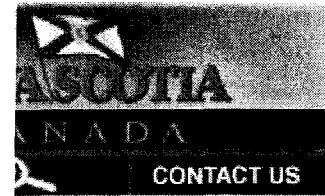


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MINERALS - A policy for Nova Scotia 1996

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CHAPTER 1. MINERALS: OPPORTUNITIES, RESPONSIBILITIES AND BENEFITS

The Government of Nova Scotia recognizes mineral exploration and mining as a key sector contributing to jobs, wealth and a high quality of life for Nova Scotians. MINERALS - A Policy for Nova Scotia is the Government's blueprint to foster continued growth of the mineral industry and careful management of our mineral resources. This policy defines responsibilities for Government, industry and the public, and advocates change in the way they work together. It is a framework for mineral resource development that is economically and environmentally sustainable.

The Government will provide leadership by implementing the policy and ensuring that the

necessary conditions are maintained for the mineral industry to create wealth for present and future generations of Nova Scotians.

The Government is committed to implementing this policy to the best of its ability subject to the availability of funds and resources.

Minerals are indispensable in our modern world. Mineral-based products are used in virtually every aspect of our daily lives. Through history the human ability to function as hunter, farmer, explorer, scientist and artisan has relied on the use of minerals. Experience tells us that society will continue to rely on mineral resources for the foreseeable future. Constant improvements in methods for discovering, mining and processing minerals have provided society with a substantial variety of indispensable materials.

Most mineral resources are hidden from view and difficult to find, which makes the process of discovery both financially expensive and risky. Mineral exploration efforts are often conducted over many years and even decades. Generally, only one in ten thousand mineral occurrences has the rich ore grade and quantity to be brought into production. The search for new mineral deposits must continue because the world's population requires an increasing supply of metals, fuels, minerals and mineral-based products.

Economic Strength

Mineral exploration and production, and the related manufacturing activities, provide significant benefits to Nova Scotia's economy. Besides employing over 4000 persons directly, many more are employed indirectly producing goods and services for the industry. According to wage and salary analyses by Statistics Canada, mining occupations produce higher average weekly earnings than any other industrial sector of the provincial economy. This provides a significant input to local economies since most mining and related activities occur in rural areas. In fact, Nova Scotia has the second highest average value of mineral production per square kilometre in Canada.

Economic activities such as mining, using minerals in industrial and manufacturing processes, and providing goods and services contribute several percentage points to the gross provincial product. In addition, taxes and royalties derived from these activities produce significant sources of direct revenue for governments. Finally, with mining becoming more technologically advanced, it contributes to building a highly skilled workforce.

Resource Potential

The wealth and variety of Nova Scotia's mineral resources reflect the province's geological complexity. From the mid-seventeen hundreds, when coal was first mined on the coast of Cape Breton, to the present, Nova Scotians have discovered and developed a wealth of mineral resources that have made a significant contribution to the province's economic and social development. Many towns and villages in Nova Scotia, including some of the province's oldest settlements, share the heritage of mining. Today several coal-mining communities still benefit directly from the continued development of large coal reserves.

Coal has long been the foremost mineral product of the province, accounting for nearly 50 percent of the province's annual gross value output for mineral resources. Industrial minerals have been consistent contributors to the province's mineral production for over 200 years.

These include gypsum, salt, limestone, anhydrite, dolomite, barite, celestite, silica, clay, shale, slate, marble, building stone, sand and gravel, and crushed rock. Nova Scotia is a major world producer of raw gypsum, producing 75 percent of Canada's total value output. Metallic minerals, such as gold, silver, iron, copper, lead, zinc and tin have also been mined.

Economic Development

The Government of Nova Scotia is working to improve the economic well-being of Nova Scotians by creating more opportunities for investment and long-term employment. This effort includes value-added production and job opportunities with an increasing emphasis on cooperation and partnerships. The mineral industry is an important participant in the province's economic strategy, especially with its contribution to value-added production and export revenue. Over the last ten years the value of Nova Scotia's mineral production (including petroleum) has grown at an average annual rate of 8 percent in current dollars. Over the same period minerals have contributed to the province's total foreign exports at an average annual rate of 10.5 percent.

Another, often overlooked, source of economic development is the use of rocks, ores, minerals and semi-precious stones for tourism and cottage craft industries. Encouraging rock and mineral collecting helps to promote tourism and to assist visitors and residents, as well as school groups, learn about Nova Scotia's geology and mineral resources. Likewise, cottage craft industries based on the use of minerals, rocks and ores contribute to the economic development of local communities.

Future supplies of minerals from Nova Scotia will continue to contribute to economic development and a growing global demand for metallic and non-metallic minerals. At the same time there is an urgency to find ways to adapt mineral resource initiatives to changing social, economic and environmental commitments.

Stakeholders' Responsibilities

To achieve the economic potential of the mineral industry each of the primary stakeholders--government, industry, communities and other non-government interests--must accept certain responsibilities. Government's role is to provide clear statements of provincial interest and develop, the policy, regulatory framework, and economic climate that provide the mineral industry with the conditions for success. The industry must work to be recognized as a responsible corporate and environmental citizen and develop marketing strategies, new products and production methods that permit it to be competitive in the new global marketplace. Communities and other non-government interests have the responsibility to become informed about natural resource management issues and contribute to the decision making process that addresses a wide range of objectives and interests. Government, industry and the public, must cooperate in planning for mineral development opportunities at the regional and local levels. Identification and resolution of legitimate concerns are the responsibility of all stakeholders.

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CHAPTER 2. GOALS AND OBJECTIVES

The Government of Nova Scotia recognizes that the mineral industry is important to the social and economic well-being of the province and supports expansion of the industry. A successful mineral industry in Nova Scotia is supported by a strategic direction that will lead to greater economic opportunities and higher levels of investment, over the long term.

In an increasingly competitive world, Nova Scotia will have to draw on its abundant natural and human resources and aggressively promote what the province has to offer. For the mineral industry, Nova Scotia offers a wide array of advantages including:

- rich and varied geological environments;
- a wide range of metallic and non-metallic minerals;
- geographic proximity to large markets;
- a strong transportation infrastructure;
- tidewater access and deep harbours;
- well maintained communication systems;
- the highest concentration of universities and research facilities in North America; and
- an experienced community of prospectors, miners and highly skilled geoscientific and engineering professionals.

Moreover, Nova Scotia is noted for its beauty and colourful history and enjoys the enviable position of having the lifestyles, values, location and the time zone many companies are seeking.

Nova Scotia's long history of mineral exploration and mining has provided significant contributions to advanced mining technology. As well the Government has undertaken many other activities that add to the province's natural attributes and strengths. These include providing comprehensive and readily available geoscientific databases; conducting distinctive geoscience research; archiving extensive drill core holdings; providing a simplified staking procedure; and implementing a competitive tax regime.

MINERALS - A Policy for Nova Scotia reflects the Department's mission and goals by providing a vision for the future and a strategic direction for mineral resource development in the province. This direction prevails in the context of increasing competitiveness nationally and globally, improving cooperative efforts in managing natural and human resources, changing social and economic conditions, and increasing environmental awareness.

The **mission** of the Department of Natural Resources is: *to build a better future for Nova Scotians through responsible natural resource management.*

The Department's **goals** are: to achieve sound natural resources stewardship and sustainable development; to maintain the diversity of the province's natural environment; to maintain the economic base for jobs and incomes; and to improve the quality of life for Nova Scotians through effective use of our natural and human resources.

Building on our strengths, this mineral policy is designed to foster the following conditions, which will ensure a successful mineral resource sector in Nova Scotia.

1. **A thorough understanding of the geology and mineral resources** of Nova Scotia, gained through continuing research and exploration activities.
2. **A business climate that is competitive at national and international levels, and**

- supported by clear, fair and effective policies and regulations and promotion of the province's mineral potential.
3. **Increased public knowledge of the province's geology and mineral resources** and greater public support for mineral-based activity.
 4. **Integrated land use planning that considers minerals with other land use and resource interests** and provides greater certainty for land access and mineral rights tenure.
 5. **Protection of the environment** through a close working relationship among regulatory agencies, and consultation with the industry and the public in achieving standards for environmentally sustainable economic development.
 6. **Protection of health and safety for workers and the general public** through a close working relationship among regulatory agencies, and consultation with industry, labour and the public in achieving the highest possible standards.
 7. **Cooperative working relationships among stakeholders** that result in compatible policies, decisions and actions from other government departments, agencies and communities.

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CHAPTER 3. POLICIES AND STRATEGIES FOR MINERALS

The following policies and strategies are needed over the long term to sustain a viable and publicly supported mineral resource sector.

Policy 1.0

Improve our knowledge of Nova Scotia's geology and mineral resources

Geological mapping and research are essential to understanding the geology and mineral resources of Nova Scotia. These activities are critical to the discovery of new mineral deposits and the re-evaluation of existing mineral occurrences. Geological research is the starting point for mineral exploration and important to those who work in health, transportation, land use planning and environmental management.

The Department of Natural Resources will promote a better understanding of Nova Scotia's mineral resource base through the work of its professional staff and with partnerships involving exploration companies, universities, the Geological Survey of Canada (GSC) and other geological research agencies. In cooperation with these partners the Department will strive to:

- map and describe the geology, geochemistry and mineral resources of Nova Scotia;
- determine how mineral deposits are formed;
- develop models of mineral deposit formation and apply them to the search for additional resources;
- make available the results of this research to industry and other stakeholders; and
- integrate the geological and mineral resource data contributed by the GSC, universities, research agencies, exploration companies and prospectors.

A thorough understanding of the geology and mineral resources of Nova Scotia will be

supported by the following strategies.

1.1 Provide high-quality geological and geochemical surveys and mineral resource studies.

The collection, analysis and dissemination of geoscience information is essential to the mineral industry and to a wide range of other interests. Application of geoscience information is crucial in planning and decision-making that affect the health, economic development, environment and quality of life of Nova Scotians.

The Department of Natural Resources will administer practical geoscience programs that involve studies of geology and mineral resources, including environmental geology. It will coordinate and plan these programs in cooperation with other participants to ensure a comprehensive knowledge base, efficient use of available resources, development of functional priorities, and establishment of effective research partnerships.

The Department will ensure that its geoscience initiatives are timely, accurate and relevant to users needs. The Department will strive to establish and maintain a current and complete geoscientific database and mineral resource inventory. Periodically the Department will invite the assistance of key contributors and users of this geological data to formally review its geoscience programs.

1.2 Provide an efficient system for collecting and disseminating geological information

Development of information technologies, digital information processing and communication technologies allows faster and easier access to data by more users at less cost to both the Government and the users of the data. The Department will work to improve the distribution of geoscientific and related information through the combined use of information technologies such as: the Internet, wide-area networks, database and library collections, and geographic information systems. Wider distribution of information will be provided through the Department's regional offices and other access points for government services.

1.3 Increase the public availability of information from all geological work conducted in the province

The Department, in its role as the primary holder of the province's geological information, will endeavour to integrate and make available the findings of all geological work conducted in the province.

Valuable geological information is collected by prospectors and exploration companies during the reconnaissance and property assessment phases of mineral exploration. While mineral assessment work is reported to support the renewal of exploration licences, some work is not reported. The Department will encourage industry to provide all geoscience work performed in the province. In addition, the Department will attempt, where practical, to collect geological information from other sources including universities, contractors, and other Government departments.

The Department's Regional Offices have expanded to incorporate integrated resource management teams, which include regional geologists. This will improve the Department's direct contact with the mineral industry and the community at large, and its ability to

disseminate information and monitor geological activity.

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Policy 2.0 Provide a competitive business climate
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Mining in Nova Scotia faces some important challenges. Primary among them is a loss of exploration and mining capital, much of which originates in Canada, to foreign countries who aggressively pursue these investment dollars. To increase the competitive position of Nova Scotia's mineral industry the province must create a positive business climate and promote the province's attributes and strengths. The Government will encourage support for and recognition of the mineral industry by including exploration and mining activity as part of its overall industrial strategy.

A competitive business climate will be supported with the following strategies.

2.1 Support for the mineral industry

The Government will support the mineral industry by:

- facilitating and stimulating research and development in mining and product development;
- facilitating technology transfer to improve cost effectiveness, production efficiencies and environmental performance;
- encouraging higher value-added production to enhance the economic value of mineral resource extraction; and
- providing market information to help identify niche markets and export opportunities for mining-related technologies and mineral products.

2.2 Maintain an efficient and effective mineral rights administration

The Department will improve efficiency in mineral rights administration and improve the administrative process through the use of information technology. Use of the Internet, geographic information systems, wide area networks and regional offices will enable remote access to the Registry of Mineral and Petroleum Titles.

2.3 Minimize the effort and cost required to meet regulatory requirements

The Department of Natural Resources will support government-wide efforts to streamline and speed-up regulatory review processes. A "one-window" service for companies wishing to undertake exploration and mining activities will be provided to facilitate a more efficient process for administering regulations and assisting the industry. The Government will explore, with industry, opportunities for more self-regulation and performance monitoring.

2.4 Ensure that the regulatory regime is developed through consultation, stable over time, and easy to understand

The Department of Natural Resources will continue to consult with the mineral industry and

other stakeholders where needs arise for developing new regulations. The mineral industry and other stakeholders will be invited to participate in proposed amendments and periodic reviews of the regulatory regime to ensure that the rules are necessary, effective and easy to understand.

2.5 Recognize that charges prescribed by legislation and regulations must be reasonable and based on value for service rendered

The Department will encourage general acceptance of the principle that all charges for government services should be reasonable and based on value for service rendered.

2.6 Facilitate the raising of equity and debt capital

The Department will work with industry and government officials to encourage the development of securities regulations, tax policies and financial instruments that will assist in the raising of equity and debt capital for the mineral industry. The Department and the mineral industry will work toward improving the investment community's understanding of the industry.

2.7 Provide a tax regime that is simple, transparent, pragmatic and fair with emphasis on profit-based taxes

It is generally felt by the mineral industry that Nova Scotia's taxes and royalties do not present significant deterrents to investment. While the Government maintains a beneficial tax regime, it will continue to find opportunities that improve the investment climate. Joint fiscal studies will be conducted with the mineral industry, key provincial government agencies and the federal government.

2.8 Promote mineral exploration and development in Nova Scotia

In addition to encouraging a favourable business climate for companies and other potential investors, the Department will promote Nova Scotia's mineral resource potential, and other natural and human resource attributes in order to sustain the long-term health of the mining industry. In cooperation with the Nova Scotia Economic Renewal Agency and the mineral industry, the Department will develop promotion strategies to attract higher levels of investment in the province's mineral industry.

A combination of strategies will promote mineral resource opportunities including: annual reviews of activities, trade shows, conferences and conventions, symposia and field trips, advertising and public relations, promotional literature, workshops, videos, and other means.

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Policy 3.0 Improve public knowledge of geology and mineral resource development
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Mineral resources are part of our heritage. Over the last 250 years Nova Scotia's mining industry has provided important contributions to the economic growth and social development of the province. Exploration, mining and mineral-based manufacturing

contribute substantially to the economic well-being of the province today and will continue to do so into the future. Public opinion polls show, however, that the mining industry's activities, benefits and values are not well understood. Consequently, this Mineral Policy encourages a partnership with industry in creating a more informed public.

Communication initiatives will target a variety of public audiences, and in some cases will be tailored to specific groups. These include non-government organizations, decision-makers in all levels of government and industry, and students and teachers.

These initiatives will emphasize:

- sources and uses of minerals;
- economic contributions;
- environmental performance;
- land access and tenure;
- technological advances;
- regulatory compliance; and
- future directions.

More public dialogue and balanced information will foster an improved understanding of the mineral industry. The Department will seek ways to improve understanding of the industry's activities at the community level and within the education system.

Improved public understanding of mineral resource development will contribute to informed decision-making and will be supported by the following strategies:

3.1 Improve public access to information about the mineral industry

A systematic approach to communications will provide greater access to information and stronger educational initiatives to a wide range of public audiences. Decision-makers, students, teachers, the media and community leaders will be informed about Nova Scotia's geology, mineral resources and mining industry.

Efforts will be made to improve access to information and the level of communication and information to municipalities and communities prior to any proposed resource development. The Department will encourage its staff to communicate more effectively with the public. Opportunities will be developed to provide the public with accurate and understandable scientific information about the mineral industry and Nova Scotia's mineral resources.

The Department will work with municipalities, community groups, politicians, decision-makers and other public audiences to promote mineral resource development within the context of integrated resource management and sustainability. It will demonstrate how mineral exploration and mining provide real contributions to local and regional economies. Local development authorities will be encouraged to consider mineral development when formulating economic plans.

3.2 Encourage industry to increase public awareness of mining and the mineral industry

The Department will assist the industry in its public communication programs, and with its participation in various public programs such as Mining Week, open houses, and a speakers

bureau. The Department will also encourage the industry to work with municipalities and community groups to build public support for mineral exploration and development in local areas.

3.3 Foster greater awareness of geology, mineral resources and the mineral industry within Nova Scotia's public schools and universities

The Department will encourage its staff and members of the mineral industry to work with schools and universities to create a greater awareness of geology, mineral resources, the mining industry, and the principles and processes supporting responsible resource management.

The Department will support further integration of geoscience and mining topics into educational programs at schools and universities. This will help students understand how the government and industry are managing social and environmental responsibilities related to mining and reclamation; how minerals are used and recycled by society; and the important role played by geoscience in many aspects of daily life.

3.4 Encourage and support prospector training

Prospectors are at the heart of mineral exploration and play a vital role in stimulating the search for new discoveries. Prospecting courses and prospector training have been part of the Department's support for the mineral industry since the early 1960s. The Department will continue to encourage and support a variety of prospector training options from workshops and seminars to basic and advanced prospecting courses.

3.5 Encourage rock and mineral collecting

Recreational rock and mineral collecting in Nova Scotia is an activity that enhances the understanding of Nova Scotia's geology, mineral resources and mining. Rock and mineral collecting can benefit local economies by attracting recreational collectors and tourists. The Department will support this activity by providing all interested parties with information about rock and mineral collecting, geology and the mineral industry.

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Policy 4.0

Provide greater certainty of mineral rights tenure and access to land

Access to land is a basic need in the search for new mineral deposits. In addition to the natural constraints for finding new deposits, the exploration and mining industry is part of an increasingly complex mosaic of land use demands. The resulting trend is a decrease in opportunities for multiple and sequential uses of land. Traditional land use planning is primarily concerned with the surface of the land and often does not account for the subsurface. This third dimension includes the underlying geology, and associated potential for energy, mineral, aggregate and groundwater resources. If sufficient land access is to be maintained in Nova Scotia for mineral exploration and development then the requirements of the mineral industry must be integrated into land use planning. This requires monitoring the cumulative impact of all land use decisions on resource development potential.

Another essential requirement for mineral resource development and maintenance of interest in mineral investment in Nova Scotia is greater certainty of mineral rights tenure and the ability to exercise those rights. In Nova Scotia, land access and mineral tenure pressures are frequently attributed to changing government policies and the large proportion (73 percent) of land that is privately owned.

The department recognizes the need to provide clear statements of provincial interest related to mineral resources. Cooperation and consultation between the Department, the industry and other interested stakeholders will foster a balance between promoting the search, discovery and development of mineral wealth while at the same time sustaining the ecological integrity and biodiversity of natural areas for the long term.

Greater certainty of mineral rights tenure and access to land will be facilitated by the following strategies:

4.1 Encourage integrated land use planning and management with meaningful public and community involvement

The Department supports an integrated approach to land and resource management, with flexible planning strategies that accommodate many different resource and conservation interests. Rational choices between multiple resource and conservation uses should be made with an integrated decision-making system, which includes high-quality data on mineral resources. Resolution of land use conflicts should be based on the need to integrate social, economic, and environmental commitments in a sustainable way. Integrated land and resource management decisions should be reached through the application of fair and effective processes that are open to all stakeholders.

Multiple use refers to the land's ability to accommodate a number of compatible uses simultaneously. Sequential use implies that a single use of land is dominant for a period of time, after which other land uses may exist.

The process will include the following:

- active participation by geologists and mineral resource planners in the Department's integrated resource management planning process for Crown lands.
- statements of provincial interest related to mineral resources.
- land use policy and decisions that consider geoscientific and resource data and other requirements of the mineral industry.
- mineral-based activities that consider local land use priorities and environmental issues.

4.2 Facilitate access to land and resources

Increased awareness by prospectors and exploration companies of landowner rights will foster better relationships between landowners and the industry. The Department will work with other agencies, departments and landowners to avoid conflicts between resource demands and other land-use priorities. Stakeholders will be encouraged to work cooperatively, with more emphasis on self-regulation and conciliation. Where land access arrangements cannot be agreed upon the Department will assist in the development of fair solutions.

Integrated Resource Management (IRM) involves a planning and decision-making process that explicitly recognizes a wide range of natural resources, identifies an optimum mix of resource uses in time and space and identifies management options that are environmentally and economically sustainable. IRM also examines the relationships between a mix of resource uses within ecosystems, and the effects of management practices of one resource upon others within a given planning area.

4.3 Assist municipalities in recognizing that exploration and mining activities can provide significant economic development for their areas

The economic benefits and environmental effects of exploration and mining will be discussed with municipalities and community groups who are searching for new economic development potential. Specific geological and mineral resource information will be provided/NATR

4.4 Improve the certainty of mineral rights tenure

The challenge for Government is to balance industry's need for certainty with the need for latitude in managing mineral resource development during periods of rapidly changing public policy. Implementation of an integrated resource management process, along with establishment of improved provincial- municipal linkages regarding resource issues, will contribute to a greater certainty of mineral tenure and the right to proceed to mine development.

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Policy 5.0

Ensure protection of the environment

Extraction is the only way in which new minerals, metals, and building materials can be acquired for human needs. Like most industrial, commercial and civic development, mining and processing minerals produce environmental disturbances. Public concern over the environmental effects of economic development has required all industries to change old practices to methods that are more environmentally sustainable. Resource industries must adapt to new standards and regulatory demands for responsible development of natural resources and integration of environmental concerns with economic planning.

The exploration and development of Nova Scotia's mineral resources must be conducted in an environmentally sustainable manner to ensure that a competitive mineral industry exists for the long-term benefit of Nova Scotians. Exploration, mining, processing and reclamation must be conducted in a way that does not compromise the options available to future generations. This requires resource availability, efficient use of resources, increased recycling, and sound environmental planning. Environmentally sustainable economic development of Nova Scotia's mineral resources will be supported by the following strategies:

5.1 Encourage the mineral industry to minimize environmental disturbance during mineral exploration and development

The Department will advocate that all parties use management practices that are designed to anticipate and minimize environmental disturbances. Mining companies will be encouraged to achieve standards that are better than the minimum requirements where possible. The Department will work closely with the Department of the Environment and the mineral industry to encourage pollution prevention planning.

5.2 Support an effective and timely environmental assessment process

The Department of Natural Resources will work closely with the Department of the Environment seek opportunities to improve efficiency in the environmental assessment process while maintaining the highest possible standards.

5.3 Ensure monitoring of environmental effects during and after mining

The Department, in consultation with the Department of the Environment and the mineral industry, will support a process for monitoring environmental effects that is fair, comprehensive and effective. The industry will be encouraged to avoid conditions that require long-term monitoring when possible through sound environmental planning, process design and technological improvements. Cooperative efforts between government and industry will focus on the efficient use of energy, water, chemicals and other resources in mining operations.

5.4 Ensure effective closure and reclamation planning for current and future mine sites

Mine reclamation is an integral part of the mineral development process. It is designed to restore to an acceptable state the physical, chemical and biological quality of land and water regimes disturbed by mining. An acceptable state means that reclaimed land is harmonious with the surrounding landscape and community plans and will support a self-sustaining ecosystem. In some cases sites are re-used or reclaimed in the interest of a subsequent use such as recreation, wetland development, industrial and residential development, underground storage or other appropriate uses.

To ensure effective mine site closure and reclamation the Department will:

- encourage communication between the industry, the province, municipalities and other stakeholders in reclamation and pre-development planning;
- require the industry to investigate ways to mitigate adverse long-term environmental effects, and to reclaim mine sites, tailings and other waste areas to self-sustaining ecosystems;
- require reclamation bonds prior to development and extraction;
- promote public recognition of reclamation success stories to benefit operators and to increase public awareness of the mining industry's improving record in environmental responsibilities.

5.5 Identify opportunities for and promote reclamation of abandoned mine sites

Abandoned mines exist in every province and territory in Canada. They provide evidence of a legacy of past practices when environmental effects and long-term socio-economic impacts were not adequately considered by industry or government. The Department is aware of the social, economic and environmental impacts of abandoned mine sites and will work with

industry, and other departments and levels of government to identify ways and means for reclaiming abandoned mine sites.

Specifically the Department will:

- explore funding mechanisms to reclaim old mine sites, concentrating on those that pose the greatest risk to environmental health and human safety;
- provide information and technical assistance to responsible parties for the clean-up and safety of abandoned sites;
- encourage industry to explore, develop and eventually reclaim old mine sites.

5.6 Promote research to reduce the environmental impacts of mining activities and mineral use

In cooperation with industry, government agencies and universities the Department will encourage further research to reduce environmental impacts caused by mineral exploration, mining and the everyday use of minerals and mineral products. A key objective will be to foster better and more cost-effective environmental protection measures for the mineral industry.

5.7 Encourage the use of geological and mineral resource information in land and environmental planning

Increased availability, quality and comprehensiveness of background information for land, water and resource planning are becoming more critical to informed decision-making. The Department will strive to improve the availability and dissemination of geological and mineral resource information to all interested parties. Geological information is not only instrumental in the discovery of mineral resources but also provides essential baseline data for protecting the natural environment, property and infrastructure. Examples where the application of geological information could benefit planning and decision-making processes include:

- protecting access to land containing mineral deposits, including significant aggregate and building stone deposits;
- locating suitable sites for public facilities and other development projects such as landfills, hazardous waste sites, airports, industrial parks, underground storage sites and subdivisions;
- planning and development of parks and protected areas;
- planning transportation and utility corridors;
- identifying geohazards and groundwater resources;
- conducting environmental assessments and other environmental work.

5.8 Encourage efficiency in the extraction of new minerals and in the recycling of minerals and mineral-based products

The Department will encourage the development of new technologies that maximize resource extraction and recovery in mining. These improvements ensure efficient utilization of the resource and any resource co-products. The Government will also encourage research and programs aimed at recycling and re-using minerals and mineral-based products.

[Back to Top](#)**Policy 6.0****Protect health and safety in the mining industry and the general public**

For many years worker health and safety has been subject to continuous monitoring and improvement by government and industry. Risks to the health and safety of mine workers have been greatly reduced by technological innovation, equipment modification, emergency preparedness, industry standards and government regulations. However, like many other industrial activities, mineral exploration and mining are still not without risks to human health and safety. Therefore government, industry and labour must consult and cooperate and make every effort to reduce and/or prevent health and safety risks in the mineral industry.

Geohazards present some important public health and safety concerns. Geohazards such as sinkhole formation and slope instability can occur naturally or they can be induced by human activities, such as subsidence from underground mining. If neglected, geohazards could burden society with additional costs to repairing and maintaining property and infrastructure.

The following strategies will contribute to improved health and safety in the mining industry and the general public.

Geohazards are conditions of geological, hydrogeological or geomorphological nature that pose a threat to people and their activities. Geohazards may be natural, such as landslides, or man-made, such as subsidence in the area of old mine workings.

6.1 Encourage cooperation among the mining industry, labour and government agencies in developing a framework for health and safety in the workplace

All parties will be encouraged to participate in effective dialogue on health and safety issues. Emphasis will be placed on promoting a safety culture through education and other preventative measures. This will be supported by a regulatory framework that assigns responsibilities and sets the highest possible standards developed in a consensual manner by all parties, and provides for appropriate intervention when any of the parties fail to carry out their responsibilities. A key objective will be to continue improvements in health and safety based on the best practices that changing technology can provide. The Department will continue to work closely with the Department of Labour and other departments to assist as needed in the fulfilment of the government's responsibilities to support workplace health and safety.

6.2 Support programs that address the hazards associated with abandoned mine sites, abandoned mine openings and coal mine related subsidence

Nova Scotia has a long history of underground and surface mining. Abandoned mine sites occur in many rural areas throughout the province. Many of these sites contain unsecured open holes and tunnels which present safety hazards to the public. In addition, many of Nova Scotia's coal mining towns have extensive underground workings lying beneath urban development. Some areas are susceptible to subsidence from the collapse of near-surface underground workings, which results in damage to property and infrastructure. The Department will provide information on remediation techniques and other preventative

measures. Further, it will provide information about abandoned mine sites and potential subsidence to municipalities for land use planning.

6.3 Encourage greater consultation and cooperation among government agencies, universities and research groups to identify and evaluate geohazards and their effects on public health, safety and property

Effective solutions for many natural or man made geohazards require coordination of scientific research by government, industry and universities. The Department will provide research and the use of geoscience and land use information that facilitates a greater awareness of geohazards in Nova Scotia. This information could be integrated into municipal land use policies to reduce risks to public health and safety and prevent loss of infrastructure and property.

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Policy 7.0

Encourage consultation and cooperative working arrangements between stakeholders

The government, industry and other stakeholders are all dependent on each other, therefore, they must communicate and work closely together to ensure that the industry continues to prosper and benefit the people of Nova Scotia.

Various cooperative arrangements will help to reduce duplication, ensure consistency, and maintain a fair balance between mineral resource development and the needs of other stakeholders.

The Department will foster more cooperative working arrangements between stakeholders with the following strategies.

7.1 Encourage effective working relationships between provincial government departments and other levels of government

To improve the way government interacts internally and with industry the Province will use a "one-window" approach to regulatory requirements, consultation and assistance. In addition to processing individual applications for approvals, the "one-window" approach will facilitate interdepartmental and intergovernmental participation in the design and development of legislation, regulations, policies and programs.

7.2 Encourage greater cooperation between municipalities, community groups and the mineral industry

Municipalities in Nova Scotia have become more involved in the economic development of their areas. Regional economic development authorities, community support groups, and other volunteer-based organizations participate in local and regional economic planning. The Department will promote the province's mineral resource potential at the community level and encourage municipalities and local economic development groups to consider exploration and mining as positive components in local economic development. The mining industry will be encouraged to identify and consider local concerns through consultation

during the planning and development stages of mining projects.

7.3 Seek more effective working relationships and communications between the provincial government and the mineral sector

Effective communications are essential in developing constructive working relationships. The Department will work toward improving the lines of communication between the province and the mineral sector, including the university and college communities, professional consultants, service companies, prospectors, exploration and mining companies, labour representatives and mineral industry associations/NATR

7.4 Encourage involvement in the mineral industry by aboriginal communities

In order to promote opportunities and encourage mineral exploration and development on aboriginal lands, positive working relationships must be established in which there is a better awareness of respective issues, needs and concerns between Nova Scotia's aboriginal communities, governments, and the mineral industry. The Department will provide information on mineral development opportunities on aboriginal lands and encourage greater communication and cooperation between the industry and aboriginal communities.

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CHAPTER 4. IMPLEMENTATION, ACCOUNTABILITY, CONSULTATION

Looking to the Future

MINERALS - A Policy for Nova Scotia provides the strategic framework for decisions and actions to achieve a viable mineral industry now and for the future. It encourages change in the way government, industry and the public work together and it recognizes the importance of the mineral industry to Nova Scotia. .

Implementing the Mineral Policy

Implementation of the Mineral Policy can not be effected by the Department of Natural Resources alone. It will involve consultation with, partnerships between, and responsibilities for the Department, the mineral industry, other departments and governments, natural resource users, municipalities, community groups and other interested stakeholders.

The Department of Natural Resources has been and will continue to be an active participant in the Whitehorse Mining Initiative and other similar national initiatives. It will continue to monitor international and national issues that affect Nova Scotia's mineral industry.

The Department will consult periodically with stakeholders on its plans for geological and mineral resource investigations and activities related to promotion, information, communication and education.

The challenge for Government will be to balance industry's need for certainty and direction with the Government's need for latitude in managing the implementation of this policy during periods of fiscal constraint; however, *the department will focus available resources toward implementing this policy through appropriate action plans*. The Department will be open to changes in legislation and regulations as required to adapt to changing economic and social conditions.

Consulting with Stakeholders

One of the foundations of this Mineral Policy is stronger communication among all stakeholders. The Natural Resources Advisory Council, comprising individual Nova Scotians associated with the resource sectors, advises the Minister on the integrated planning and management of natural resources. Issues affecting the mineral industry will be evaluated in the context of integrated resource planning and management. In addition the Department has established an integrated resource management process that invites public input to the task of determining the rational use and management of Crown land resources. These and other opportunities for communication and consultation will be actively pursued.

Remaining Accountable

The Government of Nova Scotia believes that regular consultation is essential to remaining accountable to the public. The Department will organize *a biennial mineral policy workshop* to provide a forum where the Department can update participants on the progress made toward implementation of the Mineral Policy. Stakeholders will be invited to review this progress and offer suggestions for future activities, performance standards and monitoring and provide input on the need for modifications to the strategic framework.

Between workshops a continuous dialogue will be maintained with industry and other stakeholders. They will be encouraged to assist with many of the initiatives undertaken to implement this strategy. The Department of Natural Resources will use all opportunities for consultation with interested stakeholders.

MINERALS - A Policy for Nova Scotia charts a course for the Government of Nova Scotia to recognize the importance of the mineral industry and to facilitate its growth and economic benefit for the future of all Nova Scotians.

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Acknowledgments

Development of this mineral policy required the assistance of many people and organizations. Preparation of this document, *MINERALS - A Policy for Nova Scotia*, was a cooperative project between the Mineral Resources Branch and the Planning Secretariat of the Nova Scotia Department of Natural Resources.

The Department wishes to acknowledge the guidance and direction given by members of the Mineral Policy Steering Committee:

John Amirault	<i>Chamber of Mineral Resources of Nova Scotia</i>
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John Leslie	<i>Minerals Sector, Voluntary Planning</i>
Bill Coulter Andrew Kendall	<i>Nova Scotia Department of the Environment</i>
Robert Doherty	<i>Nova Scotia Economic Renewal Agency</i>
Brant Wishart	<i>Nova Scotia Department of Housing and Municipal Affairs</i>
Howard Donohoe Vicki Harnish David Hopper Don Jones Dan Murray Pat Phelan	<i>Nova Scotia Department of Natural Resources</i>

Voluntary Planning has guided the Department in the public consultation process. In cooperation with the Department, Voluntary Planning organized three focus group meetings of stakeholders at Bridgewater, Truro and Baddeck. At each meeting stakeholders used the background paper *Mining into the Future* to facilitate discussions about the mineral industry and policy issues. Dan Brown chaired the meetings and provided a report to the Minister of Natural Resources. After the draft Mineral Policy was prepared, Voluntary Planning advertised the draft for public review and comment. The Department acknowledges these important contributions by Voluntary Planning and thanks Dan Brown, Elizabeth Mills, Peggy Tibbo-Cameron and Rita Fraser for their assistance.

In addition, the Department wishes to recognize the importance of the principles, goals and recommendations defined by the Whitehorse Mining Initiative*. Nova Scotia co-signed the Leadership Council Accord to the Whitehorse Mining Initiative, which provided direction and influence over the general framework of this policy.

* In February 1993 the Whitehorse Mining Initiative (WMI) began to develop a new strategic vision for mining in Canada. The Initiative used a consensus-based process involving more than 150 representatives from several sectors including the mining industry, federal and provincial governments, labour, aboriginal and environmental communities. The end result was the WMI Leadership Council Accord which expresses a strategic vision, 16 principles, 70 goals and a Commitment to follow-up actions. Four Issue Group Reports were also prepared on the subjects of finance and taxation; environment; land access; and workforce, workplace and community. In September 1994 the Accord was endorsed by the WMI stakeholders at the Annual Mines' Ministers Conference held in Victoria, B. C. Nova Scotia is a signatory of the Accord.

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