

HORIZONTAL DIRECTIONAL DRILLING

What is HDD?

HDD is a method of drilling under something – in this case a water body – in order to cross the water body with a pipeline. It involves drilling a hole underneath the river and/or wetland, pumping drilling mud under pressure through the inside of the drill pipe, and installing a prefabricated pipe segment through the hole.

Enbridge plans to use this method on **21** of the water crossings on this project.

Downsides of HDD

- The biggest risk is the potential for inadvertent release of drilling fluids into the water body. This is called a “frack out”.
- Pipelines underwater wear out and leak over time even if they don’t during initial installation. This destroys the ecosystem of the water way. It’s an imperfect system for engineers to determine if drilling mud will leak into the waterway - especially under icy conditions.
- HDD requires obtaining water to formulate the drilling fluid, buoyancy control, as well as hydrostatic testing. That water has to be disposed of somewhere.

Higher Risks using HDD in Frozen Conditions

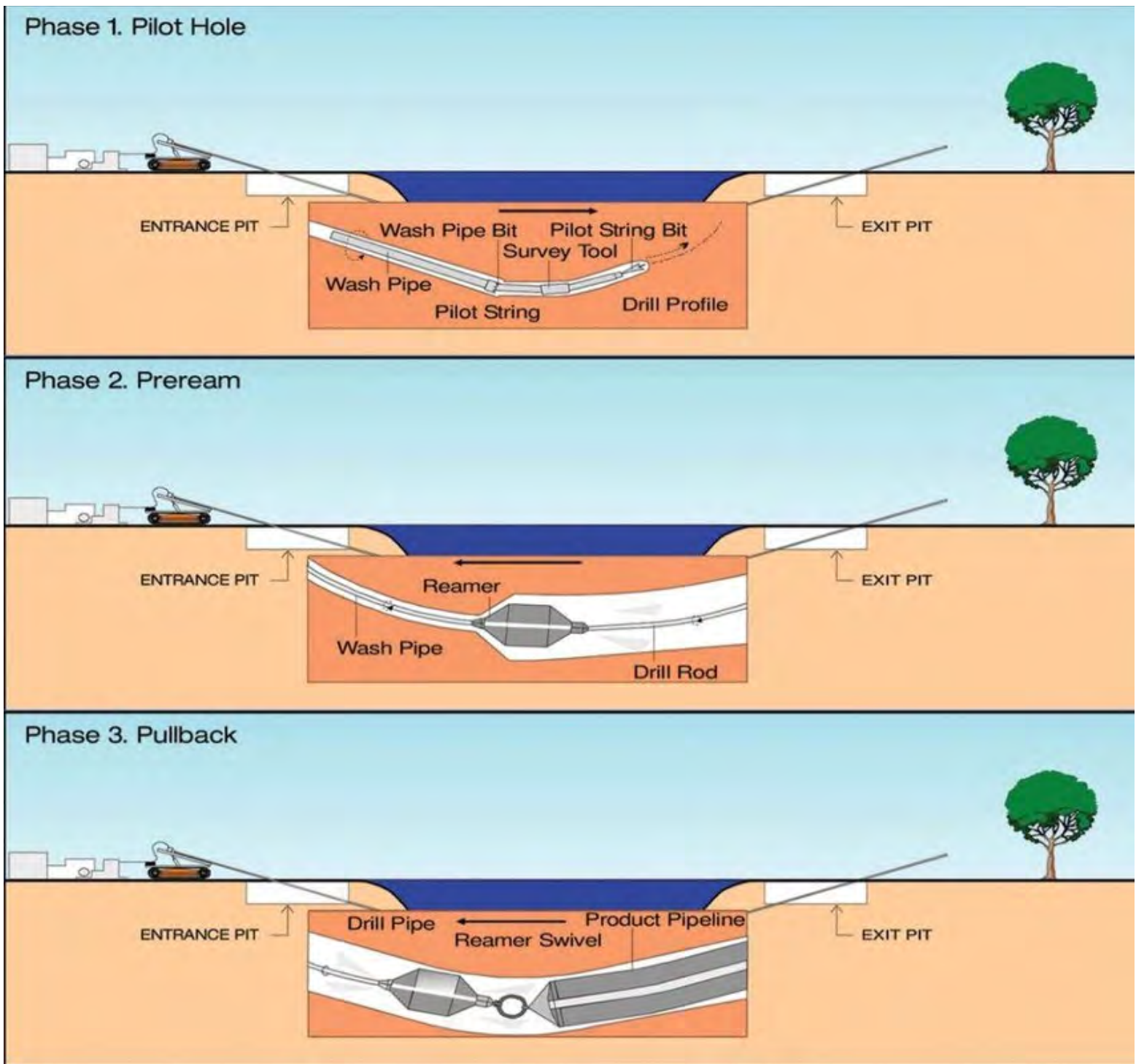
Potential for drilling mud to be released into frozen water body thereby reducing the timing and efficacy of containment and recovery efforts

Seasonal prohibition on HDD crossings

11/12/20 MPCA issues 401 Permit: MPCA authority: Minn. Stat. ch. 115; Minn. R. chs. 7001, 7050, and 7052

Due to the risk of an undetected inadvertent release of drilling mud into an ice- covered stream (frack out), Enbridge must not conduct HDD stream crossing construction activities when the stream is covered with ice, unless otherwise pre-approved by the MPCA and MDNR on a case-by- case basis. Further, Enbridge must not manually create open water conditions in streams that would otherwise be ice-covered at the HDD crossing locations, unless otherwise approved by MPCA and MDNR on a case-by-case basis.

1. **12/11/20 Enbridge requests waiver** to use HDD on 4 water crossings in frozen conditions
2. **DNR denies Enbridge’s request** unless they can provide more evidence
3. **1/27/21 Enbridge supplies additional information to MPCA, DNR** to gain approval for a waiver to use HDD on 4 water crossings in frozen conditions (original request 12/11/20)
4. **DNR says it’s not good enough:** 2/3/21 MPCA and DNR deny Enbridge winter HDD request.
Will Enbridge complete HDD crossings in frozen conditions with a willingness to pay whatever fines the state levies?



Yet construction at these HDD sites continues

Mississippi River Crossing #1 & #2, Tributary of the Clearwater River, Daggett Brook, Willow River

Questions and Conclusions

- HDD is a dangerous practice that leaves Minnesota's water ways damaged or destroyed.
- HDD results in pipe leaks underwater after time.
- Why is there work at HDD crossings in frozen conditions? It seems like an intentional provocation. A worker was nearly drowned on 2/5/21. Why was a worker in a water way?
- Why hasn't the State stopped Enbridge from working on the water crossings that are specifically prohibited in frozen conditions?



@HONORTHEEARTH



@HONORTHEEARTH



HONOR THE EARTH