

## What's the Problem?

Our mining heritage has brought us prosperity. But it's also had profound impacts on the living systems that nurture, protect, and thrill us.

In the decades past, smelting the ore from the mines created significant amounts of sulphur dioxide. Most plants are highly sensitive to this gas and died as a result. Without plants there was nothing to keep the soil in place resulting in widespread erosion.

Smelting also released metal particles in the air. These particles eventually landed and accumulated in the soil. Many of these metals are harmful to plants when levels get too high. When soil is acidic, as it tends to be in northern Ontario, these metals can be easily taken up by plants, which die or remain stressed.

As a result, over 82,000 hectares (202, 630 acres) in Greater Sudbury were left in a barren or semi-barren state.

Vale and Sudbury INO, a Glencore Company, have reduced sulfur dioxide and air-borne metal emissions by over 90% since the 1970s. As a result, some trees and other plants have been able to take hold. But plants still struggle because of the accumulated metals and low organic matter content of the shallow soils that bake in the summer and freeze solid in the winter.