

February 1, 2021 WDNR L5WSRP Data Request Response (*Clarification for Data Request Question 18 only*)

Excerpt from EIR Section 3.1.4 (with revisions shown in red)

3.1.4.1 Route Alternative RA-01

Enbridge identified route alternative (“RA-01”) to minimize the overall pipeline length. Route Alternative RA-01 would be located outside of, but near to the exterior boundary of the Reservation and is the shortest identified route that would avoid the Reservation. A comparison of environmental resources potentially impacted by RA-01 and the proposed route is presented in Table 3.1.4-1.

As shown in Table 3.1.4-1, RA-01 is approximately 31.4 miles in length, or approximately 9.7 miles shorter than the proposed route. Due to its shorter length, RA-01 would cost approximately \$95.8 million less to construct than the proposed route. Based on a standard construction right-of-way width of 120 feet, RA-01 has the potential to impact approximately 141.5 fewer acres during construction, cross 13 fewer waterbodies (based on WDNR 24k Hydrography Dataset information), and cross approximately 73.1 fewer acres of Federal, State, or County owned land than the proposed route. However, RA-01 has the potential to have increased wetland impacts, cross more emergent/wet meadow classified wetlands, deciduous forest, prime and statewide importance farmland soils, and cross additional roadways.

Additionally, RA-01 would cross approximately 0.5 mile of the Copper Falls State Park. Portions of the park, including Copper Falls (a section of the Bad River) have been designated as an Area of Special Natural Resource Interest (“ASNRI”) and a State Natural Area (“SNA”). ASNRI include designated state natural areas, designated trout streams, waters or portions of waters inhabited by any endangered, threatened, special concern species or unique ecological communities identified in the Natural Heritage Inventory, wild rice waters, federal or state waters designated as wild or scenic rivers, waters in ecologically significant coastal wetlands along Lakes Michigan and Superior as identified in the Coastal Wetlands of Wisconsin, waters in areas identified in a special area management plan or special wetland inventory study. SNAs protect outstanding examples of Wisconsin’s native landscape of natural communities, significant geological formations, and archeological sites (WDNR 2019). Additionally, RA-01 would potentially cross through a portion of the Copper Falls State Park that is listed on the National Register of Historic Places and Wisconsin State Register (NRHP # 05001425).

Although RA-01 would be technically feasible and less expensive to construct, and meet the Project objective, Enbridge determined that RA-01 would not convey a significant environmental advantage over the proposed route and would introduce additional environmental impacts to state owned lands that the proposed route would avoid. Based on this environmental analysis, including the introduction of resource impacts on state owned lands that the proposed route would avoid, Enbridge rejected this alternative for the Project.

3.1.4.2 Route Alternative RA-02

Enbridge identified a second route alternative (“RA-02”) located farther from the Reservation boundary and that avoids Copper Falls State Park. A comparison of environmental resources potentially impacted by RA-02 and the proposed route is presented in Table 3.1.4-1.

As shown in Table 3.1.4-1, RA-02 is approximately 58 miles in length, or approximately 16.9 miles longer than the proposed route. RA-02 would cost approximately \$134 million more to construct due to its longer length. Based on a standard construction right-of-way width of 120 feet, RA-02 has the potential to impact approximately 245.7 additional acres for construction, require clearing approximately 207.6 additional acres of forest, cross 19 additional waterbodies, including trout streams and WDNR priority navigable waterway crossings (based on WDNR 24k Hydrography Dataset information), and disturb approximately 33.7 additional acres of Wisconsin Wetland Inventory (“WWI”) mapped wetlands.

RA-02 would potentially affect more than three times the state listed species occurrences as the proposed route, despite being only approximately 30 percent longer, likely due to the proximity to the Chequamegon Nicolet National Forest. In addition, RA-02 would have more impacts on forested habitats (including forested wetlands) which take a longer time to recover after construction.

RA-02 has the potential to cross approximately 86.5 fewer acres of Federal, State, or County owned land than the proposed route, fewer Migratory Bird Concentration Areas, and fewer acres of highly wind erodible soils and agricultural land.

Although RA-02 would be technically feasible to construct and meet the project objective, Enbridge determined that RA-02 did not convey a significant environmental advantage over the proposed route. Based on this environmental analysis, as well as additional costs to construct Enbridge rejected this alternative for the Project.

3.1.4.3 Route Alternative RA-03

In response to the Bad River Band’s lawsuit that requests Enbridge remove the existing Line 5 from not only the Reservation, but the watershed identified by the Bad River Band, Enbridge also evaluated a route alternative (“RA-03”) that would be located outside the WDNR-designated sub-watersheds having surface flow connectivity into the Reservation. A comparison of environmental resources potentially impacted by RA-03 and the proposed route is presented in Table 3.1.4-1.

As shown in Table 3.1.4-1, potential environmental impacts associated with RA-03 are generally much greater than the proposed route. RA-03 is approximately 101.6 miles in length, or approximately 60.5 miles longer than the proposed route. RA-03 would cost approximately \$479.1 million more to construct due to its longer length. Based on a standard construction right-of-way width of 120 feet, RA-03 has the potential to impact approximately 878.9 additional acres for construction, including approximately 711 acres of additional coniferous, deciduous, and mixed forest clearing. RA-03 would disturb

approximately **319.7** additional acres of WWI-mapped wetlands, of which approximately **326.2** acres are forested wetland. The route would also disturb approximately **767.9** additional acres of Federal, State, or County-owned public land, including crossing potentially 28 miles of new, greenfield crossing of the Chequamegon-Nicolet National Forest. RA-03 has the potential to cross the Island Lake Hemlocks Area of Special Natural Resource Interest and the Namekagon River, which is a Wild and Scenic River.

While RA-03 has the potential to cross **21 more perennial** waterbodies (based on WDNR 24k Hydrography Dataset information), there would likely be a significant increase in impacts on wetlands, forested habitats, sensitive species, perennial waterbody crossings, designated trout streams, and road crossings as compared to the proposed route, causing an overall greater environmental impact from the Project.

Due to the additional pipe length, RA-03 would also require the construction of an additional pump station and associated appurtenances, and decommissioning of the Ino pump station. While pump stations themselves are not significant sources of air emissions, the electricity required to run the pump station contributes to an increase in indirect air emissions that would not be realized with the proposed route.

Although RA-03 would be technically feasible to construct and meet the project objective, Enbridge determined that RA-03 did not convey a significant environmental advantage over the proposed route. Based on this environmental analysis, as well as the potential for RA-03 to significantly increase natural resources impacts, including greater forested habitats (both upland and wetland), and constructability and operational costs, Enbridge rejected RA-03 for the Project.

Table 3.1.4-1: Environmental Features Comparison—Route Alternatives

Environmental Features	Unit	Proposed Route Length ^a : 41.1 miles Route Corridor ^b : 598.0 acres	Route Alternative RA-01	Route Alternative RA-02	Route Alternative RA-03
			Route Length ^a : 31.4 miles Route Corridor ^b : 456.5 acres	Route Length ^a : 58 miles Route Corridor ^b : 843.7 acres	Route Length ^a : 101.6 miles Route Corridor ^b : 1,476.9 acres
Wetland Crossing Length—WWI	miles	4.2	5.3	6.5	26.2
Wetland Crossed—NWI					
PEM	acres	2.0	1.7	1.1	7.7
PSS	acres	2.0	2.1	9.7	51
PFO	acres	26.1	22.3	40.2	304.5
Wetland Crossed—WWI					
Emergent/wet meadow	acres	2.7	7.8	8.7	7.2
Scrub/shrub	acres	2.7	8.0	12.3	45.6
Forested	acres	53.9	56.1	72	326.2
State-Listed Species Occurrences ^c	number	27	14	87	85
Migratory Bird Concentration Areas	number	1	1	0	0
Agricultural Land ^d	acres	84.1	29.8	55.1	2.4
Coniferous Forest ^d	acres	56.5	56.5	69.0	387.4

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			Route Length ^a : 31.4 miles Route Corridor ^b : 456.5 acres	Route Length ^a : 58 miles Route Corridor ^b : 843.7 acres	Route Length ^a : 101.6 miles Route Corridor ^b : 1,476.9 acres
Broad-leaved Deciduous Forest ^d	acres	297.7	222.8	488.2	655.7
Mixed Deciduous/Coniferous Forest ^d	acres	3.5	3.6	8.1	25.8
Prime and Statewide Importance Farmland Soils	miles	11.5	13.9	15.1	16.6
Hydric Soils	miles	2.2	1.6	5.0	25.4
Highly Wind Erodible Soils	miles	7.4	4.3	2.7	28.5
Intermittent / Fluctuating Waterbody Crossings—WDH	number	38	29	38	9
Perennial Waterbody Crossings—WDH	number	17	13	36	38
Designated Trout Stream Crossings	number	15	12	20	25
WDNR Priority Navigable Waterways Crossings	number	15	15	21	17
Wild and Scenic Rivers	number	0	0	0	1
Wild Rice Production Areas	number	0	0	0	0
Areas of Special Natural Resource Interest Crossings (WDNR owned)	number	0	1	0	1
Federal, County, and State-Owned Lands	acres	107.8	34.7	21.3	875.7
WDNR-Owned Lands	miles	0	1.5	0	0.1
County Forest Land	miles	7.4	1.0	1.0	9.8
Railroad Crossings	number	4	2	1	1
Road Crossings ^e	number	39	37	50	98
Notes: ^a Centerline length. ^b A standard 120 foot corridor was used for each route comparison. ^c Based on NHI data review, includes state threatened and endangered species. ^d Wisland 2 Land Cover Data (WDNR 2019s). ^e Includes county and local roads, and state and U.S. highways. WDH – Wisconsin 24k Hydrography Dataset; NHI = Natural Heritage Inventory; NWI = National Wetlands Inventory; PEM = Palustrine Emergent; PFO = Palustrine Forested; PSS = Palustrine Scrub-Shrub; WDNR = Wisconsin Department of Natural Resources; WWI = Wisconsin Wetland Inventory					