**September 1, 2021 Wisconsin Department of Natural Resources Data Request Response**

**Data Request Question #1:**

In previous communications from the DNR, requests were made for construction cost estimates. Enbridge indicated that the response is pending. Please provide an estimated cost of construction of the proposed route, including an estimate of planned purchased in terms of percentages anticipated to be spent (i.e. labor, materials, etc.).

**Data Request Question #1 Response:**

Per Enbridge’s June 11, 2021 information submittal, Enbridge currently estimates the cost of the Line 5 Wisconsin Segment Relocation Project to be approximately $450 million. Project cost variations may occur related to contract labor, construction methods to be utilized -- for example, trenching in shallow bedrock areas and HDDs -- as well as potential fluctuations in material costs. In addition, depending upon the timing of receipt of permits for the Project, seasonal timing restrictions may affect the construction sequencing, further impacting Project costs. Based on industry standard breakdowns, Enbridge estimates that design/engineering will account for approximately $45 million; $180 million in administrative labor; $90 million in materials, and $135 million in construction labor.

**Data Request Question #2**:

In Enbridge’s response letter dated March 2, 2021, Enbridge indicated in answer # 14 that the response is pending. Please include information related to these elaborations on the original question.

(a) Provide an estimate of tax revenues generated by the proposed project (e.g. local and/or county property tax payments) or other socioeconomic benefits (e.g. secondary economic impacts).

(b) Include an estimate on the number of jobs created for construction and how many of these would be local workforce, regional workforce, vs. out of state work force.

**Data Request Question #2a Response:**

**Sales tax:**

Based on current sales tax rates, Enbridge estimates that the Project would generate more than $2 million in sales tax.

**Property tax:**

Based on current property tax rates, Enbridge estimates the Project would generate more than $2 million in incremental annual property taxes. This is in addition to the annual property taxes Enbridge pays currently. In 2020, Enbridge paid $36.5 million in property taxes across Wisconsin for Line 5 and our other pipelines and related facilities, such as terminals, storage facilities and pump/compressor stations.

**Data Request Question #2b Response:**

Enbridge anticipates a project of this size will require approximately 700 workers directly related to construction of the relocated segment. Specific information on local workforce, regional workforce, vs. out of state work force will not be available until after contractors have been selected.

Enbridge anticipates that the Project will create significant local spending at hospitality-related businesses, including local shops, restaurants, convenience stores, and gas stations. Enbridge also anticipates the Project will create substantial opportunities for local suppliers and industrial/construction-related businesses to become part of the Project.

In alignment with Enbridge’s Indigenous Peoples Policy, Enbridge is committed to Tribal economic inclusion and participation. Enbridge anticipates directly contracting with Tribal citizen-owned businesses and employing Tribal citizens to work on the Project, including Tribal monitors.

Enbridge has already spent over $2.6 million directly with Tribal citizen owned businesses for goods, services, and wages for Tribal citizens working in Wisconsin.

**Data Request Question #3:**

Provide an updated project schedule, including estimated start of construction and in-service date.

**Data Request Question #3 Response:**

Enbridge’s proposed Project schedule has not changed since the June 11, 2021 filing (a copy of this schedule is attached for reference as Attachment A).

**Data Request Question #4:**

Will any local governments require erosion control or stormwater permits? Please provide details.

**Data Request Question #4 Response:**

To date, no local governments have required local erosion control or stormwater permits.

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

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

Federal and state courts across the country have interpreted this statement as evidence of a Congressional intent to broadly preempting state and local requirements regulating pipeline siting and safety. Further, courts have broadly interpreted Congress’ preemption of pipeline safety regulation. See, e.g., *ANR Pipeline Co. v. Iowa State Commerce Commission*, s. 828 F.2d 465, 466 (8th Cir. 1987). In *ANR Pipeline*, the Eighth Circuit analyzed an Iowa statute that imposed extensive hearing, inspection, and permit requirements on pipelines and held that the NGPSA “preclude[ed] states from regulating in any manner whatsoever with respect to the safety of interstate transmission facilities” which left “nothing to states in terms of substantive safety regulation of interstate pipelines, regardless of whether the local regulation [was] more restrictive, less restrictive, or identical to the federal standard.” Id. at 470; *Tenneco Inc. v. Pub. Serv. Comm’n of W.Va.*, 489 F.2d 334, 336 (4th Cir. 1973) (“The [NGPSA’s] text, its legislative history, administration, implementation, and judicial interpretation, attest to federal preemption of the field of safety with respect to the establishment and enforcement of standards regulating the interstate transmission of gas by pipeline.”)[[1]](#footnote-2).

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

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

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

**Data Request Question #5:**

Has Enbridge coordinated with local units of governments regarding local road-use or burning permits that may be needed for construction for the route alternatives? Please provide details.

**Data Request Question #5 Response:**

Enbridge has not coordinated with local units of governments along the alternative routes as these routes are not part of the proposed action.

**Data Request Question #6:**

Enbridge is proposing seven new main block valve sites. Are there alternative block valve sites or numbers of sites that were considered? Please explain why 7 is the optimal number.

**Data Request Question #6 Response:**

As indicated in Enbridge’s March 2, 2021 data response (DNR data request question #4), Enbridge uses Intelligent Valve Placement (IVP) Analysis modeling as a design methodology to determine where valves should be placed. To reduce the risk of impact to high consequence areas (HCAs), Enbridge then refines the pipeline design by revising the proposed valves locations as necessary and recalculating the total volume-out with the purpose of minimizing the release impacts to the public, environments, and watercourse crossings. The process examines the pipeline segment by segment on an iterative basis until the lowest reasonably practicable release volume between valves is achieved along the pipeline based on a total number of valves and valve location. The final valve locations are influenced by a number of factors, including topography, location of flood plains, presence of HCAs, availability of land, availability of power, accessibility, and environmental impacts such as wetland avoidance.

Seven remote-operated valves are recommended for the approximately 41 mile proposed route. The valve placement recommendations comply with applicable code requirements as well as the Enbridge’s IVP guidelines. Multiple factors were considered for valve placement including the significance of high consequence areas, proximity to major water crossings, and the risk reduction achieved. The IVP analysis performed by Enbridge determined that installing seven remote-controlled valves at the recommended locations will minimize, to the greatest extent practicable, the risk to the HCAs, water crossings, public, and environment. Placement of additional valves was reviewed and there was no significant reduction based on the geography, topography, and distance from HCAs.

**Data Request Question #7:**

Please provide survey information with respect to locations where there are incised/down cut waterways, ravines susceptible to slumping, gullies, or other stream geomorphology that would be susceptible to erosion and future pipeline exposure.

**Data Request Question #7 Response:**

Enbridge has analyzed the pipeline route and designed the pipeline to mitigate potential risk of erosion that could lead to future pipeline exposure. As part of Enbridge’s design process, Enbridge completed an assessment that included:

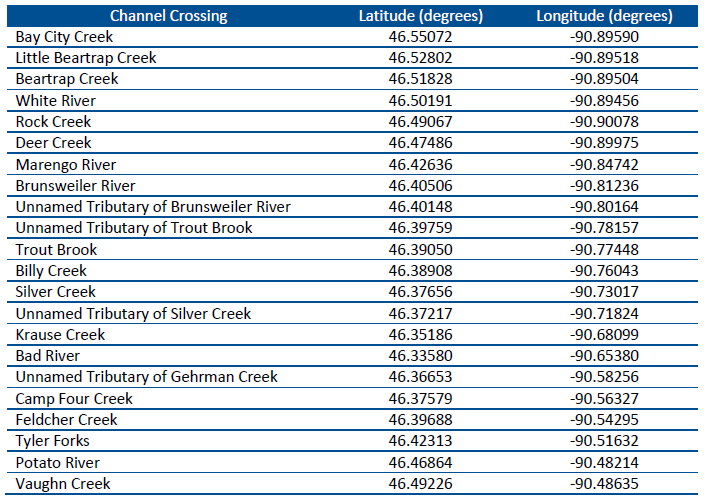
* visual observations of the channel crossing;
* topographic measurement and physical sampling of the channel;
* comparison of present and historic aerial imagery;
* analysis of the channel crossing watershed;
* determination of recurrence interval peak flood flows;
* determination of threshold channels;
* determination of channel properties related to geometry-flow dynamics specific to various recurrence intervals; and
* determination of scour depths and estimation of the likelihood of meandering based on various recurrence intervals and historic aerial imagery.

Each channel crossing was assessed for the likelihood that various geohazards may present themselves over the course of the pipeline’s lifetime including vertical channel movement; horizontal channel movement; and channel relocation. Each of these hydrotechnical geohazard was rated as either unlikely, possible, or likely to occur at each channel crossing over the course of the pipeline’s lifetime.

The locations of studied channel crossings are listed in table 7-1

**Table 7-1**

**Waterbodies Studied for Likelihood of Hydrotechnical Geohazards**



The results of Enbridge’s assessment are summarized in table 7-2 below.

**Table 7-2**

**Potential for Hydrotechnical Geohazards Identified Prior to Mitigation at the Waterbodies Crossed by the Line 5 Relocation Project**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Channel Crossing | Scour | | Aggradation/  Degradation | Bank  Erosion | | Encroachment | | Avulsion | Meander  Cutoff |
| Bay City Creek | **** | | **** | **** | | **** | | **** | **** |
| Little Beartrap Creek | **** | | **** | **** | | **** | | **** | **** |
| Beartrap Creek | **** | | **** | **** | | **** | | **** | **** |
| White River | **** | | **** | **** | | **** | | **** | **** |
| Rock Creek | **** | | **** | **** | | **** | | **** | **** |
| Deer Creek | **** | | **** | **** | | **** | | **** | **** |
| Marengo River | **** | | **** | **** | | **** | | **** | **** |
| Brunsweiler River | **** | | **** | **** | | **** | | **** | **** |
| Un. Trib. Brunsweiler River | **** | | **** | **** | | **** | | **** | **** |
| Un. Trib. Trout Brook | **** | | **** | **** | | **** | | **** | **** |
| Trout Brook | **** | | **** | **** | | **** | | **** | **** |
| Billy Creek\* | **** | | **** | **** | | **** | | **** | **** |
| Silver Creek | **** | | **** | **** | | **** | | **** | **** |
| Un. Trib. Silver Creek | **** | | **** | **** | | **** | | **** | **** |
| Krause Creek | **** | | **** | **** | | **** | | **** | **** |
| Bad River | **** | | **** | **** | | **** | | **** | **** |
| Un. Trib. Gehrman Creek | **** | | **** | **** | | **** | | **** | **** |
| Camp Four Creek | **** | | **** | **** | | **** | | **** | **** |
| Feldcher Creek | **** | | **** | **** | | **** | | **** | **** |
| Tyler Forks | **** | | **** | **** | | **** | | **** | **** |
| Potato River | **** | | **** | **** | | **** | | **** | **** |
| Vaughn Creek\* | **** | | **** | **** | | **** | | **** | **** |
|  | | Unlikely | | | Possible | | Likely | | |
| **** | | | **** | | **** | | |

**Data Request Question #8:**

Explain how the pipeline will be designed to mitigate risks of geohazards described in #7 that could result in inadequate depth of cover over the pipeline or pipeline exposure.

**Data Request Question #8 Response:**

As stated in Enbridge’s response to Question #7 Enbridge assessed the integrity of the channel boundary and potential for hydrotechnical geohazards for channel crossings associated with the Project. Enbridge then used this information on the potential for scouring and/or exposure of the pipe to design the minimum depth of pipeline at and on the approaches to each crossing.

Mitigation measures to prevent a pipe exposure from a 100 year event have been incorporated in the waterbody crossings designs which includes: scour depth, rip-rap, channel bottom and bank armoring, bank restorations (i.e. root wads, soil wraps, willow stakes, brush layering, coir matting, bio logs), backfill and compaction requirements, usage of bed material and soil amendments. Note that 13 streams have been designed with Horizontal Directional Drilling (HDD) and Direct Pipe Installation (DPI) to reduce the risk of geohazard and minimize the impact of an open cut in the watercourses and steep banks.

**Data Request Question #9:**

Please provide details on the criteria Enbridge uses to determine proposed waterway crossing methods (e.g., trench vs. trenchless) for different types of waterways.

**Data Request Question #9 Response:**

Enbridge proposes to install the pipeline across all flowing waterbodies using a dry crossing method. Numerous options are available for consideration and are based on a number of site conditions i.e., size of waterbody to be crossed, geotechnical morphology, HCAs, accessibility to the watercourse and bank stability to name a few. Smaller watercourses are crossed using: a wet trench (open cut) method if dry or no flowing water at the time of construction; dry crossing methods that include flume and dam and pump; or Horizontal Directional Bore (HDB). For wider deep crossings, trenchless methods could be used such as HDD or DPI. Enbridge has engineered each crossing, with a listed preferred crossing method and alternative crossing method for each waterbody. These are developed based on risks, geotechnical investigations, surface profiles, accessibility and characteristics of each waterbody. Each design includes a review of the proposed pipeline alignment in the vicinity of the crossing, the configuration of the waterbody bed and banks, and the potential for erosion and scouring. Additionally post-construction considerations include the potential for future erosion and scouring of the bed and banks to ensure that the crossing remains safe for years to come.

Not all of the proposed crossings methods are suitable for every crossing. For example, certain conditions may make a crossing unsuitable for the HDD method. These conditions can include differences in elevation from one side of the crossing to the other; pipeline alignment, subsurface conditions that are not conducive to drilling; and other physical obstacles such as roads and railroads can preclude HDDs or the likelihood of HDD success. Hilly topography and the pipeline alignment on either side of the waterbody may not be able to accommodate the large pullback area required for a HDD. The flow, bank heights, configuration of the streambed, and the depth of burial required to address future potential erosion and scouring can also influence the crossing method that is used. For example, the need to bury the pipeline deeper than usual for a considerable distance to guard against future scouring may favor the HDD method over the dam and pump or flume methods. Similarly, a winding channel or rocky stream bed may not be suitable for installation of a straight flume pipe, but may still be suitable for the dam and pump method.

All of the proposed crossing methods are similar in that they isolate the pipeline construction area from the flowing river/stream, and are effective at avoiding or minimizing the potential for sedimentation. In the case of HDD method, the pipe is installed under the waterbody without disturbing the waterbody bed or banks. In the cases of the flume and dam and pump methods, flowing water is prevented from entering the construction crossing area by temporary dams, and instead is temporarily diverted across or around the work area using steel flume pipes or pumps and hoses. This limits and minimizes the potential for sedimentation to a very brief time when the temporary dams are installed and removed and after restoration of the streambed when the flow is restored across the area of the streambed where the pipe was installed.

Enbridge is including a comparison table of waterbody crossing methods proposed for the Project (see Attachment B).

**Data Request Question #10:**

When will Enbridge develop an Inadvertent Release (IR) Plan or Plans that are more site-specific than what is described in Enbridge’s Environmental Protection Plan (EPP)? Will the plan include criteria for detecting release, timing on response, equipment availability, final clean-up, and restoration, etc. Will the plan address site-specific location constraints?

**Data Request Question #10 Response:**

Enbridge has not yet selected a drilling contractor. Once selected, Enbridge will be working with the drilling contractor to assess each HDD and develop site-specific IR response plans. The plans developed will address detecting release, timing on response, equipment availability, final clean-up, and restoration, etc. Enbridge can provide these plans once developed.

**Data Request Question #11:**

Section 7.1 of the EIR indicates that slashed timber would be disposed of by mowing, chipping, grinding, and/or hauling to an approved of site disposal facility or used in stabilizing erodible-slopes or construction entrances. Using this material for stabilizing slopes or construction entrances poses concerns. Would Enbridge consider eliminate using this approach? Is there a need for this material at Xcel’s electric generation facility in Ashland?

**Data Request Question #11 Response:**

Enbridge has not had contact with Xcel regarding potential interest in receiving vegetation that would be cut and disposed of offsite, and has not evaluated whether this would be practicable given the logistics, economics, and hauling involved. As described in the EIR, Enbridge wants to retain the option to dispose of the chipped, mown, and/or ground slash on site. On site disposal, where allowed by Enbridge’s landowner agreements, would reduce trucking and associated emissions compared with hauling these materials off site. Enbridge has found that spreading these materials over soils reduces compaction and erosion compared to leaving bare soils unprotected, and can add to soil fertility provided the depth of the material is not too thick. Enbridge’s erosions control plans require that where these materials are spread, it shall not be at a depth that will preclude revegetation. Moreover, leaving the material along the right-of-way would preserve carbon onsite and over time returning the carbon to the soils. Enbridge would be willing to discuss further with WDNR resource staff what DNR’s concerns are regarding the potential use of chips, mown, or ground material for erosion control.

**Data Request Question #12:**

In rock excavation areas where there would be a planned depth of pipeline cover of 18 inches, 1) were trenchless methods considered to achieve a greater depth of cover?, and 2) has Enbridge considered special provisions for backfill that would provide additional protection from future pipeline exposure?

**Data Request Question #12 Response:**

1. Depths of cover selected for the project are based on federal requirements and Enbridge standards. Enbridge’s internal design specifications for depth of cover in rock areas are more stringent than federal requirements listed EIR Table 4.3.4-1 (Minimum Cover for Buried Pipelines) and requires a minimum of 24 inches (600 mm) of cover in shallow bedrock areas, measured from subgrade (grade following topsoil segregation). For pipe protection, various means will be used (site-specific) like rock jacket, wood lagging, sand padding and bedding, or continuous concrete coating. These methods produce the desired depth of cover in rock excavation areas, so Enbridge does not employ trenchless methods to achieve depth of cover.
2. Yes, Enbridge has considered special provisions for backfill that would provide additional protection from future pipeline exposure. For backfilling, suitable material will be used to prevent trench erosion over time. Additional depth of cover and buoyancy control will be used as well, where appropriate, as in-ditch erosion berms and surface erosion berms or controls (i.e. sand bag plugs).

**Data Request Question #13:**

Confirm that there are no potential impacts to lands acquired that may have LAWCON, NAWCA, or other federal obligations that could have encumbrances on the land. Are there any lands that would need to be acquired along the route alternatives that may have LAWCON, NAWCA, or other federal obligations or encumbrances? Is so, please provide details.

**Data Request Question #13 Response:**

Enbridge’s review of title information obtained from the counties and specific landowner questionnaire responses for parcels crossed by the Project do not indicate that any of the parcels are enrolled in either LAWCON or NAWCA programs. The route alternatives were not reviewed for these obligations or encumbrances, nor were landowners along the route alternatives contacted.

**Data Request Question #14:**

Section 4.3.2 of the EIR indicates that Enbridge would not typically segregate topsoil in nonagricultural upland areas, forested areas, and standing water wetlands. Please explain why not.

**Data Request Question #14 Response:**

In standing water wetlands the soils are generally too liquid and loose to effectively remove and segregate “topsoil” from “subsoil”. The saturate state of these soils causes the soils to run, making it impractical to create and maintain a distinct and retrievable topsoil pile. In forested areas topsoil is often too shallow for equipment to effectively strip and segregate it from the underlying subsoil without significant soil mixing and topsoil loss. Topsoil segregations is also impractical where there are intact stumps. In forested and other non-agricultural areas Enbridge is proposing to cut vegetation at ground level, but leave existing roots and stumps in place beyond the trench line where possible. The retention of roots and stumps not only reduces the potential for erosion but the sprouting of roots and stumps helps speed revegetation, both of which will reduce topsoil loss potential.

**Data Request Question #15:**

Section 1.1.1 and 1.1.1.1 of the EIR indicates that Enbridge will purge and clean the oil from the decommissioned pipeline segment and purge Line 5 of all combustibles. When decommissioning a pipeline, how is a pipeline cleaned and how is the pipeline purged of combustibles, and where is the material disposed of?

**Data Request Question #15 Response:**

Decommissioning is a multi-phase process that includes the use of pigs, a cleaning solution, water, and inert nitrogen. After installation and commissioning of the new pipeline segment, the old line will be decommissioned. The decommissioned pipe will be wiped clean with cleaning pigs, which are pushed through the pipeline using inert nitrogen. The pigs essentially push any remaining oil out of the pipeline. Following cleaning pig runs, a cleaning solution will be inserted into the pipeline. This cleaning solution will be inserted between cleaning pigs to further remove product residue. Next, several runs of wiping and drying pigs will pass through the pipeline. Testing and analysis will be used to determine how many runs of each phase are necessary. This process will be repeated until the residue thickness remaining in the pipe is below the currently acceptable criterion of 12 ounces per 36 miles of 30-inch diameter pipe. A specialized third-party consultant will test liquid materials removed from the pipe. Materials removed from the pipeline will be transported to an approved, licensed disposal facility.

**Data Request Question #16:**

When a pipeline is abandoned-in-place, explain what future contamination concerns could arise if it is not properly cleaned. If properly cleaned, are there any risks of future contamination. If so, please provide details.

**Data Request Question #16 Response:**

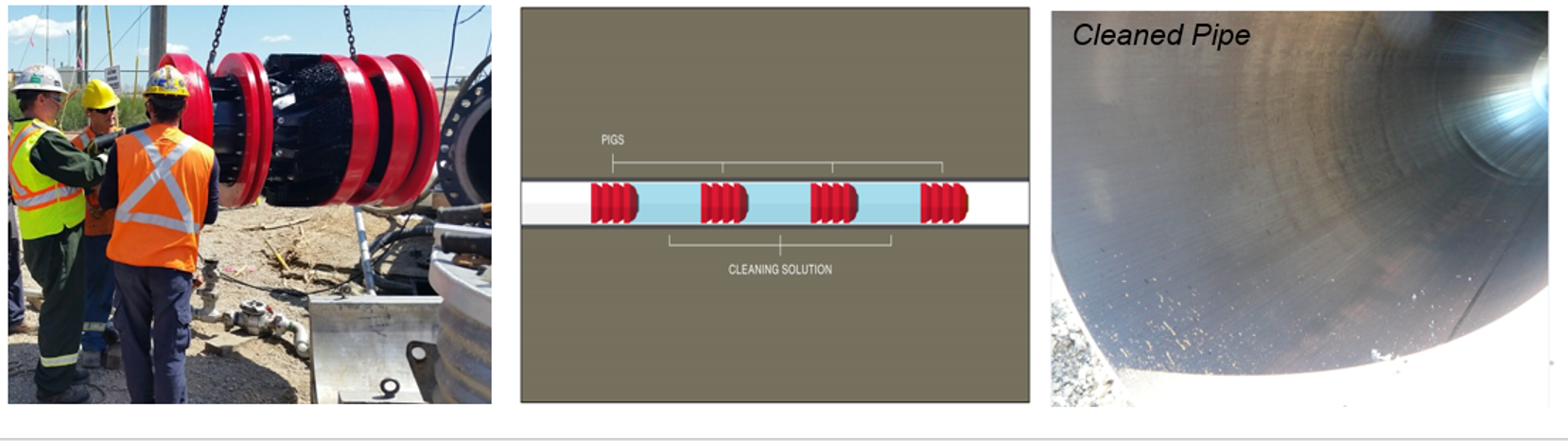
There is no risk of future contamination from the decommissioned pipeline as it will be thoroughly cleaned prior to final sectioning and capping.

**Data Request Question #17:**

Please provide any available photographs of cleaning pigs and inspection pigs used on Enbridge facilities. These photos would be incorporated into the draft EIS.

**Data Request Question #17 Response:**

Cleaning pigs



|  |  |
| --- | --- |
| Inspection pigs |  |

**Data Request Question #18:**

Are there segments of the existing Line 5 in Wisconsin that do not meet depth of cover requirements, including exposure? If so, please provide details. What are the alternatives that Enbridge considers when addressing lack of cover/exposure in wetlands? What are the alternatives that Enbridge considers when addressing lack of cover/exposure in waterways?

**Data Request Question #18 Response:**

No, Enbridge is not aware of any segments of the existing Line 5 in Wisconsin that do not meet depth of cover requirements.  49 CFR 195.248 requires a certain depth of cover be achieved at the time of the construction of pipelines only.  As noted in response to IR No. 12, Enbridge has internal standards that meet or exceed federal regulations for construction of a pipeline.  The new segment of Line 5 shall meet or exceed federal and Enbridge construction depth of cover requirements.

No, Enbridge is not aware of any segments of the existing Line 5 in Wisconsin that do not meet exposed pipe requirements. Enbridge monitors Line 5 and assesses the safety risk of any segment that has become exposed.  Over the last three years, the Pipeline and Hazardous Materials Safety Administration (PHMSA) has conducted 2 audits of Line 5, and did not find a violation in Wisconsin of any PHMSA regulations governing exposures of Line 5.

When addressing depth of cover or exposed pipe in wetlands, Enbridge’s preferred approach, where it has determined there are no safety concerns, is to leave the site as-is and continue to monitor the site as this is the approach with the least environmental impact. If mitigation is required to address depth of cover or exposed pipe in wetlands, Enbridge would typically either install weights on the pipeline if the condition is attributable to buoyancy.  In certain circumstances, Enbridge would replace the pipeline segment if it is warranted.  If necessary, Enbridge will repair the corrosion resistant coating of an exposed segment.

When addressing depth of cover or exposed pipe in water crossings, depending on site-specific conditions, Enbridge may: leave the site as-is and continue to monitor the site; add engineering cover such as armoring material over the pipe crossing; or replace that segment of pipeline.  If necessary, Enbridge will repair the corrosion resistant coating.

Enbridge typically works with   governmental agencies to implement remediation measures on a case-by-case basis.  Where governmental agencies do not allow for remediation, Enbridge continues to monitor the pipeline to ensure its safe operation.

**Data Request Question #19:**

Based on the revised ER Review, please explain if there will be any impacts to state listed special concern, threatened, or endangered species. Please explain what measures will be taken to avoid and/or minimize impacts to state listed species.

**Data Request Question #19 Response:**

In compliance with Wisconsin’s Endangered Species Law (s. 29.604, Wis. Stats.), which requires the protection of Wisconsin state threatened and endangered species, Enbridge conducted an Endangered Resources Review (ER Review) and evaluated the Projects’ potential for impacts on rare species (e.g., special concern, threatened, or endangered species). A renewed ER Review (Log #20-034), which is referred to in the data request as the “revised ER Review”, was completed on October 22, 2020 and the renewed ER Review spreadsheet (which has been reviewed and approved by the DNR) provides specifics on species’ habitat considerations, including potential habitat within the proposed Project workspace; potential impacts on species and/or their habitat; and DNR required or recommended actions to avoid and/or minimize impacts on state-listed species. Although not protected under the state endangered species law, special concern species are listed in the ER Review spreadsheet and addressed here. Enbridge will continue to coordinate with the DNR and update the ER Review.

In coordination with the DNR, Enbridge conducted surveys during 2019 and 2020 field seasons for state-listed threatened and endangered species including the Braun’s holly fern, loggerhead shrike, and wood turtle. Enbridge conducted an additional season of loggerhead shrike surveys in 2021. Bald eagle surveys were conducted in 2020. Individual survey reports were submitted to the DNR upon the completion of these surveys.

State-listed species with potential to occur in the project area are shown in Tables 19-1 and 19-2. As shown in the ER Review spreadsheet, the DNR has concurred that the Project will have *no impact* on the species provided in Table 19-1.

**Table 19-1**

**State Listed Special Concern, Threatened, or Endangered Species with No Project Impacts**

|  |  |  |  |
| --- | --- | --- | --- |
| **Species** | **State Rank** | **Potential Impact** | **Measures** |
| Butternut (*Juglans cinerea*) | SC | No Impact - Occurrence located outside of Project workspace | NA |
| Clustered bur-reed (*Sparganium glomeratum*) | THR | No Impact - No habitat within or adjacent to Project workspace | NA |
| Least bittern (*Ixobrychus exilis*) | SC | No Impact - No habitat within or adjacent to Project workspace | NA |
| Loggerhead shrike (*Lanius ludovicianus*) | END | No Impact - Surveys conducted; no observations | NA |
| March horsetail (*Equisetum palustre*) | SC | No Impact - No habitat within or adjacent to Project workspace | NA |
| Neat spike-rush (*Eleocharis nitida*) | END | No Impact - No habitat within or adjacent to Project workspace | NA |
| Pale bulrush (*Scirpus pallidus*) | SC | No Impact - No habitat within or adjacent to Project workspace | NA |
| Peregrine falcon (*Falco peregrinus*) | END | No Impact - No habitat within or adjacent to Project workspace | NA |
| Sweet colt’s foot (*Petasites saggittatus*) | THR | No Impact - Known occurrence near proposed access road | Enbridge has modified the access road to avoid the plant population at this location |
| Torrey’s bulrush (*Schoenoplectus torreyi*) | SC | No Impact - No habitat within or adjacent to Project workspace | NA |
| Vasey’s rush (*Juncus vaseyi*) | SC | No Impact - No habitat within or adjacent to Project workspace | NA |

Potential impacts from the Project on the remaining state-listed species are summarized in Table 19-2. Although not protected under the state endangered species law, special concern species are listed in the ER Review spreadsheet. The potential effects of the Project and the actions Enbridge will implement to avoid or minimize impacts on the species in Table 19-2 are summarized in the text that follows the table.

**Table 19-2**

**State Listed Special Concern, Threatened, or Endangered Species with Potential Project Impacts**

|  |  |  |
| --- | --- | --- |
| **Species** | **State Rank** | **Potential Impact (from ER Review)** |
| A caddisfly (*Psilotreta indecisa*) | SC | Impacts to Potato River/Lawrence Creek |
| A flat-headed mayfly (*Maccaffertium pulchellum*) | SC | Impacts to Potato River/Lawrence Creek/White River |
| A humpless casemaker caddisfly (*Brachycentrus* *lateralis*) | SC | Impacts to Potato River/Lawrence Creek |
| A predaceous diving beetle (*Agabetes acuductus*) | SC | Impacts to suitable wooded wetlands |
| American bittern (*Botaurus lentiginosus*) | SC | Impacts to suitable wetland habitat |
| Bald eagle (*Haliaeetus* *leucocephalus*) | * \* | Impacts to suitable forested habitat |
| Black-backed woodpecker (*Picoides arcticus*) | SC | Impacts to suitable forested habitat |
| Braun’s holly fern (*Polystichum braunii*) | THR | Impacts to suitable forested habitat |
| Canada jay (*Perisoreus canadensis*) | SC | Impacts to suitable forested habitat |
| Confusing bumblebee (*Bombus* *perplexus*) | SC | Impacts to suitable habitat |
| Evening grosbeak (*Coccothraustes vespertinus*) | SC | Impacts to suitable forested habitat |
| Fringed rosette lichen (*Physcia tenella*) | SC | Impacts to Potato River/Lawrence Creek |
| Long-eared owl (*Asio otus*) | SC | Impacts to suitable forested habitat |
| Northern goshawk (*Accipiter* *gentilis*) | SC | Impacts to suitable forested habitat |
| Swamp darner (*Epiaeschna* *heros*) | SC | Impacts to suitable wooded wetland/ditches habitat |
| Western meadowlark (*Sturnella neglecta*) | SC | Impacts to suitable habitat (pasture, grassland, meadows) |
| West Virginia White (*Pieris* *virginiensis*) | SC | Impacts to suitable forested habitat |
| Wood turtle (*Glyptemys insculpta*) | THR | Impacts to waterbodies and adjacent habitat |
| Yellow banded bumblebee (*Bombus terricola*) | SC | Impacts to suitable habitat |
| Yellow specklebelly (*Pseudocyphellaria crocata*) | SC | Impacts to suitable forest habitat |

\*Bald eagles are not state listed in Wisconsin; however, they are protected under Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

**Impact Avoidance and/or Minimization Measures:**

Aquatic Insects

Potential impacts to the habitat of the four aquatic insect special concern species listed in Table 19-2 will be minimized or avoided in several ways. The Project has prepared and submitted to the DNR a Project specific Storm Water Pollution Prevention Plan. As described in that plan, all temporary and permanent erosion and sediment control measures will be in accordance with Enbridge’s Environmental Protection Plan (EPP), the Wisconsin Department of Natural Resources (WDNR) Storm Water Construction Technical Standards, and applicable permit requirements. More details regarding the erosion control BMPs implemented by the Project can be found in the SWPPP. The Potato River, Lawrence Creek, and the White River are listed by the DNR as potential habitat for state listed special concern insect species. The Potato River and White River will be crossed by HDD, avoiding direct impacts to these waterbodies. Lawrence Creek is not crossed by the Project.

Confusing bumble bee and Yellow banded bumble bee

If habitat for confusing bumble bee or yellow banded bumble bee is present in the Project area it will be temporarily affected by removal of vegetation. Clearing of herbaceous and shrub communities in the open areas of the temporary right-of-way, both in upland and wetland areas, would cause a short-term impact on the bees’ habitat, but the effect would be mitigated by Enbridge’s anticipated construction schedule and revegetation plans.

As described below, vegetation clearing activities associated with construction of the Project are anticipated to be scheduled to occur outside the April 1 to July 15 timeframe when the confusing bumble bee and yellow banded bumble bee are most active.

Enbridge will also utilize herbaceous seed mixes on disturbed areas following the completion of pipeline construction to restore cover, minimize the duration of vegetative disturbance, and stabilize the soil. Following seeding, Enbridge expects that pre-existing herbaceous and shrub habitats will quickly become reestablished and that wildlife species that use these habitats will return relatively soon after construction.

Birds

Activities required for construction have the potential to affect the habitat of birds that are special concern species. Take of, or direct impacts to the bird special concern species included in the ER Review spreadsheet and summarized in Table 19-2 (and other migratory birds) are not expected due to the timing of vegetation clearing activities. Vegetation clearing activities associated with construction of the Project are anticipated to be scheduled to occur outside the migratory and nesting seasons for most migratory birds in the region (e.g., April 1 to July 15). Impacts from vegetation clearing on migratory bird species requiring contiguous forested patches are important because nesting densities tend to be higher in these habitats. Various disturbance events often create habitat for shrubland species, so impacts in these areas are generally expected to be less than in forested lands. Some bird species that use open or shrubland habitats could benefit from the habitat conditions created by the proposed Project in the maintained right-of-way.

Despite these efforts, construction and operation of the Project will result in the permanent loss of some forested nesting habitat, most notably deciduous and coniferous forests. After construction is complete, Enbridge will restore the construction right-of-way as near as practicable to preconstruction condition. Cropland will be restored to active agricultural production, and other areas will be revegetated using methods and seed mixes appropriate to existing land uses and cover types. Forested areas outside of the maintained operational easement will be allowed to reforest by succession and natural recruitment. Enbridge anticipates that the majority of the temporary use areas will recover to pre-disturbance conditions over time.

Bald Eagle

To the greatest extent practicable, Enbridge will avoid clearing vegetation from April 1 to July 15 and if a bald eagle nest is identified, the Project will comply with the Bald and Golden Eagle Protection Act and activities would be avoided within 660 feet of the Project workspaces from mid-January through July 30 (or when the nest was actively being used).

Braun’s Holly-fern

Braun’s holly-fern surveys were conducted on public lands during the 2020 field season, and no observations were documented; therefore, the Project will have no impact on the Braun’s holly-fern. During wetland and waterbody surveys, an incidental observation of an individual Braun’s holly-fern was documented on private land where it overlaps with the Project workspace; therefore, the individual will be impacted by construction activities.

Wood Turtle

The renewed ER Review Letter details survey findings and required actions associated with the state listed wood turtle. Enbridge will implement conservation measures as required in the DNR’s Broad Incidental Take Permit for wood turtles in areas of suitable habitat that were mapped during field surveys. If Enbridge’s construction schedule changes, Enbridge would coordinate with the DNR to determine if an Individual Take permit is required.

Yellow specklebelly and Fringed Rosette Lichen

Clearing of woody shrubs and trees will be the primary long-term impact on vegetation associated with the Project, including in areas of potential suitable habitat for Yellow Specklebelly and Fringed Rosette Lichen. If suitable habitat for these species is present within the Project workspace it will be affected.

Enbridge will allow woody shrubs and trees to recolonize the temporary construction right-of-way and extra workspaces as described in the EPP. However, recolonization of disturbed areas by woody shrubs and trees will be slower than herbaceous species. As natural succession proceeds in these areas, the early successional or forested communities present before construction will eventually reestablish.

Clearing trees in the construction right-of-way could affect undisturbed forest vegetation growing along the edges of the cleared areas. By exposing some edge trees to elevated levels of sunlight and wind, evaporation rates and the probability of tree knockdown could increase. Due to the increased light levels penetrating the previously shaded interior, shade-intolerant species will be able to grow, and the species composition of the newly created forest edge will likely change. The proposed clearing could also temporarily reduce local competition for available soil moisture and light and may allow some early successional species to become established and persist on the edge of the undisturbed areas adjacent to the site. A portion of forestland will be maintained clear of trees for operational purposes, including facilitating aerial inspections, preserving pipeline integrity, and providing access for maintenance or emergency work in compliance with federal regulations.

**Data Request Question #20:**

Please supply the Health and Safety Plan and Operations Security Plan. If the plans contain business confidential or other sensitive information, please summarize the content and intent of the plans without divulging confidential or sensitive information.

**Data Request Question #20 Response:**

The LP Contractor Safety Specifications are required for contractors working on Enbridge projects. Enbridge will require all of the contractors that will be working on the Project to submit a Project Safety Plan, Project Hazard Assessment and Emergency Response Plan for Enbridge’s review and acceptance prior to working on the Project. Contractors must meet or exceed the safety requirements found in the specifications document.

The LP Safety Standards are required for operations and maintenance of Enbridge assets once the project goes into service.

Security:

Enbridge’s security approach for the Project will incorporate the following:

* Placing safety and people first.
* Establishing roles and responsibilities as well as authority for the plan.
* Providing consistent identification, evaluation, and treatment of security risks to mitigate potential impacts to the business and prioritize protective activities.
* Understanding public response capabilities and establishing procedures and security capabilities to identify and manage security risks to the project and operations.
* Providing robust security organization, planning, and response.
* Providing Enbridge security planning to public safety authorities as appropriate.
* Preventing unauthorized individuals from encroaching on, interfering with and/or preventing full use of the Right-of-Way (ROW) or other Enbridge assets.
* Considering appropriate times and circumstances for possible evacuation of company property or sections of the ROW due to security incidents.
* Minimizing project timeline impacts due to security incidents.
* Providing details of baseline security countermeasures as well as security response details.

Appropriate security measures, both during construction and once in service, will be determined by threat and risk identification processes that include a security vulnerability assessment. The frequency and severity of incidents will be reduced through risk identification followed by review and identification of appropriate physical security measures to mitigate the risk. Threats are assessed by Enbridge Enterprise Security (ES) to determine changes in the risk level at both the corporate and local levels. ES will issue a Project notice if it determines the security level need to be increased, and associated physical security countermeasures need to be activated.

**Data Request Question #21:**

The EIR includes information on noise that can be expected from construction equipment. Please also provide information on blasting, including noise levels and location, for the proposed route.

**Data Request Question #21 Response:**

Noise levels during rock blasting will average 125 dB at the blast site and will be mitigated by putting blasting mats on top of the blast area to minimize the spread of debris. Noise will also be reduced by using noise barrier / sound curtains where applicable. Enbridge has completed an analysis of locations where shallow bedrock is likely to be encountered (see Table 21-1).

**Table 21-1**

**Potential Shallow Bedrock Areas**

|  |  |  |
| --- | --- | --- |
| **Milepost Start** | **Milepost End** | **Approximately Length** |
| 20.61 | 20.95 | 1,795 |
| 22.01 | 22.14 | 686 |
| 22.54 | 23.60 | 5,597 |
| 23.73 | 24.10 | 1,954 |
| 24.71 | 28.10 | 17,899 |
| 29.40 | 32.69 | 17,371 |
| Total Length |  | 45,302 |

**Data Request Question #22:**

The EIR indicates where within wetlands and waterways blasting may take place. Are there other known areas where blasting may take place? If so, please provide details.

**(a)** The Wetland and Waterbody Impact Table (revised March 2, 2021) indicates that blasting is proposed at stream ID sasa071p\_x, which does not appear to be crossed by a pipeline. Please explain why blasting would need to occur in stream ID sasa071p\_x.

**(b)** The Wetland and Waterbody Impact Table (revised March 2, 2021) indicates that blasting is proposed at stream ID sasad1015p. However, the table indicates that blasting is not proposed for the wetland (ID wasd1035s) that abuts both sides of the stream. Explain why blasting is needed in the waterway and why not in the adjacent wetland. How would blasting in the adjacent wetland be avoided?

**(c)** The Wetland and Waterbody Impact Table dated (revised March 2, 2021) indicates that blasting is proposed at pond ID oasd1002. This pond appears to be outside the Proposed Workspace. Please explain why blasting would need to occur in pond oasd1002.

**Data Request Question #22 Response:**

As Enbridge indicated in response to Question 21, Enbridge has completed an analysis of locations where shallow bedrock is likely to be encountered (see Table 21-1). Depending on actual conditions encountered at the time of construction, this may include blasting in additional wetlands or waterbodies.

**Data Request Question #22a Response:**

Waterbody crossing sasa071p\_x is an unnamed tributary of Silver Creek located at approximately milepost 19.79, located along the temporary right-of-way to be used for the Silver Creek HDD pipe assembly. No blasting will occur at this location. Enbridge has updated the Wetland Waterbody Crossing Table respectively (see Attachment C).

**Data Request Question #22b Response:**

Rock areas have been studied and located along the pipeline right-of-way. At this location rock removal will probably be required and blasting or hydraulic breaker / hammer (i.e. Tramac) can be used. Disturbance to wetland and watercourse will be constructed to minimize the impact on the environment.

**Data Request Question #22c Response:**

Rock areas have been studied and located along the pipeline right-of-way. At this location outside the pipeline right-of-way no rock removal will be required and therefore no blasting. Enbridge has updated the Wetland Waterbody Crossing Table respectively.

**Data Request Question #23:**

Section 4.3.4 of the EIR indicates that care will be taken when blasting in the vicinity of water wells. Is this detailed in the Blasting Plan? Please provide details.

**Data Request Question #23 Response:**

Enbridge has identified water wells within 400 feet of the pipeline centerline and has compared the locations of those wells to areas where blasting may be necessary (see Table 21-1). Two water wells are within the identified shallow bedrock areas where blasting may be necessary. These wells are located 200 feet or more from the proposed pipeline centerline where blasting would potentially occur. Enbridge will evaluate the use of alternative excavation methods, such as jack hammer, to avoid potential well damage.

**Data Request Question #24:**

Will Enbridge have a decontamination zone in the event one of their workers (or others) become contaminated by hazardous materials?

**Data Request Question #24 Response:**

Enbridge’s contractors will be required to follow all decontamination measures set forth in Enbridge’s LP Contractor Safety Specifications, referenced in Response to Data Request Question #20.

**Data Request Question #25:**

Has Enbridge surveyed for Aquatic Invasive Species (AIS)? If completed, please provide details. Will Enbridge develop an AIS prevention plan?

**Data Request Question #25 Response:**

Enbridge conducted surveys for state-listed invasive species, pursuant to the Wisconsin Chapter NR 40 Invasive Species Rule. Surveys were specific to regulated plant species in the restricted category, which is a list of 63 species (Attachment D). Locations of noxious weed infestations will be addressed in accordance with the updated language provided in Section 4.0 of Enbridge's EPP (Attachment E).

Enbridge reviewed public information for other aquatic invasive species (non-vegetative) that are known to be present in waterbodies crossed by the Project. Sources reviewed by Enbridge include:

[https://dnr.wi.gov/lakes/invasives/aisbywaterbody.aspx](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdnr.wi.gov%2Flakes%2Finvasives%2Faisbywaterbody.aspx&data=04%7C01%7C%7C1017386e05184ee9af1d08d97241d021%7Cf2fe6bd39c4a485bae69e18820a88130%7C0%7C0%7C637666449265102050%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=BdK4lkpUGuWp2n%2BrHObLg7NhtduL8xGQXBDLzws9ghE%3D&reserved=0)

[Aquatic Invasive Species - Ashland County (wi.gov)](https://dnr.wi.gov/lakes/invasives/AISByWaterbody.aspx?location=26)

<https://dnr.wi.gov/lakes/invasives/AISByWaterbody.aspx?location=26>

Enbridge also reviewed a series of GIS mapping services including: 

Based on publically available data, one waterbody crossed by the Project (Tyler Forks) was identified as having an aquatic invasive species, Banded Mystery Snail (*Vivaparus georgianus*). Enbridge proposes to cross this waterbody using the HDD method and to install a clear span bridge; therefore, no equipment is expected to come into contact with the water as part of pipeline installation. Enbridge has proposed Tyler Forks as a source for hydrostatic test water appropriation. Water withdrawn from Tyler Forks would be discharged into an upland discharge structure near Tyler Forks and would not be discharged into other streams. Infested waterbodies will be addressed in accordance with the updated language provided in Section 4.0 of Enbridge's EPP (Attachment E).

**Data Request Question #26:**

The DNR has published the following documents to provide guidance and sources of information on how to avoid and limit the spread of invasive species. Explain if and how Enbridge is intending to follow the guidance set forth in these documents.

* + Forestry Best Management Practices Manual & Checklist
  + Wetland Best Management Practices for Preventing the Spread of Invasive Species in Wetlands.
  + Aquatic Best Management Practices for Boat, Gear and Equipment Decontamination.

**Data Request Question #26 Response:**

Enbridge has reviewed the three guidance documents listed above. Enbridge’s updated Environmental Project Plan (EPP) provides descriptions of the Best Management Practices (BMPs) that will be implemented by the Project to avoid and limit the spread of invasive species (Attachment E).

**Data Request Question #27:**

Please summarize any ongoing legal decisions or actions regarding Line 5 in Michigan.

**Data Request Question #27 Response:**

In 2019, the Michigan Attorney General filed a complaint in the Michigan Ingham County Circuit Court (the Court) that requests the Court to declare the easement granted to Enbridge in 1953 for the operation of Line 5 in the Straits of Mackinac (the Straits) to be invalid and to prohibit continued operation of Line 5 in the Straits “as soon as possible after a reasonable notice period to allow orderly adjustments by affected parties”. Ruling on the motions is currently being held in abeyance by the Court pending further developments in the Federal Court cases described below.

On November 13, 2020, the Governor of Michigan and the Director of the Michigan Department of Natural Resources notified Enbridge that the State of Michigan (the State) was revoking and terminating the easement granted in 1953 that allows Line 5 to operate across the Straits. The notice demands that the portion of Line 5 that crosses the Straits must be shut down by May 2021. On November 24, 2020, Enbridge filed in the US District Court for the Western District of Michigan a Notice of Removal, which removed the State’s November Complaint to Federal Court and a Complaint for Declaratory and Injunctive Relief that requests the US District Court to enjoin the Governor from taking any action to prevent or impede the operation of Line 5. On February 18, 2021, the Judge ruled that the motion to remand back to State Court will be briefed and decided first. Parties were also ordered to collaborate and identify a facilitative mediator. Accordingly, retired US District Court Judge Gerald Rosen was chosen to act as mediator. The parties have had multiple mediation sessions with the mediator.

On January 12, 2021, Enbridge responded to the Governor’s Notice of Revocation and Termination of Easement. On February 11, 2021, Enbridge sent a further letter to the DNR regarding Enbridge’s rights under the easement and renewing the request to meet and have technical discussions to better understand the State’s concerns. On May 11, 2021, the Governor sent a letter to Enbridge stating that if Enbridge continued to operate in the Straits past May 12, 2021, the State would consider Enbridge as intentionally trespassing and therefore Enbridge will be unjustly enriched entitling the State to all profits derived from wrongful use of the State's property. On May 21, 2021, Enbridge responded to the letter refuting the State's claims that the pipelines are in trespass. Enbridge continues to vigorously defend our ability to operate Line 5 under the 1953 easement in pending Court actions.

In March 2021, Enbridge completed the engineering and design phase of the Great Lakes Tunnel Project and has begun the process of hiring a contractor to construct the tunnel. Enbridge is actively pursuing state and federal regulatory permits from the US Army Corps of Engineers (Army Corps), the Michigan Department of Environment, Great Lakes & Energy (EGLE) and the Michigan Public Service Commission. The EGLE permits were granted in the first quarter of 2021; one of the EGLE permits has been challenged by the Bay Mills Indian Community.

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