DEPARTMENT OF NATURAL RESOURCES

# ENBRIDGE LINE 3 REPLACEMENT PROJECT

# Water Appropriation Permit No. 2018 – 3690

# (HDD/Hydrostatic Testing)

## FINDINGS OF FACT, CONCLUSIONS AND ORDER

Water Appropriation Permit No. 2018-3690

Enbridge Line 3 Replacement Project

November 12th, 2020

**MINNESOTA DEPARTMENT OF NATURAL RESOURCES**

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| **In the Matter of the Application for Water Appropriation Permit No. 2018-3690** | **FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER OF COMMISSIONER** |

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After review of the application, due investigation of relevant information, and consideration of comments, and based on the information and statements contained in the permit applications submitted by Enbridge Energy, Limited Partnership ("Enbridge"), the applicant's description of work proposed to be undertaken, and supplemental information in the administrative record contained within the MNDNR Permitting and Reporting System ("MPARS") or otherwise available to the Minnesota Department of Natural Resources, the Commissioner of the Minnesota Department of Natural Resources ("DNR") makes the following:

# FINDINGS OF FACT

## I. EXECUTIVE SUMMARY

1. Pursuant to the requirements of Minn. Stat. § 103G.271, Enbridge applied for four separate water appropriation permits as part of its proposed Line 3 Replacement Pipeline Project ("Project"). The applications seek to appropriate water for (1) mainline hydrostatic testing and horizontal directional drilling (HDD), (2) trench and construction dewatering, (3) dust suppression and (4) trench and construction dewatering near the Gully 30 calcareous fen. These Findings of Fact only address Enbridge's Water Appropriation Permit Application No. 2018-3690 (the "Application") for mainline hydrostatic testing and HDD. The other three water appropriation applications will be addressed in separate findings.

2. The Project is intended to address mechanical integrity deficiencies on the existing Line 3 pipeline. The Project proposes to install approximately 337 miles of new 36-inch diameter pipe and associated facilities from the North Dakota-Minnesota border to the Minnesota-Wisconsin border. Enbridge's proposed pipeline route would generally follow the existing Line 3 pipeline from the North Dakota-Minnesota border in Kittson County to Enbridge's terminal facility in Clearbrook, Minnesota. From the terminal in Clearbrook, the pipeline would proceed south and generally follow the existing Minnesota Pipe Line Company's right-of-way to Hubbard, Minnesota. From Hubbard, the route would proceed east, following existing electric transmission line and railroad rights-of-way and traversing greenfield areas until

crossing the Minnesota-Wisconsin border approximately five miles east-southeast of Wrenshall, Minnesota. The route would end at the existing Enbridge terminal in Superior, Wisconsin.

3. The Project has undergone significant review from the Public Utilities Commission ("PUC"). On April 24, 2015, Enbridge filed separate applications for a certificate of need ("CN") and routing permit ("RP") for the Project. The PUC authorized the Department of Commerce, Energy Environmental Review and Analysis Unit ("EERA") to prepare an environmental impact statement ("EIS"). PUC referred the CN, RP, and EIS adequacy to the Office of Administrative Hearings for contested-case proceedings. Following the contested-case proceedings, and following a revised Final EIS ("FEIS") submitted by EERA, the PUC eventually found the revised FEIS to be adequate, and granted the CN and RP contingent on certain modifications and conditions. The Minnesota Court of Appeals reversed the FEIS order for its failure to address the potential impacts to the Lake Superior watershed and remanded to the PUC for further proceedings. On remand, the PUC requested that EERA submit a second revised FEIS that included an analysis of the potential impact to the Lake Superior watershed. On May 1, 2020, after receiving public comments and hosting public forums, PUC issued an order finding the second revised FEIS adequate and granting the CN and RP subject to certain modifications and conditions.

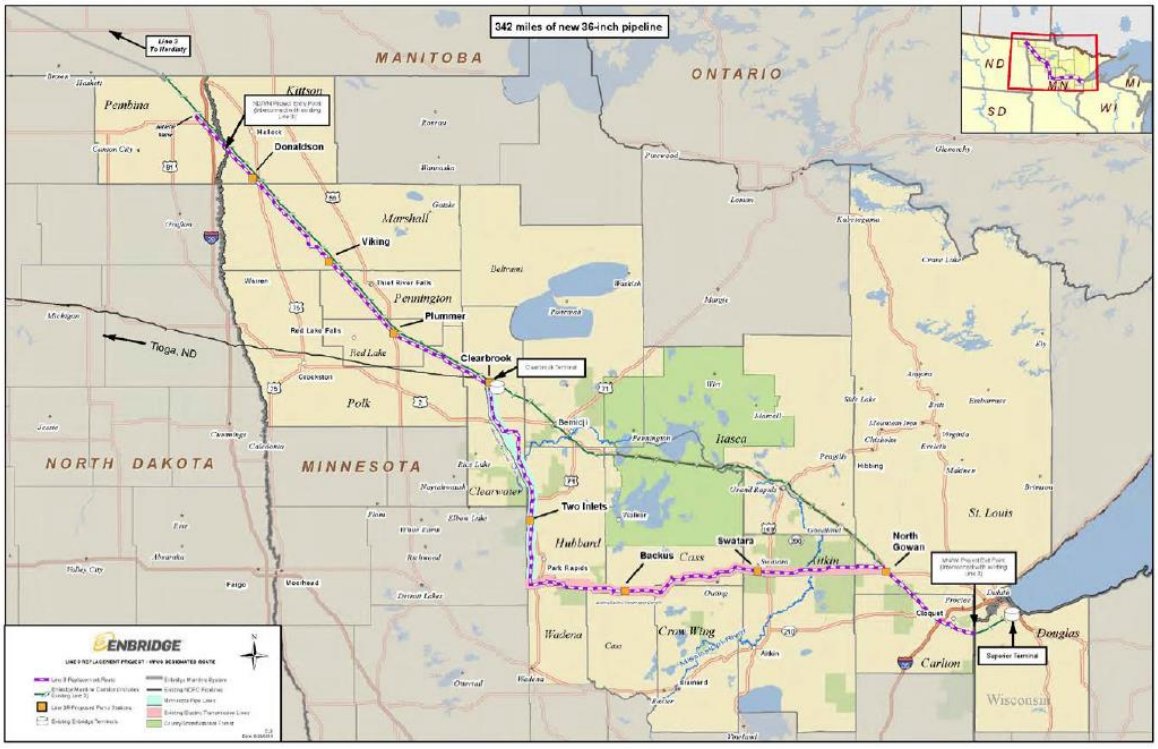
4. As required by Minn. R. 4410.7055, DNR has reviewed the second revised FEIS and it serves to inform DNR's current findings.

5. The permit Enbridge seeks is related solely to the appropriation of water for horizontal directional drilling (HDD) and mainline hydrostatic testing of the pipeline. A multitude of other permits and regulatory requirements will also apply to the Project prior to construction. Required authorizations from DNR include the three other water appropriation permits referenced above, two separate work in public waters permits, a threatened and endangered species takings permit, a utility license to cross public waters, a utility license to cross public lands, and an authorization under a calcareous fen management plan. The Project would also cross wetlands and streams not covered by DNR licenses or permits. These wetland and stream crossings are regulated by an Army Corps of Engineers ("USCOE") Clean Water Act section 404 permit and a Minnesota Pollution Control Agency ("MPCA") Clean Water Act section 401 Water Quality Certification.

## II. ENVIRONMENTAL SETTING OF THE PROJECT

6. As shown below, the proposed Project transects thirteen Minnesota counties (Kittson, Marshall, Pennington, Red Lake, Polk, Clearwater, Hubbard, Wadena, Cass, Crow Wing, Aikin, St. Louis, and Carlton counties). The Project proposes to maintain a 50-foot wide

permanent corridor along the pipeline route. During construction, the Project proposes to temporarily widen the corridor to 120-feet wide in uplands and 95-feet wide in wetlands. The pipeline route also includes additional temporary construction workspaces.




7. The Project proposes 72 public water crossings, including five basins, 61 watercourses, and six wetlands. Five of the public watercourses are trout stream tributaries. With the exception of the six public water crossings in public waters wetlands located within private lands, all public waters crossings will be addressed in Utility License to Cross Public Waters. One wetland at mile post 963.7 in Hubbard County does not require a work in public waters permit as the activity is vegetation removal by cutting and no excavation or filling will be taking place. An Aquatic Plant Management permit is also not needed for this wetland crossing per Minn. R. 6280.0250, subp. 1(D). The five public water wetland crossings located on private lands are addressed in the Work in Public Waters Permit Application No. 2018-3419.

8. The Project would also cross wetlands and streams not covered by DNR licenses or permits. These wetland and stream crossings would be regulated by the USCOE Clean Water Act section 404 permit and the MPCA Clean Water Act section 401 Water Quality Certification.

## III. PROPOSED APPROPRIATION

9. The Application proposes to use pumps to appropriate water from 36 different installations (28 watercourses and 8 groundwater wells) along the pipeline corridor for horizontal direction drilling ("HDD") and mainline hydrostatic testing. Horizontal directional drilling (HDD) is a trenchless crossing technique that involves drilling a hole underneath a waterbody and installing a pre-fabricated pipe segment though the hole. No direct excavation to the bed or banks of the waterbody occur. Installation is completed in three stages; 1) small pilot hole is directionally drilled at an entry point along a designed path to an exit point, 2) enlarging of the pilot hole to a diameter suitable for installation of the pipe and 3) pulling the pre-fabricated pipe section from the exit point to the entry point. HDD methods also utilize drilling fluid (drilling mud) that is pumped under pressure through the inside of drill pipe to lubricate the drill bit and convey drill cuttings back to the drill entry point, where is it reconditioned and re-used in a closed circulating process. Mainline hydrostatic testing is a test that is performed to determine the integrity of the pipeline before placing the pipeline in service. Hydrostatic testing is done to verify that there are no flaws in the pipe or welds. Hydrostatic testing involves filling the new pipeline segments with water and raising the internal pressure level inside the pipe and holding the pressure for a specific period of time to verify there are no leaks or issues with the pipeline. The water is discharged out of the pipeline. Appropriation pumping rates will range from 1,200 gallons per minute to a maximum rate of 4,000 gallons per minute for surface waters and from 550 gallons per minute to 3,000 gallons per minute for groundwater wells (well appropriation rates are based on: 1) the approved rates within current permits for existing wells; or 2) the pumping rate used during the pump test from the well logs for non-permitted wells). Water volumes at each appropriation site will vary. Listed below are the 36 installation sites (installations numbered 15, 26, 31 and 39 have been removed since the initial application;), with the respective surface water name or unique well number and the proposed contingency site, that were included within the Application:

- Installation #1: Red River, Mainline Hydrostatic Testing (Spread 1A), Kittson County-7,300,000 gallons *(Alternative: Installation #3-Tamarac River)*
- Installation #2: Red River HDD (Pretest & Buoyancy), Kittson County- 218,000 gallons *(Alternative: Installation #4-Tamarac River)*
- Installation #3: Tamarac River, Mainline Hydrostatic Testing (Spread 1B), Marshall County-10,180,000 gallons *(Alternative: Installation #1-Red River or Installation #5-Middle River)*
- Installation #4: Tamarac River HDD (Pretest & Buoyancy), Marshall County-555,000 gallons *(Alternative: Installation #5-Middle River)*
- Installation #5: Middle River HDD (Pretest & Buoyancy), Marshall County-180,000 gallons *(Alternative: Installation #4-Tamarac River)*

- Installation #6: Snake River HDD (Pretest, Buoyancy & Drill Rig), Marshall County-613,000 gallons *(Alternative: Installation #4-Tamarac River)*
- Installation #7: Red Lake River Mainline Hydrostatic Testing (Spread 1C), Pennington County-7,900,000 *(Alternative: Installation #4-Tamarac River or Installation #9-Clearwater River (Mile Post ("MP") 875.4)*
- Installation #8: Red Lake River HDD (Pretest & Buoyancy), Pennington County-325,000 gallons *(Alternative: Installation #10-Clearwater River)*
- Installation #9: Clearwater River, Mainline Hydrostatic Testing (Spread 1D), Red Lake County-6,168,000 gallons *(Alternative: Installation #7-Red Lake River)*
- Installation #10: Clearwater River (MP 875.4) HDD (Pretest, Buoyancy & Drill Rig), Red Lake County-1,512,000 gallons *(Alternative: Lost River #1 (MP 885.8)*
- Installation #11: Clearwater River, Mainline Hydrostatic Testing (Spread 2A/2B), Clearwater County-13,897,000 gallons *(Alternative: Installation #30-Well #793975 or Lost River #2 (MP 904)*
- Installation #12: Clearwater River (MP 922.2) HDD (Pretest, Buoyancy & Drill Rig), Clearwater County-760,000 gallons *(Alternative: Installation #13 Mississippi River (MP 941) or Installation #14-Well #763975)*
- Installation #13: Mississippi River (MP 941) HDD (Pretest & Buoyancy), Clearwater County-190,000 gallons *(Alternative: Installation #13-Clearwater River MP 922.2 or Installation #28-Well #718159)*
- Installation #14:Well #763975; Hay Creek HDD (Pretest, Buoyancy & Drill Rig), Hubbard County-755,000 *(Alternative: Installation #28-Well # 718159 or Island Lake)*
- Installation #16: Shell River (MP 983.7) HDD (Pretest, Buoyancy & Drill Rig), Hubbard County-624,000 gallons *(Alternative: Installation #17-Shell River (MP 985.4)*
- Installation #17: Shell River (MP 985.4) HDD (Pretest, Buoyancy & Drill Rig), Hubbard County-1,193,000 gallons *(Alternative: Installation #16-Shell River (MP 983.7 or Well #178734)*
- Installation #18: Well #465115; Shell River (MP 991) HDD (Pretest & Buoyancy), Hubbard County-137,000 gallons *(Alternative: Installation #17-Shell River (MP 985.4) or Shell River (MP 991.2)*
- Installation #19: Well #797182; Crow Wing River HDD (Pretest & Buoyancy), Wadena County-140,000 gallons *(Alternative: Crow Wing River or Installation #17-Shell River (MP 985.4)*
- Installation #20: Shell River Mainline Hydrostatic Testing (Spread 3A), Hubbard County-2,937,000 gallons *(Alternative: Installation #21-Pine River)*

- Installation #21: Pine River Mainline Hydrostatic Testing (Spread 3B/3C), Cass County-16,036,000 gallons *(Alternative: Installation #20-Shell River (MP 985.4) or Clear (Eagle) Lake*
- Installation #22: Willow River HDD (Pretest, Buoyancy & Drill Rig), Aitkin County-383,000 gallons *(Alternative: Installation #23-Mississippi River (MP 1069.7)*
- Installation #23: Mississippi River HDD (Pretest, Buoyancy & Drill Rig), Aitkin County-619,000 gallons *(Alternative: Installation #22-Willow River)*
- Installation #24: Mississippi River Mainline Hydrostatic Testing (Spread 4A/4B), Aitkin County-12,924,000 gallons *(Alternative: Installation #22-Willow River)*
- Installation #25: East Savanna River HDD (Pretest, Buoyancy & Drill Rig), St. Louis County-393,000 gallons *(Alternative: Installation #23-Mississippi River (MP 1069.7)*
- Installation #27: St. Louis River Mainline Hydrostatic Testing (Spread 5A/5B), St. Louis County-12,667,000 gallons (*Alternative: Installation #24-Mississippi River (MP 1069.7), East Savanna River or Chub La*ke)
- Installation #28: Well #718159, Mainline Hydrostatic Testing (Spread 2C/2D), Hubbard County-6,355,000 gallons *(Alternative: Installation #11-Clearwater River (MP922.2), Island Lake or Installation #30-Well #763975)*
- Installation #29: Middle River HDD (Drill Rig), Marshall County-550,000 gallons *(Alternative: None)*
- Installation #30: Well #763975; Mainline Hydrostatic Testing (Spread 2E), Hubbard County-2,766,000 gallons *(Alternative: Island Lake or Installation #28-Well #718159)*
- Installation #32: Well #232423; Straight River HDD (Pretest & Buoyancy), Hubbard County-306,000 gallons *(Alternative: Installation #14-Well #763975, Island Lake or Installation #28-Well #718159)*
- Installation #33: Well #707830; Straight River HDD (Drill Rig), Hubbard County-660,000 *(Alternative: None)*
- Installation #34: Well #797183; Shell River (MP 991) HDD (Drill Rig), Wadena County-296,000 gallons *(Alternative: None)*
- Installation #35: Well #803210; Crow Wing River HDD (Drill Rig), Wadena County-303,000 gallons *(Alternative: None)*
- Installation #36: Pine River HDD (Pretest, Buoyancy & Drill Rig), Cass County-388,000 gallons *(Alternative: Clear (Eagle) Lake)*
- Installation #37: Daggett Brook HDD (Drill Rig), Cass County-416,000 gallons *(Alternative: Lake George)*
- Installation #38: Mississippi River (MP 941) HDD (Drill Rig), Clearwater County-409,000 gallons *(Alternative: None)*

- Installation #40: Red Lake River HDD (Drill Rig), Pennington County-1,285,000 gallons *(Alternative: None)*

## IV. APPLICATION AND COMMENT PROCESS

### A. Enbridge Submits Application to DNR to Appropriate Water from Surface Water and Groundwater for Mainline Hydrostatic Testing and Horizontal Directional Drilling (HDD) Activities.

10. Enbridge proposes to use surface water and groundwater for mainline hydrostatic testing and HDD activities to install the pipeline. Because the proposed appropriation is in excess of one million gallons per year, a DNR water appropriation permit is required. *See* Minn. Stat. § 103G.271, subd. 4.

11. On October 29, 2018, Enbridge submitted an Individual Water Appropriation Permit Application-Pipeline and Tank Testing (HDD/mainline hydrostatic testing) to the DNR. Enbridge submitted a $150 check covering the permitting fee in conjunction with the Application and in accordance with the administrative rule. The Application was assigned permit application no. 2018-3690.

12. The Application includes a description of the Project; a statement of the overall purpose and need; a specific appropriation request for the pipeline and tank testing (HDD and mainline hydrostatic testing) with supporting figures including maps and the location of proposed water appropriation sites; and the November 2020 Environmental Protection Plan (EPP) received on November 8, 2020.

13. The Application contains a description of the project and specifics of the proposed water appropriation at thirty-six (36) individual installations, along with supporting figures and technical information. The total appropriation requested is 113.1 million gallons of surface water or groundwater per year for pipeline and tank testing (HDD and mainline hydrostatic testing) activities associated with the pipeline construction. For the 11 mainline hydrostatic testing spreads (1A through 5B), the Application is requesting 99,136,000 gallons. For the 26 HDD crossings (drilling rig water, pre-test buoyancy, drilling mud and testing volumes), the Application is requesting 13,962,000 gallons. Pumping rate for surface waters are 1,200 gpm to 4,000 gpm; well pumping rates vary by well (550 gpm up to 3,000 gpm) and are listed as conditions on Water Appropriation Permit No. 2018-3690 (the "Permit").

14. The Application is one of four water appropriation permit applications for the Line 3 Replacement Project proposed by Enbridge. The total water appropriation proposed by

Enbridge for the Project (dust suppression, mainline hydrostatic testing/horizontal directional drilling, trench and construction dewatering, and construction dewatering near the Gully 30 calcareous fen) is in excess of 100 million gallons and is subject to high volume service fees for the review, analysis and preparation of each water appropriation permit. The applicant has paid the quarterly invoices prepared by the DNR for the associated high volume service fees for all water appropriation applications for the project. *See* Minn. Stat. § 103G.301, subd. 2.

15. On December 20, 2019, after receiving comments on its initial application, Enbridge submitted its revised Application that included revisions to the number of HDD/mainline hydrostatic testing installations and the requested amount of water appropriated, site-specific plans describing proposed work including quantity of appropriation, and a consideration of alternatives. DNR and Enbridge had many discussions between December 2019 and October 2020 on the Application. On October 16, 2020, Enbridge submitted its second revised application that had minor revisions. On November 8, 2020 Enbridge resubmitted the same October 16, 2020 application with all relevant plans such as the EPP (including attachments), this submittal is considered the final application ("Application"). DNR's decision on Water Appropriation Permit 2018-3690 (the "Permit") is based on the November 8, 2020 submittal of the application and plans. A signed contingency statement was also included in the Application materials per Minn. Stat. § 103G.285, subd. 6.

16. Per Minn. R. 6115.0660 subp. 3(G)(3) and Minn. Stat. § 103G.285, subd. 4, the Enbridge distributed landowner notification letters to all landowners located on lakes of 500 acres or less (Clear (Eagle) Lake and Chub Lake-both are contingency sources). Enbridge indicated that it notified all riparian landowners and attempted to obtain a signed statement from riparian landowners stating their support of the proposed appropriations; and provided an accounting of the number of signatures of riparian owners Enbridge was unable to obtain. Enbridge obtained statements of support from twenty nine of the one hundred and sixteen riparian landowners on both lakes under 500 acres in surface area (Clear (Eagle) Lake and Chub Lake). *See* Application, Supplemental Materials, Section 4.1 and Table 4.1-2.

17. Minn. Stat. § 103G.301, subd. 6 and Minn. R. 6115.0660, subd. 3(D) require an applicant to serve copies of the application and supporting materials to the mayor of the city, secretary of the board of supervisors of the soil and water conservation district, or the secretary of the board of managers of the watershed district if the proposed project is within or affects a watershed district or soil and water conservation district or city. This requirement was waived because MPARS, the DNR online permitting and reporting system, automatically sends electronic notifications and relevant documents to the appropriate entities during the application and evaluation process.

18. The Application proposes an appropriation of 113.1 million gallons of surface water and groundwater to complete HDD drilling and mainline hydrostatic testing of the pipeline. The Application proposes to appropriate water from watercourses, lakes and private wells along the pipeline corridor to complete HDD installations and to hydrostatically test the pipeline for leaks after the pipeline is in the trench. The Application requests approval to appropriate water from private wells, including irrigation wells, owned by other landowners. Enbridge has obtained the required authorization from the well owners for this appropriation.

### B. The Application Was Circulated for Public Comment and for Comment from Government Entities

19. On March 18, 2019, the DNR posted all of Enbridge's permit applications and supplemental permit materials on the DNR Line 3 Permitting website for a 60-day public comment period, which closed on May 17, 2019. The original version of the Application was among the application materials posted for public comment. The DNR published a GovDelivery (email newsletter) notice and press release notifying the public of the open comment period. Prior to the public comment period, the DNR issued GovDelivery notices informing recipients of the Application and notifying them of its availability on the permitting website.

20. The DNR requested comments on the Application through the GovDelivery email newsletter from thirteen local soil and water conservation districts (SWCD), three watershed districts, five tribes and thirteen counties. In addition, the DNR sent out a request for comments to State and Federal agencies such as the United States Army Corps of Engineers (USCOE), Board of Water and Soil Resources (BWSR), Minnesota Pollution Control Agency (MPCA), Minnesota Department of Health (MDH), and Minnesota Department of Agriculture (MDA). *See* Minn. Stat. § 103G.301, subd. 7.

21. No comments were received from the thirteen SWCDs, the three watershed districts, the thirteen counties, the USCOE, BWSR, MPCA, MDH or MDA. Comments that were received from tribal governments are addressed below.

22. From March 22, 2019 through May 7, 2019 (original Application dated October 2018), and from February 28, 2020 through March 29, 2020 (updated Application dated December 2019), the DNR requested internal comments on the Application.

23. DNR held informational webinars on April 29, April 30, and May 6, 2019 to provide information to the public about the Project and receive public comments. The informational webinars were recorded and are available on the DNR Line 3 Permitting website.

24. The DNR received nearly 10,000 public comments on all of the draft applications combined. The vast majority of these comments were form letters. Form letters were identified when two or more unrelated individuals submitted identical or substantively identical submissions, or when a submission was determined to consist nearly entirely of text provided for the purpose of mass e-mailing. Within the form-letter submissions, there were numerous form-letter variants consisting of standard form-letter text that was altered through deletion or addition of sender-composed text.

25. Not all submissions contained substantive comments on the applications. For example, many commenters offered opinions as to whether the Project should or should not proceed, with minimal or no additional content relating to the draft applications.

26. Given the large number of submissions and individual comments received during the public-comment process, the DNR grouped similar comments into themes and considered those themes individually in lieu of responding to each individual comment. *See* Minn. R. 6115.0670, subp. 2(A) (8) (directing DNR's consideration of comments in review of applications for water appropriation permits). Comments relevant to Application are addressed below.

**i. Comments by Red Cliff Band and DNR Response.**

27. Comments were received from the Red Cliff Band of Lake Superior Chippewa ("Red Cliff") during the public comment period from March 18, 2019 to May 7, 2019.

a. The Red Cliff Band provided comments on the mainline hydrostatic testing and noted that the pipeline route crosses four State Recognized Manoomin Waters (Hay Creek, Portage Lake, Peterson Lake and Moose Lake) and dozens more tribally recognized rice beds. The Band also stated that any contamination from construction, such as frac out from the Horizontal Directional Drilling under Hay Creek, would be detrimental to the fragile ecosystem that manoomin relies on. ***DNR response:*** The DNR is aware of the wild rice (manoomin) in the river systems and has worked with the MPCA and Enbridge on the best options for protection of this and other natural resources at HDD sites. Enbridge has a plan in place as part of the EPP for monitoring and, if necessary, management of inadvertent releases of drilling fluid. Section 11 of the EPP details the drilling fluid response, containment and notification procedures that would be implemented if any inadvertent releases occur during an HDD crossing, including clean up procedures for different land types (i.e. uplands, wetlands, and waterbodies). These procedures would also be incorporated into Attachment M of the MPCA Clean Water Act 401 water quality certification, if issued. Enbridge's technical engineers have evaluated each crossing for the best construction method to use (open cut, push pull, HDD, dry

crossing, etc.), and have determined, based on soil types and prior knowledge of pipeline crossings, that the above-mentioned sites are at low risk for HDD frac outs to occur. Other locations where there have been frac outs in the past are being crossed by a different construction method, such as open cut, to avoid frac out risks.

**ii. Comments by Honor the Earth and DNR Responses.**

28. Comments were received from Honor the Earth during the public comment period from March 18, 2019 to May 7, 2019.

a. Honor the Earth references meetings between Enbridge and DNR relating to this Application. Honor the Earth asks, "Where are the notes from these meetings, and how has Enbridge responded to the DNR's requests for more information? If they are failing in providing adequate information, the DNR must not permit this line." ***DNR response:*** The meeting notes are part of the DNR record for this Project. Enbridge has provided adequate information regarding DNR's requests for information on this permit Application.

b. Honor the Earth asks, "How will the treatment of water used in HDD drilling mud be achieved?" ***DNR response:*** Water appropriated from one of the approved surface waters or groundwater locations will be used to make the HDD drilling mud. Once the mud it made up, it will be used in the drilling of the HDD pivot holes and used as a lubricant for the drilling rigs. Any excess HDD drilling mud will be returned to the drilling pit and incorporated into the surrounding landscape if on agricultural lands, or hauled off site for disposal if originating from sensitive or state lands. There is no treatment of the water before HDD mud mixing or after the completion of the HDD crossing as minimal mud is leftover.

c. Referring to Table 1 in Attachment A to the Application listing appropriation sites, Honor the Earth asks, "Has the DNR reviewed these locations to ensure Enbridge has adequately surveyed these areas? If not, how will the DNR ensure these areas do not have unanticipated impacts? If so, why has the DNR not shared this information with the public?" ***DNR response:*** Enbridge provided the Table 1 in Attachment A as part of the Application noting the locations of Clean Water Act Section 303 impairments, aquatic invasive species and wild rice waterbodies as surveyed by the DNR and MPCA. No additional surveys were completed. All the impairments and infestations are public information and can be found on DNR or MPCA's websites which is where Enbridge received its information. DNR believes that the sites were adequately represented based on the information provided by

Enbridge. There are conditions on the Permit that help prevent the spread of invasive species and impacts to wild rice.

d. Honor the Earth has commented, "This is a startling amount of water Enbridge would like to move around and use for free. Many areas in Minnesota are already suffering from the impacts of climate change and biodiversity loss. The additional impacts of massive water withdraws will only compound these impacts-whether or not the water is returned to the same waterway. In some cases, Enbridge plans to use the source water for testing several different segments. What is the full amount of time the water will be missing from the aquatic ecosystem? During nearly every season, this large of a fluctuation of water levels will undoubtedly impact aquatic life. The highlighted waterways in their contingency sources are also culturally significant waterways-both for their historic use and current source of manoomin. Enbridge should not be allowed to additional impact these waterways with massive water takings. There is a 7.9 million gallon difference between the take and discharge amounts, Where is this 7.9 million gallons going?" ***DNR response:*** The numbers addressed in the comment letter are different than those in the current Application. Enbridge is proposing appropriation of 113.1 million gallons with 103.2 million gallons being discharged to upland areas or the source water. The difference in the amount (9.8 million gallons) is the water used for the HDD drilling mud and drill rig. This volume will be used up and not discharged. The company is not using it for free; state law requires any permittee that appropriates volumes over 10,000 gallons a day or one million gallons a year to pay an annual fee for the use of the water. To ensure protection of aquatic ecosystems, DNR staff monitor flow conditions in all 81 major (HUC 8) watersheds within the state. If flow conditions fall below the Q90 low flow measurement in any of these watersheds, monitoring staff alert the water appropriation regulation program. The Q90 exceedance flow value is a stream discharge measurement that statistically is exceeded 90% of the time during a period of record. If the flows remain below the Q90 for 120 hours, the water appropriation regulation program initiates water permit suspension procedures within the watershed. The purpose of the permit suspensions is to protect instream aquatic resources and higher priority water uses such as drinking water. Enbridge's proposed use of water for HDD and hydrostatic testing would be subject to suspension under these conditions. The proposal includes appropriations in several different HUC 8 watersheds so suspensions would depend upon which specific installations were located within watersheds experiencing low water conditions. These measures are protective of natural resources in the event water levels are low due to climate change. The amount of time that the water would be removed from the ecosystem would be between 2 days and 10 days depending on the length of spread that is being tested.

e. Honor the Earth commented, "Hydrostatic testing is a very crude testing technique that does not give as precise of an assessment as is possible. This process is also very impactful, as this much movement of water is not natural…Gordon Construction, the native –owned construction company Enbridge has been touting, is indicated in the miss-construction of several tribal housing developments. They should not be trusted with self-monitoring of their construction practices." ***DNR response:*** Enbridge is required to provide Independent Environmental Monitors (IEM) for determining permit compliance as a condition of the PUC Route Permit. This condition requires the IEMs to be under the control of and report to Department of Commerce, MDA, MPCA and the DNR. These monitors will track Project compliance with permit conditions. Any non-compliance will be addressed by the appropriate regulatory agency. DNR agency staff will also perform spot check inspections to confirm compliance with DNR permit conditions. The reason for the water appropriation is that for mainline hydrostatic testing of petroleum pipelines, federal regulations require that the test medium be water.

f. Honor the Earth asked the following regarding HDD Drilling Mud; "Why is Enbridge allowed to characterize the mud as non-toxic? Smothering is toxic to the plant that is experiencing it. The material itself may be natural, but this use of it is not." ***DNR response:*** Bentonite clay is non-toxic but there may be additives in the drilling mud. In the case of a frac out or release into the water column, Enbridge has a plan in place as part of the EPP for inadvertent releases of drilling fluid. Section 11 of the EPP details the drilling fluid response, containment and notification procedures if any inadvertent releases occur during an HDD crossing, including clean up procedures are for different land types (i.e. uplands, wetlands, waterbodies). These procedures would also be incorporated into Attachment M of the MPCA Clean Water Act 401 water quality certification, if issued.

g. Honor the Earth made the following comment regarding conservation measures proposed to reduce water use, including calibration of pumping equipment and leak detection and repair: "This hardly sounds like conservation measures, it is basic operating procedures." ***DNR response:*** These are conservation measures as they allow for better and accurate water reporting from the flow meters. Other conservation measures are contingency sources and ceasing appropriations when flows are at Q90 protection limits.

h. Honor the Earth commented, "In the Straight River Groundwater Management Area, they propose to use over 8,000,000 gallons of water. There is an additional over

3,000,000 gallons requested for the use in the Shell River. These areas are already heavily stressed, again, from the RDO potato fields. How will the municipality of Park Rapids deal with that much of missing water? What season is Enbridge proposing these various withdraws? How can the DNR ethically continue to permit this massive industrial projects given the ecological crisis facing us, and the next seven generations?" ***DNR response:*** Withdrawals in the Straight River Groundwater Management Area are being taken from groundwater wells that are already permitted with the State. The amount of water taken from the groundwater wells is a portion of what is already been allocated to the private well owner and pursuant to the groundwater management plan and is therefore consistent with the plan. The Shell River location is for 624,000 gallons and the water would be treated and allowed to be returned to the watershed through upland discharge in accordance with a MPCA NPDES/SDS permit.

i. With respect to using Clear (Eagle) Lake as an appropriation source, Honor the Earth commented, "How did the DNR calculate which waterways they were concerned about? Can Enbridge literally find no other way to test the strength of their pipeline than filling it with pressurized water?" ***DNR response:*** See comment response (d) and (e) above. Though the Clear (Eagle) Lake is still listed in the approved list of installations for appropriations, it is listed as a contingency source and will have a protective limit set to one-half acre foot per acre allowed in rule. DNR reviewed this location and had concerns with the volume of water being requested from this location, which is why Enbridge changed the location to the Shell River and added Pine River as another installation.

j. With respect to Venoah Lake, Honor the Earth commented, "Doesn't sound like the community is too excited by this choice." ***DNR response:*** After consultation with the DNR, Enbridge removed Venoah Lake from their source water considerations due to the size and depth of the lake and known winter kill issues.

k. Honor the Earth commented, "Gichigami-ziibi has been over-abused for centuries, and it is time to turn away from policies that perpetuate that abuse." ***DNR response:*** Gichigami-ziibi (St. Louis River) is the largest source of water in the area for the mainline hydrostatic testing. The water will be filtered and treated prior to being returned to the river. No water from within the Great Lakes compact can be taken and moved outside of the watershed. The St. Louis River was the best option given the amount of water needed to test the hydrostatic spread versus the other options in the area that are much smaller waterbodies (i.e. Venoah Lake, Andrus Lake

and Chub Lake). The St. Louis River has sufficient volumes to allow for this appropriation without negative impacts.

l. With respect to storing appropriations from times of high flows or water levels, Honor the Earth commented, "This would also include the storage of millions of gallons of water. Something that community members are sure to notice." ***DNR response:*** This option was considered as an alternative to pumping during low flow conditions, but Enbridge could not accommodate the volume of water needed by providing large enough tanks.

m. With respect to the use of flow meters, Honor the Earth commented, "Accurate measurements should be required to fully tax them for the water usage. Why does the DNR not require this?" ***DNR response:*** Flow meters are a condition of the permit to be installed on all pumps as they are the most accurate at taking measurements of the volume of water and pumping rates. No other devices are to be used by Enbridge for the HDD/Hydrostatic permit. Environmental Inspectors will ensure that all pumps have flow meters on them.

n. With respect to the consideration of alternate appropriation sources, Honor the Earth commented, "Why is the DNR asking if they will consider other sources? As the permitting agency, they should require the least impactful methods be utilized. If the least impactful method is no-build, then permits need to be denied." ***DNR response:*** State law allows an applicant to propose a source for water appropriation. As part of the permitting process, the applicant considers alternatives and DNR may give suggestions based on the information DNR has on waterbodies in the area. The applicant ultimately decides whether these locations would work for the planned use as they work through the permitting process. Though DNR does not control which sites are included in an application, DNR will deny an application if the appropriation does not comply with State laws designed to protect natural resources

**iii. Public Comments and DNR Responses.**

29. Comments were received from members of the public during the public comment period from March 18, 2019 to May 7, 2019. Many of the comments identified below contained identical concerns with the Application. Because these commenters raised many of the same substantive concerns, the DNR responds to the substance of these comments in a thematic fashion rather than on a commenter-by-commenter basis.

a. Chub Lake Association and riparian landowners had concerns over utilizing Chub Lake in Carlton County for a water appropriation source for mainline hydrostatic testing as the lake is infested with Eurasian water milfoil and they are worried about spreading it to other non-infested portions of the lake and other waterbodies. Other concerns included public use at the water access site, the safety of the proposed appropriation location and water quality. They indicated that water quality problems arose when Enbridge used the lake as a water source in a prior pipeline installation project. ***DNR response:*** Chub Lake is being considered as a contingency source; the main source was changed to the St. Louis River. This site was changed after discussions with DNR, MPCA, and the Chub Lake Association and comments received during the public comment period. Due to the high interest in this site and the past experiences from other pipeline projects that used Chub Lake for appropriations, this location was reduced to a contingency source. Chub Lake will only be used for appropriations if there is not enough water for the hydrostatic testing in the St. Louis River. Based on DNR's review of gage information, the St. Louis River should have enough water to appropriate for the hydrostatic testing. MPCA will regulate all discharges and water used for hydrostatic testing must be discharged in compliance with an NPDES/SDS permit. Enbridge changed Chub Lake to a contingency source for mainline hydrostatic testing in its December 20, 2019 revised Application.

b. Comments were received from the public on the use of Long Lake and Island Lake in Hubbard County for water appropriation. Both Long Lake and Island Lake were listed as a contingency source for mainline hydrostatic testing in Enbridge's original application. Members of the public had concerns about the potential of spreading of AIS. ***DNR response:*** Long Lake was removed as a contingency source for the Project in Enbridge's revised December 20, 2019 Application because there are other locations closer to the proposed Project pipeline location. Island Lake is not infested with AIS and Enbridge is required to follow the Invasive & Noxious Species Management Plan to control the spread of AIS. Island Lake will remain a contingency source for mainline hydrostatic testing.

c. Comments were received from the public on the Clear (Eagle) Lake in Cass County, which is a water appropriation source for mainline hydrostatic testing. Concerns were raised that the lake is small in size with good water quality and is possibly spring fed. Commenters believed there would be negative impacts from the appropriation and the company should look at other locations like nearby rivers. ***DNR response:*** Clear (Eagle) Lake is listed as a contingency source for mainline hydrostatic testing. The drawdown on the lake is within the amounts allowed by DNR

rules and the appropriation will only happen if the primary approved water appropriation source (Pine River) is not able to supply the needed volume at the time of the testing. There are no other permitted appropriations from this lake. Any appropriation from this lake is subject to conditions to ensure protection of the lake.

d. Comments were received from the public on the Andrus Lake in Carlton County as a water appropriation source for mainline hydrostatic testing. Commenters had concerns were that the lake is small in size and there would be negative impacts from the appropriation. They suggested that Enbridge should consider other lakes or a river system for the appropriation. ***DNR response:*** Andrus Lake was removed as a water appropriation site as there are other locations closer to the proposed Project pipeline for appropriations and is no longer being considered as a water appropriation source.

e. Comments were received from the public about how the treatment of water used in HDD drilling mud will be achieved. ***DNR response:*** HDD drilling mud is made up of water and bentonite clay and possible additives if approved by applicable agencies. All drilling mud will be stored away from waterbodies in an earthen berm sediment control structure, mud pit, tank or similar structure so that it does not flow into waterbodies or adjacent wetlands. Excess drilling mud may be land applied within the construction workspace or transported off site for land application in accordance with federal and state regulations. No treatment of the drilling mud will occur but bentonite clay is a naturally occurring clay in the soils.

**iv. Internal Review Topics and DNR Considerations.**

30. As part of the DNR review of the Application the following topics were identified as issues that needed to be addressed.

a. Dissolved oxygen impairments for Installations #5 (Middle River in Marshall County), #6 (Snake River in Marshall County), #10 (Clearwater River in Red Lake County), #13 (Mississippi River in Clearwater County) were identified as a topic for review. Specifically comments asked how the dissolved oxygen levels in these rivers will be monitored to ensure there are no impacts to fish. ***DNR consideration:*** The Permit will have a condition that requires Enbridge to install monitoring equipment downstream of the installation locations in the rivers listed above, monitor the dissolved oxygen levels before, during and after pumping, and maintain the levels at or above 5 milligrams per Liter (mg/L) during appropriation. If the levels are below 5 mg/L before pumping, they are not allowed to pump until levels return to 5 mg/L or

above. If levels drop during pumping then appropriation will need to cease until the dissolved oxygen levels recover.

b. Comments about how water would be transported from Island Lake, George Lake and Long Lake (all contingency sources) and comments about the safety on at public access sites were identified. There was also a question as to why Blueberry Lake was listed as a contingency source in the application but is no longer on the list. ***DNR consideration:*** Enbridge has obtained a land lease through from the DNR to appropriate water from DNR public water access sites. All water will be appropriated through hoses with screens to prevent fish uptake. Any impacts to the public access or recreational uses will be addressed through the lease. Long Lake is also no longer included as an installation for water appropriation. Blueberry Lake was also removed as a source of water after DNR discussions with the company as Island Lake was a larger source of water.

c. Comments were identified about using the Pine River (Installation #21) for mainline hydrostatic testing because it is the smallest source water being requested for the testing. This source will most likely need a limited pumping rate depending on flow at time of operation. ***DNR consideration:*** The Permit requires Enbridge to track flows on all surface waters used for water appropriation for HDD and mainline Hydrostatic testing activities by watching the DNR cooperative gaging website. DNR currently monitors many sites around the state and has set a threshold called the Q90 value at these sites. The Q90 exceedance flow value is a stream discharge measurement that statistically is exceeded 90% of the time during a period of record. If the flows remain below the Q90 for 120 hours, the water appropriation regulation program initiates water permit suspension procedures within the watershed. The proposal includes appropriations in several different HUC 8 watersheds so suspensions would depend upon which specific installations were located within watersheds experiencing low water conditions. The purpose of the permit suspensions is to protect instream aquatic resources and higher priority water uses such as drinking water. Enbridge's proposed use of water for HDD and mainline hydrostatic testing would be subject to suspension under these conditions. Enbridge has also signed a contingency statement that it will suspend water appropriations when streams are at Q90 or low flow or switch to an approved contingency source. Additional provisions are included for Tamarac River, Middle River, Lost River #2 and Clearwater River at MP 922.2. These are relatively small river systems where large volumes of water are proposed to be discharged into different watersheds. To avoid adverse impacts to instream resources these installations will have a limitation that the appropriation may not exceed ten percent (10%) of river flows at any time.

d. Comments were submitted about the use of infested waters for appropriations, and instead recommended the use of best management practices (BMP's) and avoidance of waters infested by aquatic invasive species (AIS). ***DNR consideration:*** Enbridge has provided as part of its Application and EPP, an Invasive & Noxious Species Management Plan, which outlines the steps that it will take to avoid the spread of AIS to other watercourses, lakes, basins, and wetlands. This plan was reviewed and approved by the DNR Aquatic Invasive Species Specialists and is a condition of the Permit.

e. A request was made that Installation #25 (East Savanna River, St. Louis County) have fisheries timing restrictions in place from April 1 to June 30 and that mesh screening on intake pumps should be one-quarter inch. ***DNR consideration:*** The Permit does not restrict Enbridge from appropriating water during the fisheries restrictions in the DNR Northwest and Northeast Regions. Fisheries exclusion dates (March 15 to June 15 (Northwest Region) and April 1 to June 30 (Northeast Region) are based on work in public waters permits and not appropriation permitting. Enbridge will be using a 3/16 inch mesh screen to prevent fish entrainment. The 3/16 inch mesh screen will be small enough to prevent fish entrainment.

f. A request was made that Spring Brook should not be used as a source of water. ***DNR consideration:*** Spring Brook in Cass County is not a source for appropriation in the Application. The table shows the Spring Brook HDD which is being sourced by Daggett Brook.

g. How will the water used be cared for in returning water to the same source? ***DNR consideration:*** Water used for HDD pre-test water and water used in buoyancy control will be discharged in an upland location near the site of the HDD. Water used for mainline hydrostatic testing will be discharged in an upland location at least 300 feet from a waterbody/watercourse or discharged back to the source water as approved by the permit. Water used for HDD and hydrostatic testing must be discharged in compliance with a National Pollutant Discharge Elimination System / State Disposal System (NPDES/SDS) permit that is issued by the MPCA.

h. Past use of Chub Lake as a water source lead to complaints/calls about discolorations, turbidity, foul smells and scouring of the lake bottom from the last appropriation by Enbridge from the lake. How will Enbridge remedy these issues if they happen again? ***DNR consideration:*** Chub Lake is being considered as a contingency source; the main source was changed to the St. Louis River. This site was

changed after discussions with DNR, MPCA, and the Chub Lake Association and comments received during the public comment period. Due to the high interest in this site and the past experiences from the homeowners on Chub Lake, this location was reduced to a contingency source. Chub Lake will only be used for appropriations if there is not enough water for the hydrostatic testing in the St. Louis River. Based on DNR's review of gage information, the St. Louis River should have enough water to appropriate for the hydrostatic testing. The water quality issue with Chub Lake described above was related to water discharges. All water used for hydrostatic testing must be treated and discharged in compliance with the NPDES/SDS permit that is issued by MPCA. Enbridge changed Chub Lake to a contingency source for mainline hydrostatic testing in its December 2019 revised Application.

i. A comment was submitted about including water temperature for hydrostatic testing waters discharged back into the surface water. Discharged water should not change the temperature of the receiving waters, should not be contaminated with any pollutants from the pipe and should be fully aerated upon discharge. Discharge sites must be designed to not cause any streambed or bank erosion or sedimentation. ***DNR consideration:*** Water quality is outside the scope of this Application but is under the jurisdiction of the MPCA. Enbridge will be required to obtain an NPDES/SDS permit from the MPCA and follow the provisions of the EPP.

j. Requested more specific criteria for when a land application can be changed to a surface water discharge, which should be used only as a last resort. There should be thresholds for discharge rates as well. The Application indicated that discharge rates will not exceed 1,500 gpm or the applicable discharge rates specified in the Project's NPDES/SDS Permit. Rates at 1,500 gpm or 3.33 cubic feet per second may be excessive for smaller waters or certain times of the year. DNR should be consulted before changing discharge sites to surface water discharges. ***DNR consideration:*** The PCA regulates discharge of waters used for HDD and hydrostatic testing pursuant to a NPDES/SDS permit. Most of the discharges will be in upland locations at least 300 feet from a waterbody and allowed to flow overland from filter bags. An NPDES/SDS permit regulates when water may be discharged back to the source water.

k. Comments about the amount of nuisance noise during construction and water appropriation and recommended double containment structures to muffle the nuisance noise. ***DNR consideration:*** Enbridge has included standard noise reduction methods as part of the EPP and will follow the BMPs for noise reduction.

## V. ANALYSIS OF STATUTORY AND REGULATORY REQUIREMENTS

31. The purpose of Minnesota Rules 6115.0060 to 6115.0810 is to provide for the orderly and consistent review of a water appropriation permit application in order to conserve and utilize the water resources of the state in the public interest. *See also* Minn. Stat. § 103G.101, and 103G.255. In the application of these parts, DNR is guided by the policies and requirements declared in Minnesota Statutes chapter 103G.

### A. The Application is Complete and Contains All Required Information.

32. A water appropriation permit application must provide the information identified in Minn. Stat. § 103G.301, subd. 1 and Minn. R. 6115.0660. Unless otherwise waived by the DNR, applications for the appropriation of surface water must include the information required by Minn. Stat. § 103G.285, subd. 4 & 6 and applications for the appropriation of groundwater must include the information required by Minn. Stat. § 103G.287, subd. 1.

33. The Application contains maps, plans and specifications describing the proposed appropriation of waters as required by Minn. Stat. 103G.301, subd. 1(a)(1). The Application details the appropriations and changes to be made along with waters of the state affected by the proposed appropriations. *See* Minn. Stat. § 103G.301, subd. 1(a)(2)-(3).

34. Enbridge has provided information about anticipated changes in water resources, unavoidable detrimental effects, and alternatives to the Project. Minn. Stat. § 103G.301(b). DNR reviewed all public watercourses, basins, and groundwater wells and provided comments back on the sites that included comments related to pumping rates, limited water availability depending on time of year, aquatic species and surrounding wetland impacts. Enbridge provided responses to the comments received from DNR that removed some sources from consideration and provided information stating that in some cases there were no practical or feasible alternatives for HDD and mainline hydrostatic testing due to the proximity to the line. DNR has concluded that possible impacts to aquatic species are prevented through protected flows and elevations. DNR does not anticipate any impacts to surrounding wetlands as the appropriations are temporary. If there is not adequate flow, an approved contingency source will be used. Because all appropriations will be temporary in nature, there are no material impacts to the watercourses, basins or groundwater aquifers.

35. Though Enbridge did not submit separate applications for each surface water or groundwater source from which water is proposed to be appropriated, Enbridge complied with Minn. R. 6115.0660, subp. 1 by submitting all information for each of the 36 water appropriation installations for HDD and mainline hydrostatic testing that would be required in separate

applications. All 36 water appropriation installations for HDD and hydrostatic testing are requested under the Application and the decision on this Application will address all 36 installations. *See* Minn. R. 6115.0660, subp. 1.

36. As required by Minn. R. 6115.0660, subp. 2, Enbridge has demonstrated evidence of ownership or a license to use the land abutting the surface waters and wells for HDD and mainline hydrostatic testing activities. Enbridge has provided access details in its Application and is procuring a temporary land lease with DNR for appropriation installations at DNR public water access sites.

37. The Application was completed on water appropriation application forms. Minn. R. 6115.0660, subp. 3(A). Enbridge has paid all applicable fees associated with the application. Minn. Stat. § 103G.301, subd. 2; Minn. R. 6115.0060, subp. 1, Minn. R. 6115.0660, subp. 3(B); *See also* Minn. Stat. § 103G.315, subd. 12. The Application contains aerial photographs, maps, and other descriptive data sufficient to show the location of areas of proposed water use, the location of the proposed points of appropriations, and the outline of the property owned or controlled by Enbridge in proximity to the areas of use. *See* Minn. R. 6115.0660, subp. 3(C) (1)-(4).

38. As required by Minn. R. 6115.0660, subp. 3(E), the Application contains a statement of justification supporting the reasonableness and practicality of the proposed use of water. The Application states that water use for HDD crossings, including use of water for drilling mud mixing, drilling rigs and pre-test of pipeline sections and mainline hydrostatic testing, is necessary to facilitate the installation of the pipeline at waterbody crossings and the test the entire pipeline for leaks, bad welds, and other issues. *See* Application, Supplemental Information, Section 3.3.

39. As required by Minn. R. 6115.0660, subp. 3(F), the Application contains detail on Enbridge's water management strategy including water storage and reuse and conservation. The Application indicates that Enbridge will pump water from source water with a stationary pump or from groundwater from an approved well. The Application also indicates that Enbridge will not pump any water to a temporary storage facility. All water will be discharged into a well-vegetated upland location using a filter bag or if there is not a suitable upland location a straw or hay bale dewatering structure, or in some cases for water used for mainline hydrostatic testing, back directly to the source water (e.g. Red River). Discharge of water used for HDD and hydrostatic testing will be subject to the provisions of an NPDES/SDS permit. Enbridge also explained that, subject to DNR approval, it may reuse water from mainline hydrostatic testing of one spread for another spread, reuse HDD pretest water for buoyancy control, and following treatment pursuant to an NPDES/SDS permit, reuse water for decontamination of equipment for

invasive and noxious species. Treatment of water for reuse would be completed before water is discharged. Water reuse, if approved, would be dependent upon availability and proximity of water related to where the construction is occurring. *See* Application, Supplemental Information, Section 5 and Table 5.1-1.

40. As required by Minn. Stat 103G.285, subd. 6 and Minn. R. 6115.0660, subp. 3(G)(1), Enbridge has provided a contingency plan as part of the application that includes alternative sources if appropriation is restricted due to low flow conditions or low water basin level. If a contingency source is not identified, Enbridge signed a contingency statement indicating that if protected flows or protective elevations do not allow for appropriation at the time of need then water will not be appropriated. Enbridge provided alternate sources for its proposed appropriation as well as provided a signed contingency statement for sources that did not have an alternate. *See* Application, Supplemental Information, Section 4.0, Attachment C- and Attachment E and signed contingency letter dated October 23, 2020.

41. As required by Minn. R. 6115.0660, subd. 3 (G)(2), Enbridge has provided facts to show that reasonable alternatives for appropriating water have been considered including use of water appropriated during high flows and water levels and stored for later use and use of groundwater. Other alternatives considered include alternative pipeline installation methods such as open cuts, dry crossings or horizontal bore methods to cross waterbodies. The November 2020 MDNR License to Cross Public Waters application included the analysis of the pipeline installation methods for each waterbody crossing that provided the justification for the selected method. For the mainline hydrostatic testing, other alternatives were reviewed including use of gases such as nitrogen, however for petroleum pipelines, federal regulations require that the test medium is water. Enbridge also considered trucking water from municipal water sources to avoid using surface waters, but finding municipal sources close to the Project that would be able to provide the volume of water needed during dry conditions could contribute to water shortages. In addition, due to chemical additives added into municipal water sources, additional water quality effects would have to be addressed. *See* Application, Supplemental Information, Section 3.0.

42. Pursuant to Minn. Stat. § 103G.285, subd. 4. and Minn. R. 6115.0660, subp. 3(G)(3) Enbridge provided letters to property owners with property riparian to water basins less than 500 acres in surface area notifying them of the proposed appropriations, statements of support from landowners, and an accounting of the statements of support it was unable to obtain.

43. As required by Minn. Stat. § 103G.287, subd. 1(a)(1) and Minn. R. 6115.0660, subp. 3(H), the Application contained information regarding the hydrogeology and hydrology of the aquifers that will form the source of water for the requested appropriation. The Application

provided the well logs for the groundwater wells and for the six permitted wells, DNR has information about aquifer pumping tests completed in the past by the permittees. All of these wells (including the two without active permits) have been used in the past for water appropriations and DNR's groundwater hydrogeology staff do not anticipate any impacts to the hydrogeology or hydrology in excess of those impacts that were permitted in the past. *See* Application, Supplemental Information, Section 6.1.2. DNR therefore concludes that hydrologic studies are not necessary to assess the capability of the aquifer system or the effects on water resources or nearby wells and waives such studies pursuant to Minn. Stat. § 103G.287, subd. 1(b).

44. As required by Minn. Stat. § 103G.287, subd. 1(a)(2), the Application details the maximum daily, seasonal, and annual pumping rates and volumes for the groundwater appropriations requested by Enbridge. The Application shows that the Project will use existing groundwater wells to complete HDD and mainline hydrostatic testing of the pipeline. All pumping rates will be set based upon the existing permits for the wells proposed, or in the case of wells without active permits, based upon the pumping test for that well. For permitted wells, water will be withdrawn from these wells within the permitted rate for the individual well. The pumping is temporary. *See* Application, Supplemental Information, Section 6.1.2 and Attachment C.

45. As required by Minn. Stat. § 103G.287, subd. 1(a)(3), the Application contains information on water reuse. It is anticipated that no water treatment will be necessary for any proposed reuse of water except that water must be treated pursuant to an NPDES/SDS permit prior to reuse for decontamination of equipment. Water for mainline hydrostatic testing could be reused for water appropriation reductions by pushing a single column of water (slug) from one section or spread to a more distant section (spread). The Application also states that water could be reused to support decontamination of equipment for invasive and noxious species, and HDD pre-test water could be reused for buoyancy control. *See* Application, Supplemental Information, Section 5 and Table 5.1-1.

46. As required by Minn. Stat. § 103G.287, subd. 1(a)(4), the Application should contain results of an aquifer test completed according to specifications approved by the commissioner. The Project will be using six existing permitted groundwater wells that have current permits and two wells that have been used in the past for pipeline testing but currently do not have an existing permit. Enbridge will not withdraw water from the six permitted wells in excess of the permitted rate for each individual well. DNR therefore waives aquifer tests pursuant to Minn. Stat. § 103G.287, subd. 1(b) as the information provided is adequate to determine whether the appropriation is sustainable and will protect ecosystems, water quality and the ability of future generations to meet their own needs.

47. As required by Minn. Stat. § 103G.287, subd. 1(a)(5), the commissioner must consider the results for any preliminary well assessment of a proposed well needing a groundwater appropriation permit. Though this Application includes appropriations from groundwater wells, the wells are existing permitted wells and therefore Minn. Stat. § 103G.287, subd. 1(a)(5) is inapplicable to DNR's consideration of this Application. DNR waives this rule pursuant to Minn. Stat. § 103G.287, subd 1(b) because the information provided is adequate to determine whether the appropriation is sustainable and will protect ecosystems, water quality and the ability of future generations to meet their own needs.

48. As outlined above, the Application is complete because all necessary and applicable information for evaluation has been provided by Enbridge or is otherwise available to the DNR. Sufficient hydrologic data are available to allow the DNR to adequately determine the effects of the proposed appropriation. *See* Minn. R. 6115.0670, subp. 3(C)(3). The information available to the DNR is adequate to determine whether the proposed appropriation volume and use of water is sustainable and protective of ecosystems, water quality, and the ability of future generations to meet their own needs.

**B. Consideration of Factors in Minn. R. 6115.0670, subp. 2.**

49. Minn. R. 6115.0670, subp. 2(A) details factors that the DNR must consider, if applicable, when considering an application for water appropriation permit. The DNR's consideration of each of the applicable factors is set forth in greater detail below.

50. Minn. R. 6115.0670, subp. 2(A)(1): This rule requires the DNR to consider "the location and nature of the area involved and the type of appropriation and its impact on the availability, distribution, and condition of water and related land resources in the area involved." The DNR's review of the Application and supporting information in the record regarding the proposed locations and nature of the areas associated with the proposed appropriations shows that the appropriations are unlikely to impact the availability, distribution, and condition of water and related land resources in the areas involved. DNR reviewed all public watercourses, basins and wells and provided comments on the sites that included concerns over pumping rates, limited water availability depending on time of year, aquatic species concerns and surrounding wetland impacts. Enbridge provided responses to the comments received from DNR that removed some sources from consideration and indicated when there were no practical or feasible alternatives for HDD and mainline hydrostatic testing due to the proximity to the line. The appropriation will not be a continuous draw on the waters and will only be needed for the HDD pre-test and crossing and for the mainline hydrostatic testing. If there are not adequate flows, an approved contingency source will be used. Each location was reviewed by DNR and discussed with Enbridge for potential impacts. Because all appropriations will be temporary in nature, there are

no material impacts to the watercourses, basins or wells. *See* Application, Supplemental Information, Section 3.3 and 4.0.

51. Minn. R. 6115.0670, subp. 2(A)(2): This rule requires the DNR to consider "the hydrology and hydraulics of the water resources involved and the capability of the resources to sustain the proposed appropriation based on existing and probable future use." The Application and supporting information in the record detail the hydrology and hydraulics of the water resources involved. After review of the appropriation locations and flow records, the DNR concludes that the evidence in the record shows the capability of the resources to sustain the proposed appropriations based on existing and probable future use in the area. The amount of water requested will not impact the source waters as it is temporary in nature and there are restrictions in place per the permit to prevent harm to aquatic life. If a source water does not have sufficient flows, the company will switch over to a contingency source or not appropriate from that location. There also is a condition in the Permit on four specific installations that appropriations at the requested pumping rate of 4,000 (8.91 cfs) can only take up to ten percent (10%) of the flow at the time of taking from the watercourses. This condition was included in the Permit because the water removed from the watercourse will not be discharged back within the watershed. These watercourses may have limited flows at the time of the appropriation. In the following streams Enbridge will only be allowed to remove up to ten percent (10%) of the flow during appropriation as water is being removed from the watershed (Installation #3 Tamarac River at MP 828.6, Installation #11 Clearwater River at MP 922.2, Installation #5 Middle River at MP 835.9 (contingency source), Lost River #2 at MP 904.0 (contingency source)). Enbridge will have three options when the flows are such that the appropriation is at the 10% limit; 1) remove the water, use it and return it to the source in accordance with an NPDES/SDS permit, 2) reduce the pumping rate below 10% of the flow that is in the stream, 3) stop appropriating until the flow in the river is high enough that the appropriations is less than 10% of the river flow or 4) use a contingency water source. *See* Application, Supplemental Information, Section 3.3 and Section 6.0.

52. Minn. R. 6115.0670, subp. 2(A)(3): This rule requires the DNR to consider "the probable effects on the environment including anticipated changes in the resources, unavoidable detrimental effects, and alternatives to the proposed appropriation." The Application and Supplemental Information describe the environmental impacts and human impacts from the water appropriations. Enbridge selected its sources by attempting to balance the environmental and human impacts with other factors, while prioritizing sources within or adjacent to the construction right of way, access roads and haul roads in an effort to minimize disturbances and impacts (including vegetation clearing or grading to allow access to water appropriation sites). The three objectives reviewed for each appropriation location were feasibility (closest location to construction right of way/access or haul roads, terrain and site conditions and ability to access

site, and the amount of water needed and the availability of the water at the site), environmental impacts (hydrology and estimated availability of water throughout the year, presence of sensitive species, existing water quality impairments, aquatic invasive species and additional workspace required to access the water source) and impact to the human environment (adjacent land use such as public access, residential areas). Enbridge submitted the preliminary list of sites for review by DNR prior to submitting the Application. DNR reviewed each site and provided comments back to the company based on knowledge of each location and concerns that might arise with each site. The final list was agreed upon by the company and DNR with a contingency statement on the use of water. *See* Application, Supplemental Information, Section 3.3.

53. Minn. R. 6115.0670, subp. 2(A)(4): This rule requires the DNR to consider "the relationship, consistency, and compliance with existing federal, state, and local laws, rules, legal requirements, and water management plans." As detailed herein, activities associated with the Project are subject to oversight under numerous state and federal permitting programs. The Permit is conditioned on Enbridge obtaining and maintaining all additional permits imposed by applicable federal, state, or local law. The validity of the Permit is further conditioned upon Enbridge having "all required discharge authorizations from local, state, or federal government units." The DNR did not receive any comments from local, state or federal government units on the proposed water appropriation for HDD and mainline hydrostatic testing activities. To the best of the DNR's knowledge, Enbridge's proposed appropriations are consistent with state, regional, and local water and related land resources management plans. *See* Minn. Stat. § 103G.271, subd. 2.

54. Minn. R. 6115.0670, subp. 2(A)(5): This rule requires the DNR to consider "the public health, safety, and welfare served or impacted by the proposed appropriation." The FEIS comprehensively discussed and analyzed the potential health and socioeconomic effects of the Project, including effects associated with the appropriation of water. The FEIS specifically analyzed potential human health impacts of the Project, including effects to drinking water and food sources. The DNR relies on this environmental review analysis in its consideration of the Application. In addition, the Supplemental Information for HDD and mainline hydrostatic testing discusses impacts to the human environment and the Permit will require monitoring of any waterbody impacts resulting or potentially resulting from the permitted appropriation. *See* FEIS and Application, Supplemental Information, Section 3.3.

55. Minn. R. 6115.0670, subp. 2(A)(6): This rule requires the DNR to consider "the quantity, quality, and timing of any waters returned after use and the impact on the receiving waters involved." Water appropriated under the Permit will either be allowed to infiltrate at

upland sites or discharged to surface waters. The quantity, quality and timing of these discharges will be regulated by an NPDES/SDS permit issued by the MPCA.

56. Minn. R. 6115.0670, subp. 2(A)(7): This rule requires the DNR to consider "the efficiency of use and intended application of water conservation practices." The Application explained that, subject to DNR approval, Enbridge may reuse water pumped for mainline hydrostatic testing activities to test more than one spread. Any water used for HDD pre-test water could be reused for buoyancy control, and following treatment pursuant to an NPDES/SDS permit, all waters could be used for decontamination of equipment for invasive species as described in Enbridge's water appropriation permit application No. 2018-3690. *See* Application, Supplemental Information, Section 5.0.

57. Minn. R. 6115.0670, subp. 2(A)(8): This rule requires the DNR to consider "the comments of local and regional units of government, federal and state agencies, private persons, and other affected or interested parties." DNR did not receive any comments on the Application from local, regional, state or federal governments. DNR did receive comments from tribal governments and private individuals on the water appropriations and has considered those comments and provided a response. *See* Section IV(B)(i)-(iii) above.

58. Minn. R. 6115.0670, subp. 2(A)(9): This rule is inapplicable to the DNR's consideration of the Application because Enbridge does not propose any diversion of waters to any place outside of the state.

59. Minn. R. 6115.0670, subp. 2(A)(10): This rule requires the DNR to consider "the economic benefits of the proposed appropriation based on supporting data when supplied by the applicant." Enbridge did not provide any economic benefit data in this Application, but the FEIS does address this issue. The DNR relies on the FEIS analysis in its consideration of the Application.

60. Minn. R. 6115.0670, subp. 2(B): This rule requires the DNR to further consider the following factors for appropriation from watercourses: 1) historic streamflow records, and where streamflow records are not available, estimates based on available information on the watershed, climatic factors, runoff and other pertinent data; 2) physical characteristics such as discharge, depth and temperature, and an analysis of the hydrologic characteristics of the watershed; 3) aquatic system of the watercourse, riparian vegetation, and existing fish and wildlife management within the watercourse; 4) frequency of occurrences of high and low flows; 5) feasibility and practicability of off-stream storage of high flow for use in providing water supply during periods of normal low flows, when supply is limited by existing and anticipated use. The DNR Area Hydrologists utilized historical gage data (using both USGS gages and MN

DNR gages) when available and United States Geological Service StreamStats for locations that are not gaged in order to review flow records and flow ranges including potential for seasonal variability in determining the appropriateness of the resource for the proposed appropriation. DNR concludes that the limits on pumping during low flow conditions also protect aquatic organisms and sensitive vegetation. Off-stream storage is not feasible as the company would need to use many trucks or tanks to store water from the high flow time of the year. It is unknown when the construction process will start and when HDD crossings and the mainline hydrostatic testing will occur, so appropriating from locations along the route is the most feasible and practical alternative. DNR has set restrictions to protect aquatic organisms and sensitive vegetation as well as prohibiting pumping during low flow conditions as a condition of the Permit. The proposed appropriation installation locations meet considerations set forth in Minn. R. 6115.0670, subp. 2(B).

61. Minn. R. 6115.0670, subp. 2(C): This rule requires the DNR to further consider the following factors for appropriations from basins: 1) total volume of water within the basin; 2) slope of the littoral zone; 3) available facts on historic water levels of the basin and other relevant hydrologic factors; 4) cumulative long-range ecological effects of the proposed appropriation; 5) natural and artificial controls which affect the water levels of the basin. The DNR utilized available data to determine the appropriateness of the basins for the proposed appropriation volumes including historical lake level records, historical notes in regards to fish kills, and bathymetric maps to determine drawdown calculations. The DNR has set protective elevations for water basins based on important aquatic vegetation characteristics related to fish and wildlife habitat, public uses of the water basin, the total volume within the basin, and the slope of the littoral zone. These protective elevations are a condition of the Permit. All basins listed in the Application are contingency sources and will only be used if the proposed installation does not have adequate water levels at the time of construction. The lakes identified as contingency sources are as follows and have protective elevations as listed. Island Lake (Hubbard County) has a protective elevation at the outlet of 1439.6 feet above sea level (NAVD 1988). Clear (Eagle) Lake (Cass County) has a protective elevation at the outlet of 1314.5 feet above sea level (NAVD 1988), Lake George (Cass County) has a protection elevation at the outlet of 1319.6 feet above sea level (NAVD 1988), and Chub Lake (Carlton County), a landlocked lake, has a protective elevation of 1122.35 feet above sea level (NAVD 1988). Based on applicable data the DNR determined that the proposed volumes to be appropriated from each basin in the application is reasonable and consistent with Minn. R. 6115.0670, subp. 2(C).

62. Minn. R. 6115.0670, subp. 2(D)(1), (2), (4), and (5): These rules require the DNR to consider the "type and thickness of the aquifer," "the subsurface area of the aquifer," "existing water levels in the aquifer and projected water levels due to the proposed appropriation," and "other hydrologic and hydraulic characteristics of the aquifer involved." The Application

proposes to use existing groundwater wells currently being used for irrigation by the landowner of the property where the pipeline is being installed or wells that have been used in pipeline testing in the past on different pipelines. Each well has a different pumping rate and Enbridge must comply with the authorized pumping rates for each well and comply with any other provisions of the existing permits. The appropriations may not exceed annual maximum withdrawals under the existing permits. These restrictions are conditions of the Permit. DNR has considered the above factors in evaluating the proposed appropriation and determined that water to be appropriated at these locations is deep aquifer water, the appropriation will not impact other resources, alone or in combination with ongoing appropriations under the existing permits, and the appropriation will not be detrimental to the existing permitted use.

63. Minn. R. 6115.0670, subp. 2(D)(3) and (6): These rules require the DNR to consider the "area of influence of the proposed well(s)" and "probable interference with neighboring wells." Based on the information provided in the Application, each well is drilled at different depths but all the wells have been used in the past for either pipeline testing or irrigation. There have been no prior interference complaints on these wells. Because there will be no change in pumping rates or annual volumes, DNR does not anticipate any impacts to wells along the pipeline corridor or any effect on private domestic and municipal water supplies.

64. As outlined above, DNR has considered each of the factors identified in Minn. R. 6115.0670, subp. 2(A)-(D).

**C. Consideration of Factors in Minn. R. 6115.0750 and 6115.0770.**

65. The application is for a temporary (one-time), not more than 12 month, appropriation of water for HDD and mainline hydrostatic testing associated with the replacement of the Line 3 pipeline. *See* Minn. R. 6115.0750, subp. 2.

66. Enbridge is required to measure and keep monthly and annual records of the quantity of water used or appropriated at the point of taking for each source under DNR water appropriation permit No. 2018-3690. *See* Minn. R. 6115.0750, subp. 3(A).

67. Enbridge is required to instrument each installation for appropriating water with a device or method to measure the quantity of water appropriated within ten percent of the actual amount of withdrawal. *See* Minn. R. 6115.0750, subp. 3(B).

68. The applicant will be subject to permit suspension if the flows in the watershed fall below the Q90 low flow level for more than 120 hours. Any suspensions of the permit will be

specific to the authorized installations that are within the watershed that is experiencing the low flow conditions. No appropriations will be permitted when basin elevations are below protective elevations. Paragraph 51 outlines the four installations with the special 10% condition for watercourses where water is not being returned to the watershed and the options available to the applicant at these four locations. For groundwater wells, Enbridge is required to monitor water volumes using a flow meter. *See* Minn. R. 6115.0750, subp. 3(C).

69. Enbridge is required to report water use based on the calendar year by February 15 of the following year on forms provided by the commissioner (through MPARS) as well as pay the appropriate water appropriation processing fee. *See* Minn. R. 6115.0750, subp. 4.

70. Enbridge has provided a detailed description of its proposed water use indicating that water will only be utilized as needed, monitoring will be conducted to prevent negative impacts to aquatic organisms, contingency sources will be utilized during low flows, and the water appropriated will be allowed to infiltrate or returned to the source water following the use for HDD and hydrostatic testing and treatment. This demonstrates the best available means and practices for assuring wise use and development of waters of the state in the most practical and feasible manner possible to promote the efficient use of waters. *See* Minn. R. 6115.0770.

### D. The Proposed Appropriation Satisfies Minn. Stat. § 103G.285

71. Pursuant to Minn. Stat. § 103G.285, subd. 2, "if data are available, permits to appropriate water from natural and altered natural watercourses must be limited so that consumptive appropriations are not made from watercourses during periods of specified low flow. The purpose of the limit is to safeguard water availability for in-stream uses and for downstream higher priority users located reasonably near the site of appropriation." The DNR has analyzed the potential impacts of the proposed appropriations to surface waters. Negative impacts to surface waters resulting from the proposed appropriation are not anticipated because Enbridge has agreed to use contingency sources and to not appropriate during periods of low flow, and some water would be returned to the source under an NPDES/SDS permit. Enbridge has signed a contingency statement stating that water will not be used during periods of low flow at appropriation sites and Enbridge will use alternative locations (contingency sources) for all HDD and mainline hydrostatic testing activities or not appropriate.

72. Under Minn. Stat. § 103G.285, subd. 3(a), "permits to appropriate water from water basins must be limited so that the collective annual withdrawals do not exceed a total volume of water amounting to one-half acre-foot per acre of water basin based on Minnesota Department of Conservation Bulletin No. 25 'An Inventory of Minnesota Lakes,' published in

1968." The DNR has reviewed the information provided and analyzed the drawdown amounts based on the appropriation requested and the size of the basin. All water proposed to be appropriated from the basins satisfies the one-half acre foot per acre of water basin requirement. All basins are contingency sources and have protective elevations. Cumulative impacts need to be reviewed, per DNR's review of permitted water appropriations, there are no other appropriations from these basins, which allows Enbridge to withdraw up to the one-half acre foot water volume allowed in rule. The basins will only be used if water volumes for the watercourses are not large enough to provide the needed amount for the HDD/hydrostatic activity. See the water basins listed in ¶59.

73. Under Minn. Stat. § 103G.285, subd. 3(b), "as a condition to a surface water appropriation permit, the commissioner shall set a protective elevation for the water basin, below which an appropriation is not allowed. During the determination of the protective elevation, the commissioner shall consider: 1) the elevation of important aquatic vegetation characteristic related to fish and wildlife habitat; 2) existing uses of the water basin by the public and riparian landowners; and 3) the total volume within the water basin and the slope of the littoral zone." The DNR has reviewed the information provided, analyzed the drawdown amounts, and set protective elevations on all water basins being requested for appropriation. The DNR set protective elevations based on important aquatic vegetation characteristics related to fish and wildlife habitat; public uses of the water basin; the total volume within the basin; and the slope of the littoral zone. All water basin protective elevations are 1.5 feet below the Ordinary High Water Level for landlocked lakes and at the outlet elevation for non-land locked lakes. All proposed water appropriations from water basins will be used as contingency sources and have a protective elevation as listed in ¶59.

74. Under Minn. Stat. § 103G.285, subd. 4, "as part of an application for appropriation of water from a water basin less than 500 acres in surface area, the applicant shall obtain a statement of support with as many signatures as the applicant can obtain from property owners with property riparian to the water basin. The statement of support must: 1) state support for the proposed appropriation; and 2) show the number of property owners whose signatures the applicant could not obtain." The Application did provide the requested information on letters of support on the two basins that are less than 500 acres in surface area (Chub Lake and Clear/Eagle Lake). Enbridge sent out a letter asking for a statement of support from riparian property owners on the two lake/basins under 500 acres (which are contingency sources). Out of the 116 letters sent out, twenty-nine landowners provided a statement of support; the remaining landowners responded that they did not want to provide a statement of support or were neutral on the request.

75. Under Minn. Stat. § 103G.285, subd. 5, "permits issued after June 3, 1977, to appropriate water from streams designated trout streams by the commissioner's orders under section 97C.005 must be limited to temporary appropriations." The DNR has reviewed the application and no water appropriations are being requested from designated trout streams, so Minn. Stat. § 103G.285, subd. 5 is not applicable.

76. Under Minn. Stat. § 103G.285, subd. 6, "an application for the use of surface waters of the state is not complete until the applicant submits, as part of the application, a contingency plan that describes the alternatives the applicant will use if further appropriation is restricted due to the flow of the stream or the level of a water basin. A surface water appropriation may not be allowed unless the contingency plan is feasible or the permittee agrees to withstand the results of not being able to appropriate water." Enbridge provided alternate sources for their proposed appropriation as well as provided a signed contingency statement for sources that did not have an alternate.

77. As outlined above, the DNR has reviewed the Application for compliance with Minn. Stat. § 103G.285 and determines that the Permit satisfies the applicable statutory requirements.

### E. The Proposed Appropriation Satisfies Minn. Stat. § 103G.287

78. Minn. Stat. § 103G.287, subd. 1 sets forth the information that must be included in applications for groundwater appropriation permits. As detailed in section IV(A), the Application contains the information required under Minn. Stat. § 103G.287, subd. 1.

79. Minn. Stat. § 103G.287, subd. 2 provides that "groundwater appropriations that will have negative impacts to surface waters are subject to the applicable provisions in section 103G.285." The DNR has analyzed the potential impacts of the proposed groundwater appropriation on surface waters. Negative impacts to surface waters resulting from the proposed appropriation are not anticipated. The water is proposed to be appropriated from existing wells that have already been permitted by the DNR, and there is not a history of well interference complaints regarding these existing wells. All discharges will be at least 300 feet from any nearby surface waters. Any impacts to the groundwater or surface waters will be temporary in nature.

80. Under Minn. Stat. § 103G.287, subd. 3, the DNR is authorized to establish water appropriation limits to protect groundwater resources. In establishing such limits, the DNR must

"consider the sustainability of the groundwater resource, including the current and projected water levels, water quality, whether the use protects ecosystems, and the ability of future generations to meet their own needs." DNR has concluded that protection limits are not necessary because the Project only involves temporary appropriations from existing permitted wells and the existing permitted volumes will not be exceeded. No available information suggests that the groundwater appropriation will cause long-term negative effects on the aquifers involved. There will be no protection limits set on this permit for the proposed groundwater appropriation as the proposed appropriation is temporary in nature from the existing permitted wells and is part of the already permitted water volume.

81. Under Minn. Stat. § 103G.287, subd. 4(a), the commissioner may designate groundwater management areas and limit total annual water appropriations and uses within a designated area to ensure sustainable use of groundwater that protects ecosystems, water quality, and the ability of future generations to meet their own needs. Water appropriations and uses within a designated management area must be consistent with a groundwater management area plan approved by the commissioner that addresses water conservation requirements and water allocation priorities established in section 103G.261. The Application proposes the use of existing permitted groundwater wells in the Straight River Groundwater Management area. For each of the wells in the Straight River Groundwater Management Area, the combination of Enbridge's water use authorized by the Permit and the water use of the permit holder authorized by the existing permit will not exceed the maximum authorized annual volume under the existing permit. Thus, the Permit does not result in any increase in authorized appropriations within the Straight River Groundwater Management area and the Permit complies with the groundwater management area plan.

82. Under Minn. Stat. § 103G.287, subd. 5, the DNR "may issue water-use permits for appropriation from groundwater only if the [DNR] determines that the groundwater use is sustainable to supply the needs of future generations and the proposed use will not harm ecosystems, degrade water, or reduce water levels beyond the reach of public water supply and private domestic wells . . . ." Based upon the Application, DNR has determined that the proposed groundwater appropriation is sustainable to supply the needs of future generations. The appropriation of groundwater, under the conditions set forth in the Application, will not harm ecosystems, degrade water, or reduce water levels beyond the reach of public water supplies and private domestic wells. The appropriation will be temporary and there have been no prior impacts with the use of water from these existing permitted wells. The two wells (Unique well # 718159 and Unique well # 763975) without an active permit that will be used for mainline hydrostatic testing activities have been used in the past for pipeline activities without causing impacts to the environment or to nearby wells.

83. As outlined above, the DNR has reviewed the Application for compliance with Minn. Stat. § 103G.287 and determines that the Permit satisfies the applicable statutory requirements.

### F. The Proposed Appropriation Satisfies Minn. Stat. § 103G.293

84. Under Minn. Stat. § 103G.293, water appropriation permits "must provide conditions on water appropriation consistent with the drought response plan" established by the DNR. The Permit contains a condition requiring compliance with the statewide drought plan.

### G. The Proposed Appropriation Satisfies Minn. R. 6115.0670, subp. 3

85. Issuing a permit on the proposed appropriation would not violate any of the limits imposed under Minn. R. 6115.0670, subp. 3(A). Subpart 3(A)(1) is inapplicable because the proposed appropriation does not involve an out-of-state diversion of waters. As detailed herein, the quantity of available waters of the state in the area involved are adequate to provide the amounts of water proposed to be appropriated. Minn. R. 6115.0670, subp. 3(A)(2). As detailed herein, and based upon the FEIS and the Application, the proposed appropriation is reasonable, practical, and adequately protects public safety and promotes the public welfare. Minn. R. 6115.0670, subp. 3(A)(3). As described above, the Application is consistent with state, regional, and local water and related land resources management plans. Minn. R. 6115.0670, subp. 3(A)(4). There is no unresolved conflict between competing users for the waters involved. Minn. R. 6115.0670, subp. 3(A)(5).

86. Minn. R. 6115.0670, subp. 3(B)(1) applies to approvals of a "surface water appropriation application." As required by Minn. R. 6115.0670, subp. 3(B)(1), for all watercourses, proposals for appropriations during periods of flood flows and high water levels shall be given first consideration unless this is not practical, reasonable, or feasible. The proposed project will involve taking water at various times of the year to complete the HDD and mainline hydrostatic testing. Since the timing of the project could be up to a year-long process, it is not feasible to appropriate water only during periods of flood flows or high water levels.

87. Minn. R. 6115.0670, subp. 3(B)(2) provides that for natural and altered watercourses, except for drainage ditches established under Minn. Stat., chapter 103E, consumptive appropriation may be limited consistent with Minn. Stat. § 103G.285, subdivision

2, provided that adequate data are available to set such limits for watercourses. Where a protected flow is designated by the commissioner, no appropriation shall be allowed when the flow is below that protected flow. Enbridge has provided a contingency statement on flows and will watch the protected flow (Q90's) on gaged watercourses. Enbridge will have a restriction at four locations that limits appropriation to less than ten percent (10%) of the river flow to protect instream resources. This restriction applies to four mainline hydrostatic testing installations (Installation #3 Tamarac River at MP 828.6, Installation #11 Clearwater River at MP 922.2, Installation #5 Middle River at MP 835.9 (as contingency source), and Lost River #2 at MP 904.0 (contingency source)). See ¶49 for more information and rationale on need for 10% restriction on water appropriations.

88. Pursuant to Minn. R. 6115.0670, subp. 3(B)(3), permits to appropriate water for any purpose from streams designated trout streams by rule, pursuant to Minn. Stat. § 97C.021, shall be limited to temporary appropriations when not in conflict with the special designation, such as during periods of high flows or high water levels. This subpart is inapplicable as no appropriations will be taken from trout streams.

89. Pursuant to Minn. R. 6115.0670, subp. 3(B)(4), for natural and altered basins the commissioner shall: a) establish a protective elevation below which no appropriation shall be allowed; b) limit the collective maximum annual withdrawals to not exceed a total volume of water amounting to one-half acre-foot per acre of surface water basin based on Minnesota Department of Natural Resources Bulletin No. 25, "An Inventory of Minnesota Lakes;" and c) for natural and altered basins less than 500 acres, an application shall not be approved if the commissioner determines that the proposed appropriation would lower the water level in the basin to an extent which would deprive the public and riparian property owners of reasonable use of and access to the water. The DNR has reviewed the information provided, analyzed the drawdown amounts, and set protective elevations on all water basins being requested for appropriation. The DNR set protective elevations based on important aquatic vegetation characteristics related to fish and wildlife habitat; public uses of the water basin; the total volume within the basin; and the slope of the littoral zone. All water basin protective elevations are 1.5 feet below the Ordinary High Water Level for landlocked lakes and at the outlet elevation for non-land locked lakes. All proposed water appropriations from water basins will be used as contingency sources and are temporary in nature. The proposed appropriation will not deprive the public and riparian property owners of access because the appropriation is temporary and subject to the other limitations described above. See ¶59 regarding the protective elevations for the water basins requested as contingency sources for mainline hydrostatic testing and ¶71 regarding the limitation on collective annual maximum withdrawals to one-half acre-foot of water per acre of surface water.

90. Minn. R. 6115.0670, subp. 3(B)(5) requires the establishment of protective elevations and limitations on maximum withdrawals in subpart 3(B)(4)(a) and (b) shall not apply to artificial and altered basins constructed primarily for the purpose of storing high waters and flood flows as water conservation or contingency flow alternatives when such alternatives are approved by the commissioner. The subpart is not applicable as the basins are not artificial or altered and Enbridge will not be storing high water or flood flows.

91. Minn. R. 6115.0670, subp. 3(B)(6) requires that protected flows and protective elevations shall be established for the purposes as defined in part 6115.0630 and shall be based on available information considered in subpart 2(B) and (C). For new applications the proposed establishment of protected flows or protective elevations shall be part of the permit process outlined in subpart 3 including opportunity for public hearing. See ¶59 for water basin protective elevations and ¶49 and ¶66 for watercourse protected flows. Parties who may demand a contested case hearing on the Application are described in the order below.

92. As required by Minn. R. 6115.0670, subp. 3(C)(1), the amounts and timing of the proposed appropriation is limited to the safe yield of the aquifer to the maximum extent feasible and practical. Groundwater will be appropriated from existing permitted wells. These wells have been reviewed in the past when the permits were issued. The safe yield will not be exceeded because the volume to be appropriated under the Permit is part of the existing volume authorized under the existing permits.

93. After the analysis and review of the record detailed herein, the DNR has not found substantial evidence establishing a direct relationship of ground and surface waters exists such that the groundwater appropriation would have an adverse impact on surface waters through reduction of flows under Minn. R. 6115.0670, subp. 3(C)(2).

94. After the analysis and review of the record detailed herein, the DNR concludes that sufficient hydrologic data are available to allow the DNR to determine the effects of the proposed groundwater appropriation in accordance with Minn. R. 6155.0670, subp. 3(C)(3).

95. As outlined above, DNR has considered the Application under Minn. R. 6115.0670, subp. 3 and approval of the Application would satisfy the applicable regulatory requirements.

### H. The Proposed Appropriation Satisfies Minn. Stat. § 103G.801

96. All appropriations located with the Great Lakes -- St. Lawrence River basin will comply the Great Lakes – St. Lawrence River Basin Water Resources Compact codified at Minn. Stat. § 103G.801. The Permit requires that for all appropriation locations within the Great Lakes Watershed, water used for HDD and mainline hydrostatic testing must be discharged within the same watershed, and either allowed to infiltrate into the ground surface or returned to the source water. *See* Minn. Stat. § 103G.801.

### I. The Proposed Appropriation Satisfies the Prohibition on State Actions Affecting the Environment

97. The Minnesota Environmental Policy Act ("MEPA") prohibits State actions that cause pollution, impairment or destruction:

> No state action significantly affecting the quality of the environment shall be allowed, nor shall any permit for natural resources management and development be granted, where such action or permit has caused or is likely to cause pollution, impairment, or destruction of air, water, land, or other natural resources located within the state, so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, and destruction.

Minn. Stat. § 116D.04, subd. 6.

> 98. "Pollution, impairment or destruction" is defined by Minnesota law as:
> conduct . . . which violates, or is likely to violate, any environmental quality standard, limitation, rule, order, license, stipulation agreement, or permit of the state or any instrumentality, agency, or political subdivision thereof which was issued prior to the date the alleged violation occurred or is likely to occur or any conduct which materially adversely affects or is likely to materially adversely affect the environment.

Minn. Stat. § 116B.02, subd. 5.

99. In reviewing the administrative record, including the FEIS, and the Application, the DNR considered the quality and severity of any adverse effects of the Project on surface water and groundwater, including any potential long-term adverse effects to that resource, the types of resource at issue, the potential significant consequential effects of the proposed appropriation on other natural resources, and the direct and consequential impacts of the proposed appropriation on the environment.

100. As detailed herein, the proposed appropriation under the Application, subject to the conditions of a water appropriation permit will comply with all applicable state environmental protection standards, including the requirements of Minnesota Statutes chapter 103G and Minnesota Rules chapter 6115 governing water appropriations.

101. The potential effects on natural resources resulting from the Project and Project alternatives were comprehensively analyzed within the Application.

102. The Project will be also subject to other state and federal requirements and must comply with all applicable environmental protection standards, including the requirements of the DNR permit and the requirements of an NPDES/SDS permit under the regulatory authority of the MPCA.

103. Compliance with these regulatory requirements serves to ensure that the proposed appropriation of water under the Permit will not result in pollution, impairment, or destruction of natural resources.

104. As outlined above, the DNR has considered the proposed appropriation under the Permit in accordance with MEPA, and determines that the proposed appropriation satisfies the applicable statutory requirements.

Based upon the above Findings of Fact, the DNR makes the following:

# CONCLUSIONS

1. As detailed below, the DNR has reviewed the record and concludes that Enbridge has met its burden of proof and is entitled to issuance of the requested permit subject to the terms and conditions therein.

2. In order to "conserve and use water resources of the state in the best interests of its people and to promote the public health, safety, and welfare," it is the regulatory policy of the State to "control the appropriation and use of waters of the state." Minn. Stat. § 103A.201, subd. 1. The Legislature delegated the DNR the authority to develop a water resources conservation program for the state that includes the "conservation, allocation, and development of waters of the state for the best interests of the people." Minn. Stat. § 103G.101, subd. 1. Similarly, the Legislature directed the DNR to adopt rules for the allocation of waters based on statutory water allocation priorities. *See* Minn. Stat. § 103G.261.

3. The DNR has the authority to issue water appropriation permits in accordance with its general authority to administer "the use, allocation, and control of waters of the state." *See* Minn. Stat. § 103G.255 (1).

4. The DNR has the discretion to waive a hearing on a water appropriation permit application and order a permit to be issued or denied without a hearing. *See* Minn. Stat. § 103G.311, subd. 4.

5. Minn. Stat. § 103G.315, subd. 2 requires that the DNR make findings of fact on issues necessary for determination of the application considered. Orders by the DNR must be based upon findings of fact made on substantial evidence.

6. Enbridge's proposed appropriation of waters of the state requires a water appropriation permit. *See* Minn. Stat. § 103G.271, subd. 1, 4; Minn. R. 6115.0620.

7. The DNR has the authority to impose conditions on any water appropriation permit it issues. *See* Minn. Stat. § 103G.315, subd. 1; Minn. R. 6115.0670, subp. 3.

8. If the DNR concludes that the plans of an applicant for a water appropriation permit are reasonable, practical, and will adequately protect public safety and promote the public welfare, then the DNR must grant the permit. *See* Minn. Stat. § 103G.315, subd. 3.

9. The Application is complete and Enbridge has provided all information required for review under applicable statutes and rules. *See* Minn. Stat. § 103G.285, subd. 4 & 6, § 103G.287, subd. 1, § 103G.301, subd. 1, Minn. R. 6115.0660.

10. Any application information required under Minn. Stat. § 103G.285 not discussed herein is waived for just cause. Minn. Stat. § 103G.285, subd. 1. Any application information required under Minn. Stat. § 103G.287 not discussed herein is waived on the grounds that the

information provided with the Application is adequate to determine whether the proposed appropriation of water is sustainable and will protect ecosystems, water quality, and the ability of future generations to meet their own needs. *See* Minn. Stat. § 103G.287, subd. 1(b).

11. Any information required by Minn. R. 6115.0660 and 6115.0670 not discussed herein is waived as unnecessary or inapplicable. *See* Minn. R. 6115.0660, subp. 4; Minn. R. 6115.0670, subp. 4.

12. As detailed in the factual findings above, the DNR has reviewed and analyzed the record before the agency in connection with its consideration of applicable factors. *See* Minn. R. 6115.0670, subp. 2.

13. As detailed herein, Enbridge's proposed groundwater use from the eight groundwater wells is sustainable to supply the needs of future generations and is subject to all applicable permitting and regulatory requirements including but not limited to the ongoing monitoring requirements of the Permit. When appropriated in accordance with these requirements, and in compliance with the conditions of the Permit, the proposed appropriations will not harm ecosystems, degrade water, or reduce water levels beyond the reach of public water supply and private domestic wells. *See* Minn. Stat. § 103G.287, subd. 6.

14. Water appropriations for HDD/mainline hydrostatic testing in the Line 3 project will be temporary and limited to less than one year in length of time.

15. Water appropriation for the Project at the 28 watercourses will be consumptive and will not occur during low flow periods on the watercourses. Enbridge has signed a contingency statement stating that it will not appropriate water during low flow periods. The application also has alternative installations that can be used during periods of low flow. With these restrictions, the appropriation will not negatively impact in-stream uses such as aquatic life. *See* Minn. Stat. § 103G.285, subd. 2.

16. Water appropriation for the Project at the three lake/basin installations (which are contingency sources only) will be consumptive and limited to less than one-half acre-foot per acre of water for each basin. The DNR has set a protective elevation for each basin. The applicant has signed a contingency statement stating that the project will not appropriate water when lake elevations are below the protective elevations. The proposed appropriations for HDD and mainline hydrostatic testing for the Project will implement best management practices (i.e. screen sizing on pumps, protective elevations or flow limitations) to reduce impacts to aquatic

life in surface water resources where appropriations will be occurring. *See* Minn. Stat. § 103G.285, subd. 3.

17. Though an applicant is required to seek support from riparian property owners for any appropriation from a basin of less than 500 acres, no particular percentage of support is required. The level of support is one factor for DNR to consider. Regardless of the level of support of riparian landowners, DNR has the authority to issue a water appropriation permit that is reasonable, practical, and will promote public safety and protect the public welfare. *See* Minn. Stat. § 103G.285, subd. 4; Minn. Stat. § 103G.315, subd. 3.

18. Enbridge's request to reuse water is approved provided that Enbridge's water reuse would comply with an NPDES/SDS permit, if issued, by the PCA. Enbridge may reuse water appropriated under this permit as follows: 1) reuse HDD pre-test water for HDD buoyancy control; 2) reuse mainline hydrostatic testing water for testing more than one spread; and 3) following treatment in accordance with an NPDES/SDS permit, reuse water for AIS control pursuant to the Invasive and Noxious Species Management Plan.

19. The DNR may at any time cancel the permit to protect public interests; apply further conditions on the term of the permit and amend and reissue the permit; and/or apply laws existing before or after issuance of the water appropriation permit. *See* Minn. Stat. § 103G.315, subd. 11.

20. Permit application materials submitted by Enbridge for permit application no. 2018-3690 meet conditions and criteria set forth in Minn. R. 6115.0660; Minn. R. 6115.0670, Minn. Stat. § 103G.285; and Minn. Stat. § 103G.287.

21. Enbridge has met its burden of proving that the proposed project is reasonable, practical, and will adequately protect public safety and promote the public welfare. *See* Minn. Stat. § 103G.315, subds. 3, 6(a).

22. The DNR concludes that the appropriation and use of water under the water appropriation permit, subject to the conditions contained therein, is reasonable, practical, and will adequately protect public safety and promote the public welfare. *See* Minn. R. 6115.0670, subp. 3(A)(3). Accordingly, the Application must be granted. *See* Minn. Stat. § 103G.315, subds. 3, 5. The conditions, terms, and reservations included in the Permit are reasonably necessary for the safety and welfare of the people of the state. *See* Minn. Stat. § 103G.315, subd. 6(b).

23. Appropriations under the permit, subject to the terms and conditions therein will not result in pollution, impairment, or destruction of natural resources. *See* Minn. Stat. § 116B.02, subd. 5.

24. Any Findings of Fact that might properly be termed Conclusions and any Conclusions that might properly be termed Findings of Fact are hereby adopted as such.

Based upon the foregoing Findings of Fact and Conclusions, the DNR now enters the following:

# ORDER

1. The DNR hereby waives any contested case hearing on the Application pursuant to Minn. Stat. § 103G.311, subd. 4.

2. Based upon all the files, records, and proceedings in this matter and upon the DNR's Findings of Fact and Conclusions, Water Appropriation Permit No. 2018-3690 is hereby issued to Enbridge subject to the conditions set forth in the permit.

3. The applicant or the applicable municipality, watershed district or soil and water conservation district may file a demand for a hearing on the Application in accordance with Minn. Stat. § 103G.311, subd. 5 and Minn. R. 6115.0670, subp. 3, within 30 days after mailing or electronic transmission of notice of this Order.

DNR Authorized Signature ***wet or e-signature***:

//Steven Colvin Digitally signed by Steven Colvin Date: 2020.11.12 07:31:37 -06'00'//

Approved and adopted this 12th day of November, 2020
Ecological and Water Resources Division Director Steve Colvin
STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES