

December 17, 2021 DNR L5WSRP Data Request

Data Request Question #1:

What level of clearing, grubbing, or other ground disturbance will be completed in the right-of-way over the HDD route? If applicable, what type of erosion and sediment control will be provided?

Data Request Question #1 Response:

Enbridge proposes to clear only 30 feet of its 50-foot-wide permanent easement along the horizontal directional drill (“HDD”) paths, with the exception of the Tyler Forks HDD. Clearing will be limited to removal of woody vegetation. Woody vegetation will be cut at or near ground level. No stump removal is proposed. No ground disturbance is anticipated within the HDD right-of-way, and therefore, no erosion and sediment controls are proposed. However, if clearing activities result in minor ground disturbance, the disturbed areas will be seeded and stabilized with erosion controls in accordance with Enbridge’s Environmental Protection Plan (“EPP”).

Data Request Question #2:

Why is there not more HDD for > 20% slope areas?

Data Request Question #2 Response:

Enbridge avoided steep slopes to the extent practicable during the pipeline routing phase. However, it was not possible to avoid all steep slopes during development of the proposed route. With respect to whether these slopes are suitable for an HDD crossing, Enbridge assesses subsurface geology, topography, pipe diameter and associated installation radius, and resource disturbance. Crossing a steep slope using the HDD technique may reduce the disturbance to the individual slope, but may increase disturbance of other resources (e.g., streams, wetlands, forested areas) to account for design limitations and pullback workspace requirements. In general, steep slopes do not pose a construction or restoration challenge significant enough to warrant utilizing an HDD. Only when the slope is too steep, has an associated sensitive resource such as a waterway, or has significantly undulating terrain, would an HDD be further evaluated. Enbridge has incorporated Best Management Practices (“BMPs”) in accordance with its EPP for temporary erosion controls and permanent restoration for areas where steep slopes are encountered during construction.

Data Request Question #3:

How will the additional work areas be used? Will temporary matting or gravel be placed? Will soil be stockpiled there? How long will they be in use? What is the plan for permanent stabilization? Will cover crops be planted to provide stabilization where a row crop field is being used for a laydown area?

Data Request Question #3 Response:

Enbridge will use two different types of additional work areas, Additional Temporary Workspace (“ATWS”) and off-right-of-way contractor and material yards. ATWS areas are necessary outside the typical construction right-of-way to stage equipment, stockpile spoil material, and conduct material fabrication and assembly. ATWS areas will be prepared for project use similar to the construction right-of-way, such as topsoil segregation in actively cultivated areas, and installation of temporary erosion controls based on site-specific conditions. ATWS areas would not typically be graveled but may require temporary matting based on location and conditions at the time of construction. ATWS will be used throughout the duration of construction. Following completion of construction, these areas will be restored in accordance with landowner agreements and the Project’s EPP. Enbridge will restore and revegetate actively cultivated lands in accordance with landowner agreements.

Off-right-of-way areas (Contractor and material storage yards) are used for purposes including pipe and materials storage, field office trailers, vehicle parking, and equipment storage. The proposed off-right-of-way sites have been previously used for commercial/industrial purposes including sand/gravel extraction and/or timber storage. Enbridge has assessed sensitive environmental features when planning the placement and use of these pipe yards to minimize potential sensitive resource impacts. The proposed workspace at each yard has been designed to avoid resource impacts to the extent practicable. Enbridge

December 17, 2021 DNR L5WSRP Data Request

and/or the Contractor will lease the sites, which will be used throughout the duration of construction. Rough stone and/or construction mats may be required based on site conditions throughout the duration of the yard use. Contractor and material storage yards may also require minor grading. Enbridge will install erosion and sediment control devices in accordance with the Project's EPP. These areas will be restored to pre-construction conditions upon the completion of the Project unless the landowner and applicable agencies have authorized alternative restoration.

Data Request Question #4:

How will it be decided whether wire-backed silt fence, regular silt fence, or a manufactured perimeter control device is needed where perimeter controls are shown?

Data Request Question #4 Response:

Enbridge has included the use of wire-backed silt fence as a BMP within its EPP. Enbridge's Environmental Inspector ("EI") will work with the construction contractor to evaluate site conditions such as amount of exposed slope, soil type, contributing surface drainage/topography following grading of the right-of-way, and proximity to sensitive resource areas in determining where wire-backed silt fence may be needed. Similarly, the EI will work with the Contractor to evaluate where regular silt fence or other manufactured perimeter controls will be used based on field conditions.

Data Request Question #5:

How were laydown/additional work areas chosen? Was any consideration given to avoiding slopes >20%, such as on Sheet 13?

Data Request Question #5 Response:

Enbridge's routing process was completed with a significant effort to place the right-of-way and workspaces on ground with less than a 3 percent slope while taking into account other factors such as landowner amenability, constructability issues, and sensitive resources avoidance. In areas where flatter options were not available, the right-of-way was designed to cross slopes as near as practicable to perpendicular. ATWS was laid out wherever possible to first utilize the "working side" of the right of way. Where the working side had significant slope, ATWS was moved to flatter locations, where practicable. At some locations (similar to that area shown on Sheet 13), ATWS within the slope was needed such that the Project workspace is wide enough to accommodate the top width of a deep trench utilizing standard trench bank sloping techniques, accommodate additional grading for establishment of a safe equipment travel lane, and/or for additional temporary material/spoil storage. In areas where sloping is significant, slope breakers and other Best Management Practices will be utilized per the EPP to prevent erosion.

Data Request Question #6:

Have locations where trackout control is proposed near local roads been evaluated to determine if a culvert is needed? Please provide documentation that this has been completed and show culvert locations on the erosion and sediment control plans. If the ditch adjacent to the road is delineated as wetland, the department recommends placing the trackout control on adjacent upland so that matting can be used over the wetland.

Data Request Question #6 Response:

Enbridge will typically install trackout controls at all right-of-way and public road intersections. Enbridge will also typically install trackout controls at all proposed access road and public road intersections, unless the proposed access road is also a private residential driveway. As part of the trackout pads, Enbridge typically installs culverts at all public road ingress/egress points where there is a defined road ditch to maintain the ditch as a stormwater conveyance (See Erosion and Sediment Control Plan ("ESCP") Figure 24 on Sheet A19). Existing culverts will be protected during installation and operation of construction entrances. New culverts will be placed as necessary based on ditch flow and field conditions. The type of construction entrances will be coordinated with the respective road authorities to maintain public safety as

December 17, 2021 DNR L5WSRP Data Request

well as the safety of construction personnel entering/existing the right-of-way from public roadways. If a gravel construction entrance is required in a wetland based on site-specific safety concerns, Enbridge will install a geotextile fabric liner prior to gravel placement and will use only coarse, angular material (i.e., not Class V gravel) to construct the access pad. All material would be removed during site restoration.

Data Request Question #7:

For locations where waterway crossing methods will be determined in the field based on flow conditions, can detailed erosion control plans be submitted between the time the approach is decided and start of construction across the waterway?

Data Request Question #7 Response:

Enbridge proposes to install erosion and sediment controls at waterbody crossings in accordance with the specifications included in its EPP. As shown on Enbridge's typical waterbody crossing drawings included as EPP Figures 14, 15, and 16, erosion controls will be placed along the stream banks, across the bridge entrances, and in spoil storage areas as needed to contain excavation spoil material. These erosion controls techniques will not differ based upon the waterway crossing method chosen, and will follow the plans for erosion control devices set forth in Figures 14, 15, and 16. The flow conditions of the waterbody at the time of construction (i.e., dry or flowing water), will not alter the Project requirements for installation of erosion and sediment controls per the EPP. Exact erosion and sediment control locations will be adjusted based on field conditions at the time of construction and as approved by Enbridge's EIs.

Data Request Question #8:

Please provide a complete updated drawing set, including any changes since the plan set submitted on 2/22/2021. The update provided on 6/14/2021 was not reviewed as there was no clear correlation to the full drawing set. Please integrate the design and site-specific erosion control for the mainline valve sites into the larger plan set. Any future updates need to be identified by sheet number corresponding the numbers in the updated set. To the extent possible, please include information on the plan set—referencing more than 2 separate documents during review is not efficient.

Data Request Question #8 Response:

Enbridge has revised the Project's drawing set and is including the full set with this filing. Enbridge has attempted to consolidate as much information as possible into the ESCP drawing set, however, due to the size and complexity of the Project, all relevant information cannot be shown on the drawing set and, therefore, includes references to other materials.

Data Request Question #9:

Please provide the most current impact table for wetlands and waterways.

Data Request Question #9 Response:

The most current wetland/waterbody impact table is included as Attachment H.

Data Request Question #10:

The wetland consultation documentation attached to the NOI indicates that there were gaps in the field delineation at the time of consultation and comments provided during consultation. Please provide documentation that the comments have been resolved and that any additional areas delineated have been reviewed by office of energy water staff responsible for wetlands and waterways. Areas of specific concern identified to date are depicted on sheets 6 and 107.

Data Request Question #10 Response:

Enbridge completed wetland and waterbody surveys in 2020, with the exception of two additional access points for hydrostatic test water appropriation, which were surveyed in 2021. These two additional areas will not require ground disturbance and surveys did not identify any new resources that would be

December 17, 2021 DNR L5WSRP Data Request

impacted by Project activities. All applicable survey information was filed with the DNR as part of the wetland and water permits, and the U.S. Army Corps of Engineers. The updated Wetland and Waterbody Delineation Report was provided to the DNR – Office of Energy in August 28, 2020 and incorporated comments received from the WDNR on the 2019 report. The 2021 wetland delineation information was provided to the DNR – Office of Energy on June 11, 2021. As of January 2023, Enbridge has not received comments in response to the updated report or the 2021 report.

Data Request Question #11:

There are some locations where HDD either begins or ends at a wetland location with adjacent upland. Please provide additional narrative on why the pit cannot be relocated to reduce impacts to the wetlands. Locations noted to date are depicted on sheets 60 and 109, but there may be others.

Data Request Question #11 Response:

Enbridge evaluates many factors in designing HDD crossings including subsurface geology, topography, pipe diameter and associated installation radius, and resource disturbance. Extending an HDD to avoid one feature can increase impacts to another feature. For example, lengthening an HDD will require the lengthening of the workspace needed to assemble the HDD pipeline segment and may result in additional forest clearing or other temporary resource disturbance. Shortening an HDD can create challenges in establishing the correct pull-back entry angle or radius of the HDD thereby adding risk to the successful completion of the HDD crossing. While the proposed HDD exit location at milepost 24.4 is located in an emergent wetland (wasb003e), the temporary disturbance is anticipated to be similar to crossing the wetland using a standard open-cut crossing technique. Topsoil will be segregated in accordance with Enbridge's EPP and restoration will be conducted following successful completion of the HDD. In addition, the wetland will be monitored in accordance with relevant permit conditions following construction to document restoration success. If restoration is not successful, Enbridge would work with the respective agencies to develop a mitigation strategy.

Data Request Question #12:

Please show the location of all mapped streams within a quarter mile of the work site per s. NR 216.46 (5) (h), Wis. Adm. Code. For unnamed streams, it would be helpful if they were labeled in a way that indicates which named stream they flow into, i.e. 'Trib. to Vaughn Creek).

Data Request Question #12 Response:

Mapped streams within 0.25 mile of the Project have been added to the Project's ESCP (see ESCP Appendix B).

Data Request Question #13:

There are details for waterway crossings and wetland crossings, but no detail for work where there are wetlands on either side of the waterway being crossed. Please either provide detailed crossing figures for locations where this occurs or a detail that addresses this situation.

Data Request Question #13 Response:

Please see ESCP Figure 21 on Sheet A18.

Data Request Question #14:

Please provide site-specific erosion control plans for non-HDD stream crossings with slopes steeper than 20% on one or both sides of the stream. The scale of the drawings should be sufficient to show the level of detail needed. This is likely to be on the order of 1" = 50' or less.

December 17, 2021 DNR L5WSRP Data Request

Data Request Question #14 Response:

Enbridge has developed the site-specific erosion control mapping set for non-HDD stream crossing with slopes greater than 20 percent. These maps are included in the revised ESCP (see ESCP Appendix C and D).

Data Request Question #15:

The narrative submitted on 6/14/2021 identifies that either stone pads or timber mats would be installed at entrances for trackout control. Timber mats are unlikely to reduce trackout to the extent necessary. They may be used to provide a 'stabilized work surface' if they cover the entire surface such that construction vehicles are not transferring sediment to local roads during construction of the area associated with a fully stabilized work surface.

Data Request Question #15 Response:

There are select locations where a public road abuts a large wetland complex. In these areas, timber mats (or similar) would be used as a "stabilized work surface" from the road edge across the wetland for vehicle and equipment travel to minimize potential soil mixing and compaction as well as limit equipment travel through soil that could be tracked out onto public roadways. All equipment not directly needed to excavate the trench, lower the pipe, and backfill the trench will be required to travel on the timber mats. Enbridge does not propose to typically install stone tracking pads in wetlands, but would use the timber mat entrances unless there are site-specific safety considerations for ingress/egress.

Data Request Question #16:

Please label areas where matting or gravel will be placed on a temporary basis.

Data Request Question #16 Response:

Enbridge will mat across all wetlands located on the proposed construction right-of-way as well as those wetlands crossed by proposed temporary access roads. The use of gravel for temporary access road stabilization in non-wetland areas will be determined by field conditions at the time of construction. Gravel will also be placed at the public road ingress/egress points (access pads) with the exception of where those pads would be needed in wetlands located adjacent to public roads (due to safe ingress/egress considerations) or where the access road is also an active residential driveway.

Data Request Question #17:

Please provide an anticipated staging layout for HDD begin and end locations along with site-specific erosion control for these areas. If matting will be used, please indicate the proposed extents.

Data Request Question #17 Response:

ESCP Figure 22 and 23 (Sheets A18 and A19 respectively) depict a typical HDD entrance and exit staging layout. Enbridge has worked with its HDD contractor to develop site-specific inadvertent release response plans for the proposed trenchless crossings (HDD and Direct Pipe). These plans are included as Attached I to the SWPPP. Staging and site-specific erosion control plans for HDD begin and end locations have been incorporated in the updated ESCP. These include perimeter controls around the HDD work areas. Additional perimeter controls may be added or proposed perimeter controls modified as directed by the Enbridge EI at the time of site development. Enbridge's HDD contractor may elect to mat a portion of or the entire HDD work area depending on field conditions at the time of construction. Matting will also be used in areas where wetlands existing within the HDD work area.

December 17, 2021 DNR L5WSRP Data Request

Data Request Question #18:

Please provide a spill prevention and response plan for the project.

Data Request Question #18 Response:

As discussed on the December 17, 2021 call with the DNR, the spill prevention and response plan is included as Section 29.0 of the EPP. Spill reporting-agency contacts are included in as Appendix E of the EPP.

Data Request Question #19:

Please provide the following information on proposed HDD operations:

- a) *Measures to be taken to prevent IR.*
- b) *The expected source of water for the drill mud.*
- c) *Proposed locations for disposal of cuttings drill mud.*
- d) *Proposed drill mud content, including additives that are likely to be used.*
- e) *Which locations will require a cultural resource monitor?*
- f) *Will the contractor have the option to add 'convenience drills', and if so, what is the approval procedure?*

Data Request Question #19 Response:

- a) Enbridge has internal construction standards that are used in conjunction with experience from specialized HDD design firms to develop site-specific plans for each HDD. The primary measure to prevent inadvertent releases during an HDD operation is to carefully assess geotechnical data for a crossing and to develop a crossing design taking that data into account. Enbridge's designs incorporate and consider geotechnical information documenting subsurface geology, topography between the entry and exit locations as well as workspace for pipe fabrication, required depth below river bottom, pipe diameter and associated installation radius and drilling mud hydraulics. For this Project, Enbridge conducted preconstruction geotechnical investigations to design and confirm the suitability of the subsurface material for HDD. In concert with those carefully-developed designs, Enbridge will use a highly experienced HDD company with years of experience successfully completing drills to help plan, design and execute each drill. These plans will include all requirements set forth in Wisconsin Technical Standard 1072 for Horizontal Directional Drilling. Enbridge further evaluated the designs and events of the recent Line 3 Replacement Project in Minnesota with its HDD design engineering firm to assess modifications to the Project designs to further reduce the likelihood of an inadvertent return. Enbridge made modifications to the Project HDD designs as appropriate.

Multiple variables are monitored and controlled during the drilling process such as drilling mud consistency, drilling mud injection pressures, alignment of the bit, qualifications of individuals on site, and inspection staff on site. As part of the drilling process, the drilling contractor continuously monitors drilling mud pressures, drilling mud volume being pumped, and drilling mud volume returning (drilling mud circulation). Changes or discrepancies in these reading can indicate that an inadvertent return is occurring. If the HDD operator identifies a sustained loss of fluid pressure or circulation, the contractor will: (1) shut down drilling progress; (2) immediately notify the construction inspector of the assumed position of the drill tool; and increase monitoring along the drill path to look for signs of an inadvertent release to the surface.

Enbridge will also complete a pre-construction visit at the site at least 2 weeks prior to initiating HDD setup and operations to determine if additional materials and equipment will be needed. This will reduce the potential for surprises including inadvertent returns and improve the speed and effectiveness of the contractor response to any inadvertent return that may occur.

Lastly, Enbridge will implement Inadvertent Release Response Plans that provide site-specific information regarding features crossed by each HDD and containment and recovery response measures tailored to site-specific conditions. These plans require the continuous monitoring and control of drilling mud consistency, drilling mud injection pressures, alignment of the bit, qualifications of individuals on site, and inspection staff on site. As part of the drilling process, the drilling contractor will continuously monitor drilling mud pressures, drilling mud volume being pumped, and drilling mud

December 17, 2021 DNR L5WSRP Data Request

volume returning (drilling mud circulation). Changes or discrepancies in these reading can indicate that an inadvertent return is occurring. If the HDD operator identifies a sustained loss of fluid pressure or circulation, the contractor will: (1) shut down drilling progress; (2) immediately notify the construction inspector of the assumed position of the drill tool; and (3) increase monitoring along the drill path to look for signs of an inadvertent release to the surface. Enbridge has worked with its HDD contractor to develop site-specific inadvertent release response plans for the proposed trenchless crossings (HDD and Direct Pipe). These plans are included as Attachment I to the SWPPP.

- b) Enbridge intends to acquire water for HDD drilling operations as well as HDD pipe segment hydrostatic testing from municipal sources. Water used for hydrostatic testing will be collected at the end of testing and will be hauled to a water treatment facility.
- c) Drill mud returns are sent to the mud tank where these are screened, and the bulk solids are removed and carried to an approved site for disposal. The mud properties are then measured and recorded before returning to the mud circuit. After the pipe is in place, excess drilling mud will be hauled off to an Enbridge-approved disposal location or licensed disposal facility.
- d) Drilling fluid consists primarily of water mixed with inert bentonite clay (see EPP Section 30.0). Under certain conditions an additive may need to be mixed with the drilling fluids/mud for viscosity or lubricating reasons. Drilling mud additives help control sand content and flow, water hardness, keep the bore hole open and stable, prevent groundwater inundation, and allow the bentonite to yield properly. Only agency-approved additives will be used and a Safety Data Sheet for the drilling fluid additives will be maintained on-site at each active HDD. Additives will be NSF/ANSI 60 compliant. NSF/ANSI 60 Standards are established for minimum health effects requirements for the chemicals, the chemical contaminants, and the impurities that are directly added to drinking water from drinking water treatment chemicals. Additives not NSF/ANSI 60 compliant may be used if they are on a State specific approved additive list or if they do not contain any restricted hazardous or toxic components, including those listed under CERCLA, RCRA and EPCRA.
- e) Enbridge intends to have full time Tribal Resource Monitors on the Project during active construction. The Tribal Resource Monitors will have access to observe HDD activities throughout the drilling process including initial ground disturbance associated with establishing safe entry/exit site work areas, drilling of the pilot hole, reaming activities, and pipeline pullback.
- f) Enbridge undertakes significant field investigations to verify subsurface conditions and uses that information to develop the engineered designs of each HDD. The contractor will not have the option to add 'convenience drills'.

Data Request Question #20:

Please label areas of existing development (existing roads, gravel, etc.) and the distance between any new permanent impervious surfaces to wetlands and waterways to demonstrate compliance with s. NR 151.125, Wis. Adm. Code.

Data Request Question #20 Response:

Labels for areas of existing development and distance between any new permanent impervious surfaces to wetlands and waterbodies have been added to the Project's ESCP (see ESCP Appendix E).

Data Request Question #21:

Please include ditch check silt fence relief where concentrated flow paths cross a line of silt fence and any low points along a run of silt fence. This also may include locations where breaks in topsoil/subsoil windrows are provided to pass water.

Data Request Question #21 Response:

The EPP has been revised to include ditch checks and reference to Technical Standard 1062.

December 17, 2021 DNR L5WSRP Data Request

Data Request Question #22:

Figure 9 shows anchored straw mulch for an area with >20% slope next to a water resource. Erosion control matting without plastic netting is recommended for this situation.

Data Request Question #22 Response:

Figure 9 of the EPP is the typical drawing for temporary or permanent berms in varying slope conditions of five percent or greater. Please see EPP Section 8.5 for a description of erosion control blankets and EPP Figure 7 for typical installation of erosion control blankets/matting. Enbridge proposes to use erosion control matting without plastic netting, or equivalent, near water resources with >20 percent slopes.

Data Request Question #23:

In the WinSLAMM modeling, the inputs for width and effective flow length appear to have been transposed. Please revise. The total filter strip width should be the measurement perpendicular to the direction of flow.

Data Request Question #23 Response:

The updated Mainline Valve Site Runoff Management Report, which includes an updated WinSLAMM model, is provided in Attachment D of the SWPPP.

Data Request Question #24:

Sheet 57 shows that a significant portion of the Peters Pipeyard has slopes steeper than 20% that drain offsite. Will there be ground disturbance in that area?

Data Request Question #24 Response:

The Peters Pipe Yard will be utilized as a "general use" yard. It may house equipment, materials, or some production processes such as end beveling. Ground disturbance is not expected at the Peters Pipe Yard. If ground disturbance is necessary, Enbridge will install erosion and sediment control BMPs in accordance with its EPP. Following construction, Enbridge will restore the areas in accordance with landowner agreements.

Data Request Question #25:

Sheet 108 has a road labeled Stephenson Road that is labeled Steinmetz Road on Google Maps. Please explain or revise.

Data Request Question #25 Response:

It is not uncommon for different public data sets to show different names for the same road. However, Sheet 109 has been revised to list the road as Steinmetz Road.

Data Request Question #26:

In Section 5.0 of the EPP, the narrative notes that hydrovac slurry would be disposed of at an 'Enbridge-approved upland subsoil area'. Please provide more information on the contents of that slurry and the locations of proposed disposal.

Data Request Question #26 Response:

Hydrovacs are used to provide positive visual identification of buried utilities by safely removing soil material from over the buried utility line via a process of water injection and suction. Hydrovac slurry created by this process is comprised of a mixture of native soil and water. No additives are used as part of the hydrovac process. Hydrovac slurry is typically deposited onto the right-of-way in an area that has had topsoil segregated and on the same parcel that it was extracted. This material is incorporated into the subsoil material within the construction right-of-way.

December 17, 2021 DNR L5WSRP Data Request

Data Request Question #27:

In section 7.1 of the EPP, the text indicates that non-merchantable timber may be used in stabilizing erodible slopes or construction entrances. The department does not consider woody debris or wood chips material appropriate for either use.

Data Request Question #27 Response:

Section 7.1 of the EPP has been modified to clarify non-merchantable timber may be chipped and used as mulch at sites that are not seeded in accordance with Technical Standard 1058.

Data Request Question #28:

In Section 7.4, the text notes that a 20 foot buffer of undisturbed vegetation would be left on all stream banks. If the intent is to allow for a vegetated buffer strip, please follow Technical Standard 1054 and begin the buffer uphill of any slopes steeper than 5%.

Data Request Question #28 Response:

Section 7.4 of the EPP has been modified to clarify the 20-foot section of undisturbed herbaceous vegetation left along stream banks is not a replacement to other erosion and sediment controls, but assists in minimizing ground disturbance at the stream bank until just prior to initiating the stream crossing. Preparation for pipeline installation will be occurring outside the 20-foot section of undisturbed herbaceous vegetation. Erosion and sediment controls will be installed and maintained prior to any earth disturbing activities associated with construction and installation of the pipeline.

Data Request Question #29:

In Section 8.3, the text notes that the contractor must remove sediment when the depth reaches one-third of the height. A similar statement should be provided for straw bales and biologs.

Data Request Question #29 Response:

Section 8.3 of the EPP has been modified to indicate when sediment should be removed from straw bales and bio-logs.

Data Request Question #30:

In section 8.5, please provide a reference to technical standards 1052 and 1053. Erosion control mats with plastic should not be used near waterways or other sensitive areas to avoid wildlife entrapment.

Data Request Question #30 Response:

Section 8.5 of the EPP has been modified to include reference to Technical Standards 1052 and 1053.

Data Request Question #31:

In section 8.6, please reference technical standard 1058 and note that mulch material should be long enough to be effectively crimped. Application rates of land-applied additives for erosion control should follow technical standard 1050.

Data Request Question #31 Response:

Section 8.6 of the EPP has been modified to include reference to Technical Standards 1058 and 1050.

Data Request Question #32:

Section 8.8 should include a reference to Technical Standard 1060.

Data Request Question #32 Response:

Section 8.8 of the EPP has been modified to include reference to Technical Standard 1060.

December 17, 2021 DNR L5WSRP Data Request

Data Request Question #33:

Section 8.10 should include a reference to Technical standard 1068. Please note that the permit requirements for dust control are not limited to locations adjacent to residences.

Data Request Question #33 Response:

Section 8.10 of the EPP has been modified to include reference to Technical Standard 1068.

Data Request Question #34:

In Section 11.0, sandbags are identified as an option for slowing the flow of subsurface water. In areas with clay soils, sandbags are unlikely to slow subsurface water to a rate comparable with pre-construction conditions.

Data Request Question #34 Response:

Enbridge uses a variety of materials to construct trench breakers and prevent subsurface flow along the backfilled ditch following pipeline installation. These materials include sand bags, bentonite bags, and/or foam material. The materials selected at each location are dependent on site-specific conditions such as ground water level, soil type/composition, slope, and proximity to sensitive resource areas such as wetlands and waterbodies. Enbridge will install trench breakers that have material properties with similar permeability properties to that of the surrounding soils such that the groundwater will returned to normal after settlement has occurred.

Data Request Question #35:

Section 25.0 should include a reference to Technical Standard 1061

Data Request Question #35 Response:

Section 8.25 of the EPP has been modified to include reference to Technical Standard 1061.

Data Request Question #36:

In section 27.0, please indicate how ice control on haul roads, including those with timber mats will be managed.

Data Request Question #36 Response:

Enbridge will coordinate with local municipalities regarding ice control on public haul routes. If the municipality does not typically maintain a Project proposed public haul route during winter months (e.g. minimum maintenance roads), Enbridge will consult with the municipality on preferred methods of maintenance. Enbridge will use mechanical means to address ice/snow on private access roads and timber mats. Enbridge will not apply chemical ice control methods on private access roads or timber mats. Chemical ice control methods would only be used on public roads if approved by the local municipality or road authority.

Data Request Question #37:

In section 30.0, the following information should be included in the discussion of IR plan:

- a) *How the returns and drill mud pressure are typically monitored.*
- b) *How frequently will the drill path be inspected during pilot hole drilling, reaming, and pipe installation? It is recommended that some inspection of the drill path be conducted during operations to supplement the operators monitoring efforts. Will drones be used for monitoring?*
- c) *Where will the IR response materials that be staged? Given the size of the proposed drill paths, the department recommends staging response materials and equipment at both the beginning and end of each drill path.*
- d) *For water body crossings, please include turbidity barriers (Technical Standard 1069) in the list of materials that must be available for IR response.*

December 17, 2021 DNR L5WSRP Data Request

- e) *Should the following items be included in the list of IR response measures: timber mats, or trench boxes.*
- f) *What actions will be taken for an IR that occurs in a wooded wetland area and how that response may change based on the distance the IR is from an accessible upland location?*

Data Request Question #37 Response:

- a) The HDD Contractor will provide and maintain instrumentation that will accurately locate the pilot hole, measure drill string axial and torsional loads, and measure drilling fluid discharge rate and pressure. Drilling fluid pressure can only be monitored during drilling of the pilot hole. Onsite staff will also monitor additional conditions such as mud flow rates, mud consistency, pumping rates, and mud returns. During reaming and swab passes, drilling fluid pressure is negligible due to the open ends of the drill path. A log of all recorded readings shall be maintained at the drill rig site and will become a part of the "As-Built" information to be supplied by the HDD Contractor. Enbridge does not currently plan to use drones for monitoring but may choose to do so. Drill mud returns are sent to the mud tank where these are screened, and the bulk solids are removed and carried to an approved site for disposal. The mud properties are then measured and recorded before returning to the mud circuit.
- b) Enbridge's HDD contractor will provide continuous monitoring and recording of the drill bit position and path throughout the drilling of the pilot hole. At least one full-time personnel will monitor the drill path by inspecting land surfaces and the waterbodies for surface releases of drilling fluid during drilling, reaming, and pipe installation procedures. The inspector will also walk the drill path to monitor for surface seepage, sinkholes, and settlement. In addition, flowing streams shall be monitored both upstream and downstream of the drill path. These examinations will be made at a minimum of every 4 hours, and at an increased interval when drilling at critical locations such as under a watercourse. Enbridge will provide adequate lighting of the drill path to allow for monitoring during 24-hour continuous operation. The name of the inspector, time of the examination, and observations of the inspector will be kept in a log at the jobsite. The HDD contractor personnel and/or EI will have appropriate operational communication equipment (e.g., radio, cell phone) available at all times while observing the installation of the HDD crossing. If loss of circulation and/or a possible return of drilling fluid to the surface are detected, the contractor and/or EI will implement a heightened and focused monitoring effort, which will consist of visual observation along the drill alignment with no other jobsite responsibilities. The EI will ensure that a sufficient number of individuals are assigned to monitoring given the size of the HDD and site-specific conditions. The HDD contractor will be responsible for communicating loss of drilling fluid circulation and stopping or changing the drill program in the event of an observed or anticipated inadvertent return.
- c) Enbridge requires its HDD contractors to have appropriate inadvertent return response materials and equipment staged at both the HDD entrance and exit locations to assure timely response in the event of an inadvertent release of drilling fluid. At a minimum, these materials and equipment must include the response items listed in Section 30.2 of Enbridge's EPP.
- d) Section 30.2 of the EPP has been modified to include turbidity barriers.
- e) The Contractor would use equipment with low ground pressure rating to minimize the impact to the area and if necessary, install timber mats to aid in the cleaning and remediation process. If additional vegetation clearing is needed for clean-up, the extent of clearing would be discussed with the Third-Party Compliance Monitor and the respective agencies (as applicable). Trench boxes are not typically used for inadvertent release clean-up/response. If equipment access is not available, the inadvertent return location will be accessed by foot.
- f) Enbridge has worked with its HDD contractor to develop site-specific inadvertent release response plans for the proposed trenchless crossings (HDD and Direct Pipe). These plans are included as Attachment I to the SWPPP. The initial response focus will be on minimizing the volume of released materials and the deployment of containment measures. If a release were to occur outside of the authorized construction workspace, Enbridge and its HDD contractor will deploy lightweight containment materials (e.g., straw bales, silt fence, sandbags) to the release location to isolate the drilling fluid immediately. Enbridge and its HDD contractor will then work collaboratively to determine the appropriate clean-up based on site conditions and will initiate agency consultations as necessary. Depending on the site-specific location conditions, volume of material released, and proximity to sensitive resource areas, the clean-up may be completed by hand labor or may require mechanized equipment. If mechanized equipment is needed (e.g., excavator or vacuum truck) this equipment

December 17, 2021 DNR L5WSRP Data Request

would travel down on Enbridge's cleared construction easement. If the IR is off right-of-way Enbridge would first need permission from landowners and make formal notification to DNR and other applicable regulatory agencies.