

Aquifer Breach FAQ

What happened?

On September 10th, 2021, Fond du Lac (FDL) was notified by Enbridge of an aquifer breach that occurred earlier that month. The breach was rapidly discharging a high volume of water within the boundaries of the Reservation that could potentially impact the ecology of the area and the Band's natural resources. As of March 21st, 2022, the volume of water discharged was approximately 219,600,000 gallons. Enbridge has completed the majority of the work to plug the aquifer and has reduced groundwater seeps to six gallons a minute.

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Where is the breach located?

The area where the uncontrolled groundwater flow is occurring is located south of US Highway 2 and east of Minnesota Highway 73 in St. Louis County, Minnesota, approximately 400 feet west of the FDL Reservation boundary. However, the aquifer is discharging its water content within the boundaries of the Reservation upstream of Deadfish Lake (see map).

What did FDL do when they were notified?

FDL immediately allocated resources to independently assess the breach's ecological, cultural, and economic ramifications. The Band's Resource Management Division also was closely involved in reviewing and developing Enbridge's "Corrective Action Plan" to ensure Enbridge's response would protect the Band's resources to the utmost capability. These actions, along with the

Band's water quality standards ordinances, will help protect the Band's resources and ensure any damages are properly mitigated and restored.

How is FDL managing communication with the community on this issue?

The aquifer breach presents a complicated, multi-jurisdictional challenge involving rapidly changing developments under investigation. Because the site of the aquifer breach is outside the boundaries of the Reservation, the Band was not immediately notified. When it was determined that the discharge of groundwater was flowing onto the Reservation, we were then engaged and began working with the Minnesota Department of Health, Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, Army Corps of Engineers, St. Louis County, Carlton County, and Enbridge to investigate the breach and address the problem. Due to the ongoing nature of the investigation, the location of the breach was not disclosed to the public until a Corrective Action Plan was approved by all regulatory agencies and the majority of the grouting work was performed to cap the aquifer. The Band will provide additional updates on the situation as it develops.

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TECHNICAL

What is an aquifer and how is it breached?

An aquifer is an underground body of water and different types of aquifers behave differently due to local geology. In this situation, there is a thin layer of loose glacial soils on top of pressurized groundwater. This aquifer breach represents a manmade rupture or puncture of the soil layer above groundwater, which is allowing the groundwater to flow to the surface.

How/Why did the breach occur?

Sheet piling that was driven into the ground for soil stabilization during pipeline construction entered the aquifer below. When the sheet piling was removed following pipeline construction, the pressurized groundwater followed the path of least resistance upward, which was through the ground disturbance caused by the sheet piling. Sheet piling refers to large metallic sheet sections that are driven into the ground around a construction area to provide soil stabilization.

IMPACTS/REMEDICATION

Who is responsible?

In addition to being financially responsible, Enbridge is responsible for mitigating any resource damages discovered. Several public entities are working to ensure that mitigation is managed properly.

How is the responsible party being held accountable?

Although the Band was not the permitting entity tasked with ultimately approving Line 3 or Enbridge's construction plans, the Band issued a 401-water quality certification and a wetland activity permit which imposed separate conditions on Enbridge to protect the Band's waters. In addition, the Band closely followed on-site events associated with Enbridge's construction plans on and near the Reservation. Once notified of the breach, we immediately allocated resources to independently assess the breach's ecological, cultural, and economic ramifications. These actions, along with the Band's water quality standards ordinances, will help protect the Band's resources. The Band is currently assessing all options to ensure that Enbridge mitigates and repairs damages arising from the breach.

What agencies are involved?

Government agencies involved include FDL, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, Minnesota Department of Health, Minnesota Department of Natural Resources, Army Corps of Engineers, and St. Louis and Carlton Counties.

What are the impacts to the ecology, environment, natural resources over the long term?

Given the season in which the release of groundwater occurred, impacts to the Band's resources and the ecology of the area are expected to be lower. A monitoring plan for surface water, ground water, and wetland vegetation is part of Enbridge's response to the breach. FDL will work to ensure any negative impacts to the reservation's ecology, environment, and natural resources are assessed and properly restored and that Enbridge is held responsible for any damages to Band resources.

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How will this impact FDL's rice harvesting?

Provided that the corrective action plan to stop the flow of groundwater is successful, we are hopeful that impacts to the Band's wild rice resources will be minimal. Performing expedient remediation work during the winter months avoids unnecessary water volume to be directed toward Deadfish Lake. However, additional flow to Deadfish Lake is unneeded and could be detrimental to wild rice production if not addressed. The Band will have a better understanding of potential impacts to FDL's wild rice harvesting this coming growing season when additional environmental monitoring and assessment can be completed.

How will [did] Enbridge cap the aquifer breach?

The remedy to the aquifer breach involves sealing fractures in the soil layer that lies over the aquifer. To do so two sets of wells are drilled, one for lowering water levels in the aquifer and the other to provide a means to inject a cement-based grout to seal the fractures in the soil layer. The area injected with grout is approximately 400 feet in length and 30 feet in width. Upon completion of the grout injection the area is monitored for effectiveness of the sealing effort. At that point the majority of wells are permanently sealed and Enbridge is continuing grouting work on a number of small seeps.

How long will it take to mitigate/correct the breach?

As of February 16th, 2022, the corrective action plan was approved by all necessary state and tribal agencies.