commission Route Permit Order regarding the Natural Environment, Including Waters, and Natural Resources

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- ***The Project's Preferred Route***

  - "Enbridge states that it developed the APR [Preferred Route] based on Enbridge's extensive pipeline routing experience, knowledge of applicable federal and state regulations, and input from agencies, customers, landowner, and others. Enbridge conducted its own analysis of route alternatives, considering constraints and opportunities, before identifying a general preferred route. Thereafter Enbridge conducted environmental and engineering surveys to refine the route with the goal of avoiding or minimizing human and environmental impacts, and identifying measures to limit potential harms from building or operating the Project. Through this process, Enbridge says that it has made more than 50 adjustments to the APR [Preferred Route] to minimize harms." (p. 11).

- ***Rejection of RA-07 and RA-08***

  - RA-07 "…poses an insurmountable problem: Enbridge's easements for its six pipelines crossing the Fond du Lac and Leech Lake Reservations expire in 2029, and Leech Lake refuses to grant any extension to this easement. Consequently, Commission adoption of any route crossing the Leech Lake Reservation—that is, RA-07 or -08—would *at most* authorize Enbridge to build a pipeline that would likely have to discontinue operations by 2029." (emphasis in original) (p. 27).

  - "Due to Leech Lake's objection to any route crossing its reservation, neither RA-07 nor RA-08 remain viable alternatives for the Line 3 Project. Consequently the Commission will exclude these routes from further analysis." (p. 28).

- ***Comparison of the APR [Preferred Route], RA-03AM, and RA-06***

  - "Having eliminated RA-07 and RA-08 from consideration, the Commission must choose among the APR [Preferred Route], RA-03AM, and RA-06. None of these routes is superior in every respect; each has its strengths and weaknesses, as illustrated by a sample of the data from the FEIS in Table 1 below:

Table 1: Comparative Statistics on Route Alternatives

	APR	RA-03AM	RA-06
Pipeline Length from Clearbrook to Carleton in Miles			
Total Length (Miles)	220.9	**275.1**	196.7
New Right-of Way (Miles)	59.8	12.9	**156.5**
Co-Location with Exiting Infrastructure from Clearbrook to Carleton			
Co-Located with Existing Infrastructure (Percentage)	73	**95**	20
Oil/Gas Pipeline (Miles)	66.2	**223.6**	40.3
Transmission/Utility Lines (Miles)	**92**	13.8	0
Roads (Miles)	2.9	**24.8**	0
Land Use Types Crossed from Clearbrook to Carlton in Acres			
Construction			
Agricultural	561.6	**1611.1**	256.7
Developed	94	**385.8**	65.4
Forested	**1446.5**	1137.7	1107.3
Open Land	307.7	**399.6**	354.2
Open Water	6.4	17	**81.8**
Wetlands	490.6	509.1	**996.3**
Operation			
Agricultural	251.6	**676.8**	107.4
Developed	45.5	**157.8**	26.4
Forested	631	**470.5**	460.9
Open Land	151	**143.5**	148.6
Open Water	3.8	**7.1**	33.7
Wetlands	254.2	**211.2**	415.3
Potential Noise and Vibration Impacts			
Number of Sensitive Noise Receptors	524	**1507**	328
Number of Sensitive Vibration Receptors	5	**13**	2
Potential Impacts on Aesthetics and Visual Resources			
Indian Reservations Affected (Acres)	0	0	**79**
Special Management Areas (Acres)	439	32	**875**
Scenic Byway Crossings	4	**6**	2
Scenic River/River Trail Crossings	2	**4**	1
Highly Visually Sensitive Travel Routes Crossed	95	**138**	46
Residences with 300 Feet of Work Area	78	**368**	76
Permanent Loss of Forested Areas for Right-of-Way (Acres)	**631**	471	461
Potential Impacts on Housing			
Residences within Construction Work Area	6	**16**	9
Residences within 50 Feet of Construction Work Area	7	**39**	8
Structures within Permanent Right-of-Way	**18**	3	7
Potential Impacts on Transportation and Public Services			
Road and Highway Crossings	164	**329**	112
Rail Crossings	2	**11**	4
Utility Crossings	67	**106**	51
Airports within 20,000 Feet	**1**	0	0
Potential Impacts on Groundwater			
Domestic Wells	164	**396**	40
Public Wells	1	**10**	0
Wellhead Protection Areas (Acres)	0.6	**329**	56

	APR	RA-03AM	RA-06
Drinking Water Supply Management Areas (Acres)	172	**849**	131
Karst Topography (Acres)	0	**2547**	0
Potential Impacts on Surface Waters			
Waterbody Crossings	109	**167**	137
Surface Flow Crossing Only	94	**153**	121
Impaired Water Crossings	13	**14**	1
TMDL Study Area Crossings	3	**6**	1
Trout Stream Crossings	6	**9**	8
National Rivers Inventory-Listed River Crossings	**7**	1	2
Wild Rice Waterbodies	5	**6**	5
Mississippi Headwater Crossings	1	1	0
Mississippi River Crossings	2	2	0
Permanent Loss/Alteration of Forested Wetlands (Acres)	62	48	**228**
Permanent Loss/ Alteration of Scrub/Shrub Wetlands (Acres)	**108**	84	104
Potential Impacts to Public Lands, Cultural Resources, and Other			
Loss or Alteration of Habitat in WCAs (Acres)	**159**	19	135
Impacts on MCBS Sites (Acres)	382	156	**481**
Impacts to Federal Lands Due to Right-of-Way (Acres)	2	11	**38**
Impacts to State Lands Due to Right-of-Way (Acres)	199	14	**331**
Impacts to County Lands Due to Right-of-Way (Acres)	**228**	119	5
Known archaeological/historic sites directly affected by construction	8	**13**	1
Miles of Populated Areas Crossed by Pipeline Centerline	2.9	**14.9**	3.4

(emphasis added) (pp. 28-29).

- ***The natural environment, public and designated lands, including but not limited to natural areas, wildlife habitat, water, and recreational lands***

    * "Each of the routes considered would affect the natural environment—and the Commission will address many of those consequences further below. At this point, the Commission will address two topics: pipeline length and karst topology.

      Environmental consequences tend to increase with pipeline length. At a length of 275.1 miles between Clearbrook and Carlton, RA-03AM is the longest route alternative under consideration. Construction of this route would require the greatest amount of land disruption. It would require the greatest number of pumping stations, and require the greatest amount of energy (and generate the greatest amount of emissions) to operate. And it would provide the greatest opportunity for a third party to accidentally come into contact with the pipeline while farming a field or developing a building. Both the APR [Preferred Route] and RA-06 are shorter, at 220.9 miles and 196.7 miles, respectively.

      In addition, a leak along RA-03AM's route would pose unique threats to surface and ground water. As previously noted, the route crosses the Mississippi River and its tributaries just upstream of the drinking water

intakes for St. Cloud. And RA-03AM crosses known karst conditions along approximately 12 miles (and 2547 acres) of its route through Pine County. In contrast, no known karst features are present along the APR [Preferred Route] or RA-06.

These facts weigh against RA-03AM." (p. 33).

- ***Natural Resources and Features***

  - Because RA-03AM is the longest route analyzed—roughly 54 miles longer than the APR [Preferred Route]—it inevitably requires disturbing more acreage than any other route. It crosses 67 more waterbodies (13 of which are considered major) and 23 more Minnesota public waters inventory streams than the APR[Preferred Route]. Due to its length, RA-03AM would require the construction of an additional pump station, thereby increasing air emissions by 15 percent and power consumption by 131 gigawatt-hours/year compared to the APR[Preferred Route].

  - RA-06 avoids Minnesota's Lake Region and the Mississippi Headwaters, but still crosses 27.9 more miles of National Wetlands Inventory wetlands—including 23 more miles of forested wetlands, and 27 more waterbodies—than the APR[Preferred Route]. And, significantly, it cuts through the Chippewa National Forest.

  - On balance, these factors favor the APR[Preferred Route]." (p. 38).

- ***The extent to which human or environmental effects are subject to mitigation by regulatory control and by application of the permit conditions contained in part 7852.3400 for pipeline right-of-way preparation, construction, cleanup, and restoration practices***

  - "Enbridge has made more than 50 alterations to its initial APR [Preferred Route] in order to mitigate the Project's effects on people and the environment, and the Pipeline Routing Permit contains multiple plans for mitigating the Project's harms."

  - "While oil spills would affect the natural environment, the conditions attached to the Pipeline Routing Permit mitigate those risks to the extent possible. For example, the permit's Environmental Protection Plan addresses spill prevention, containment, and control measures; invasive species management measures; and erosion and sediment control measures along the edge of the construction workspace, and while crossing hydrologically connected waterbodies.

    On balance, these factors do not favor one routing alternative over another." (p. 39).

- ***Cumulative potential effects of related or anticipated future pipeline construction***

  - The FEIS addresses the possible cumulative effects of a new pipeline corridor in Chapter 12, "…including effects on planning and zoning laws; aesthetics, vegetation, wildlife, agriculture and timber production; cumulative spill risk; and contribution to climate change. Regarding spill risk, the EERA clarified that the choice to install a mile of pipe in one location rather than another would obviously shift the location of any oil spill risk, but would not have much effect on the overall likelihood of a spill.

    The Commission will not pre-judge the appropriate route for any future pipeline. That said, given that neither in-trench replacement nor the No Action options are viable alternatives, any choice the Commission makes will entail authorizing some length of new pipeline corridor for the Project—a fact that may influence future pipeline routing cases. But this dynamic, by itself, does not favor the APR[Preferred Route], RA-03AM, or RA-06.

    That said, the APR[Preferred Route] combined with RSA-22 would share or parallel existing rights-of-way for all or nearly all of its length. This fact favors the APR[Preferred Route] combined with RSA-22." (p. 40).

- ***Commission Action – Route Alternative***

  - "… [A]mong the many factors that influenced the Commission's decision, some of the most prominent factors are the qualities that the APR[Preferred Route] does not have. Unlike RA-07 and -08, the APR[Preferred Route] does not rely on obtaining unobtainable consent from Leech Lake. Unlike RA-06, the APR[Preferred Route] does not rely on clearing large swaths of forest land in the Chippewa National Forest and other areas, with all the habitat fragmentation that that would entail. And unlike RA-03AM, the APR[Preferred Route] does not pass through nine cities, cross karst topology or the Mississippi just north of St. Cloud, or prolong the operation of the Existing Line 3 by years as Enbridge seeks to secure the miles of additional property rights. The Commission appreciates the role of EERA and the MDNR in clarifying the challenges posed by each route, but especially RA-03AM." (p. 42).

- ***Commission Action – Route Segment Alternatives***

  - "Enbridge agreed to adopt RSA-05 to route the Project further away from a wild rice watershed. The Commission finds this route segment alternative best balances the competing needs in that region, and so will approve it."

* "In order to better manage the risk that the Project could develop a leak where it crosses LaSalle Creek, MDNR proposed RSA-10 to shift the crossing point further from Big LaSalle Lake and closer to roads. However, this alternative would also route the Project closer to several residences and next to Itasca State Park, and the new route would be difficult to reconcile with a new Commission-approved transmission line. Accordingly, the Commission will decline this route segment alternative."

* "Similarly, in order to better manage the risk that the Project could develop a leak where it crosses Shell River, MDNR proposed RSA-15 to shift the Project further from the Upper Twin Lake and closer to roads, avoiding the Shell River entirely. However, this alternative would also route the Project closer to residences and across a US Fish and Wildlife Service easement. Moreover, the new route's proximity to the highway, homes, a power line and a substation would complicate construction. Accordingly, the Commission will decline this route segment alternative as well."

* "In contrast, the Commission will adopt RSA-22 as negotiated between Fond du Lac and Enbridge. As previously noted, this segment alternative permits the pipeline to avoid the Sandy River, which flows into Big Sandy Lake. This lake is celebrated not only for its fishing recreation, but also as a cultural site central to the histories of various Native American tribes. Tribal accounts and the records of fur traders show that the Anishinaabe have gathered wild rice and harvested plants in the Big Sandy Lake and Rice Lake watersheds for centuries."

* "Moreover, the Sandy River crossing is one of a collection of resource conflicts created by the APR[Preferred Route] traversing the Mississippi Headwaters and Minnesota's Lakes region" These conflicts are documented in the FEIS. "By following RSA-22, the Project avoids nearly all of these resource conflicts."

  RSA-22 also has the advantage of routing all or nearly all of the Project along existing pipeline and transmission line corridors. Finally, RSA-22 shortens the APR[Preferred Route], and thus should be expected to reduce the cost, disruption, fragmentation of natural resources, and risk of spill, among other burdens associated with length. The Commission notes that Enbridge and the EERA each acknowledged that adoption of RSA-22 would improve the APR[Preferred Route]." (pp. 42-43).