

## **RAISON d' ÊTRE**

The City of Greater Sudbury is associated internationally with mining and smelting operations. The rich sulphide ores have been extracted from the ground for over a century, providing great social and economic benefits to the region and to Canada as a whole. However, these benefits have not come without cost to the environment.

In 2001, the Ontario Ministry of the Environment (MOE) published the results of soil monitoring studies conducted in the Sudbury area between 1971 and 2000. The MOE report identified that levels of three metals (cobalt, copper, nickel) and arsenic were elevated in soils near the three historic smelting and refining centers of Copper Cliff, Coniston and Falconbridge. Notably, the concentrations of these four elements in Sudbury soils frequently exceeded MOE generic soil quality criteria (MOE, 1997).

The 2001 MOE report made two primary recommendations:

- That a more detailed soil study be undertaken to fill data gaps; and
- That a human health risk assessment (HHRA) and ecological risk assessment (ERA) be undertaken.

These recommendations led to the initiation of the Sudbury Soils Study. Within this context, the underlying objective of the Sudbury Soils Study is to answer this question:

“Do Sudbury soils containing metal and arsenic levels above the generic guidelines pose an unacceptable ecological or human health risk?”