Glossary

Acid rock drainage:
a type of geohazard in which sulphide minerals such as pyrrhotite and pyrite oxidize when exposed to air, producing iron oxides and sulphuric acid. The acid is carried in surface water runoff into surrounding streams posing a hazard to aquatic life in the streams.

Aggregate:
Granular materials such as sand, gravel and crushed stone used as construction materials.

Best Management Practices (BMPs):
a system of practices which work together for optimum social, environmental and economic results. BMPs are often used to prevent environmental damage.

Crown land:
The land which is owned by the Province and the people of Nova Scotia.

Dolomite:
A whitish mineral composed of calcium and magnesium carbonate, used as a building material.

Evaporites:
Minerals such as gypsum and dolomite which are left behind when seawater evaporates over long periods of time.

Fermentation layer:
An area within the organic layer of forest soils in which physical and chemical decomposition of twigs, leaves, needles and other organic material occurs.

Geohazard:
A geological condition which is hazardous to humans or the environment. Examples are **acid rock drainage** and **sinkholes**.

Geoheritage:
A relatively new term, but an old concept, which associates human values with geological features. An economic benefit of geoheritage is geotourism.

Geology:
The science of the formation and composition of the Earth's crust, including the study of rock structure and fossils.

Geological map:
A map which depicts the rock structures, formations and geological history of an area.

Geological resources:
Tangible commodities or abstract concepts which place values on geological products or features. These can broadly range from extracted minerals to aesthetics.

Geothermal energy:
Energy which is extracted from the heat generated by the Earth's core and brought to the surface for human use.

Glacial till:
Material deposited by glaciers, which has not been modified or transported by any other process.

Gypsum:
A soft, white or grey mineral composed of hydrated calcium sulphate, used as a building material and as fertilizer.

Humus layer:
Organic material which has decomposed beyond the point of recognition, and lies beneath the litter layer and above the mineral soil.

Igneous rock:
Rock formed by cooling and crystallization from magma.

Industrial minerals:
A diverse group of minerals which are extracted from the Earth except for metallic mineral ores, water, fuels and gemstones. Examples include gypsum and salt.

Kaolinite:
A clay-like mineral composed of aluminum silicate, used in making porcelain and providing finish to glossy papers.

Karst:
Landforms associated with soluble rocks, such as gypsum, limestone and dolomite. Sinkholes and underground cavities are usually present. In Karst Forest Groups, exposed bedrock of these minerals is present.

Limestone:
A sedimentary rock consisting mostly of calcium carbonate. Many forms of limestone contain fossils.

Litter layer:
The top layer of the forest floor, comprised mostly of undecomposed organic material, including leaves, twigs and needles. The litter layer contributes significantly to the organic content of forest soils.

Metallic minerals:
A group of minerals from which metals such as gold, copper, lead, zinc and tungsten can be extracted.

Metamorphic rock:
Rocks formed from existing igneous and sedimentary rocks through heat and pressure. New minerals form in the original rock, changing its physical and chemical properties.

Mineral:
An inorganic material extracted from the Earth which possesses economic value and utility. Minerals include sand, gravel and precious or semi-precious stones. Legislation often further defines minerals to include coal, natural gas and petroleum resources, even though these are organic materials.

Mineral Resources Act:
An Act recognized by the Legislature of Nova Scotia, the purpose of which is to support and promote responsible mineral resource management consistent with sustainable development.

Net Smelter Royalty (Royalty Payment):
The fraction of the net smelter revenue or return that a mine operator must pay to the owner of the option or royalty agreement.

Option Agreement:
A legal agreement between a mineral rights holder and a second party, which allows that party to earn an interest in the mineral property in exchange for cash, shares in the company or a royalty payment based on the mine's net revenue or net smelter return.

Peat:
Partly decomposed vegetation which has accumulated in a wet environment, such as a bog.

Plate tectonics:
The study of the formation and movement of crustal plates, on continents and beneath oceans, upon the flexible inner mantle of Earth.

Sedimentary rock:
A rock formed from materials deposited by sedimentation or precipitated from solution. Includes sandstone, shale, limestone and conglomerate rock.

Sinkhole:
A funnel-shaped depression in the earth's surface which is connected to underground cavities. Sinkholes are common in Karst Forest Groups and other areas underlain by gypsum and limestone.

Slate:
A type of rock, which is a natural form of aluminum silicate formed from clay and hardened under pressure.

Soil phase:
Features within soil types which assist in management decision-making.

Sub-soil:
In forest soils, the B horizon of a soil profile.

Surficial geology:
The geology of unconsolidated sediment deposits, classified according to their mode of deposition.

Tailings:
Pulverized waste material containing rock and ore which has been excavated by mining activities. Tailings may contain chemicals (such as mercury) which have been used to extract metals (such as gold).

Topsoil:
The organic and A horizons of a soil profile, containing organic materials and mineral soil.