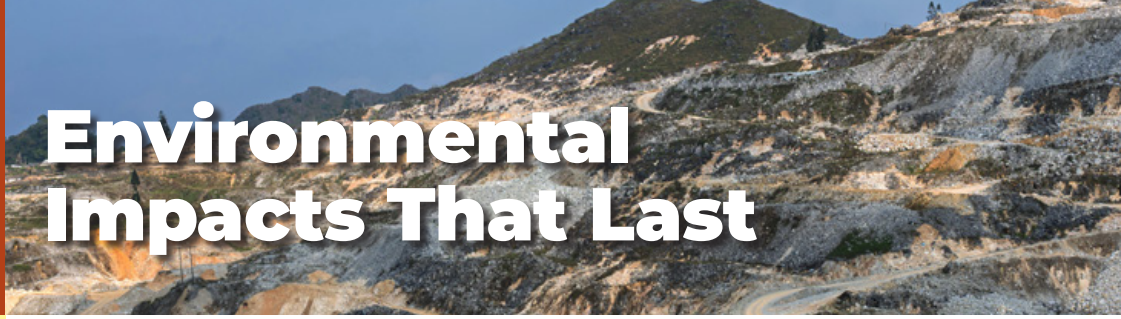
Sisson Mine

Environmental Impacts That Last



An open-pit mine is a massive hole in the ground used to extract minerals and metals that are close to the surface.

The **Sisson Mine** is a large open-pit tungsten and molybdenum mine proposed northwest of Fredericton, in the upper Nashwaak and Wolastoq (Saint John River) watershed. New Brunswickers rely on this water for drinking, fishing, recreation, and cultural use.

What are the environmental concerns?

Stream & Fish Habitat

The mine would permanently alter more than 1,200 hectares of forest, wetlands and headwater streams.

Construction would mean:

- Loss of brooks and tributaries
- Destruction of fish habitat
- Altered downstream water flows

The Nashwaak River supports Atlantic salmon and other sensitive species.

Once streams are filled or diverted, they do not come back.

Water Contamination

Hard-rock metal mining can release:

- Arsenic and other toxic heavy metals
- Acid drainage that spreads contamination
- Dissolved salts and processing residues, which change water chemistry

These pollutants can last for decades, travel through surface and groundwater and build up in sediments and fish. Contamination can happen long after mining ends.

Tailings Ponds

The largest part of the project is not the pit, it's the waste. The mine would store millions of tonnes of wet mining waste behind large earth dams.

These tailings facilities:

- Must be monitored forever
- Can leak slowly over time
- Can fail during extreme weather

Canada has one of the worst records for tailings failures, including:

- Mount Polley, B.C., where 24 million cubic metres of mine waste were released
- Mount Pleasant, N.B., where heavy rainfall in 1998 caused a tailings dam failure

When failures happen, drinking water can be put at risk.

Air Pollution & Climate Pressure

Open-pit mining creates significant air pollution, including:

- Fine dust ($PM_{2.5}$, PM_{10})
- Metal-containing particles
- Diesel exhaust
- Nitrogen oxides (NOx), sulphur dioxide (SO2), hydrogen sulphide (H2S), ammonia (NH3)

The mine would also produce long-term greenhouse gas emissions. Its annual emissions would equal about 10,000–10,500 cars on the road annually. Over the project's estimated operating life, the mine would generate about 1.31 million tonnes of emissions— around 280,000 'car-years'.

Climate change also causes extreme weather. More extreme weather means greater risk to tailings dams and containment systems.

The mine may operate for a few decades.

But public responsibility does not end if the mine closes early.

Environmentally Speaking?

Impacts are Forever

The mine is expected to run for 27 years, but if it closes early, here's what remains:

- ***The open pit:*** About 145 hectares (about 200 soccer fields) and 370 metres deep (deeper than the CN Tower's lookout level).
- ***Tailings storage facility:*** About 751–785 hectares (about 1,400–1,500 soccer fields; larger than many New Brunswick towns)
- ***Tailings dam:*** About eight kilometres long and 90 metres high (almost 16 times the length and twice the height of the Mactaquac Dam)
- ***Total industrial footprint:*** About 1,253 hectares (12.5 km², about the same size as Fredericton)

The Sisson Mine would:

Permanently destroy streams and habitat

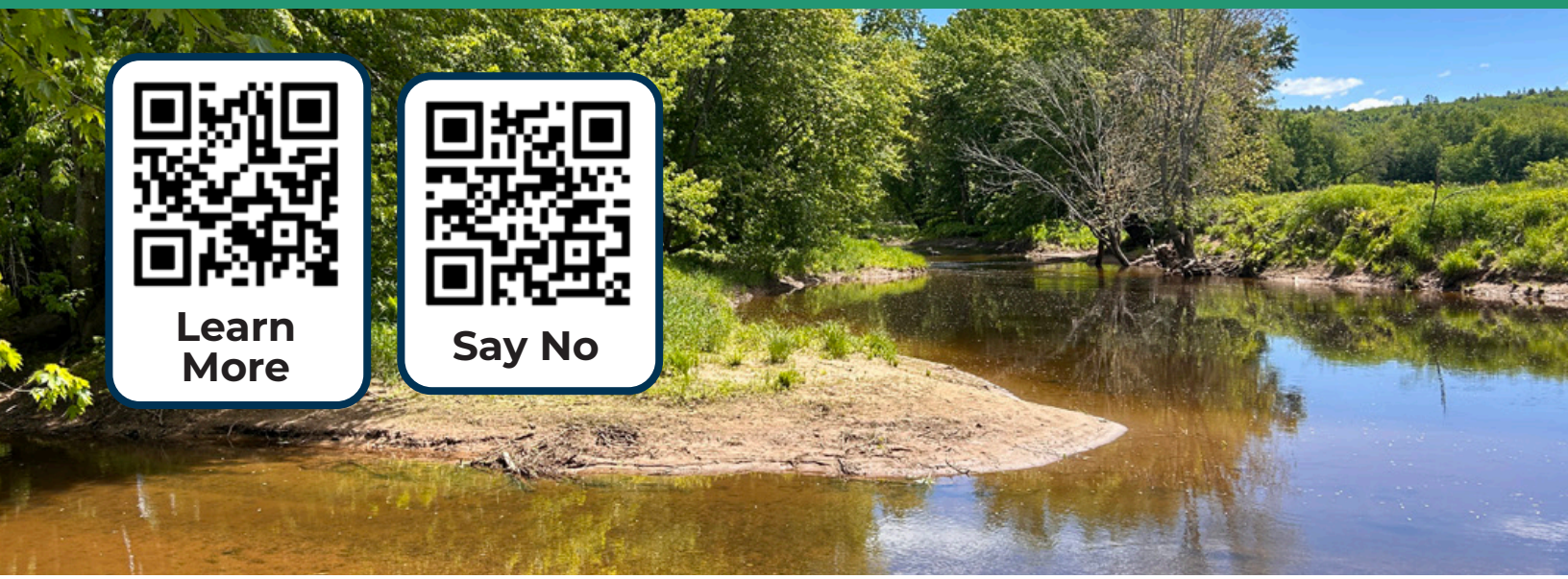
Create a massive, long-term waste problem

Put clean water at ongoing risk

Leave an environmental liability for generations

Take Action!

APRIL 2026



Conservation Council *of* New Brunswick
Conseil de conservation *du* Nouveau-Brunswick

conservationcouncil.ca

180 St. John Street, Fredericton, NB E3B 4A9
Email: info@conservationcouncil.ca | Phone: 506-458-8747