



August 15, 2023

Cathryn Hanson  
11 East Superior Street, Suite 125  
Duluth MN 55802

Subject: Comments and Information Request

Dear Ms. Kathryn Hanson:

The Wisconsin Department of Natural Resources (DNR) appreciates the opportunity to review updated erosion and sediment control maps and plans, HDD profiles, geotechnical information, and hydrofracture analysis for the Enbridge Energy Line 5 Wisconsin Segment Relocation Project, as part of the Notice of Intent to request coverage under the Construction Site Storm Water Runoff General Permit No. WI-S067831-6.

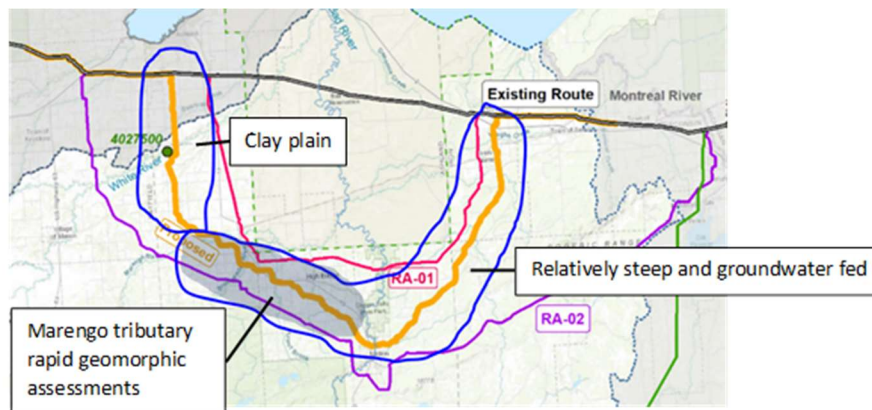
In addition to meeting its environmental analysis and disclosure requirements under the Wisconsin Environmental Policy Act (WEPA), the DNR is responsible for determining whether it has reasonable assurance that the proposed Enbridge Line 5 Project (Project) would comply with water quality standards, the public interest, and public and tribal rights. The development and implementation of a site-specific erosion and sediment control plan and maps can help support this determination. The DNR has reviewed the draft Plan provided February 10, 2023 and updated materials submitted on July 12, 2023 and offers the following comments and information request:

General comments:

The following comments (1 through 5) are intended to help better understand and disclose the existing conditions and potential impacts associated with proposed wetland and stream crossings.

1. Expand the Wetland Waterbody Crossing Table provided on July 10, 2023 to include columns for groundwater-fed wetlands (known, likely, possible) and indicators (plant species such as *Symplocarpus foetidus* (Skunk Cabbage) and *Caltha palustris* (Marsh Marigold) and any other relevant conditions observed during delineation surveys or other site visits).
2. Provide a table listing all soil borings taken, including columns for latitude, longitude, elevation, boring depth, depth to bedrock, bedrock type, fractured bedrock (low, moderate, high), groundwater encountered (flag for yes), depth to groundwater, and explanatory notes (e.g., how depth to groundwater was measured or estimated).
3. Describe the criteria Enbridge used for selecting the proposed method for crossing wetlands and streams; preferably, in the form of a decision-tree.
4. Provide an explanation of whether and how the following characteristics were included in the decision criteria for selecting what crossing method to use, plus any other criteria that were included when proposing a method:
  - a. Environmental quality of the wetland or stream to be crossed (e.g., trout stream, high-quality wetland, outstanding/exceptional resource water)
  - b. Stream/river width (e.g., streams/ivers greater than 10 ft. wide)

- c. Streams with or without adjacent wetlands
- d. Potential geohazards in or near the wetland or stream to be crossed (refer to the geohazard table provided by Enbridge in November 2021, which is posted at:  
[https://widnr.widen.net/s/nhtvvbwmzp/4\\_15wsr\\_potentialgeohazards\\_fromenbridge\\_combined\\_2021.11.03.](https://widnr.widen.net/s/nhtvvbwmzp/4_15wsr_potentialgeohazards_fromenbridge_combined_2021.11.03.))
- e. Steep slopes in or near the area to be crossed, including bluffs and adjacent uplands that would be drilled/bored under
- f. Soil conditions (e.g., peat, very soft clay) of the area to be crossed, including adjacent uplands that would be drilled/bored under
- g. Geologic conditions (e.g., moderately or highly fractured rock) of the area to be crossed, including adjacent uplands that would be drilled/bored under
- h. The need for blasting and associated impacts to the potential migration of water
- i. The results of hydro fracture analyses (graphs submitted on July 12, 2023)
- j. The potential for an aquifer breach and any best management practices that could be used to help prevent such a breach
- k. Groundwater depth as indicated by Geotech bores, nearby well logs, or other information sources
- l. Artesian conditions encountered or indicated by Geotech bores, nearby well logs, or other information sources
- m. Regional differences in geomorphology, erosion hazard, and groundwater contribution between (1) the Clay Plain, (2) Clay-to-Sand/Gravel Transition Zone (i.e., Upper Marengo watershed), and (3) Penokee Hills/Copper Falls Formation (i.e., area east/northeast of the proposed Bad River crossing). (See map below.)
- n. Fluvial Erosion Hazard Rapid Geomorphic Assessment Data for the Marengo Watershed developed by U.S. Geological Survey and others (Fitzpatrick et al. 2022, available at: <https://www.sciencebase.gov/catalog/item/6230edbad34ec9f19eeaf615>)



5. Provide site-specific reasoning for selecting trenching versus HDD for the following proposed crossings:
  - a. ~MP14.7 (sasc1006p) Unnamed tributary of Brunsweler River shown on plan sheet B37
  - b. ~MP15.8 (sasc1003p\_x1) Unnamed tributary of Trout Brook shown on plan sheet B39
  - c. ~MP19.8 (sasd1015p) Unnamed tributary of Silver Creek shown on plan sheet B49
  - d. ~MP 28.7 (sasw011) Unnamed tributary of Gehrman Creek shown on plan sheet B69
  - e. ~MP 35.9 (Sira001i, wira008s, wira008e, wira008f) headwaters of Coil Creek shown on plan sheet B96

Comments related to storm water permit coverage:

The following comments are on the February 2023 and July 2023 Enbridge Line 5 submittals. Please note that the department has not yet completed its review of post-construction storm water elements, new valve locations, or permanent access roads. For the questions in the comments below, please identify the document and page where the responses are incorporated into permit application materials in addition to providing a written response.

Document: Erosion Control Map

| No.    | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Affected Sheets | Commenter |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------|
| ECM-1  | The erosion control and stormwater management plans submitted to date do not appear to reflect 100% design.                                                                                                                                                                                                                                                                                                                                               | Multiple        | AJM       |
| ECM-2  | How will dirt access roads be maintained so as to not rut or have sediment wash away during rain events?                                                                                                                                                                                                                                                                                                                                                  | Multiple        | MJJ       |
| ECM-3  | Will a cover crop be established prior to construction activities in row crop fields used for work area or laydown area where needed to limit bare soil exposure per s. NR 151.11 (8) (d), Wis. Adm. Code?                                                                                                                                                                                                                                                | Multiple        | AJM       |
| ECM-4  | For additional temporary workspace that exceeds 1 acre that will not be stabilized during construction, provision of sediment traps and basins may be needed.                                                                                                                                                                                                                                                                                             | Multiple        | AJM       |
| ECM-5  | The note 'trenchless construction mitigates ground disturbing activities along HDD drill path' is not recommended as that implies that no other erosion and sediment control may be needed. It would be better to have a note that communicates that ground disturbance is expected to be limited to clearing (but not grubbing) and vehicle access. If a localized area of ground disturbance occurs...insert description of measures that will be taken | Multiple        | AJM       |
| ECM-6  | How will perimeter controls be installed in frozen ground/ snow covered conditions?                                                                                                                                                                                                                                                                                                                                                                       | Multiple        | MJJ       |
| ECM-7  | Provide detail on winter/fall stabilization techniques                                                                                                                                                                                                                                                                                                                                                                                                    | Multiple        | MJJ       |
| ECM-8  | Identify slopes 15-20% slope and >20% that are not adjacent to water bodies. Summarize in a table by milepost or access road. Incorporate additional site-specific BMPs into the plans for these areas.                                                                                                                                                                                                                                                   | Multiple        | MJJ       |
| ECM-9  | Provide location of cuttings deposition for each HDD site.                                                                                                                                                                                                                                                                                                                                                                                                | Multiple        | MJJ       |
| ECM-10 | Please provide a map that shows proposed site restoration measures, including site-specific measures as agreed to in landowner agreements or with other stakeholders. If needed, this can be updated prior to permitting where restoration measures are still being discussed.                                                                                                                                                                            | Multiple        | SMW       |
| ECM-11 | Redundant perimeter control is needed on HDD sites along wetlands.                                                                                                                                                                                                                                                                                                                                                                                        | Multiple        | MJJ       |
| ECM-12 | First Bullet under General ESCP & EPP Notes-should clarify that modifications must be at least as protective of the environment as the BMP measure being adjusted or modified.                                                                                                                                                                                                                                                                            | A6              | AJM       |
| ECM-13 | Second bullet under 'Wetlands'-maximum depth of debris should be per permitting requirements, not environmental inspector. Typical allowable depth is 2 inches.                                                                                                                                                                                                                                                                                           | A6              | AJM       |
| ECM-14 | Third bullet under 'Wetlands'- Please clarify if 'ditch line' is used to mean 'trench line' or use trench line consistently.                                                                                                                                                                                                                                                                                                                              | A6              | AJM       |
| ECM-15 | Fourth bullet under 'Wetlands'- modify this bullet to conform with Chapter 30 permit requirements.                                                                                                                                                                                                                                                                                                                                                        | A6              | AJM       |

| No.    | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Affected Sheets | Comments |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------|
| ECM-16 | Sixth bullet under 'Wetlands'- modify this bullet to conform to Chapter 30 permit requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A6              | AJM      |
| ECM-17 | Last bullet under 'Wetlands'- Clarify which conditions matting will be used or not used. There needs to be a clear commitment to use matting over delineated wetlands within the right-of-way except directly over the trench during pipe installation. A short list of conditions where matting may be omitted may be included if allowed by the wetland permit. Consideration should be given to any forecasted rain or thaw events during the duration of the anticipated access that may impact decisions on mat installation. Please remove the phrase 'if necessary' from references to matting.                       | A6              | AJM, SMW |
| ECM-18 | Second bullet under 'Seeding and mulching'-Tackifiers should be applied per Technical standard 1050.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A6              | AJM      |
| ECM-19 | Fourth bullet under 'Seeding and mulching'-Mulching is not recommended in concentrated flow areas unless water is diverted until seed is established per Technical Standard 1058.                                                                                                                                                                                                                                                                                                                                                                                                                                            | A6              | AJM      |
| ECM-20 | Under Seeding and mulching, consider including provisions for watering to support vegetation establishment if a prolonged period without precipitation fails to support vegetation growth.                                                                                                                                                                                                                                                                                                                                                                                                                                   | A6              | AJM      |
| ECM-21 | In the 'General Sequence of Construction', the following clarifications should be made:<br>1. Grubbing activities should not occur prior to sediment control device installation except as needed to install sediment control devices<br>2. Land disturbance must be staged to limit the duration of bare soils                                                                                                                                                                                                                                                                                                              | A6              | AJM      |
| ECM-22 | Under ESC Plan Sheet Notes-Note 1, please note that manufactured trackout control devices are also an option.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A7              | AJM      |
| ECM-23 | Under ESC Plan Sheet Notes-Note 2, Instead of 'adjust according to site conditions', suggest 'Adjust placement to conform to Technical standard 1056, providing ditch check silt fence relief at concentrated flow points and low points.' This allows adjustment to more detailed topography that what is on the erosion control plans but does not leave the action too open-ended.                                                                                                                                                                                                                                        | A7              | AJM      |
| ECM-24 | Under ESC Plan Sheet Notes-Note 3, there are 5 potential BMPs listed for steep slope areas. Please clarify which of these practices would be implemented on all sites and which practices may be used to supplement based on site-specific or timing-specific situations. A clear commitment to a specific set of minimum BMPs is necessary in these high-erosion risk areas. If there are specific conditions that would dictate use of certain BMPs, please include this detail. A potential example of this would be: 'If a slope greater than 20% is less than 50 feet long, anchored erosion control mat will be used.' | A7              | AJM      |
| ECM-25 | Under ESC Plan Sheet Notes-Note 5, please exclude the crossing method in Figure 14 if there is water present. DNR will require the use of a flow bypass system to isolate the in-water work zone in all waterways proposed to be trenched, unless the waterway is completely dry for the entire duration of the activity below the OHWM.                                                                                                                                                                                                                                                                                     | A7              | AJM      |

| No.    | Comment                                                                                                                                                                                                                                                                             | Affected Sheets            | Commenter |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|
| ECM-26 | In the table, please note that Technical Standard 1071 has been combined with Technical standard 1056, so Biolog should reference 1056.                                                                                                                                             | A7                         | AJM       |
| ECM-27 | Figure 6-spacing should reference or be consistent with Technical Standard 1056.                                                                                                                                                                                                    | A10                        | AJM       |
| ECM-28 | Figure 9, Note 1-Suggest modifying note to: Sediment control device may be removed when vegetation upslope of the device has reached 70% <u>density</u> of permanent vegetation.                                                                                                    | Sheet A12-13, Figures 9-11 | AJM       |
| ECM-29 | Figure 9, Note 2- Suggest modifying note to: Lowest berm may be omitted if spacing from next to lowest berm to down slope sediment control device meets the spacing requirements in Technical Standard 1056.                                                                        | Sheet A12-13, Figures 9-11 | AJM       |
| ECM-30 | Figure 9, Note 3- Suggest modifying note to: Extend berms so discharge is to a well vegetated area or an area protected by anchored erosion control mat. J-hooks or ditch checks may be used to dissipate energy and reduce erosion at the discharge end.                           | Sheet A12-13, Figures 9-11 | AJM       |
| ECM-31 | Figure 9, Note 4- Suggest modifying note to: If silt fence or staked straw bales are used, criteria in Technical Standard 1056, Perimeter sediment control and slope interruption should be followed.                                                                               | Sheet A12-13, Figures 9-11 | AJM       |
| ECM-32 | Figure 9, Note 6- Suggest modifying note to: If width of berm exceeds 100 feet, consider providing multiple discharge points. All discharge points must be to a well vegetated area or stabilized with anchored erosion control mat.                                                | Sheet A12-13, Figures 9-11 | AJM       |
| ECM-33 | Figure 9, Note 7-If the length of the slope is less than the distance of required berm spacing, use slope interruption devices or anchored erosion control mat to limit erosion on slopes with 5% slope or greater.                                                                 | Sheet A12-13, Figures 9-11 | AJM       |
| ECM-34 | Figure 10, Note 1-Suggest limiting outslope of berm to 2% to reduce erosion potential                                                                                                                                                                                               | Sheet A12-13, Figures 9-11 | AJM       |
| ECM-35 | Figure 10, Note 3-Berms shall be spaced...Need to specify spacing here as construction specifications were not submitted with the erosion control plan.                                                                                                                             | Sheet A12-13, Figures 9-11 | AJM       |
| ECM-36 | Figure 10, note 5-Suggest changing note to: minimum dimensions are shown-spacing may be decreased if field conditions dictate.                                                                                                                                                      | Sheet A12-13, Figures 9-11 | AJM       |
| ECM-37 | On the contours and the aerial photos, there appears to be concentrated flow paths from substantial uphill areas flowing through the work area. How will those flows be managed during use of the temporary work area? Will the flows be temporarily diverted around the work area? | B4                         | AJM       |

| No.    | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Affected Sheets | Commenter |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------|
| ECM-38 | Describe work taking place at north and south sides of the White River Reservoir. Specifically, please indicate why the work area includes areas along the bank on both sides of the bridge.                                                                                                                                                                                                                                                                                                                                                                                             | B15             | MJJ       |
| ECM-39 | Describe/include in plan set how water will be handled on either side of this segment of ROW. Stream flow is nearly parallel with ROW, will water not want to flow along berms?                                                                                                                                                                                                                                                                                                                                                                                                          | B24             | MJJ       |
| ECM-40 | Describe/include in plan set scope of work along pipe laydown area. Are impacts to steep slopes/ wetlands needed?                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | B34             | MJJ       |
| ECM-41 | Near MP 13.8, it appears that perimeter control is crossing a concentrated flow channel. Silt fence should only be used in areas of sheet flow.                                                                                                                                                                                                                                                                                                                                                                                                                                          | B35             | AJM       |
| ECM-42 | Will matting be placed where HDD path crosses wetlands?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | B37             | AJM       |
| ECM-43 | Can the LOD and silt fence be pulled back to the top of the steep slope area on the west end of the work area near MP 15?                                                                                                                                                                                                                                                                                                                                                                                                                                                                | B37             | AJM       |
| ECM-44 | Based on the contours and labeling of a stream, it appears that there may be a concentrated flow path across AR 028.1. Will this be addressed via a low water crossing detail or a temporary cross culvert? Is there potential to shift the access road to get it out of what appears to be a concentrated flow path?                                                                                                                                                                                                                                                                    | B37             | AJM       |
| ECM-45 | There appears to be a substantial area uphill draining to the large work area at MP 15. How is this water being diverted or managed as it flows thorough the site? Will there be a temporary culvert or matting placed over the concentrated flow path through the work area? It appears that there needs to be additional sediment control on the north side of the work area due to the proximity of the gully/stream. On the east side of the work area, there may be a concentrated flow path passing through the HDD entry point. Can that be adjusted to move away from that path? | B37             | AJM       |
| ECM-46 | At MP 14.7-14.9 there is a crossing of a tributary to a tribal ORW. This is not an HDD crossing, but labeling is not clear on which crossing detail will be used. It is mapped as an intermittent stream.                                                                                                                                                                                                                                                                                                                                                                                | B37-38          | AJM       |
| ECM-47 | 'Block Road' is labeled 'Hanninen Road' on the surface water data viewer (SWDV). Suggest noting both names for the purpose of emergency response.                                                                                                                                                                                                                                                                                                                                                                                                                                        | B38             | AJM       |
| ECM-48 | Suggest placing perimeter control between begin of HDD and the unnamed tributary to a tribal ORW since the risk of IR is higher near the start and end of an HDD                                                                                                                                                                                                                                                                                                                                                                                                                         | B38             | AJM       |
| ECM-49 | Describe/include in plan set scope of work along pipe laydown area. Are impacts to steep slopes/ wetlands needed?                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | B41             | MJJ       |
| ECM-50 | Please provide more info on access/use of HDD path ROW—is this mostly foot and ATV access, or would larger vehicles use it?                                                                                                                                                                                                                                                                                                                                                                                                                                                              | B42             | AJM       |

| No.    | Comment                                                                                                                                                                                                                                                                                                                                                            | Affected Sheets           | Commenter      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------|
| ECM-51 | Perimeter control is shown across both intermittent unnamed tribs of Billy Creek. Perimeter control is not designed for use in concentrated flow areas and should not be placed in streams but is used around them. Describe work and erosion control measures taken at steep slopes south of ROW. Can impacts be minimized since no trenching is occurring there? | B42                       | AJM<br><br>MJJ |
| ECM-52 | There appears to be a concentrated flow path through the middle of the workspace near the HDD entrance. How will this flow be addressed during construction?                                                                                                                                                                                                       | B43                       | AJM            |
| ECM-53 | There is a slope greater than 1:3 and more than 250 feet long between the HDD entry point and Silver Creek. There are also no clear span bridges across the portions of the oxbow crossed by the HDD. How will access for IR monitoring be provided?                                                                                                               | B46                       | AJM            |
| ECM-54 | There is a groundwater fed wetland at MP 19.5. What additional precautions will be taken to avoid impacting the aquifer in this location, and other locations where wetlands are known or likely to be groundwater fed?                                                                                                                                            | B47                       | AJM            |
| ECM-55 | AR 039 should have perimeter control between it and the wetland immediately downhill west of the wetland crossing west of Silver Creek.                                                                                                                                                                                                                            | B50                       | AJM            |
| ECM-56 | Describe scope of work in pipe laydown area. How will grading be done / impact minimized on steep slopes and wetlands? Will additional fill be needed?                                                                                                                                                                                                             | B51/48                    |                |
| ECM-57 | Is there an existing culvert where AR045 crosses UNT of Silver Creek?                                                                                                                                                                                                                                                                                              | B54                       | AJM            |
| ECM-58 | Sheet 58-need more perimeter control due to location of steep slope and ORW near HDD staging.                                                                                                                                                                                                                                                                      | B58                       | AJM            |
| ECM-59 | Please provide additional information about proposed grading and the extent of gravel placement. If the gravel placement will be permanent, then post-construction storm water requirements are likely to apply. Perimeter control alone is not adequate during land disturbing activities.                                                                        | B57                       | AJM            |
| ECM-60 | What are the black squares over waterways? Are they supposed to be yellow to represent a bridge?                                                                                                                                                                                                                                                                   | B58, B75 and B113, et al. | SMW, AJM       |
| ECM-61 | Please clarify if any grading will take place in the work areas with slopes steeper than 1:3                                                                                                                                                                                                                                                                       | B60                       | AJM            |
| ECM-62 | Additional perimeter control is needed between MP 29.6 and 29.7 near stream                                                                                                                                                                                                                                                                                        | B70-71                    | AJM            |
| ECM-63 | Sediment control is needed on downslope side of access road near waterway                                                                                                                                                                                                                                                                                          | B103                      | MJJ            |
| ECM-64 | A bridge needed to cross unnamed tributary of Vaughn Creek unless determined non-navigable by WNDR.                                                                                                                                                                                                                                                                | B112                      | MJJ            |
| ECM-65 | Mile marker 39.8-A bridge will be needed to cross this unnamed tributary of Vaughn Creek unless WNDR determines it non-navigable.                                                                                                                                                                                                                                  | B113                      | MJJ, SMW       |

| No.    | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Affected Sheets | Commenter     |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|
| ECM-66 | <p>The site-specific Aerial Plan Sheets still use the numerical references to standard details. Please provide actual site-specific erosion control plans, including the following information:</p> <ol style="list-style-type: none"> <li>1. Site-specific measures to reduce erosion on the steep slopes. Notes on the plans should clarify the specific measures proposed such as requirements for timely stabilization, use of erosion control or turf reinforcement mats, temporary diversion of runoff around bare slopes, and slope interruption devices.</li> <li>2. Proposed location of cofferdams and dewatering measures</li> <li>3. Proposed begin and end of the temporary stream crossing</li> <li>4. Temporary sediment traps or basins</li> <li>5. Additional perimeter control between disturbed area and top of slope</li> <li>6. Proposed ditch check locations</li> <li>7. Proposed methods to maintain existing drainage patterns along ditches crossed by the pipeline or access roads during and after construction</li> <li>8. Proposed locations of soil stockpiles with associated erosion and sediment control</li> <li>9. Minimum extent of proposed construction matting</li> </ol> <p>An example of the level of detail expected can be found in the following projects:<br/>FIN 88984 <a href="#">ePermitting - DocSetViewDet (wi.gov)</a> in the erosion control map</p> | C1-C45          | MJJ, AJM, SMW |
| ECM-67 | Can the work area be adjusted to avoid Steep slopes along NE side?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | C5              | MJJ           |
| ECM-68 | Can the work area be adjusted to avoid steep slopes (specifically SE side, but also N)?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | C11             | MJJ           |
| ECM-69 | Is it feasible to adjust the west limits of the additional work area to minimize disturbances of slopes greater than 20%?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | C19             | AJM           |
| ECM-70 | The department may have additional comments on new information submitted in response to these comments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | All             | AJM, MJJ, SMW |

Documents: HDD Profiles and Hydrofracture Analysis and Site-Specific IR Plans

| No.  | Comment                                                                                                                                                                                                                                                                                                                        | Affected Crossing Milepost | Commenter |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|
| HP-1 | In the June 5, 2023 response to an information request regarding chapter 30 permitting (IP-NO-2020-2-N00471), there is a statement that “Enbridge has determined that its plans meet WDNR Technical Standard 1072 requirements.” Since this is the case, please provide an HDD Summary as described in the technical standard. | All                        | MJJ       |
| HP-2 | Please also provide a table summarizing the HDD crossings similar to that provided in the Antidegradation report for Line 3 in Minnesota. Please identify all areas where the soil confining pressure is less than 2.0 times the expected fluid pressure as elevated risk areas.                                               | All                        | AJM       |

| No.   | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Affected Crossing Milepost | Commenter |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|
| HP-3  | Please clarify the conditions under which matting will be used outside of wetlands and the conditions under which matting would be considered not necessary in wetlands                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | All                        | AJM       |
| HP-4  | The IR response plans do not provide sufficient detail on monitoring the drill path for IRs. The following information should be added: <ol style="list-style-type: none"> <li>1. Indicate how each drill path will be observed for monitoring-can the path be walked, driven, or flown? How is that different where slopes exceed 20%?</li> <li>2. How will off right-of-way IRs be detected in areas heavily wooded on either side of the right-of-way.</li> <li>3. Is a boat going to be available onsite for larger waterway crossings or ones with steep banks?</li> <li>4. What is the minimum frequency of drill path observation during drilling operations?</li> <li>5. Will there be night-time operations? If so, how will observation be conducted between sunset and sunrise?</li> </ol> | All                        | AJM       |
| HP-5  | The IR response procedures are different for 'inaccessible locations'. What constitutes an 'inaccessible' location? Please define in the report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | All                        | AJM       |
| HP-6  | For all crossings, there appears to be a higher risk of IRs near the exit end. The documents provided do not provide any discussion on measures to reduce this risk or potential impacts from it (i.e. additional visual monitoring, adjustments to mud mix, reduced fluid pressure, etc.).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | All                        | AJM       |
| HP-7  | The documents do not provide any discussion of site-specific risk factors and measures that will be taken to reduce the risk and potential impacts of an IR due to these factors. Subsequent comments identify some site-specific risks identified to date, but other known risks should also be addressed in the documentation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | All                        | AJM       |
| HP-8  | How will the followings site-specific IR risks be addressed at the White River HDD Crossing: <ol style="list-style-type: none"> <li>1. Very soft clay soils</li> <li>2. Rock fragments and/or cobbles</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4                          | AJM       |
| HP-9  | How will the following IR risks be addressed at the Marengo River Direct Pipe Crossing: <ol style="list-style-type: none"> <li>1. Wetlands downhill of exit end with calculated confining soil pressure less than anticipated fluid pressure in the last 200 feet of the drill path</li> <li>2. Very soft soils</li> <li>3. Cobbles and boulders found in soil borings</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                     | 11                         | AJM       |
| HP-10 | How will the followings site-specific IR risks be addressed at the Brunsweler River HDD Crossing: <ol style="list-style-type: none"> <li>1. Highly variable soil textures and strengths</li> <li>2. Shallow groundwater</li> <li>3. Highly fractured rock</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 14                         | AJM       |
| HP-11 | How will the followings site-specific IR risks be addressed at the Highway 13 HDD Crossing: <ol style="list-style-type: none"> <li>1. Highly variable soil textures and strengths</li> <li>2. Entry and exit are near small streams</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 15                         | AJM       |

| No.   | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Affected Crossing Milepost | Commenter |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|
| HP-12 | How will the followings site-specific IR risks be addressed at the Trout Brook HDD Crossing: <ol style="list-style-type: none"> <li>1. Highly variable soil textures and strengths</li> <li>2. Entry near delineated wetlands and exit near both a stream and wetlands</li> <li>3. Cobbles</li> </ol>                                                                                                                                                       | 16                         | AJM       |
| HP-13 | How will the followings site-specific IR risks be addressed at the Billy Creek HDD Crossing: <ol style="list-style-type: none"> <li>1. Highly variable soil textures and strengths</li> <li>2. Moderately to highly fractured rock</li> <li>3. Entry near a drainageway and exit near a stream</li> <li>4. Rock fragments, cobbles, and boulders</li> </ol>                                                                                                 | 17                         | AJM       |
| HP-14 | How will the followings site-specific IR risks be addressed at the Silver Creek HDD Crossing: <ol style="list-style-type: none"> <li>1. Variable soil textures</li> <li>2. Moderately to highly fractured rock</li> <li>3. A well is located near the entry</li> <li>4. Entry near a drainageway</li> <li>5. Exit is near groundwater fed wetland and a sand and gravel pit</li> <li>6. Rock fragments, cobbles, and boulders</li> </ol>                    | 19                         | AJM       |
| HP-15 | How will the followings site-specific IR risks be addressed at the Krause Creek HDD Crossing: <ol style="list-style-type: none"> <li>1. Sandy soils</li> <li>2. Moderately to highly fractured rock near exit end</li> <li>3. Entry near wetlands</li> </ol>                                                                                                                                                                                                | 22                         | AJM       |
| HP-16 | How will the followings site-specific IR risks be addressed at the Bad River HDD Crossing: <ol style="list-style-type: none"> <li>1. Gravel in soils</li> <li>2. Cobbles</li> <li>3. Entry is near a sanitary manhole—suggest verifying if this is related to public or private wastewater system. No well is shown on the property-has this been verified with property owner?</li> <li>4. Shallow groundwater</li> <li>5. Exit within wetlands</li> </ol> | 24                         | AJM       |
| HP-17 | How will the followings site-specific IR risks be addressed at the Tyler Forks HDD Crossing: <ol style="list-style-type: none"> <li>1. Sandy soils</li> <li>2. Moderately to highly fractured rock</li> <li>3. Shallow groundwater</li> <li>4. Entry and exit near wetlands</li> <li>5. Limited soil confining pressure in last 100 feet of drill path</li> </ol>                                                                                           | 34                         | AJM       |
| HP-18 | How will the followings site-specific IR risks be addressed at the Potato River HDD Crossing: <ol style="list-style-type: none"> <li>1. Variable soil textures</li> <li>2. Moderately to highly fractured rock</li> <li>3. Boulders</li> <li>4. Shallow groundwater</li> </ol>                                                                                                                                                                              | 38                         | AJM       |

| No.   | Comment                                                                                                                                                                                                                                                                                                                   | Affected Crossing Milepost | Commenter |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|
|       | 5. Entry and exit near wetlands<br>6. Limited soil confining pressure in first 180 feet of drill path                                                                                                                                                                                                                     |                            |           |
| HP-19 | How will the followings site-specific IR risks be addressed at the Vaughn Creek HDD Crossing:<br>1. Sandy soils with layers of clay<br>2. Highly fractured rock<br>3. Potential to encounter artesian aquifer<br>4. Entry near wetlands<br>5. Cobbles<br>6. Limited soil confining pressure in last 50 feet of drill path | 39                         | AJM       |
| HP-20 | At the Vaughn Creek crossing, there is reference to soil borings CN-1 and CN-2 but the geotechnical report did not include the logs for these locations. Please provide, along with logs for any other locations where borings were taken but not included in the geotechnical report.                                    |                            | AJM       |
| HP-21 | Please provide more detail on the inputs used to determine the soil confining pressure for the hydrofracture analysis curves.                                                                                                                                                                                             |                            | AJM       |

## Document: Storm Water Pollution Prevention Plan

| No.     | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Affected page | Commenter |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| SWPPP-1 | There is a lot of conditional language that leaves the department unclear on whether the performance standards in s. NR 151.11, Wis. Adm. Code will be met. While it is understood that minor adjustments may be made in the field in response to variations in topography that were not captured by LIDAR or other topographic information sources, the report reads as if almost all decisions on whether to install specific erosion and sediment control devices are left to Enbridge field staff. Please provide more definite statements about what will be done. If there are situations where Enbridge believes a particular storm water practice would not be warranted, please describe those conditions. | All           | AJM       |
| SWPPP-2 | SWPPP page 8 of .pdf: Silt fence is recommended around soil stockpiles, not compost-filled filter sock to avoid clods of dirt overshooting the perimeter control. Perimeter controls should be placed until vegetation has been established to a 70% density on the stockpiles. Perimeter controls are needed around the ends of stockpile gaps placed to maintain concentrated flow paths. Narrative says that 'perimeter controls <u>may</u> include...' Are there other perimeter control types under consideration? Stabilization methods also use 'may'. Need clarity and commitment.                                                                                                                          | 8             | AJM       |
| SWPPP-3 | "Enbridge does not anticipate vehicle or equipment washing..." this statement does not account for washing needed to prevent the spread of invasive species.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               | AJM       |
| SWPPP-4 | "Project specific permit conditions and/or landowner agreements will supercede...alternate construction procedures..." Significant changes to the erosion and sediment control plan may require advance approval from regulatory agencies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               | AJM       |

| No.     | Comment                                                                                                                                                                                                                                                                                                                                               | Affected page | Commenter |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| SWPPP-5 | Why would a one-call regulation necessitate delay in repair or replacement of erosion control devices? Compost-filled silt sock could be used in interim if post installation needs to be delayed.                                                                                                                                                    | 22 (EPP p. 6) | AJM       |
| SWPPP-6 | There is a statement “ditch checks may be used” that lacks commitment. Please indicate what will be done. For conditional statements, please clearly indicate the circumstances that something either will be done or won’t be done. What is the plan if the contributing drainage area is more than one acre?                                        | 22 (EPP p. 6) | AJM       |
| SWPPP-7 | There are wells near parts of the proposed construction that have indicators of artesian conditions. Please provide a section in the SWPPP discussing what measures will be taken to address erosion control should flowing water be encountered.                                                                                                     | NA            | AJM       |
| SWPPP-8 | Please provide additional clarification on how the project will proceed. Specifically, clarify how work will be planned so that the entire project area is not all disturbed at the same time. How many segments are expected to be under construction simultaneously? When will restoration work commence? Will there be multiple restoration crews? | 6             | AJM       |

Sincerely,



Greg Pils, Director  
Bureau of Environmental Analysis and Sustainability

Cc: Tim Drake [Tim.Drake@erm.com](mailto:Tim.Drake@erm.com)  
Samantha Whitens, WDNR  
Matt Jacobson, WDNR  
Amy Minser, WDNR  
Macaulay Haller, WDNR  
Adam Mednick, WDNR