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

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

Dear Ben:

Enbridge Energy, Limited Partnership (“Enbridge”) has prepared the information below in response to questions submitted by the Department of Natural Resources (“DNR”), which is in the process of preparing an Environmental Impact Statement (“EIS”) for the proposed Line 5 Wisconsin Segment Relocation Project. On February 1, 2021, the DNR identified additional supporting data and/or clarifications needed from Enbridge related to the development of the EIS. Enbridge provided a response to that request on March 2, 2021. Enbridge is providing this supplemental response to Data Request question #7 that was not available at the time of Enbridge’s March 2, 2021 response. DNR Data Request question #7 asked: *“Per Enbridge’s response to question #26C submitted on 12/11/20 – Specify if the return/discharge water to the source water could be a higher temperature than when it was withdrawn. If yes, what measures would Enbridge employ to cool the water before discharge to avoid potential thermal impacts to the trout streams?”*

As discussed in Enbridge’s response to the February 2021 Data Request question #7, the temperature of discharged water following hydrostatic testing activities could be at a slightly higher, slightly lower or the same temperature as the source water depending on a number of factors. With the exception of the pipeline segment ends, the pipeline is buried at a typical depth of approximately 36 inches and is at a comparable temperature to natural soil temperatures at that depth.

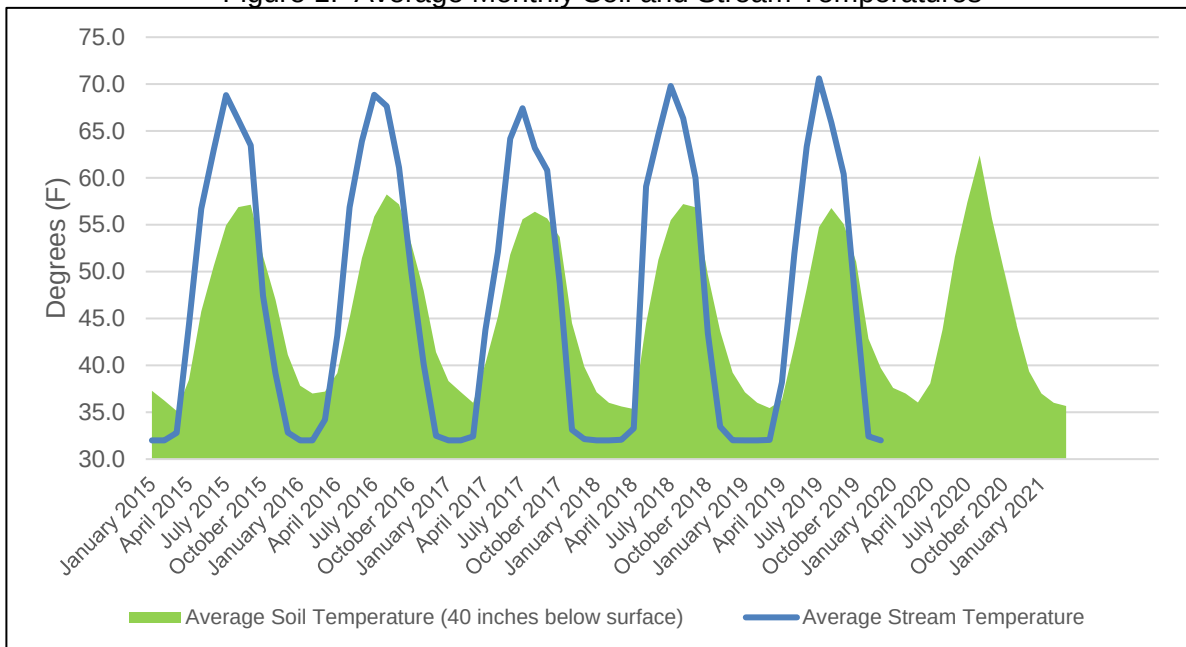
Enbridge has reviewed publically available soil temperature data obtained from the Natural Resources Conservation Service (“NRCS”) National Water and Climate Center recorded as part of the NRCS’ Soil Climate Analysis Network (“SCAN”). SCAN data collected at the Wabeno #1 (Station ID 2003) in Forest County, Wisconsin was used as a representative soil temperature data point as the Wabeno station is located approximately 115 miles east/south east of the closest

segment of the Project. Average monthly soil temperature at a depth of 40 inches below surface grade was analyzed for the years of 2015 to current.

As shown in Figure 1 below, for the data range analyzed, the minimum average monthly soil temperature at the Wabeno station was approximately 35.1 degrees Fahrenheit and the maximum soil temperature was approximately 62.4 degrees Fahrenheit at a depth of 40 inches.

Enbridge also reviewed publically available average monthly water temperature data obtained from the United States Geological Survey (“USGS”) gauging station on Tyler Forks, located near Mellen, Wisconsin (Tyler Forks Station 04026561) for a similar period of time (2015 through 2019). For the data range analyzed, the minimum average monthly stream water temperature was about 32 degrees Fahrenheit and the maximum water temperature was about 70.6 degrees Fahrenheit (see Figure 1).

Figure 1. Average Monthly Soil and Stream Temperatures



As discussed above, hydrostatic test water in the pipeline will be at a similar temperature to ground temperature as the pipeline being tested is buried at a typical minimum depth of approximately 36 inches. As such, temperature of the discharged water is expected to be within the normal temperature range of the appropriation source. Once hydrostatic testing is complete and the water is discharged, there are additional factors that could influence the temperature of the water including: the time of day that the water is discharged, if the water is discharged directly to the stream or to land, and sun/cloud conditions at the time of discharge. However, these factors are not expected to significantly alter the water temperature.

Enbridge is not proposing to directly discharge test water back to the appropriation sources; but will discharge to an adjacent area within the appropriation source watershed. Discharged water would return to the appropriation source through natural infiltration into the groundwater or via

surface flow through tributaries. Potential thermal changes to the appropriation source will be minimized as a result. Enbridge will incorporate best management practices to prevent degradation of water quality, such as controlling the discharge rate and directing the discharge into energy dissipation devices to prevent scour and/or erosion. Enbridge will meet water quality standards as required under the WPDES General Permit to Discharge Hydrostatic Test Water, such as testing for total suspended solids, oil and grease, dissolved oxygen, and pH and incorporating appropriation water treatment as necessary.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Joe McGaver". The signature is stylized with a large "J" and "M".

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

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