

MINING AND ONTARIO'S "LANDS FOR LIFE" LAND USE PLANNING EXERCISE

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Abstract:

A land use planning exercise termed 'Lands for Life' was initiated in February 1997 by the Ontario Government. Three 'Round Table' advisory bodies were established. The purpose of Lands for Life was to complete the parks system and establish natural heritage areas while providing certainty for the mining and forest industries. Existing policy prohibits exploration and mining development in parks and protected areas. The Planning Act, however, requires that mineral resources will be protected for long term use. Stewardship Reserves were recommended by the Round Tables for protection of natural heritage values in areas of high mineral or forestry values. Both the public and environmental groups expressed concern that protection provided by Stewardship Reserves was not sufficient. The legacy of abandoned mines and related environmental problems proved to be an impediment for gaining public acceptance of mining exploration and development in sensitive areas. Greater effort is required from the mining industry and government agencies to explain modern mining and exploration practices to the public and environmental groups. To achieve this goal the Round Tables developed eleven recommendations ranging from a cleanup of abandoned mines to public education and awareness.

Key Words: abandoned mines, Crown Land, reclamation, mining, parks, environment, Lands for Life

The Lands for Life Concept:

Lands for Life was developed by the Ontario Ministry of Natural Resources as a comprehensive land-use planning project. The purpose was to complete the Provincial Parks system and to establish protection for Natural Heritage areas while minimizing impact on Ontario's natural resource industries. This process, announced by the Minister of Natural Resources in February 1997, was designed to address the increasing demands for access to the province's limited natural resources. It applied to all Crown (public) Land areas of the Canadian Shield south of the Fifty-first parallel. Ecological sustainability was a key principle. The Round Tables were mandated to have consultations in the public domain, dialogue with aboriginal people, and to establish recommendations through consensus.

The concept is well described in a Lands for Life bulletin published in September 1997, "Lands for Life is intended to strike a balance between the protection and use of Ontario's natural resources. Through the program, we will complete a system of parks and protected areas that will represent the full range of the province's natural and cultural features. Lands for Life will also give greater certainty to those who depend on the land and its natural resources for their livelihood."

The Lands for Life Process:

The Lands for Life planning program was designed with two phases. Phase I was to develop a regional land-use strategy based on broad decisions for the allocation of resources over large areas. Phase II would create land management decisions at a sub-regional level based on Phase I recommendations.

Phase I started in the Spring of 1997. A report on the consolidated recommendations of all three Round Tables was released for public review and comment October 31, 1998 (1). The Government of Ontario is expected to announce its decisions on the recommendations, including plans for Phase II, early in 1999.

Separate Phase I 'Round Tables' were created for each of the three regions (Boreal East, Boreal West and Great Lakes - St. Lawrence) to be studied. Twelve to thirteen citizens with knowledge and experience in natural

resource-based activities and industries were selected for each Round Table.

Two representatives from the exploration and mining sector sat on each Round Table. The author represented the Ontario Mining Association on the Great Lakes - St. Lawrence Round Table. Representatives from various environmental organizations and First Nations were also appointed as Round Table members. The Round Tables were designed to represent a microcosm of Northern Ontario interests..

The Round Tables were asked to concentrate on four government objectives:

- * Completing Ontario's system of provincial parks and other protected areas.
- * Recognizing the land use planning needs of the resource-based tourism industry.
- * Providing the forest, mining, and other resource industries with greater land and resource use certainty.
- * Enhancing angling, hunting, and other Crown land recreation opportunities.

Public consultation was a key component of Round Table activities. The first round of public consultations, held in the Fall of 1997, was to provide basic information and to obtain ideas from the public. The second round, during the winter and spring of 1998 was to obtain public response to several land-use planning options put forth by the Round Tables. Ninety-five public meetings were held throughout the three regions and in Kingston, London, Ottawa and Toronto. Total attendance at the public meetings was in the order of 15,000 persons.

The Round Tables studied proposals for new parks and protected areas that were put forth by both the public and Ministry of Natural Resources. Each site proposed was reviewed to see what demands or constraints would be placed on other land uses if a park or protected area was created.

Present Ontario Government policy does not allow mining, forestry or hydro electric development in parks or protected areas. Principles of the Whitehorse Mining Initiative (2) helped guide mining sector representatives in the selection of park additions and representative Natural Heritage protected areas. The Whitehorse Mining Initiative declared that Protected Areas networks are essential contributors to environmental health, biological diversity, and ecological processes, as well as being a fundamental part of the sustainable balance of society, economy and environment. A goal of this Initiative was to create and set aside from industrial development by the year 2000 those protected areas required to achieve representation of Canada's land-base natural regions. Ontario Government Policy Statements for development of mineral resources (3) gave balance to the process by emphasizing the need to keep areas of high mineral potential open for prospecting and development. Section 2.2.1 of the Provincial Policy Statement Indicates that "Mineral resources (mineral aggregates, minerals and petroleum resources) will be protected for long term use." Mineral Resource Assessments of proposed park additions and Natural Heritage areas prepared by the Ontario Ministry of Northern Development and Mines were used in the decision making process.

Public Reaction to the Process:

A common theme was that the people of Ontario have a great love of the Outdoors. This was seen in the young and the old alike, and even in those without the ability to use it. Presentations to the Round Tables showed that the Outdoors is deeply entrenched as part Ontario's culture no matter if one is a logger, camper, hunter, artist, tourist or prospector.

Members of the environmental community formed a coalition known as the "Partnership for Public Lands." The World Wildlife Fund, Wildlands League and the Ontario Federation of Naturalists were the main members of the coalition. The "Partnership" employed consultants who attended most Round Table meetings and developed proposals for park additions and other new protected areas. The "Partnership" worked with mineral potential maps obtained from the Ministry of Northern Development and Mines to reduce conflict with areas of high mineral potential. Proposals by the Ministry of Natural Resources and many other special interest groups were made

without concern for mineral potential. The level of protection for all sites proposed by the Ministry of Natural Resources, the Partnership for Public Lands and others would prohibit all mining related activities including prospecting, exploration and development.

Representatives of the mining and exploration sector made several public presentations at Round Table meetings. Four main themes were repeated in these presentations:

- 1) the importance of the mining industry to the economy,
- 2) the minimal impact on the land by exploration,
- 3) the high level of environmental practice at mine sites, and
- 4) the strict government environmental regulations that had to be followed.

The Prospectors and Developers Association of Canada, and the Ontario Mining Association assigned staff to follow the Lands for Life program closely. Land use concepts such as Total Landscape Management and the guidelines used in Western Australia for exploring in environmentally sensitive lands were introduced to the Round Tables (4).

During the Round Table deliberations it became evident that the Ministry of Natural Resources, the environmental community and the public would be unwilling to accept multiple-use scenarios for parks or protected areas. This led to the development of two principles by the Round Tables. The first was the introduction of the concept of Stewardship Reserve status for sensitive areas that contained high forestry and/or high mineral potential values. Stewardship Reserves, while not having park or protected area status, would impose special conditions to be followed for logging or mineral exploration and development. The second principle was that existing mining claims, leases and patents were not to be affected by any new land-use designations.

During the site selection and review process, many proposed park additions and natural heritage sites were found to overlie areas of high mineral potential and/or covered by pre-existing mining claims, leases and patents. Many sites thus had to be either dropped or classified as Stewardship Reserves.

With the release of the final report for Phase I for public review and comment, widespread dissatisfaction was voiced by the environmentalists, the media and the public (especially from the more highly populated parts of southern Ontario). The main complaint was that not enough parks and protected areas had been recommended by the Round Tables. The concept of Stewardship Reserve did not appear to be well understood or accepted. As of mid-March 1999 the Ontario Government had not officially responded to the Round Table recommendations.

Why these reactions occurred:

There appears to be four main factors for negative public reaction to the recommendations for multiple use of Crown Land:

- 1) No real understanding of the process for management of Crown Land in the province.
- 2) Little understanding of the need for minerals and the importance of mining to the economy.
- 3) Almost no appreciation of the Province's mineral potential.
- 4) Strong concern about the impact of mining on the environment.

After the several months of public fora it became evident that most people, especially those in Southern Ontario, have little knowledge of provincial legislation (such as the Mining Act) for the management of Crown Land. Some individuals even thought the term "Crown Land" was synonymous with "Park Land." As a result they were automatically opposed to mining or forestry proposals on Crown Land.

Ontario's economic growth can be traced back to its tremendous wealth of minerals. These mineral commodities

were used both to build a strong industrial base and to create new wealth through export of minerals and mineral products. The public seems to have taken mining for granted and had little appreciation for the importance of the Ontario mining industry.

The Canadian Shield in Ontario has been a major source of gold, silver, copper, zinc, iron and many other metals and industrial minerals. The public does not understand the concept of high mineral potential. Many civic officials do not realize that areas of favourable geology must be protected for future prospecting and mine development. Some research, however, has been done on methods for the improvement of mineral-potential assessment (5). Chances for the creation of new mines increase when the following factors are allowed to come into play:

- a) the bedrock geology becomes better understood,
- b) new mineral exploration models developed,
- c) new geophysical and geochemical exploration techniques discovered, and
- d) innovations in mining and mineral processing created.

The average person appears to have no understanding of the technical aspects of mining and the earth sciences. The Mining Sector has not been successful in explaining the concept of mineral potential to the lay person, let alone to civic officials.

When it came to the environment, no shortage of opinions, examples and fears existed concerning the impact of mining. In some cases concerned citizens gave slide-shows containing graphic illustrations of abandoned mine sites. Several briefs were based on recollections of unpleasant memories of viewing mining towns while on vacation in Northern Ontario. During the Lands for Life deliberations Spain suffered a serious tailings runoff. This mishap was carried by the international news media for several weeks and repeatedly brought to the attention of the Round Tables. While the public showed a lack of knowledge with the first three factors (Crown Land management, mineral wealth, mineral potential) no hesitation existed when it came to the environment. One does not have to be a specialist to recognize environmental problems. The Mining Sector has become very vulnerable to public opinion.

Analysis of Problems:

The first three factors (Crown Land management, mineral wealth, mineral potential), although important, are topics to be reserved for other fora. This presentation is to focus on environmental issues that led to difficulties during the Lands for Life project.

1) The Legacy of Abandoned Mines

Abandoned mines present four types of hazards to the public: openings to surface, old buildings and machinery, toxic substances, and areas of potential collapse. The greatest risk is from "hidden hazards" at sites containing areas of potential collapse such as buried storage tanks, unstable tailings dams, buried shaft caps and weak surface crown pillars(6). Impact beyond the abandoned mine property boundary ranges from windblown tailings, acid mine drainage to aesthetic concerns. Anyone can recognize a mess left in the bush. The most frequent public complaint is focused on the aesthetic appearance of a site. There is little public knowledge or understanding of the "hidden hazards." The "surprise" element of hidden hazards, with loss of life or widespread environmental damage, however, more seriously tarnishes the image of the mining industry. The record shows that many mining-related catastrophic events, although technically predictable, occurred because of a lack of understanding (and action) by civic and corporate officials. Abandoned mines are seen by some to be the "Achilles Heel" of the mining industry.

2) Regulatory /Policy Framework

A new era of mining environment legislation commenced in the mid-seventies. Anyone working in the industry was faced with a myriad of new rules to follow. It seemed that various regulatory agencies were almost in competition with each other to come up with new rules to lessen the impact of mining on the environment. There was even overlap in regulations between the various agencies. The Mining Sector reacted in a positive sense to these new regulations and created environmental departments. Some mining companies even established vice

president level positions for environmental affairs. Government ministries developed departments to deal with mining and the environment.

During the year and a half of Lands for Life proceedings it became clear that the public (and even some environmental activists) was unaware of the abundance of environmental regulations controlling the mining industry. Many citizens expressed concerns based on personal observations experienced years before the new environmental laws were introduced. In reality they had no way of knowing that the mining sector had since actively embraced the environmental movement. Technical documents and presentations did little to ease the discomfort of the public and some Round Table members. It became apparent that mining environment literature and guidelines available during Lands for Life had been written to help mining operators, not the public. No comprehensive, non-technical guides exist to help the lay person understand the regulatory framework now in place for mining.

Recommendations:

The following list of recommendations dealing with mining and the environment issues are taken from the Lands for Life Report, "Consolidated Recommendations of the Boreal West, Boreal East and Great Lakes - St. Lawrence Round Tables." (1) and listed below. If implemented, they will help educate and motivate the public, private sector and government to work more closely together to create a strong and environmentally clean mining industry in Ontario.

1) The Legacy of Abandoned Mines

The Round Tables recognized the necessity for the cleanup of abandoned mines and recommended the following: "The Ministry of Northern Development and Mines should develop an action plan for reclaiming abandoned mines sites and mitigating their hazards. The Ontario Government should consider establishing a mine cleanup and reclamation agency, modeled on the Aggregate Resources Trust and administered by an independent board representing key stakeholders sectors." **Lands for Life Recommendation 227.**

2) Regulatory/Policy Framework

Several recommendations were formulated in the mining environment policy/regulatory field.

"The Ministry of Northern Development and Mines, the mining industry, and appropriate professional organizations should develop and implement a code of practice for mineral exploration and mining activities." **Lands for Life Recommendation 92.**

"The Ontario Government should encourage the mining industry to continue to develop and continuously adapt innovative technologies that would limit environmental impacts." **Lands for Life Recommendation 93.**

"The Ministry of Northern Development and Mines should develop effective surveillance of reclamation requirements under the Mining Act, and vigilantly enforce them. Reclamation achievements should be recognized and offences appropriately penalized." **Lands for Life Recommendation 94.**

"The Ministry of Northern Development and Mines and the mining industry should take public education and awareness initiatives:

- * create an effective public education program highlighting the economic and social contributions of mining to local communities and the province;
- * prepare a plain language public information package outlining the review and approval process for mining proposals and citizens' roles and rights in that process." **Lands for Life Recommendation 96.**

"MNR (Ministry of Natural Resources), municipalities, and the aggregate industry should ensure that aggregate operations and rehabilitation on Crown Land and on private lands in areas designated under the Aggregate Resources Act, are carried out following the Act's requirements. **Lands for Life Recommendation 102.**

"The Ontario Government should extend designation under the Aggregate resources Act throughout the Great

Lakes-St. Lawrence planning area, so that all private lands in the planning area are subject to the Act's requirements." **Lands for Life Recommendation 103.**

"MNR, the Ministry of Municipal Affairs and Housing, and the aggregates industry should work together to:

- * publicize successful rehabilitation projects and rehabilitation after-uses;
- * encourage and support rehabilitation research." **Lands for Life Recommendation 104.**

"MNR should from time to time review regional and subregional land use designations, to determine:

- * whether prohibitions of, or special conditions on, mineral exploration and mining are still needed to protect designated unit values, giving priority to units where known mineral potentials have increased, or mining could help revitalize local economies;
- * where mined-out and reclaimed lands could be returned to the Crown and designated for other uses." **Lands for Life Recommendation 178.**

"The Ministry of northern Development and Mines should encourage those closing or reclaiming mines to accommodate bat habitat." **Lands for Life Recommendation 228.**

"The Ontario Government should:

- * identify significant mining heritage features and values;
- * develop programs for their protection, and their promotion as tourist designations." **Lands for Life Recommendation 231.**

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