

## **Evaluation tools development for prioritizing former mine site investigations on Crown Lands in Nova Scotia**

Daniel Khan and Adam Goulden

Nova Scotia Lands Inc., Halifax, Nova Scotia, Canada

Since the 1700s, Nova Scotia has been a dependable source of commercial mineral production to support the well being of residents in Canada and other places in the world.

Prior to the mandatory adoption of stringent environmentally protective rules and regulations some forms of mining resulted in a questionable legacy of impacted lands and waterways. Some of these sites continue to emit contaminants into the environment that can be harmful to human and ecological health while others have essentially disappeared through natural attenuation forces or application of good reclamation and remediation practices.

The Province of Nova Scotia is currently undergoing a review of potential contamination at former mine sites on provincially owned Crown lands. Nova Scotia Lands Inc. has been tasked to conduct a review of 69 sites and here we report on the first steps taken to rationalize and prioritize the site review process to help estimate public financial liabilities in keeping with current generally accepted accounting practices.

In this presentation NS Lands outlines the use of over a 100 years of mineral production reports; geospatial data sets and geographic information systems (GIS); and numerical modelling and scoring using a weighted matrix approach. The use of spreadsheets combined with data interrogation tools from GIS has provided the province with a road map to allocate it's human and fiscal resources for field investigations and to assess potential environmental liabilities, if any.