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March 2, 2021

Ben Callan
Wisconsin Department of Natural Resources
Chief, Integration Services Section
Environmental Analysis & Sustainability Program
101 South Webster Street
Madison, WI 53707-7921

Re: WDNR Water Resources Application for Project Permits – Data Request Response

Dear Ben:

Enbridge Energy, Limited Partnership ("Enbridge") has prepared the enclosed information (provided electronically) in response to the Department of Natural Resources ("DNR"), which is in the process of preparing an Environmental Impact Statement ("EIS") for the proposed Line 5 Wisconsin Segment Relocation Project. The DNR has identified additional supporting data and clarifications needed from Enbridge Energy related to the development of the EIS and provided a data request to Enbridge on February 1, 2021.

The following provides Enbridge's response to the information requested.

If you have questions about the information presented in the attached materials, please contact me at (218) 390-9254.

Sincerely,

Joe McGaver, PE
Technical Manager Environment
Enbridge Energy, Limited Partnership

Enclosures:

- Digital copy of responses to February 1, 2021 data request

cc: w/o enclosures: Adam Mednick, Wisconsin Department of Natural Resources
Bill Sande, U.S. Army Corps of Engineers

February 1, 2021 WDNR L5WSRP Data Request Response

Data Request Question #1:
Per Enbridge's response to question #6 submitted on 12/11/20 – Provide the total quantity and percentage of light crude transported via Line 5 that is derived from North Dakota Bakken shale versus synthetic light crude derived (upgraded) from Canadian oil sands. If these quantities vary, provide a range of quantities with caveats with necessary.

Data Request Question #1 Response:
Using the 2017-2019 figures, the total quantity of light crude derived from North Dakota Bakken shale transported on Line 5 is between 64,000 and 98,000 barrels per day (annual average). This represents an approximate annual average between 16 and 25 percent of the total crude oil transported on Line 5. The Canadian portion of the light crude products shipped on Line 5 are between 302 and 347 barrels per day (annual average). This represents an approximate annual average between 75 and 84 percent of the total crude oil transported on Line 5.

Data Request Question #2:
Per Enbridge's response to question #7 submitted on 12/11/20 – Provide the cost of the project construction. If the exact cost is not known, provide a cost range (minimum to maximum), as well as explain in detail what factors contribute to the range in price and why.

Data Request Question #2 Response:
Response pending.

Data Request Question #3:
Per Enbridge's response to question #11 submitted on 12/11/20 – Provide a list of the local permits and/or approvals needed for the project. This list should provide the permit name and the issuing organization. If all of these permit authorizations have been issued, also provide the date of issuance.

Data Request Question #3 Response:
As provided in Table 2.2.8-1 of the EIR, Enbridge is seeking the following permits:

Name of Agency	Title of Permit/Approval	Date of Application / Consultation	Anticipated Date of Decision	Status
United States Army Corps of Engineers—St. Paul District	Clean Water Act Section 404	February 2020		In progress
United States Fish and Wildlife Service	Endangered Species Act Consultation	Summer 2020		In progress
Wisconsin Department of Natural Resources	Chapter 30 Permit / NR 103 Water Quality Certification	February 2020		In progress
	NR 150 Wisconsin Environmental Policy Act Compliance (joint review with the Line 5 Pipeline Project)	February 2020		In progress

	State Endangered Resources Review / Incidental Take Permit (joint review with the Line 5 Pipeline Project)	January 2020	In progress
	Temporary Water Use Permit	Summer 2020	To be Filed
	Hydrostatic Test Discharge Permit	Summer 2020	To be Filed
	WPDES General Construction Stormwater Permit—Pipeline Construction	September 2020	In progress
Wisconsin Historical Society— State Historic Preservation Officer (Section 106)	Cultural Resources Consultation, NHPA Section 106 Clearance	Fall 2019	In progress
Wisconsin Department of Administration	Coastal Zone Management Federal Consistency Review	February 2020	In progress
Wisconsin Department of Transportation	Road Crossing Permits	Summer 2020	

Notes:
NHPA - National Historic Preservation Act
WPDES - Wisconsin Pollutant Discharge Elimination System

Other local road-use or burning permits may be required on an as-needed basis during construction.

Please note that petroleum pipeline projects are governed by the federal Pipeline Safety Act (PSA), which preempts state and local statutes and rules that govern pipeline safety. The PSA unambiguously states, "a State authority may not adopt or continue in force safety standards for interstate pipeline facilities or interstate pipeline transportation." 49 U.S.C. § 60104(c).

Under the Supremacy Clause of the United States Constitution, U.S. Const. art. VI, cl. 2, state, municipal, or local "law that conflicts with federal law is 'without effect.'" *See AES Sparrows Point LNG, LLC v. Smith*, 527 F.3d 120, 125 (4th Cir. 2008) (quoting *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504, 516 (1992)). The federal government decides when and to what extent federal law preempts state, municipal, and local law. *City of Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624 (1973); *Hillsborough County, Fla. v. Automated Medical Laboratories*, 471 U.S. 707, 713 (1985). Whether a federal law preempts state legislation addressing the same matter depends upon if Congress evoked an intent to preempt state law and the degree of preemption intended. *English v. General Electric Co.*, 110 S.Ct. 2270, 2275 (1990); *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 299 (1988); *Allis Chalmers Corp. v. Lueck*, 471 U.S. 202, 208 (1985).

Federal and state courts across the country have interpreted this statement as evidence of a Congressional intent to broadly preempting state and local requirements regulating pipeline siting and safety. Further, courts have broadly interpreted Congress' preemption of pipeline safety regulation. See, e.g., *ANR Pipeline Co. v. Iowa State Commerce Commission*, s. 828 F.2d 465, 466 (8th Cir. 1987). In *ANR Pipeline*, the Eighth Circuit analyzed an Iowa statute that imposed extensive hearing, inspection, and permit requirements on pipelines and held that the NGPSA "preclude[ed] states from regulating in any manner whatsoever with respect to the safety of interstate transmission facilities"

which left "nothing to states in terms of substantive safety regulation of interstate pipelines, regardless of whether the local regulation [was] more restrictive, less restrictive, or identical to the federal standard." Id. at 470; *Tenneco Inc. v. Pub. Serv. Comm'n of W.Va.*, 489 F.2d 334, 336 (4th Cir. 1973) ("The [NGPSA's] text, its legislative history, administration, implementation, and judicial interpretation, attest to federal preemption of the field of safety with respect to the establishment and enforcement of standards regulating the interstate transmission of gas by pipeline.")[1].

The majority of reviewing courts have further rejected arguments trying to evade preemption under the PSA by claiming that local legislation regulated pipelines due to environmental or aesthetic concerns, rather than safety. See, e.g., *Northern Border Pipeline Company v. Jackson County*, Minnesota, 512 F. Supp. 1261 (D. Minn. 1981). In *Northern Border*, the District of Minnesota held that the NGPSA "preempted the entire field of gas pipeline safety," and thus, a local county could not regulate based on environmental safety concerns. Id. at 1262-66. Similarly, one California state court rejected an argument that a County's permitting regulated only environmental concerns, and thus, fell outside the purview of PSA. *Sneddon v. Torch Energy Services, Inc.*, 102 Cal. App. 4th 181, 184-87 (Cal. App. 2 Dist. 2002) (addressing federal preemption as an affirmative defense to a County's pipeline fines). The Court made clear that it was "not bound by the name, description or characterization given it by the legislature" of the state statute, and concluded that the "practical impact of the law" was that it regulated safety. *Id.* at 188.

Conversely, certain local ordinances are not preempted by the PSA. As noted above, road-use agreements, where necessary will be obtained from local governments. This distinction was previously upheld by the Western District of Wisconsin, who sided with the Town of Lima and upheld Lima's road-use laws against pipeline construction trucks damaging roads because the road-use laws were not safety regulations, and thus, were not preempted by the PSA. *Enbridge Energy v. Town of Lima*, No. 13-CV-187-BBC, 2013 WL 12109106, at *4 (W.D. Wis. Apr. 4, 2013).

To date, Enbridge has entered into road use agreements with local governments listed in Attachment A. While other local ordinances may, on their face, appear to be required for this project, a closer look reveals that many local ordinances are safety based, and the invocation of safety as the basis for an ordinance, and the need to consider safety impacts as a part of granting a permit, for example, demonstrate that the ordinance is regulating safety and therefore preempted by the PSA.

Data Request Question #4:
Per Enbridge's response to question #17 submitted on 12/11/20 – Provide the following information regarding spills analysis and potential spill impact areas as required to be performed as part of Enbridge's Integrity Management Program (IMP) under 49 C.F.R. § 195.452. Responses should be provided in a fashion that allows the question to be answered without revealing confidential or proprietary information (similar to how section 4.8 of the EIR provided information on the IMP without revealing trade secrets the IMP contained).

[1] See also Olympic Pipe Line Co. v. City of Seattle, 437 F. 3d 872 (9th Cir. 2006); Southern Cal. Gas Co. v. Occupational Safety & Health Appeals Bd., 58 Cal. App. 4th 200 (Cal. App. 2 Dist. 1997) United Gas Pipeline Co. v. Terrebonne Parish Police Jury, 319 F. Supp. 1138, 1141 (E.D. La. 1970) aff'd 445 F.2d 301 (5th Cir. 1971); accord Kinley Corp. v. Iowa Utilities Board, 999 F.2d 354 (8th Cir. 1993).

a. Confirm whether a spill and impact analysis has been conducted to determine which segments of the proposed relocated pipeline route would affect High Consequence Areas (HCAs) or Unusually Sensitive Areas (USAs), as defined in 49 C.F.R. § 195.6, in the event of a spill. If this analysis has not yet been completed, confirm when it would be conducted.
b. Summarize the nature of the spill and impact analysis performed under Enbridge's IMP, including:
    i. the type of spill(s) and maximum potential volume considered (i.e. leak size, guillotine rupture (i.e. how were release volumes calculated)).
    ii. if there are any breakout tanks, and if and how they were included in the spills analysis.
    iii. the types and sources of data used to model spills along with the parameters used to estimate the maximum potential spill volume.
    iv. the type of model(s) employed, with references if possible, along with the estimated length of time a leak is detected until pumping is stopped.
    v. assumptions made (e.g. stream velocity, effect of depth of cover, etc.).
    vi. the types and sources of data used to identify HCA's and USA's beyond those provided by National Pipeline Mapping System (NPMS).
    vii. state is an Emergency Flow Restriction Devise (EFRD) analysis was conducted on the reroute.
    viii. indicate the location on a map where the pipeline could leak into HCAs and/or USAs with the maximum drain-down volume.
    ix. indicate locations on a map of where HCA's and/or USA's could be impacted by the worst case release.
c. Summarize how the proposed 41-mile reroute of Line 5 would compare to the existing 12-mile segment of Line 5 in terms of:
    i. the total length of pipeline segments identified as affecting HCAs and USAs in the event of a spill, by HCA type as well as in aggregate, as it would be reported on Part L of the PHMSA Hazardous Liquid Annual Report Form (F7000-1.1).
    ii. the total number of HCAs that could be directly affected in the event of spills, by HCA type as listed 49 C.F.R. § 195.450 (e.g., High Population Areas, Other Populated Areas, and Unusually Sensitive Areas (Drinking Water and Ecologically Areas).
    iii. the total number of HCAs that could be indirectly affected in the event of spills, by HCA type as listed 49 C.F.R. § 195.450 (e.g., High Population Areas, Other Populated Areas, and Unusually Sensitive Areas (Drinking Water and Ecologically Areas).
    iv. the maximum and average estimated volume of releases impacting HCAs for the existing segment and the reroute.

Data Request Question #4(a) Response:
Yes, analysis to determine which segments could impact a High Consequence Area (HCA) has been completed for the proposed relocated pipeline route. This includes segments that directly intersect an HCA, as well as segments that could potentially impact an HCA via liquid transport mechanism, determined through liquid spill plume dispersion modeling. Enbridge considers 5 types of High Consequence Areas in their analysis: High Population Areas ("HPA"), Other Populated Areas ("OPA"), Commercially Navigable Waterways ("CNW"), Drinking Water USAs ("DW"), and Ecological USAs ("ESA").

The liquid spill plume model uses conservative assumptions about release scenario, the amount of product released, and the conditions of the surrounding terrain to create a worst-case "footprint" of

potential impact; represented as individual spill plumes every 100 meters down the pipe and at all water crossings. These plumes are then spatially compared against the HCA polygons in ESRI ArcGIS to determine if there are any intersects. In addition to the liquid spill plumes, Enbridge also uses a fixed 850-foot buffer around pipeline assets to represent potential of liquid spray. If an intersection exists between the spill plume/spray buffer and the HCA polygons, the corresponding segment of pipe is identified as an "HCA Could-Affect" segment.

A release of liquid product into a waterway generally represents the greatest risk of product traveling a long distance away from the pipeline in the event of a pipeline rupture, as well as the greatest threat to drinking water resources. By comparison, a release of NGL product would very quickly convert from liquid to gaseous phase, and not have the same potential for traveling downstream down waterways. A second, vapor-based model would be used to model this dense cloud-like behavior and resulting HCA Could-Affect segments. This analysis has not yet been performed but will be completed by end of Q2-2021.

Data Request Question #4(b)(i) Response:
Enbridge's Intelligent Valve Placement (IVP) methodology is conservative in so far as it assumes scenarios that are less likely and more impactful than would actually occur. Therefore, Enbridge employs a worst-case guillotine release. The IVP model assumes a complete rupture of the line occurring while the line is operating at full design throughput until the valves are closed. The model further assumes it takes a full 10 minutes for a control center operator to detect the rupture and initiate the shut-down of the pipeline prior to initiating valve closure. This assumption is conservative as Enbridge's leak detection systems and control center monitoring process are capable of detecting such a full-bore rupture almost instantaneously. Moreover, the pipeline rupture detection alarms create an immediate shutdown without intervention by human personnel. Automatic valve closure takes 3 minutes from initiation. The methodology also makes a conservative assumption that the released flow would be full design rate during the 3 minutes valve closure. The potential released volume of product until valves are closed is calculated (called "initial volume-out") based upon these assumptions. Once the valve is fully closed, the fluid remaining on the upstream and downstream segments of the pipeline start draining. The "drain-out volume" is calculated using the elevation profile and line diameter. The "total volume-out" is calculated by adding the initial volume-out and the drain-out volume. This very conservative analysis results in much larger modelled releases than would be expected under normal operating conditions. The location of valves therefore greatly impacts the drain-out volume and total volume-out. Thus, Enbridge uses IVP modeling as a design methodology to determine where valves should be placed.

To reduce the risk of impact to HCAs, Enbridge revises the pipeline design by placing proposed valves and recalculating the total volume-out with the purpose of minimizing the release impacts to the public, environments, and watercourse crossings. The process examines the pipeline segment by segment on an iterative basis until the lowest reasonably practicable release volume between valves is achieved along the pipeline. The valve locations are influenced by a number of factors, including topography, location of flood plains, and the presence of HCAs. Once this primary draft analysis is completed, valve locations are modified within their local vicinity to account for local factors such as availability of land, availability of power, accessibility, environmental impacts, and wetland avoidance. The IVP approach was designed to identify optimal valve locations that will protect major watercourse crossings and HCAs in the unlikely event of a pipeline rupture. The valve placements reduce both the impact of a rupture and its remediation requirement.

Data Request Question #4(b)(ii) Response:
The Project does not intend to change the flow rates, delivery locations, or crude batching methodology for Line 5. While Enbridge's terminals and some pump stations have breakout tanks for temporary storage of crude oil and liquids, the relocation does not connect to a terminal or pump station; therefore, no breakout tankage is included in the spill analysis.

Data Request Question #4(b)(iii) Response:
The IVP analysis is done using the following information:

- Centerline, elevation profile, line size and thickness: provided by the project team.
- Line throughput: the line's known maximum scheduled flow rate.
- Existing remote-operated valve locations: known from the existing line information.

Upon gathering the listed information, volume-out calculation is performed following the methodology explained in section 4b-i.

Data Request Question #4(b)(iv) Response:
Spill plume modeling was performed by the consultant RPS, using their proprietary OILMAPLand software. OILMAPLand is a specialized extension of the ESRI ArcGIS platform that simulates site-specific oil and chemical releases, based on the volume of the release, characteristics of the product, topography, hydrography, and land cover of the modeled location.

To represent the environment in the vicinity of the release point, digital elevation models ("DEM") from the USGS are used for the topography of the area, the USGS National Hydrography Dataset Plus ("NHDPlus") for the location and characteristics of moving and static waterways, and the USGS National Land Cover Database ("NLCD") to indicate land cover type.

As noted above, for volume-out calculations, it is assumed that it takes 10 minutes for a control center operator to detect the rupture and initiate the shut-down of the pipeline prior to initiating valve closure. This assumption is conservative as Enbridge's leak detection systems and control center monitoring process are capable of detecting a full-bore rupture almost instantaneously. Valve closure takes 3 minutes from initiation. The methodology also makes a conservative assumption that the released flow would be the full design rate during the 3 minutes valve closure. This very conservative analysis results in much larger modelled releases than would be expected under normal operating conditions.

Data Request Question #4(b)(v) Response:
As a conservative measure, the liquid spill plume model assumes that open, moving water will be present in all stream segments identified by the USGS' NHDPlus dataset. Water velocity data within the NHDPlus dataset are calculated based on the mean annual flow of individual stream segments.

The OILMAPLand model also assumes that product from a release begins at the surface (i.e. no product is lost to depth of cover soil absorption or overland travel soil absorption), conservatively giving the spill plume the maximum initial volume to then travel downhill/downstream.

Data Request Question #4(b)(vi) Response:
In addition to the HCA/USA polygons distributed by the NPMS, Enbridge includes operator-identified HCA/USA polygons in their analysis. These additional polygons are collected from a variety of

sources, including state, tribal, or municipal-level departments/agencies, and operator knowledge of the area. If data received from these additional sources is received as point features, they are delineated into a polygon consistent with the NPMS' process.

Specific to the area of this relocation project: there are several Drinking Water USAs based on data received from the Wisconsin DNR's Bureau of Drinking Water & Groundwater, an operator-identified Other Populated Area (OPA), and an expanded Commercially Navigable Waterway (CNW) polygon covering Lake Superior (Enbridge conservatively identifies the full extent of the Great Lakes as CNWs, beyond the shipping lanes identified in the NPMS).

Specifically, Enbridge has also worked with tribal nations in determining HCAs that may not be otherwise captured.

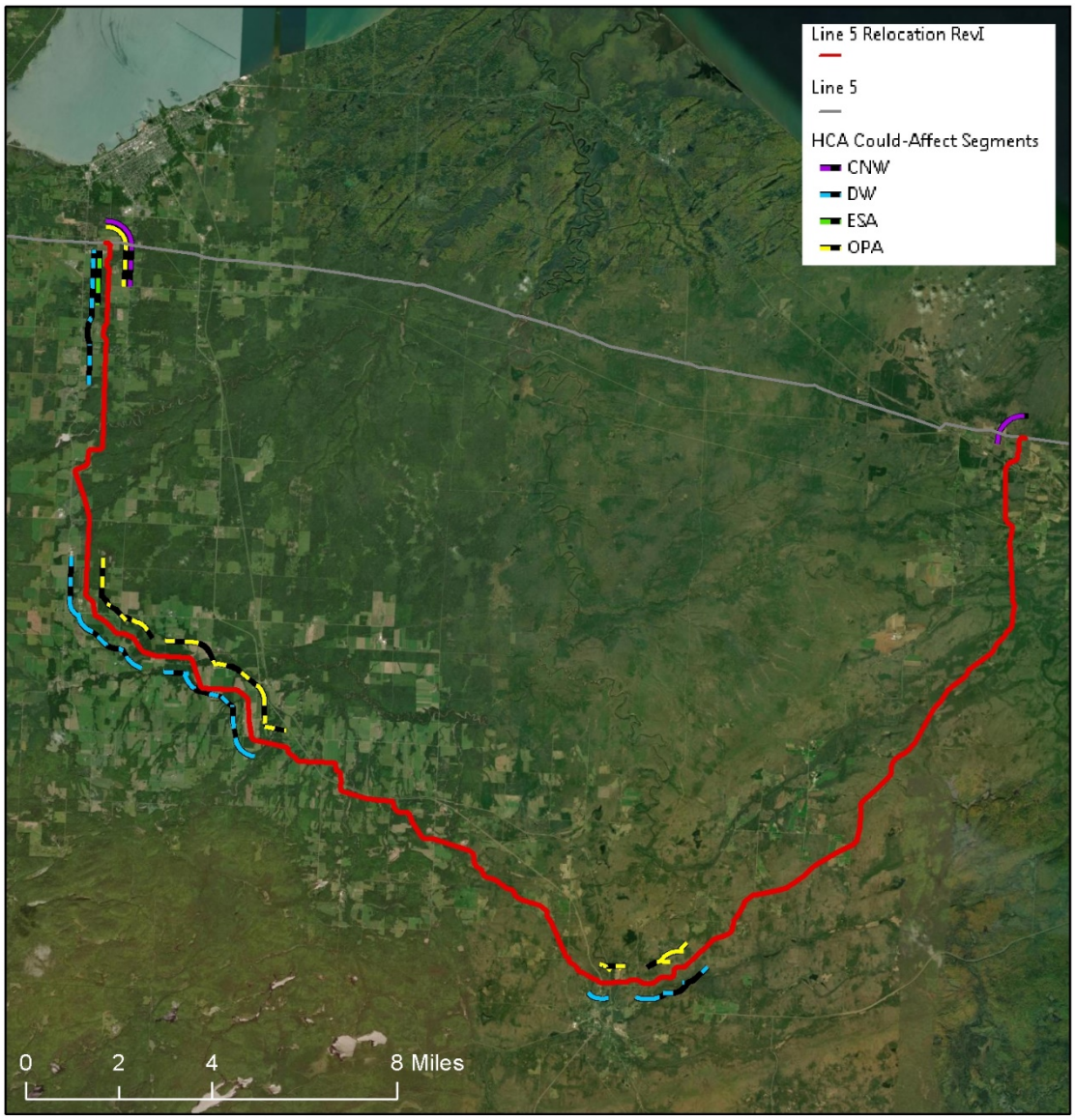
Data Request Question #4(b)(vii) Response:
A thorough IVP analysis has been conducted to place EFRDs (*i.e.*, mainline block valves) on the re-route. Upon collecting the information listed in section 4b(iii), volume-out is calculated for the re-route following the methodology explained in section 4b(i). Using the volume profile, the valve placement analysis is consequently performed with the purpose of reducing the impacts of a release event to the HCAs, watercourse crossings, wetlands, and other sensitive areas near the pipeline. The valve placement analysis is performed on each segment of the line on an iterative basis until the lowest reasonably practicable release volume between valves is achieved along the pipeline.

Upon completion of IVP analysis, Enbridge conducts a field verification of recommended valve locations. Field verification will evaluate the impact of construction to the environment, including the following factors: valve site access, constructability, power, and land availability. Final valve locations were adjusted due to constructability issues and environmental impacts identified during field verification.

Data Request Question #4(b)(viii) Response:
The map below shows the proposed relocation route, with the segments of pipe that could potentially impact an HCA either directly or indirectly highlighted with color-coded offsets. Due to the sensitive nature of the HCA data, we are unable to display the HCA polygons themselves on this map (e.g. the location of drinking water intake protection areas, habitat ranges of species at risk, etc.).

Although not indicated on the map, the majority (92%) of the HCA segments are indirect/transport could-affects. That is to say that although the pipe itself is not within an HCA polygon, spill plumes modeled from these segments (using maximum calculated volume out) travel downhill or downstream into an HCA polygon. Only a small portion (~1 mile) of the relocation segment directly intersects an HCA. This segment is located near the beginning of the proposed relocation.

Line 5 Relocation RevI - HCA Could-Affect Segments



Data Request Question #4(b)(ix) Response:

The determination of HCA could-affect segments is based on spill plumes modeled using the maximum potential release volume at any given point along the pipe, which represents a worst-case release scenario. Therefore, the terms “worst-case release” and a “maximum drain-down release” scenario are synonymous. The map submitted for 4.b.viii indicates the location of segments of pipe that could impact HCAs as a worst case release scenario from a volume out/spill plume perspective using the maximum calculated drain-down volume.

Data Request Question #4(c)(i) Response:
Please note that the segment being replaced is approximately 20.4 miles, which includes approximately 12 miles of pipeline within the exterior boundaries of the Bad River Reservation. The additional pipeline mileage includes segments of pipeline east and west of the Reservation that will

be replaced. The total length of pipeline segments identified as affecting HCAs and USAs in the event of a spill, by HCA type as well as in aggregate, as it would be reported on Part L of the PHMSA Hazardous Liquid Annual Report Form (F7000-1.1),

Proposed reroute (Stn 49,113 to 266,110):

High Population	0
Other Population	9.77
USA Drinking Water	10.83
USA Ecological Resource	1.68
Commercially Navigable Waterways	1.28
Total Segment Miles That Could Affect HCAs	12.21

Existing Line 5 segment (MP 1155.92 to 1176.37):

High Population	0
Other Population	9.25
USA Drinking Water	5.72
USA Ecological Resource	6.95
Commercially Navigable Waterways	3.39
Total Segment Miles That Could Affect HCAs	13.95

*Please note that the total HCA mileage is not the sum of the individual type mileage; this is because HCA could-affect segments may impact to multiple HCA types.

Data Request Question #4(c)(ii) Response:
Proposed reroute (Stn 49,113 to 266,110):

- 2 Direct HCA Could-Affect Segments intersecting 2 unique HCA polygons

Existing Line 5 segment (MP 1155.92 to 1176.37):

- 10 Direct HCA Could-Affect Segments intersecting 3 unique HCA polygons

Data Request Question #4(c)(iii) Response:

Proposed reroute (Stn 49,113 to 266,110):

- 28 Transport HCA Could-Affect Segments intersecting 14 unique HCA polygons

Existing Line 5 segment (MP 1155.92 to 1176.37):

- 41 Transport HCA Could-Affect Segments intersecting 10 unique HCA polygons

Data Request Question #4(c)(iv) Response:
Proposed reroute (Stn 49,113 to 266,110):

- Maximum volume within an HCA Could-Affect Segment = 12,681 bbls
- Average volume within an HCA Could-Affect Segment = 8,404 bbls

Existing Line 5 segment (MP 1155.92 to 1176.37):

- Maximum volume within an HCA Could-Affect Segment = 26,684 bbls
- Average volume within an HCA Could-Affect Segment = 16,318 bbls

Data Request Question #5:
Per Enbridge's response to question #21 submitted on 12/11/20 – If Enbridge is not proposing to conduct separate invasive species field surveys, and instead is proposing to rely solely on the data obtained during the wetland delineation surveys, provide the following:

a. Clarify if all wetlands and uplands were completely surveyed (the entire width and length of the permanent and temporary ROW) during the wetland delineation surveys for the presence of invasive species (and not just observed at the upland and wetland data plot locations).
b. Clarify if all other project areas (valve sites, staging areas, Additional Temporary Workspaces, off-ROW access roads, etc.) were completely surveyed (their length and width) for the presence of invasive species.
c. Describe how the invasive species data was obtained (i.e. meander surveys, transects established, etc.) and if GPS data was collected of the invasive species locations.
d. State what data was collected on invasive species abundance (i.e. percentage of each invasive species present in the project area, percentage of each invasive species present adjacent to the project area, etc.)

Data Request Question #5(a) Response:
Enbridge is planning to complete additional invasive species field surveys during the 2021 field season along the proposed 41.1 miles of mainline pipeline, additional temporary workspace areas, access roads, pipe storage and contractor yards, and aboveground facilities (e.g., mainline block valves). Surveys will be conducted along the width and length of the construction right-of-way, including an additional 25 feet on either side of the construction workspace.

Data Request Question #5(b) Response:
See response to question 5(a).

Data Request Question #5(c) Response:
During 2021 invasive species surveys, Enbridge will document and delineate invasive plant species defined as the 63 species or species complexes included in the Wisconsin Department of Natural Resources' list of restricted species, found on the following site, https://dnr.wisconsin.gov/sites/default/files/topic/Invasives/NR40plantlist.pdf.
Invasive species occurrences will be documented by conducting meander surveys and collecting GPS data including either point or polygon data. Point data will be used to document small isolated colonies, noting the number of individuals and radius of the extent. Polygons will be used to document larger contiguous populations. The field crew(s) will map infestations by species, potentially allowing for overlapping polygons to represent separate species. Attribute data for individual polygons will include the approximate percent cover at the time of the survey for a given species (using the Braun-Blanquet scale) as well as an estimated number of individuals. Reference photos will be restricted to one representative photo of each documented invasive species to serve as a reference photo. Additionally, photos will be collected to document major infestations defined here as those areas greater than 0.5 acres or more size with interrupted (50-75%) or continuous cover (75-100%).

Data Request Question #5(d) Response:
See response to question 5(c).

Data Request Question #6:
Per Enbridge's response to question #22 submitted on 12/11/20 – Provide

a. The latitude and longitude coordinates (in decimal degrees) for the 2 North Country National Scenic Trail (NCNST) crossings proposed.
b. Discuss if Enbridge is aware of any federal Land and Water Conservation Fund (LAWCON) encumberments at the NCNST crossings.
c. Discuss the land use/cover at the proposed NCNST crossings, including if tree clearing would occur for pipeline installation, if they are in a developed area, and if there are any existing transportation or utility corridors already there.

Data Request Question #6(a) Response:
Crossing #1: 46.335899, -90.651793
Crossing #2: 46.435039, -90.502597

Data Request Question #6(b) Response:
As stated in Enbridge's December 11, 2020 data response, Enbridge owns the parcel of land where the first crossing of the NCNST occurs. The second crossing occurs as part of Vogues Road. Enbridge has reviewed the title of the parcel owned by Enbridge, and there are no documented encumbrances associated with the parcel (e.g., Federal Land and Water Conservation fund (LAWCON)). Per Enbridge's purchase agreement for the parcel, Enbridge has granted back an easement for the NCNST on the property. Additionally, no encumbrances were included in the road crossing agreement at the second crossing location to be crossed as part of Vogues Road. Enbridge has also verified that there are no restriction from the Department of Interior at either crossing location.

Data Request Question #6(c) Response:
The first crossing of the NCNST occurs within a forested wetland adjacent to the Bad River. The parcel is bounded on the west side by the Bad River, and on the east side by State Highway 169. No other transportation or utility corridors cross the parcel. As indicated in the December 11, 2020 data response to question #22, Enbridge would clear trees within the 30-foot-wide operational maintenance corridor along the HDD crossing of the Bad River and NCNST. The second crossing of the NCNST occurs where the trail utilizes the shoulder of Vogues Road, a gravel surface road. The adjoining parcels are owned by Iron County and are forested. A forested wetland is also present on the south side of Vogues Road. Vogues Road is the only transportation corridor at this location. No other utility corridors are present at this location. Tree clearing for construction and maintenance of an operational right-of-way would be conducted as described section 4.2.1 of the EIR.

Data Request Question #7:
Per Enbridge's response to question #26C submitted on 12/11/20 – Specify if the return/discharge water to the source water could be a higher temperature than when it was withdrawn. If yes, what measures would Enbridge employ to cool the water before discharge to avoid potential thermal impacts to the trout streams?

Data Request Question #7 Response:
Yes, the temperature of discharged water following hydrostatic testing activities could be at a slightly higher, although it could also be slightly lower or the same temperature as the source water, depending on the time of year that the pipeline is tested, the time of day, and cloud conditions. The answer is based on variations of the source water temperature and ground temperature of the buried pipeline over the year.

Enbridge reviewed U.S. Geological Survey ("USGS") stream temperature data for Bad River and Tyler Forks. Data available from the USGS gauging station 04027000 located near Odanah, Wisconsin provides monthly mean temperatures for select years from 1976 to 2019. Mean monthly temperatures range from 0.0 degrees Celsius to 23.0 degrees Celsius. Data available from the USGS gauging station 04026561 located near Mellen, Wisconsin provides monthly mean temperatures for select years from 2011 to 2020. Mean monthly temperatures range from 0 degrees Celsius to 20.4 degrees Celsius. No USGS stream data is available for Silver Creek; however, temperatures are expected to be similar to Bad River and Tyler Forks.

With the exception of the pipeline segment ends, the pipeline is buried at a typical depth of approximately three feet at the time of hydrostatic testing and is at a comparable temperature to natural ground conditions at that depth. The ground temperatures vary somewhat throughout the year.

Enbridge will continue to consult with the WDNR on discharge restrictions.

Data Request Question #8:
Per Enbridge's response to question #26D submitted on 12/11/20 – Specify any potential restrictions for water withdrawal that Enbridge would employ to avoid or minimize impacts (i.e. not withdraw during periods of low flow, not withdraw during drought conditions, etc.).

Data Request Question #8 Response:
To the extent practicable, Enbridge would avoid water withdrawals during periods of extremely low flow conditions due to factors such as drought. Enbridge will monitor water flow conditions at the respective intake locations prior to appropriation. Enbridge has reviewed data from USGS gauging stations located on the Bad River and Tyler Forks and has also completed field observations. Enbridge believe that both rivers have sufficient flow to allow for water appropriation while minimizing impacts. No gauging station data was available for Silver Creek; however, based on field observations, Enbridge believes that there is sufficient water to allow for hydrostatic test water appropriation. Enbridge will work with the respective agencies to establish minimum flow thresholds at each site to protect downstream use and aquatic life.

Data Request Question #9:
Per Enbridge's response to question #26E submitted on 12/11/20 – Specify if the new pipe could have any coatings, residue, powder, chemicals, etc. that could be discharged to the waterway.

Data Request Question #9 Response:
The Project will be using new pipe from the mill, but the pipe will have sat in stockpiles for a period of months prior to installation which may result in superficial surface rust on the interior of the pipe. Additionally, the interior of the pipe will have mill scale, which is a thin layer of iron oxides formed on the pipe material when produced at the mill. Additionally, dirt, dust, and other debris can enter the pipeline during the transport and assembly process.

Prior to hydrostatically testing the pipeline, Enbridge will use cleaning pigs and wash water to remove mill scale and other loose debris from the pipe. The materials recovered will be disposed of at an approved facility. Wash water would be handled according to permits or disposed at an approved facility. Processes will be utilized to clean the discharge water to meet the requirements of the Wisconsin Department of Natural Resources (DNR) Water Use General Permit requirements.

Data Request Question #10:
Per Enbridge's response to question #26G submitted on 12/11/20 – For "hydrotest water appropriated from waterbodies will be returned to the source water", specify how that water would be returned to the same waterway it was withdrawn from if the discharge point is not close to the withdrawal point.

Data Request Question #10 Response:
Prior to initiating filling of the pipeline segment to be hydrostatically tested, Enbridge will insert a bi-directional pig into the pipeline. The pipeline will then be filled with water behind the pig(s). Following completion of the hydrostatic testing, compressed air is pumped into the pipeline in front of the pigs, pushing the water back towards the appropriation/fill end of the pipeline.

Data Request Question #11:
Per Enbridge's response to question #27 submitted on 12/11/20 – Provide the following:

a. Revise application attachment D and F (wetland and waterbody crossing table) to remove proposed wetland impact to wetlands wasd1041e and wasd1040e from the Bayside Yard. Provide the revised table as an Excel file, and add a date revised in the table heading inside the Excel table.
b. Revised application Attachment B map (Delineated Wetlands and Waterbodies or Aerial Map) page for the Bayside Yard (page 5 of 50) to account for the revised yard boundary shown in the site drawing provided with the response.
c. A revised GIS shapefile for the Bayside Yard boundary.

Data Request Question #11(a) Response:
Attachment Table F (Excel table) has been revised to remove the applicable wetlands avoided at the Bayside Yard.

Data Request Question #11(b) Response:
The respective map page for the Bayside Yard from Attachment B has been revised.

Data Request Question #11(c) Response:
The Project shapefile has been revised to exclude the wetlands at the Bayside Yard that will be avoided.

Data Request Question #12:
Per Enbridge's response to question #31 submitted on 12/11/20 – For segments of the pipe that would be installed via trenchless methods, clarify if the ROW clearing requirements would differ (for both permanent and temporary easement) versus segments installed via trenching.

Data Request Question #12 Response:
Please refer to Section 4.2.1 of the EIR describes Enbridge's proposed construction right-of-way land requirements. Per Enbridge data request response #31 from the November 3, 2020 DNR data request, trenchless crossing methods include cradle boring, track boring, Horizontal Directional Drilling ("HDD") and Direct Pipe ("DP") installations. Cradle boring and track boring will be completed using Enbridge's standard pipeline right-of-way configuration for construction and operation. Enbridge proposes to narrow the construction right-of-way to 30 feet between the entrance and exit points of most areas being installed using a HDD or Direct Pipe construction technique. Woody vegetation will be cut and removed from this 30-foot corridor; however, no excavation is anticipated within this reduced width area. Additionally, as discussed in Section 4.2.1 of the EIR, Enbridge proposes to reduce the maintained portion of the operational right-of-way from 50 feet to 30 feet at these locations, with the exception of Tyler Forks waterbody crossing.

Data Request Question #13:
Regarding the Cultural Resources reports provided:

a. The Traditional Cultural Properties (TCP) report (prepared by Dirt Divers Cultural Resource Management, LLC, and dated 7/23/2020) lists the report status as a Preliminary Draft on the cover page. Clarify when Enbridge plans to finalize the report and provide the final version to the appropriate agencies.
b. Clarify if Enbridge submitted the TCP report to the U.S. Army Corps of Engineers (USACE), tribes, Wisconsin Historical Society, and/or any other applicable agency. If so, provide any responses received from these entities.
c. Clarify if Enbridge submitted the Phase I Archaeological Survey report (prepared by ERM and dated 1/31/2020) and Phase I Archaeological Survey addendum report (prepared by ERM and dated 7/27/2020) to the USACE, tribes, Wisconsin Historical Society, and/or any other applicable agency. If so, provide any responses received from these entities.
d. Clarify if Enbridge submitted the Historic Architectural Reconnaissance Survey report (prepared by ERM and dated 10/26/2020) to the USACE, tribes, Wisconsin Historical Society, and/or any other applicable agency. If so, provide any responses received from these entities.

Data Request Question #13(a) Response:
The TCP Report is currently under review by the U.S. Army Corps of Engineers (USACE). It is Enbridge's understanding that the USACE is coordinating the review of the report with applicable

Tribal Historic Preservation Offices. Additionally, Enbridge is in consultation with the USACE regarding Tribal elder interviews to identify other potential resources not documented as part of the TCP field study. Enbridge has not received any formal response from the USACE regarding this report.

Data Request Question #13(b) Response:
Enbridge submitted the TCP Report to the USACE. As the lead Federal agency, the USACE will consult with the Wisconsin Historical Society ("WHS") to satisfy the requirements of Section 106 of the National Register of Historic Places ("NRHP"). Enbridge has not received any formal responses from the USACE regarding this report.

Data Request Question #13(c) Response:
Enbridge submitted the 2019 Phase 1 Archaeological Survey Report to the Wisconsin State Historical Society - Historical Preservation Office on February 14, 2020. Enbridge's cultural consultant (Environmental Resource Management, Inc.) received a call from the call from the Wisconsin Historical Society on February 20, 2020 stating that the WSHPO would be coordinating directly with the USACE, as the lead Federal agency, and that all future reports should be submitted through the USACE (Katie Kaliszewski, Historic Preservation Specialist, Compliance). Enbridge has not received any formal responses from the USACE regarding this report.

Data Request Question #13(d) Response:
Enbridge submitted the Historic Architectural Reconnaissance Survey Report to the USACE. As the lead Federal agency, the USACE will consult with the Wisconsin Historical Society ("WHS") to satisfy the requirements of Section 106 of the National Register of Historic Places ("NRHP"). Enbridge has not received any formal responses from the USACE regarding this report.

Data Request Question #14:
Provide an estimate of additional tax revenues generated by the proposed project (e.g. local and/or county property tax payments) or other socioeconomic benefits that Enbridge would like to provide (e.g. secondary economic impacts).

Data Request Question #14 Response:
Sales tax:
Response pending.

Property tax:
Response pending.

Data Request Question #15:
Enbridge developed an Environmental Justice Community Mitigation Plan for the Line 3 pipeline project in Minnesota. Clarify if Enbridge would adopt, adapt, or otherwise use this plan for the proposed Line 5 relocation project in Wisconsin.

Data Request Question #15 Response:
Enbridge is developing an Environmental Justice Community Mitigation Plan specific to this Project.

Data Request Question #16:
Enbridge developed a Human Trafficking Prevention Plan for the Line 3 pipeline project in Minnesota. Clarify if Enbridge would adopt, adapt, or otherwise use this plan for the proposed Line 5 relocation project in Wisconsin.

Data Request Question #16 Response:
Enbridge has established a Human Trafficking Awareness and Prevention Program ("HTAPP") associated with the Project. The program is being managed by the same firm that developed the Your Call MN campaign associated with the L3R Project's human trafficking plan. The purpose of the HTAPP is to bring together an advisory group of individuals with unique knowledge, expertise, and skills to provide recommendations for training. This training will be required for Enbridge employees and contractors working on the Project. Similar to the Your Call MN campaign, recommendations from the advisory group will be considered for an outward campaign aimed at raising awareness and prevention.

Data Request Question #17:
Section 3.1.3.1 of the EIR states "Approximately 669 rail tank cars would be required on a daily basis to transport the Line 5 daily crude volume of 450,000 bpd, and approximately 112 rail tank cars would be required on a daily basis to transport the Line 5 daily NGL volume of 90,000 bpd. In order to allow for the continuous daily transport of Line 5 volumes, a total of 3,092 rail tank cars would be necessary." Adding 669 rail tank cars with 112 rail tank cars totals 781 rail tank cars, not 3,092 rail tank cars. Provide a modified statement so the total number of rail tank cars needed adds correctly.

Data Request Question #17 Response:
Approximately 669 rail tank cars would be required on a daily basis to transport the Line 5 daily crude volume of 450,000 bpd, and approximately 112 rail tank cars would be required on a daily basis to transport the Line 5 daily NGL volume of 90,000 bpd. In order to allow for the continuous daily transport of Line 5 volumes, a total of 3,092 rail tank cars would be necessary. This assumes a four-day travel time for the rail cars, which, could be as much as 6 to 10 days. Taking the travel time into account would then require adding more rail tank cars so that daily trips can be taken. In other words, a total of more than 3,000 rail tank cars are required because around 800 rail cars would have to leave each day for a multi-day round trip. While those rail tank cars are in transit, an addition 800 rail cars would be loaded and start to travel the next day. Assuming that the transit time (to Sarnia and back) is only 4 days, then at least 800 cars per day for 4 days would have to be readily available to not miss a day. Therefore, 800 per day for 4 days is approximately 3,200 rail cars. On the fifth day, the first set of 800 rail cars would be back to fill up so that they could be sent back to Sarnia. Experts retained by Enbridge believe that a 4 day turnaround is highly optimistic and a 6 to 10 day turnaround is more feasible, requiring between 4,400 and 6,600 rail tank cars.

Data Request Question #18:
Table 3.1.4-1 of the EIR lists the lengths of the route alternatives RA-01, RA-02, and RA-03. However, when compared to the GIS shapefiles provided by Enbridge on 8/13/20, the route alternatives lengths differ (see table below). Clarify if the data contained in Table 3.1.4-1 was created using the same GIS files provided on 8/13/20, as well as all other tables included in the EIR.

Source	Preferred Route (miles)	Route Alternative RA-01 (miles)	Route Alternative RA-02 (miles)	Route Alternative RA-03 (miles)
EIR Table 3.1.4-1	41.1	29.3	57.6	100.5
GIS Files	41.1	31.39	58.02	101.55

Data Request Question #18 Response:
The data contained in Table 3.1.4-1, and other tables included in the EIR, were created using the routes provided as GIS files on 8/13/2020. Table 3.1.4-1 contains erroneous route length information in the table header only. The correct route lengths and corridor area, as reflected in the GIS data, are included in the updated EIR text excerpt and updated table 3.1.4-1 below.

Excerpt from EIR Section 3.1.4

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 fewer acres during construction, cross 16 fewer waterbodies (based on WDNR 24k Hydrography Dataset information), and cross approximately 73 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 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 additional acres for construction, require clearing approximately 202 additional acres of forest, cross 16 additional waterbodies, including trout streams and WDNR priority navigable waterway crossings (based on WDNR 24k Hydrography Dataset information), and disturb approximately 8.7 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 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 and January 4, 2017 Resolution 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 450.9 additional acres for construction, including approximately 330 acres of additional coniferous forest clearing and approximately 359 acres of additional deciduous forest clearing. RA-03 would disturb approximately 230 additional acres of WWI-mapped wetlands, of which approximately 207 acres are forested wetland. The route would also disturb approximately 768 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 11 fewer 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]: 597.8 acres	Route Alternative RA-01 Route Length [a]: 31.4 miles Route Corridor [b]: 456.5 acres	Route Alternative RA-02 Route Length [a]: 58.0 miles Route Corridor [b]: 843.7 acres	Route Alternative RA-03 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	9.9	50.6
PFO	acres	26.1	22.3	40.2	304.5
Wetland Crossed—WWI					
emergent/wet meadow	acres	2.7	7.8	8.7	7.0
scrub/shrub	acres	2.7	2.0	2.0	21.7
forested	acres	54.0	46.4	57.4	260.8
State-Listed Species Occurrences [c]	number	27	14	87	85
Migratory Bird Concentration Areas	number	1	1	0	0
Agricultural Land [d]	acres	83.8	29.8	55.1	2.4
Coniferous Forest [d]	acres	57.5	56.5	69.0	387.4
Broad-leaved Deciduous Forest [d]	acres	297.2	222.8	488.2	655.7
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	40	29	38	9
Perennial Waterbody Crossings—WDH	number	18	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	107.5	34.7	21.3	875.7
WDNR-Owned Lands	miles	0	0.7	0	0.1
County Forest Land	miles	7.4	<0.1	0	4.1
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] Wiscland 2 Land Cover Data (WDNR 2019s).

[e] Includes county and local roads, and state and U.S. highways.

NLCD2011 = National Land Cover Database 2011; 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

Data Request Question #19:
Provide all GIS shapefiles for the data included in Table 6.2.1-1 of the EIR.

Data Request Question #19 Response:
A shapefile of the project workspace, intersected with publicly available soil map unit data, is included as a separate electronic file.

Soil characteristics within Table 6.2.1-1 were identified and assessed using the Soil Survey Geographic (SSURGO) database (Soil Survey Staff, 2021). This database is a digital version of the County soil surveys developed by the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) for use with geographic information systems. The database provides a detailed level of soils information and is standardly used for natural resource planning and management. SSURGO is linked to an attribute database that gives the proportionate extent of the component soils and their properties for each soil map unit. SSURGO attribute data consist of physical properties, chemical properties, and interpretive groupings. Attribute data apply to the whole soil (e.g., hydric soils, prime farmland soils, or slope class) as well as to layer data for soil horizons (e.g., texture or permeability). The soil attribute data can be used in conjunction with spatial data to describe soils in a particular area.

The SSURGO database is queried for attribute data pertaining to prime farmland and hydric soils, compaction prone soils, water and wind erodible soils, droughty soils, rocky soils, and soils with shallow bedrock. The parameters used to assign a soil map unit's characteristics is provided in the footnotes of Table 6.2.1-1 and further described below.

Both prime farmland and hydric soil designations are direct attributes in the SSURGO database. Percentage and acreage of prime farmland and hydric soils were determined by a simple query of the database.

Compaction-prone soils were identified by querying the SSURGO database for component soil series that have: 1) a surface texture of sandy clay loam or finer; and 2) a drainage class of somewhat poorly, poorly, or very poorly drained.

Highly erodible soils were identified based on three soil parameters present in the SSURGO database that are directly related to the susceptibility of a soil to erosion by water or wind: land capability subclass, slope, and wind erodibility group (WEG). Map units with a land capability subclass designation of 4e through 8e, which are considered to have severe to extreme erosion limitations for agricultural use, and/or an average slope greater than 8 percent, were identified as susceptible to water erosion.

A separate grouping for wind erosion was developed because management and construction mitigation techniques used to minimize wind erosion hazards are different from those used to minimize water erosion. Wind erodibility was assessed based on WEG designations. A WEG is a grouping of soils that have similar surface-soil properties affecting their resistance to soil blowing, including texture, organic matter content, and aggregate stability. Soils in WEG 1 and 2 include sandy-textured soils with poor aggregation that are particularly susceptible to wind erosion.

Droughty soils were identified by querying the SSURGO database for component soil series that have: 1) a surface texture of sandy loam or coarser and are moderately well to excessively drained; and/or 2) have an average slope greater than 8 percent.

Soils with significant quantities of rock were identified by querying the SSURGO database for component soil series with one or more soil horizons that: 1) have a cobbley, stony, bouldery, channery, flaggy, very gravelly, or extremely gravelly modifier to the textural class; and/or 2) contain greater than 5 percent (by weight) of rocks larger than 3 inches.

Shallow-to-bedrock soils were identified by querying the SSURGO database for component soil series that have a bedrock contact within 60 inches of the soil surface. The analysis also identified whether the near surface bedrock is lithic (unweathered), and could require blasting to excavate, or is paralithic (weathered) and could likely be ripped and dug without blasting.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: http://websoilsurvey.sc.egov.usda.gov/. Accessed February 11, 2021.

Data Request Question #20:
EIR Section 6.5.1, under the Natural Communities heading on page 99, states “Based on NHI review, there is one terrestrial Natural Community (Boreal Forest) within 1 mile of the Project, and one aquatic Natural Community (Ephemeral Pond) within 2 miles of the Project. The Project will not cross either of the documented natural communities”. However, the wetland delineation report indicates that there are hardwood swamps with a vernal subtype, and vernal subtypes could include ephemeral ponds. Clarify if either of these NHI natural communities were identified during the environmental field surveys, and is so, state where (provide the wetland ID’s).

Data Request Question #20 Response:
The terrestrial plant community information included in EIR Section 6.5.1 is based on published material that was reviewed prior to the completion of field surveys. During the wetland delineation field survey, seven wetlands were classified as hardwood swamp/vernal pools. These wetlands are wasc1055f_w, wase1056f_w, wirb1005f_w, wirc10003f_w, wirc1010f_w, wirc1014f_w, and wirc1022f_w. Below is a summary of each wetland:

- wasc1055f_w: After further review of the wetland data, Enbridge determined that the relatively extensive coverage of woody vegetation in this wetland would preclude the ability of ephemeral ponds to form in this wetland.
- wase1056f_w: This wetland is a hardwood swamp with ephemeral ponds located near milepost 11.2. This wetland is located along an HDD crossing, and will not be impacted by construction excavation; however, clearing of a 30-foot-wide operational corridor will occur.
- wirb1005f_w: This wetland is a hardwood swamp with ephemeral ponds located near milepost 30.8 and would be temporarily impacted by construction.
- wirc1003f_w: This wetland is a hardwood swamp with ephemeral ponds located within the footprint of AR90, and would be temporarily impacted by construction.
- wirc1010f_w: This wetland is a hardwood swamp with ephemeral ponds located adjacent to AR90, but will not be impacted by construction.

- wirc1014f_w: This wetland is a hardwood swamp with ephemeral ponds located adjacent to AR90, but will not be impacted by construction.
- wirc1022f_w: This wetland is a hardwood swamp with ephemeral ponds located within the workspace near milepost 34.8, and will be temporarily impacted by construction.

Data Request Question #21:
EIR Table 6.6-1, under the agricultural column heading, indicates 143.1 acres of total temporary impacts and 1.0 acre of permanent impacts for project totals. However, the text in Section 6.2.2.1 contradicts this table, stating "The Project will temporarily impact approximately 250.2 acres of farmland of statewide importance, of which approximately 2.2 acres will be permanently removed from production for construction of mainline block valves and associated permanent access roads." Clarify which is correct.

Data Request Question #21 Response:
Both referenced impacts are correct. Impacts to agricultural land described in Table 6.6-1 of the EIR are based on Wiscland 2 land cover type designations. As discussed in Section 5.6 of the EIR, agricultural land is land under cultivation for food or fiber. Impacts to farmland of state-wide importance described in Section 6.2.2.1 are based on the NRCS soil survey. Farmland of state-wide importance is land that is available for farming but could currently be used for other purposes, such as rangeland and forestland. This determination is based on soil parameters and the potential use for agricultural rather than the current land use.

Data Request Question #22:
Provide a table for the following land use agreements/designation/program: Farmland Preservation Area, Agricultural Enterprise Area, DATCP Soil and Water Resource Management Grant Program areas, and Managed Forest Law. The table should include the number of parcels in each program, the parcel number, the location of each parcel in each program (milepost range, municipality, and county), which project component each parcel is located in (construction ROW, staging area, additional temporary workspace, valve site, off-ROW access road, etc.), the crossing length of each parcel by the project, and the area of impact for each parcel by project construction.

Data Request Question #22 Response:
Please see Data Response Question 22 - Attachment B.

Data Request Question #23:
Regarding Managed Forest Law (MFL) discussed in section 6.6.1 of the EIR - Confirm that if an MFL enrolled landowner becomes required to pay a penalty for the loss of productive forest due to project construction, Enbridge would compensate the MFL landowner the full penalty amount.

Data Request Question #23 Response:
Enbridge will be compensating landowners enrolled in the Managed Forest Law program for costs/penalties incurred due to the Project.

Data Request Question #24:
Clarify if landowners within the project area would be able to keep the cut timber (tree logs) from trees cleared on their property, if they so wished. If a landowner declines to keep the cut wood, clarify if Enbridge would remove the cut wood from the project area.

Data Request Question #24 Response:
Enbridge has provided each landowner with the option of retaining cut timber from their respective parcels. If a landowner does not elect to keep the cut timber, Enbridge will remove the material from the right-of-way.

Data Request Question #25:
EIR figure 4.6-1 only shows construction matting under equipment, and not under soil stockpiles. Provide the following:

a. Discuss why construction matting is not proposed under spoil piles.
b. Clarify is all spoil piles stored in wetland (including agricultural wetland) would be stored on bare ground or on vegetated ground.
c. If a barrier, such as construction matting, is not utilized under spoil piles, how will wetland impacts from this temporary fill be minimized and restoration achieved? How will topsoil and subsoil mixing be prevented? How will Enbridge ensure soil will be effectively removed to be backfilled? The response to this question should factor in site conditions, timing of excavation, and timing of backfill, as there is a potential for spoils to be sidecast in wetland for up to several months.

Data Request Question #25(a) Response:
It is not standard practice or recommended to place stockpiles on top of mats, geotextile fabric, or other barriers. Enbridge has had good success in the past preventing the mixing of stockpile material with underlying soils without the use of barriers. Barriers are not recommended because mats or geotextile fabric may be damaged during backfilling by construction equipment, resulting in incomplete removal of the mats and geotextile fabric. Torn pieces of mats or geotextile could potentially be backfilled into the trench, introducing debris into wetlands. The installation of mats or geotextile fabric would require clear cutting of vegetation and stump grinding, as well as additional vehicle trips to place and remove the barriers. Therefore, the installation of barriers under stockpiles would increase ground disturbance, soil compaction, construction time, and reduce revegetation success in wetlands.

Data Request Question #25(b) Response:
Spoil piles would be stored on vegetated ground in most cases. The exception would be spoil piles in agricultural wetlands may be stored on bare ground if the field had just been tilled.

Data Request Question #25(c) Response:
Enbridge does not intend to store spoils in wetlands for extended periods of time (months). It is anticipated that most spoil piles in wetlands would only be in place for approximately four days, except for isolated tie-in locations that could be stored up to a few weeks depending on the execution leading to and away from the wetland.

During backfilling, the spoil piles will be returned to the excavation. The equipment operators, working with spotters, can effectively remove the subsoil material from the top of the vegetated ground and return subsoil the material to the excavated area with limited soil mixing. The last part of the spoil pile returned to the trench is at the top of the excavation, where the subsoil/topsoil boundary layer previously existed prior to excavation. Slight mixing during backfill, if it occurred, does not change the overall wetland soil properties or condition because the subsoil/topsoil boundary layer is in the same location as prior to excavation. After backfilling the trench with subsoil, the topsoil is returned to the excavation area to allow for final restoration. Construction inspection and Environmental Inspection will be onsite to ensure subsoil is effectively removed and backfilled prior to topsoil replacement.

Data Request Question #26:
For waterway dredging activities, clarify who will determine the maximum flow rate for each waterway to ensure dam and flume isolation systems are not overwhelmed, when this maximum flow rate data will be obtained (i.e. spring snowmelt, etc.), and how this data will be obtained (i.e. stream gauges, etc.).

Data Request Question #26 Response:
Within a month prior to starting the crossing of a water body, Enbridge or its contractor will estimate stream flow rate. Equipment and materials will then be sized appropriately to match that flow rate plus a margin of safety to accommodate for flow variation. Enbridge will delay initiating a waterbody crossing during high flow events.

Data Request Question #27:
Regarding mainline block valve sites, provide the following information. Responses should be provided in a fashion that allows the question to be answered without revealing confidential or proprietary information (similar to how section 4.8 of the EIR provided information on the IMP without revealing trade secrets the IMP contained).

a. Explain what factors or criteria are incorporated into the decision of where to place new valve sites.
b. Explain why only 7 mainline block valve sites are proposed for the reroute.
c. Explain why a valve site is not proposed on each side of all wetland and waterways within the project area.

Data Request Question #27(a) Response:
Enbridge performs Intelligent Valve Placement (IVP) analysis to determine the quantity and optimal location of valves. The objective and guiding principle of the IVP methodology is to meet the regulatory requirements and to reduce the maximum potential release volume as much as reasonably practicable in the unlikely event of a pipeline release. To achieve this, the entire pipeline route is modelled, taking into account the topography of the right of way, the elevation profile of the pipeline, the line size and throughput, and watercourses. The IVP methodology also considers potential impacts of a pipeline release on sensitive features, or HCAs, including highly populated areas, other populated areas, reservoirs holding water intended for human consumption, commercially navigable waterways, and environmentally sensitive areas.

Upon completion of IVP analysis, Enbridge conducted a field verification of recommended valve locations. Field verification will evaluate the impact of construction to the environment, including the following factors: valve site access, constructability, power, and land availability. Final valve locations were adjusted to account for constructability issues and environmental impacts identified during field verification.

Data Request Question #27(b) Response:
Seven remote-operated valves are recommended for the approximately 41 mile re-route. The valve placement recommendations were made to meet the code requirements as well as the Enbridge's Intelligent Valve Placement guidelines. Multiple factors are considered for valve placement including significance of high consequence areas, proximity to major water crossings, and the risk reduction achieved. The Intelligent Valve Placement analysis performed by Enbridge determined that installing seven remote-controlled valves at the recommended locations will minimize, to the greatest extent practicable, the risk to the high consequence areas, water crossings, public, and environment. Placement of additional valves was reviewed and there was no significant reduction based on the geography, topography, and distance from HCAs.

Data Request Question #27(c) Response:
Protection of wetlands and waterways is best achieved through the Enbridge Integrity Management Program where pipeline tools examine the pipeline to determine, cracks, bends, dents, thinning, etc., prior to a breach of the pipeline. A new and thicker pipeline, such as the replacement segment is also extremely effective in protecting wetlands and waterways. Enbridge's rupture and leak detection systems also play an important role in the timely detection of a release, and hence reducing the volume-out. As discussed earlier, if there is a spill, oil will be released and could make its way to a watercourse. A valve may not totally prevent oil from getting in the wetland, but it can minimize the amount of oil that will get in the wetland. The federal rules that Enbridge meets and exceed are designed around this concept. For example, CFR 195.260 requires valve placement on both sides of major water crossings. Thus, Enbridge's Intelligent Valve Placement methodology, that again, meets and exceeds the code requirements, is designed to place valves for major water crossings while considering the elevation profile to determine the optimal valve locations. The IVP methodology recognizes that high points of topography provide effective natural isolation of product. In determining appropriate valve locations, Enbridge's primary consideration is to reduce the potential flow of fluid from higher elevations to lower elevations, particularly those close to watercourse crossings and HCAs. The goal of the IVP methodology is to protect the waterbodies and environment in the entire area and does not only focus on specific watercourse crossings.

Although the code does not indicate the requirement for remote operation of major water crossing valves, Enbridge supplies these valves with remote operation. This will ensure timely closure of the valves in the event of an emergency. In addition to installing valves for the major water crossings, Enbridge, through the IVP, places valves where a release event can have significant impacts to the environment, waterbodies, and public.

Data Request Question #28:
Regarding storage of pipe at staging areas:

a. Clarify when would Enbridge begin to store pipe (reference as the amount of time prior to the commencement of tree clearing, if all applicable permits and approvals were obtained).
b. Clarify the maximum amount of time pipe would be stored at staging areas
c. State what measures would be taken to prevent weather from damaging the pipe when stored at outdoor staging areas.
d. Clarify who will inspect the pipe for damage prior to hauling it to the trench for installation.

Data Request Question #28(a) Response:
Ordering pipe, takes around 5-7 months from the order being confirmed to receipt of pipe. Enbridge typically orders pipe for an anticipated delivery of 2-3 months prior to needing it. This puts the trigger date to order pipe approximately 10 months prior to desired usage date. Early in the DNR application process Enbridge was anticipating a Q1 2021 execution timeframe. In order to be prepared for this an order was placed in July of 2020 for HDD pipe.

HDDs are usually prioritized early in the construction schedule because they can take a variable amount of time and one HDD rig might be required to do multiple HDDs one after another in a project. For these reasons, Enbridge has prioritized HDDs early in this project schedule and subsequently ordered the HDD pipe first in the July 2020 order. All HDD pipe was received between December 2020 and January 2021 therefore storage of the pipe commenced December of 2020.

Ordering of pipe is dependent on many variables including project intended schedule, anticipated schedule of regulatory process, construction sequencing, seasonal considerations, spring road restrictions, and financing.

The balance of the pipe not yet ordered or received is for areas of the project utilizing “nominal” wall thickness pipe and is the majority of the project length. It will likely be ordered such that it is received approximately 3-4 months prior to the soonest perceived allowable start date of tree clearing.

Data Request Question #28(b) Response:
See response from #28(a) above. Additionally, Enbridge has ordered and received all of the pipe necessary for HDDs with the first shipment received in December 2020 through the end of January 2021. As a result, the maximum time pipe may be stored is the time from December 2020 until it is removed from the yard for use which is dependent on the permitting process timeline and construction timeline. For example, if the permitting timeline and construction timeline allowed for completion of construction in the fall/winter of 2021/2022, the maximum time would be approximately 12 months. As another example, if the permitting timeline and construction timeline does not allow completion of the project until July of 2023, the storage period would be approximately 32 months.

Data Request Question #28(c) Response:
The pipe was ordered and delivered with protective pipe caps installed on each end of the pipe to protect the ends from corrosion and prevent foreign material and moisture from entering the pipe. Additionally the pipe has been placed on wooden timbers on well graded and drained storage area to ensure that the pipe stays high and dry. In spring 2021 the pipe will be sprayed with an environmentally safe latex paint to prevent the epoxy coating from UV degradation.

Data Request Question #28(d) Response:
The pipe is inspected at the mill for potential damage or defects prior to shipment. It is visually inspected upon delivery to the respective pipe yards and the yards are monitored by security personnel/equipment. Following delivery to the right-of-way and prior to lowering-in, the pipe welds and coating is inspected by specialized equipment and a visual inspection is conducted by Enbridge inspection staff to identify potential dents or other damage. Any damage detected will be corrected prior to lowering the pipe into the trench.

Data Request Question #29:
Discuss the options for how the slurry and drilling mud from directional bore pits would be disposed of, including any restrictions from potentially contaminated soil.

Data Request Question #29 Response:
Drilling mud will be disposed of at a licensed land fill/disposal facility. Enbridge will complete testing of the mud in accordance with the requirements of the disposal facility. As discussed in EIR section 6.3.6, Enbridge accessed the WDNR's Remediation and Redevelopment Database (WDNR 2019t) through the WDNR Open Data portal (WDNR 2019q) to identify contaminated sites within 0.5 mile of the Project. No open site were identified within 0.5 mile of the Project.

Data Request Question #30:
Regarding the pipe coating, discuss what the coating is designed to protect against and what contributes to coating degradation.

Data Request Question #30 Response:
Enbridge will be using Fusion Bond Epoxy ("FBE") coated pipe to protect the asset from external corrosion. The coating material will meet the requirements of CFR 49 195.559:

a) Be designed to mitigate corrosion of the buried or submerged pipeline;
b) Have sufficient adhesion to the metal surface to prevent under film migration of moisture;
c) Be sufficiently ductile to resist cracking;
d) Have enough strength to resist damage due to handling and soil stress;
e) Support any supplemental cathodic protection

Areas such as road bores, Direct Pipe, and HDDs will have an additional abrasion resistant coating.

Coating degradation can be caused by polymer being impacted by UVs when sitting on the ground for more than a year. This is remediated by a coating treatment for the part that is exposed to the sun. Time also can degrade pipe coating when the pipe is not installed properly. FBE coating is designed for high temperature pipeline applications and is very durable in different soil conditions. The pipeline is inspected to verify the integrity of the coating. Any necessary repairs are completed prior to lowering-in.

Data Request Question #31:
Regarding cathodic protection and AC mitigation systems, provide the following:

a. What issues would arise if these systems were to fail?
b. What other regular surveillance is conducted (i.e. test lead readings, PIG pipe runs, etc.)?
c. What conditions could make these systems less reliable?

Data Request Question #31(a) Response:
The coating is the primary line of defense in protecting the pipe from corrosion. The cathodic protection ("CP") system provides a backup to prevent corrosion if the coating were to fail, and AC mitigation systems provide additional protection for workers and or the pipeline system. If the systems were to fail, the pipeline could experience accelerated corrosion rates. Response 31(b) provides additional activities conducted on these systems.

Data Request Question #31(b) Response:
The Line 5 Wisconsin Segment Reroute Project's cathodic protection system will use remote monitoring. The remote monitoring has automatic notification to Enbridge when there are conditions outside of established parameters. All cathodic protection systems are inspected in-person at least one time per year in compliance with the Code of Federal Regulations.

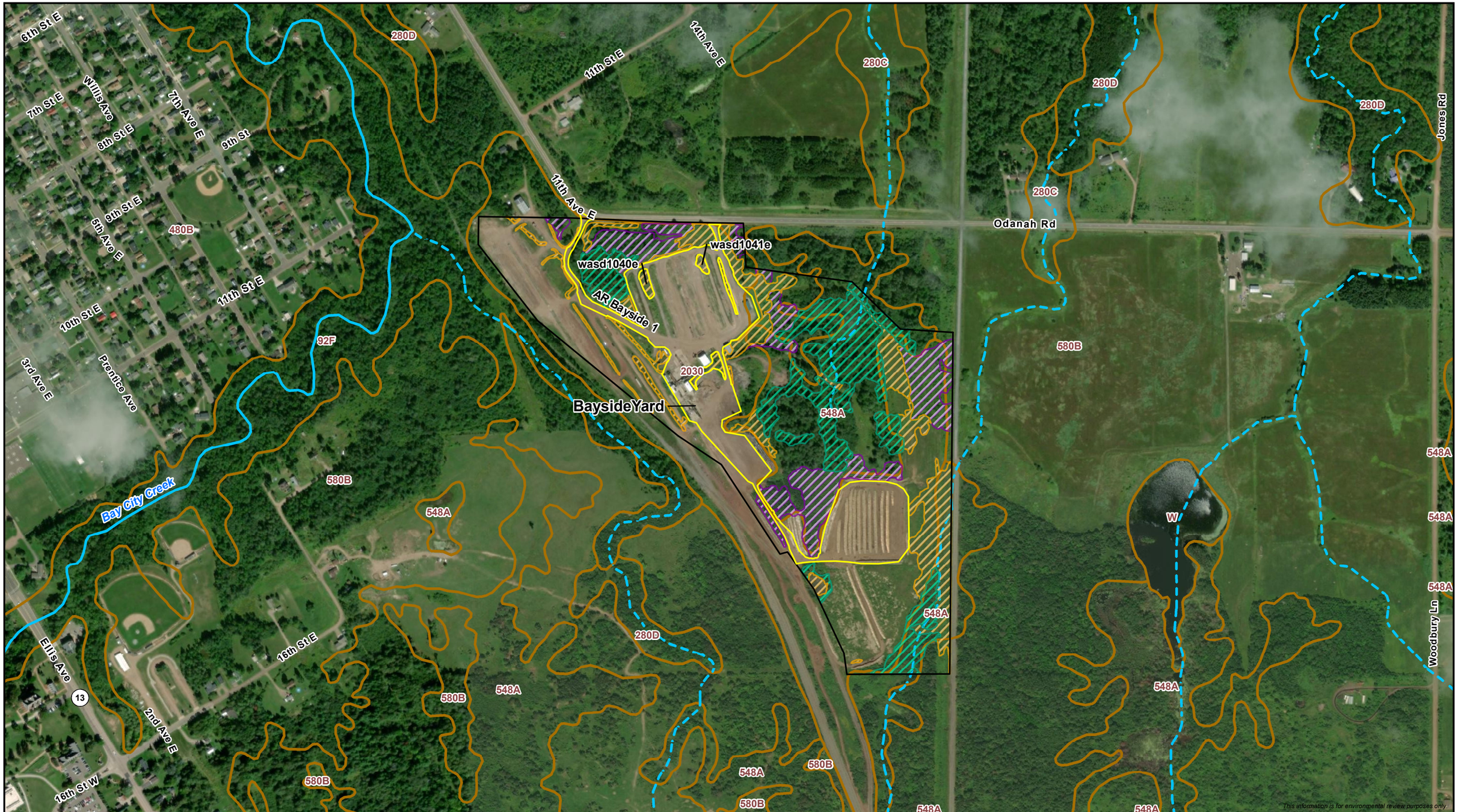
During Enbridge's annual cathodic protection survey, AC mitigation systems are inspected, and AC voltages are recorded on the pipeline at each test station. The AC voltages are reviewed to determine if an AC mitigation system is warranted. The AC mitigation systems are designed to ensure the maximum safety of personnel and the pipeline, even in a failed state.

Enbridge also implements a regular in-line inspection ("ILI") program that evaluates corrosion rates. Data from successive ILI runs are analyzed alongside cathodic protection surveys to provide a more comprehensive picture of the system and to identify where supplemental cathodic protection may be required. Enbridge regularly monitors the pipeline right of way for anything that could affect the existing systems and takes appropriate actions when issues are identified.

Data Request Question #31(c) Response:
The CP and AC systems are very reliable. However circumstances can change that could affect the reliability of the systems, such as lightning strikes, third party damage, and new foreign structures. Enbridge is an active participant in local corrosion coordinating committees to conduct joint testing with other pipeline operators and their cathodic protection systems. Enbridge regularly monitors the pipeline right of way for anything that could affect the existing systems and takes appropriate actions when issues are identified.

Data Request Question #32:
Revise table 4.2.3-1 in the EIR to detail what improvement are needed for proposed existing off-ROW access roads.

Data Request Question #32 Response:
Enbridge has revised table 4.2.3-1 to include anticipated temporary improvements for access roads proposed for use by the Project. Actual temporary improvements will be determined on a site-specific basis depending on field conditions at the time of construction.



ENBRIDGE

Attachment B
Delineated Wetlands and Waterbodies
Line 5 Wisconsin Segment Relocation Project
Enbridge Energy, L.P.
Ashland County, Wisconsin

ERM

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Table 4.2.3-1: Proposed Access Roads

Access Road ID	County (ies)	Approximate Milepost [a]	Length (miles)	Temporary/ Permanent	Public / Private Road	Existing / New	Anticipated Temporary Improvements [b]
001	Ashland	0.0	0.15	Temporary	Private	Existing	Grading, Gravel/Rock
003.01	Ashland	2.7	0.32	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
13	Ashland	6.0	0.08	Temporary	Private	Existing	Grading, Gravel/Rock
014	Ashland	6.9	0.41	Temporary	Private	Existing	Grading, Gravel/Rock
015	Ashland	7.7	0.15	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
016	Ashland	8.1	0.09	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
017	Ashland	8.6	0.07	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
018	Ashland	8.8	0.12	Temporary	Private	Existing Approach	Grading, Gravel/Rock, Bridging
019	Ashland	9.3	0.06	Temporary	Private	Existing Approach	Grading, Gravel/Rock, Matting
020	Ashland	10.3	0.15	Temporary	Private	Existing	Grading, Gravel/Rock
021	Ashland	11.1	0.48	Temporary	Private	Existing	Grading, Gravel/Rock, Matting, Bridging
022	Ashland	11.4	0.16	Temporary	Private	Existing Approach	Grading, Gravel/Rock
024	Ashland	12.9	0.22	Temporary	Private	Existing Approach	Grading, Gravel/Rock, Matting
025	Ashland	13.5	0.14	Temporary	Private	Existing	Grading, Gravel/Rock
026	Ashland	14.0	0.11	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
026.01	Ashland	14.1	0.14	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
027	Ashland	14.5	0.03	Temporary	Private	Existing	No Improvements needed
028	Ashland	14.7	0.07	Temporary	Private	Existing Approach	Grading, Gravel/Rock, Matting
028.1	Ashland	15.0	0.12	Temporary	Private	Existing Approach	Grading, Gravel/Rock
029	Ashland	16.0	0.10	Temporary	Private	Existing	No Improvements needed,
030	Ashland	16.7	0.08	Temporary	Private	Existing	Grading, Gravel/Rock
031	Ashland	17.1	0.02	Temporary	Private	Existing	Grading, Gravel/Rock
031.01	Ashland	17.1	0.03	Temporary	Private	Existing	Grading, Gravel/Rock
034	Ashland	18.7	0.16	Temporary	Private	Existing	Grading, Gravel/Rock
039	Ashland	20.5	1.21	Temporary	Private	Existing	Grading, Gravel/Rock, Matting, Bridging
040.01	Ashland	19.6	0.22	Temporary	Private	Existing	Grading, Gravel/Rock
040.02	Ashland	19.5	0.20	Temporary	Private	Existing	Grading, Gravel/Rock

Access Road ID	County (ies)	Approximate Milepost [a]	Length (miles)	Temporary/ Permanent	Public / Private Road	Existing / New	Anticipated Temporary Improvements [b]
042	Ashland	20.0	0.76	Temporary	Private	Existing	Grading, Gravel/Rock, Matting, Bridging
043	Ashland	20.5	0.18	Temporary	Private	Existing	Grading, Gravel/Rock, Bridging
044	Ashland	20.7	0.02	Temporary	Private	Existing	Grading, Gravel/Rock
045	Ashland	20.7	0.52	Temporary	Private	Existing	Grading, Gravel/Rock, Matting, Bridging
046	Ashland	21.4	0.16	Temporary	Private	Existing	Grading, Gravel/Rock
047	Ashland	21.8	0.20	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
048	Ashland	22.1	0.18	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
049	Ashland	22.6	0.24	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
050	Ashland	22.9	0.11	Temporary	Private	Existing	Grading, Gravel/Rock, Matting, Bridging
050.01	Ashland	23.2	0.11	Temporary	Private	Existing	Grading, Gravel/Rock, Bridging
050.02	Ashland	23.6	0.21	Temporary	Both	Existing	Grading, Gravel/Rock
050.03	Ashland	23.8	0.10	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
051.01	Ashland	23.9	0.08	Temporary	Both	Existing	Grading, Gravel/Rock, Matting
052	Ashland	24.1	0.06	Temporary	Private	Existing	Grading, Gravel/Rock,
053	Ashland	24.1	0.12	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
054	Ashland	24.2	0.11	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
055	Ashland	24.4	0.07	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
058	Ashland	25.0	0.08	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
060	Ashland	25.7	0.32	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
061	Ashland	26.0	0.20	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
062	Ashland	26.0	0.13	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
063	Ashland	27.2	0.31	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
064	Ashland	27.7	0.01	Temporary	Private	Existing	Grading, Gravel/Rock
065	Ashland	28.00	0.06	Temporary	Private	Existing Approach	Grading, Gravel/Rock, Matting
066	Ashland	28.1	0.03	Temporary	Private	Existing	Grading, Gravel/Rock
067	Ashland	28.3	0.10	Temporary	Private	Existing	Grading, Gravel/Rock
068	Ashland	28.6	0.30	Temporary	Private	Existing	Grading, Gravel/Rock, Matting, Bridging
069	Ashland	28.9	0.35	Temporary	Private	Existing	Grading, Gravel/Rock, Matting, Bridging
070	Ashland	29.5	0.32	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
071	Ashland	30.0	0.49	Temporary	Private	Existing	Grading, Gravel/Rock, Matting, Bridging
072	Ashland	30.1	0.47	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
073	Iron	30.9	0.12	Temporary	Public	Existing	Grading, Gravel/Rock, Bridging
074	Iron	30.9	1.89	Temporary	Public	Existing	Grading, Gravel/Rock, Matting, Bridging

Access Road ID	County (ies)	Approximate Milepost [a]	Length (miles)	Temporary/ Permanent	Public / Private Road	Existing / New	Anticipated Temporary Improvements [b]
075	Iron	32.1	0.28	Temporary	Public	Existing	Grading, Gravel/Rock, Matting
076	Ashland, Iron	32.4	1.58	Temporary	Both	Existing	Grading, Gravel/Rock, Matting, Bridging
077	Iron	32.7	0.41	Temporary	Public	Existing	Grading, Gravel/Rock, Bridging
078	Iron	32.5	0.32	Temporary	Public	Existing	Grading, Gravel/Rock, Matting
079	Ashland, Iron	32.7	1.17	Temporary	Both	Existing	Grading, Gravel/Rock, Matting
080	Iron	33.0	1.00	Temporary	Public	Existing	Grading, Gravel/Rock, Matting
081	Iron	33.0	0.14	Temporary	Public	Existing	Grading, Gravel/Rock, Matting
082	Ashland, Iron	33.2	2.39	Temporary	Both	Existing	Grading, Gravel/Rock, Matting, Bridging
083	Iron	33.9	0.95	Temporary	Public	Existing	Grading, Gravel/Rock, Matting
084	Iron	34.3	1.27	Temporary	Both	Existing	Grading, Gravel/Rock, Matting, Bridging
085	Iron	33.4	0.21	Temporary	Both	Existing	Grading, Gravel/Rock, Matting, Bridging
087	Iron	36.3	1.12	Temporary	Public	Existing	Grading, Gravel/Rock, Matting
088	Iron	36.6	0.23	Temporary	Public	Existing	Grading, Gravel/Rock, Matting
089	Iron	36.9	1.60	Temporary	Both	Existing	Grading, Gravel/Rock, Matting, Bridging
090	Iron	37.2	0.60	Temporary	Public	Existing	Grading, Gravel/Rock, Matting, Bridging
091	Iron	37.1	0.09	Temporary	Public	Existing	Grading, Gravel/Rock, Matting
092	Iron	37.6	1.47	Temporary	Both	Existing	Grading, Gravel/Rock, Matting, Bridging
094	Iron	38.0	0.01	Temporary	Both	Existing	Grading, Gravel/Rock
095	Iron	38.8	0.24	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
098	Iron	39.3	0.43	Temporary	Private	Existing	Grading, Gravel/Rock
099	Iron	39.8	0.26	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
101	Iron	40.3	0.10	Temporary	Private	Existing	Grading, Gravel/Rock
102	Iron	40.8	0.02	Temporary	Private	Existing	Grading, Gravel/Rock
103	Iron	40.8	0.14	Temporary	Private	Existing	Grading, Gravel/Rock
104	Iron	41.0	0.25	Temporary	Private	Existing	Grading, Gravel/Rock
202	Ashland	5.0	0.38	Temporary	Private	Existing	Grading, Gravel/Rock, Matting
203.01	Ashland	4.8	0.33	Temporary	Private	New	New, Improvements needed, Matting
204	Ashland	4.9	0.09	Temporary	Private	Existing	Grading, Gravel/Rock
Bayside 1	Ashland	N/A	0.17	Temporary	Private	Existing	No Improvements
Bayside 2	Ashland	N/A	0.02	Temporary	Private	Existing	No Improvements
MLV 1	Bayfield	0.0	0.28	Permanent	Both	Existing/New	Grading, Gravel/Rock, , Matting
MLV 2	Bayfield	0.0	0.13	Permanent	Both	Existing/New	Grading, Gravel/Rock, Culvert
MLV 3	Ashland	5.6	0.11	Permanent	Both	Existing/New	Grading, Gravel/Rock, Culvert

Access Road ID	County (ies)	Approximate Milepost [a]	Length (miles)	Temporary/ Permanent	Public / Private Road	Existing / New	Anticipated Temporary Improvements [b]
MLV 4	Ashland	9.3	0.03	Permanent	Both	New	Grading, Gravel/Rock, Culvert, Matting
MLV 5	Ashland	16.1	0.10	Permanent	Both	New	Grading, Gravel/Rock, Culvert, Matting
MLV 6	Iron	40.0	0.39	Permanent	Private	Existing	Grading, Gravel/Rock
MLV 7	Iron	41.1	0.03	Permanent	Private	New	Grading, Gravel/Rock, Culvert
South Range 1 Yard	Douglas	N/A	0.02	Temporary	Private	Existing	No Improvements
South Range 2 Yard	Douglas	N/A	0.32	Temporary	Private	Existing	No Improvements
South Range 3 Yard	Douglas	N/A	0.18	Temporary	Private	Existing	No Improvements

MLV = mainline block valve; N/A = not applicable

[a] Milepost where access road intersects with pipeline

[b] Temporary improvements such as grading and addition of gravel/rock will be based on actual site-specific field conditions at the time of construction.

Program	Parcel Number	Mile Post	County	Ft Center Line	Acres Permanent Easement	Acres Temporary Workspace	Acres Additional Temporary Workspace	Acres Cathodic Protection	Acres Valve Site
Managed Forest Law	008-00332-0000	1.3	Ashland	1,309	0.00	3.27	0.15	0.00	0.00
Managed Forest Law	008-00343-0000	1.5	Ashland	1,320	0.00	3.01	0.00	0.00	0.00
DATCP Soil and Water Resource Management Grant Program areas	008-00466-0000	2.0	Ashland	799	0.92	1.00	0.41	0.00	0.00
Farmland Preservation Area	026-00195-0100	5.1	Ashland	1,062	1.22	1.75	0.45	0.00	0.00
Farmland Preservation Area	026-00211-0200	5.3	Ashland	1,065	1.22	1.61	1.33	0.00	0.00
Farmland Preservation Area	026-00374-0000	6.8	Ashland	1,328	1.52	2.08	0.51	0.00	0.00
Farmland Preservation Area	026-00387-0300	6.9	Ashland	0	0.00	0.00	0.00	0.00	0.00
Farmland Preservation Area	026-00377-0000	7.1	Ashland	1,318	1.51	1.97	0.47	0.00	0.00
Farmland Preservation Area	026-00378-0000	7.3	Ashland	1,318	1.51	1.73	0.34	0.00	0.00
Farmland Preservation Area	026-00553-0100	10.3	Ashland	1,400	1.61	2.11	0.52	0.00	0.00
DATCP Soil and Water Resource Management Grant Program areas	026005380100	11.0	Ashland	1,134	1.30	1.12	1.30	0.00	0.00
DATCP Soil and Water Resource Management Grant Program areas	026005370000	11.1	Ashland	0	0.00	0.00	0.00	0.00	0.00
DATCP Soil and Water Resource Management Grant Program areas	026005360000	11.1	Ashland	0	0.00	0.00	0.00	0.00	0.00
DATCP Soil and Water Resource Management Grant Program areas	026-00693-0000	11.2	Ashland	1,414	1.62	0.77	1.46	0.00	0.00
Farmland Preservation Area	026006940000	11.5	Ashland	596	0.68	0.78	0.74	0.00	0.00
Farmland Preservation Area	026006950000	11.6	Ashland	1,737	1.99	2.88	2.58	0.00	0.00
DATCP Soil and Water Resource Management Grant Program areas	026007110000	12.0	Ashland	1,334	1.53	2.14	0.53	0.00	0.00
DATCP Soil and Water Resource Management Grant Program areas	026007120000	12.2	Ashland	1,334	1.53	2.10	0.40	0.00	0.00
DATCP Soil and Water Resource Management Grant Program areas	026007180000	12.5	Ashland	1,136	1.30	1.34	0.00	0.00	0.00
DATCP Soil and Water Resource Management Grant Program areas	026007170000	12.8	Ashland	754	0.87	1.31	0.40	0.00	0.00
Managed Forest Law	004-00355-0000	20.7	Ashland	586	0.67	0.97	0.00	0.00	0.00
Managed Forest Law	004-00366-0000	20.8	Ashland	871	1.00	0.98	0.33	0.00	0.00
Managed Forest Law	004-00367-0000	21.0	Ashland	0	0.00	0.00	0.00	0.00	0.00
Managed Forest Law	018-01286-0000	23.1	Ashland	1,893	2.17	2.70	0.20	0.00	0.00
Managed Forest Law	018-01290-0000	25.3	Ashland	0	0.00	0.00	0.00	0.00	0.00
Managed Forest Law	018-01310-0000	25.3	Ashland	1,355	1.56	2.02	0.70	0.00	0.00
Managed Forest Law	018-01311-0000	25.5	Ashland	187	0.21	0.19	0.00	0.00	0.00
Managed Forest Law	018-01308-0000	25.6	Ashland	1,970	2.26	3.20	1.89	0.00	0.00
Managed Forest Law	018-01305-0000	25.9	Ashland	402	0.46	0.47	0.19	0.00	0.00
Managed Forest Law	018-01250-0000	26.0	Ashland	1,366	0.00	3.41	0.59	0.00	0.00
Managed Forest Law	018-01248-0000	26.3	Ashland	1,446	1.66	2.39	0.09	0.00	0.00
Managed Forest Law	018-01229-0000	26.3	Ashland	1,446	1.66	2.39	0.09	0.00	0.00
Managed Forest Law	018-01226-0000	26.7	Ashland	1,377	0.00	3.77	0.42	0.00	0.00
Managed Forest Law	018-01227-0000	26.9	Ashland	1,307	7.43	0.00	0.00	0.00	0.00
Managed Forest Law	018-01163-0000	28.5	Ashland	1,369	0.00	3.62	0.34	0.00	0.00
Managed Forest Law	018-01160-0000	28.7	Ashland	0	0.00	0.00	0.00	0.00	0.00
Managed Forest Law	018-01158-0000	28.8	Ashland	261	0.00	0.52	0.00	0.00	0.00
Managed Forest Law	018-01157-0000	28.8	Ashland	1,222	0.00	3.52	0.00	0.00	0.00
Managed Forest Law	018-01156-0000	29.0	Ashland	1,185	0.00	3.15	0.00	0.00	0.00
Managed Forest Law	018-01058-0000	29.3	Ashland	497	0.57	0.91	0.29	0.00	0.00
Other	018-01055-0100	29.5	Ashland	0	0.00	0.00	0.00	0.00	0.00
Managed Forest Law	002-0157-0000	30.6	Iron	1,400	1.61	1.92	0.51	0.00	0.00

Managed Forest Law	002-0140-0000	30.9	Iron	5,876	6.74	8.36	1.56	0.00	0.00
Managed Forest Law	002-0139-0000	32.0	Iron	5,207	5.98	7.68	0.33	0.00	0.00
Other	018-00840-0000	32.7	Ashland	0	0.00	0.00	0.00	0.00	0.00
Managed Forest Law	002-0138-0000	33.0	Iron	1,942	2.23	2.08	1.20	0.00	0.00
Managed Forest Law	006-0236-0000	33.3	Iron	5,993	6.88	6.47	3.27	0.00	0.00
Managed Forest Law	006-0237-0000	34.3	Iron	0	0.00	0.00	0.00	0.00	0.00
Managed Forest Law	006-0204-0000	34.5	Iron	1,449	1.66	1.80	0.57	0.00	0.00
Managed Forest Law	006-0203-0000	34.8	Iron	5,720	6.57	8.31	2.65	0.00	0.00
Managed Forest Law	006-0197-0000	35.8	Iron	2,047	2.35	2.95	0.41	0.00	0.00
Managed Forest Law	006-0202-0000	36.0	Iron	0	0.00	0.00	0.00	0.00	0.00
Managed Forest Law	006-0199-0000	36.2	Iron	4,225	4.85	5.88	0.26	0.00	0.00
Managed Forest Law	006-0122-0000	37.0	Iron	3,940	4.52	2.63	1.11	0.00	0.00
Managed Forest Law	006-0140-0000	37.4	Iron	0	0.00	0.00	0.00	0.00	0.00
Managed Forest Law	006-0133-0000	37.7	Iron	0	0.00	0.00	0.00	0.00	0.00
Managed Forest Law	006-0123-0000	37.8	Iron	1,311	1.50	0.10	0.18	0.00	0.00
Managed Forest Law	006-0021-0000	39.9	Iron	1,302	0.00	3.56	3.34	0.00	0.00

Acres Access Road	MPTract Number
0.00	WI-AS-017.000
0.00	WI-AS-019.000
0.00	WI-AS-023.000
0.00	WI-AS-058.002
0.00	WI-AS-058.000
0.79	WI-AS-072.000
0.68	WI-AS-074.000
0.00	WI-AS-076.000
0.00	WI-AS-078.000
0.58	WI-AS-104.000
0.52	WI-AS-104.008
0.35	WI-AS-101.006
0.90	WI-AS-101.007
0.47	WI-AS-106.006
0.00	WI-AS-112.001
0.00	WI-AS-114.001
0.00	WI-AS-118.003
0.00	WI-AS-119.002
0.00	WI-AS-120.002
0.82	WI-AS-126.001
0.24	WI-AS-188.000
0.93	WI-AS-189.000
0.83	WI-AS-189.001
0.45	WI-AS-206.000
0.05	WI-AS-220.001
0.00	WI-AS-221.000
0.00	WI-AS-223.000
0.88	WI-AS-224.000
0.09	WI-AS-226.000
0.52	WI-AS-227.000
0.00	WI-AS-230.000
0.00	WI-AS-231.000
0.00	WI-AS-232.000
0.00	WI-AS-233.000
1.19	WI-AS-244.000
0.79	WI-AS-245.000
0.00	WI-AS-246.000
0.38	WI-AS-247.000
0.00	WI-AS-249.000
0.12	WI-AS-250.000
0.48	WI-AS-251.000
0.44	WI-IR-001.001

5.21	WI-IR-001.000
17.95	WI-IR-002.000
0.24	WI-AS-268.001
7.37	WI-IR-003.000
3.60	WI-IR-004.000
2.51	WI-IR-004.001
0.00	WI-IR-006.000
0.21	WI-IR-007.000
5.55	WI-IR-009.000
0.73	WI-IR-007.001
5.71	WI-IR-009.010
2.39	WI-IR-011.001
1.17	WI-IR-012.000
1.96	WI-IR-014.000
0.00	WI-IR-016.001
1.36	WI-IR-037.004

Attachment A
L5 Bad River Road Crossing Permits and Haul Road Agreements

Stakeholders	Crossing Name	Road Crossing Permit Acquired Yes/No	Acquired Date
•Town of Gingles, Ashland County	Weister Road	Yes	5/20/2020
•Town of Gingles	Dahlstrom Road	Yes	5/20/2020
•Town of Gingles, Ashland County	Hegstrom Road	Yes	5/20/2020
•Town of White River, Ashland County	Olby Road	Yes	5/18/2020
•Town of White River, Ashland County	Schwiesow Road	Yes	5/18/2020
•Town of White River, Ashland County	Salo Road	Yes	5/18/2020
•WisDOT Northwest Region - Superior Office(Owner)	STH 112	Yes	9/9/2020
•Town of White River, Ashland County	Berweger Road	Yes	5/18/2020
•Town of White River, Ashland County	Richardson Road	Yes	5/18/2020
•Town of White River, Ashland County	Marengo River Road	Yes	5/18/2020
•Town of White River, Ashland County	Riemer Road	Yes	5/18/2020
•Town of White River(Owner) •Town of Marengo, Ashland County, Wisconsin(Owner)	Long Road	Yes	5/18/2020
•Ashland County Highway Department, Ashland County	CTH C	Yes	7/14/2020
•Town of Marengo, Ashland County	Van de Bruggen Road	Yes	6/15/2020
•Town of Marengo, Ashland County	Hanninen Road	Yes	6/15/2020
•WisDOT Northwest Region - Superior Office	STH 13	Yes	9/9/2020
•Town of Ashland, Ashland County	Bass Lake Road	Yes	7/14/2020
•WisDOT Northwest Region - Superior Office	STH 13	Yes	9/9/2020
•Town of Ashland, Ashland County	North York Road	Yes	7/14/2020
•Town of Ashland, Ashland County	Section 5 Road	Yes	7/14/2020

Agreement Applied For
Agreement Needed - Not Applied For
Date Ran:

Not Completed
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No Agreement Needed
Agreement Acquired - Drawing Verified

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L5 Bad River Road Crossing Permits and Haul Road Agreements

Stakeholders	Haul Roads	Haul Road Agreement Acquired Yes/No	Acquired Date
•Town of Ashland, Ashland County	Poppe Road	Yes	7/14/2020
•Town of Ashland, Ashland County	Old Cemetery Road	Yes	7/14/2020
•Ashland County Highway Department, Ashland County	CTH C	Yes	7/14/2020
•Ashland County Highway Department, Ashland County	CTH C	Yes	7/14/2020
•Town of Morse (town line), Ashland County•Town of Ashland, Ashland County	Golf Course Road	Yes	7/14/2020
		Yes	6/9/2020
•WisDOT Northwest Region - Superior Office	STH 13	Yes	9/9/2020
•WisDOT Northwest Region - Superior Office	STH 169	Yes	9/9/2020
•Town of Morse, Ashland County	N Butler Road	Yes	6/9/2020
•Town of Morse, Ashland County	Popko Road	Yes	6/9/2020
•Town of Morse, Ashland County	Becker Road	Yes	6/9/2020
•Town of Morse, Ashland County	Popko Road	Yes	6/9/2020
•Town of Morse, Ashland County •Town of Anderson, Ashland County	County Line Road	Yes	6/9/2020
		Yes	6/9/2020
•Town of Gurney, Iron County	Vogue Road	Yes	7/21/2020
•Town of Gurney, Iron County	Curry Road	Yes	7/21/2020
•Town of Gurney, Iron County	Steinmetz Road	Yes	7/21/2020
•Town of Gurney, Iron County •Town of Saxon, Iron County	W. Aggies Road	Yes	7/21/2020
		Yes	7/14/2020
•Town of Saxon, Iron County	Old WI 10	Yes	7/14/2020
•WisDOT NorthCentral Region	USH 2	Yes	8/4/2020

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•City of Ashland, Ashland County	•11TH AVENUE EAST •BEASER AVENUE •BINSFIELD ROAD •EAGLE VIEW LANE •ELLIS AVENUE •ELLIS AVENUE •FAIRWAY DRIVE •MAPLE LANE •SANBORN AVENUE	N/A	No agreement needed
•City of Mellen, Ashland County	•CRESTVIEW LANE •GOLF COURSE ROAD •HILLCREST DRIVE•JAEGER ROAD •MEMORY LANE •MEMORY LANE •WEST LAYMAN DRIVE	No	City Council meeting 03/02/2021 for approval
•Wisconsin Department of Transportation, Northwest Region	•FRONT STREET 0.22 •FRONT STREET 0.32 •FRONT STREET 1.10 •LAKE DRIVE 0.35 •LAKE SHORE DRIVE WEST 3.06 •NORTH MAIN STREET 0.69 •STATE HIGHWAY 112 2.09 •STATE HIGHWAY 112 9.95 •STATE HIGHWAY 13 20.71 •STATE HIGHWAY 169 3.11 •STATE HIGHWAY 169 3.60 •STATE HIGHWAY 169 3.64 •STATE HIGHWAY 77 0.58 •STATE HIGHWAY 77 4.76 •STATE HWY 137 1.04 •US 2 18.34	N/A	No agreement needed

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L5 Bad River Road Crossing Permits and Haul Road Agreements

•Town of Gingles, Ashland County	•BEASER AVENUE •BEASER AVENUE •Butterworth Road •DAHLSTROM ROAD •HEGSTROM ROAD •HEGSTROM ROAD •HOLMES ROAD •HOLMES ROAD •OLD AIRPORT ROAD •PEARCE ROAD •SUMMIT ROAD EAST •WIESTER ROAD TRIANGLE ROAD	Yes	9/9/2020
•Town of White River, Ashland County	•BERWEGER ROAD •G ANDERSON ROAD •LONG ROAD •MARENGO RIVER ROAD •OLBY ROAD •REDINGER ROAD •RICHARDSON ROAD •RIEMER ROAD •SALO ROAD •SCHWIESOW ROAD •VAN DE BRUGGEN ROAD •WIBERG ROAD •WILSON ROAD	Yes	9/21/2020
•Town of Marengo, Ashland County	•HANNINEN ROAD •LONG ROAD •OLD COUNTY ROAD •OVESKA ROAD •VAN DE BRUGGEN ROAD	Yes	11/9/2020

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•Town of Ashland, Ashland County	•BASS LAKE ROAD •CEMETERY ROAD •GILGEN ROAD •GOLF COURSE ROAD •LEVELIUS ROAD •MARITA ROAD •NORTH YORK ROAD •OLD COUNTY ROAD •POPPE ROAD •SECTION 5 ROAD •SWEDMAN ROAD	Yes	11/12/2020
•Town of Morse, Ashland County	•BECKER ROAD •BLOCK ROAD •COUNTY LINE ROAD •EAST BUTLER ROAD •FISHER ROAD •GOLF COURSE ROAD •HAUGEN ROAD •NORTH BUTLER ROAD •POPKO ROAD	Yes	9/8/2020
•Ashland County Highway Department, Ashland County	•CTH A •CTH C •CTH E	Yes	1/12/2021
•Wisconsin Department of Transportation, Northwest Region	•STATE HWY 137 •US HWY 2	N/A	No agreement needed
•City of Superior, Douglas County	•E CITY LIMITS RD •STINSON AVENUE •US HWY 2 - 53	N/A	No agreement needed
•Douglas County Highway Department, Douglas County	•E COUNTY ROAD Z •S COUNTY ROAD E	Yes	11/18/2020
•Town of Gurney, Iron County	•AGGIES ROAD •CURRY ROAD •HEFFNERS ROAD •LE DUC ROAD •LOVERS LANE •OLD HIGHWAY 10 •STEINMETZ ROAD •VOGUES ROAD	Yes	11/17/2020

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L5 Bad River Road Crossing Permits and Haul Road Agreements

•Town of Saxon, Iron County	•LE DUC ROAD •LOVERS LANE •NORTH SITAN ROAD •OLD HIGHWAY 10 •SECTION 34 ROAD	Yes	11/10/2020

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