

Aquifer Breach FAQ

What happened?

On September 10th, 2021, Fond du Lac (FDL) was notified by Enbridge of an aquifer breach that occurred at Milepost 1102.5 (see map), near the western boundary of the Reservation. 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. The total volume of water discharged was approximately 263,100,000 gallons. Enbridge successfully repaired the aquifer breach on April 7, 2022 and all groundwater flow onto the Reservation stopped.

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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.

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.

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IMPACTS/REMEDIATION

Who is responsible?

Enbridge is responsible for mitigating any damages discovered and several public and private entities worked to ensure an appropriate response.

How is the responsible party being held accountable?

On October 17, 2022 the Band entered into a comprehensive enforcement settlement agreement with Enbridge that governs Enbridge's responsibilities. As part of the enforcement agreement Enbridge will pay the Band \$105,000 in a penalty for violations of environmental ordinances, \$200,000 in projects to enhance water quality on the Reservation, \$150,000 to FDL and DNR for monitoring on and off-reservation, and \$1,000,000 in financial assurance for any future mitigation or restoration that may be needed.

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 we do not expect significant negative ecological impacts to occur. A monitoring plan for surface water, ground water, and wetland vegetation is a part of Enbridge's response to the breach and FDL will work to ensure that any negative impacts to the reservation's ecology, environment, and natural resources that may be discovered in the future are assessed and properly restored.

How will this impact FDL's rice harvesting?

Because the corrective action plan to stop the flow of groundwater was successful, we do not anticipate any negative impacts to the Band's wild rice resources. Performing the remediation work in a timely fashion during the winter months avoided unnecessary water volume to be directed toward Deadfish Lake.

How will [did] Enbridge cap the aquifer breach?

The remedy to the aquifer breach involved sealing fractures in the soil layer that lies over the aquifer. To do so two sets of wells were 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.

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

Enbridge successfully repaired the aquifer breach on April 7, 2022.