

YUKON MINERALS ADVISORY BOARD

YUKON MINERALS ADVISORY BOARD Annual Report 2008

Cover photo: Bellekeno Mine Project, Keno Hill, YT (silver-lead-zinc).

Photos courtesy of the Government of Yukon and various mineral exploration and development companies.

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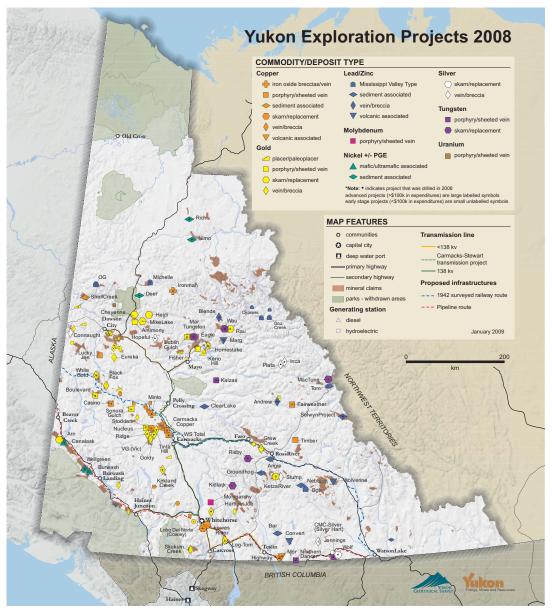
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Foreword

An Order-in-Council created the Yukon Minerals Advisory Board (YMAB) in 1999, pursuant to the *Economic Development Act*, to advise the Minister of Energy, Mines and Resources (EMR) on mineral development matters. YMAB produces an annual report each year, which is tabled with the legislature. The report discusses YMAB activities and presents recommendations on a wide variety of mineral development topics.

YMAB's role is to comment and advise on recommended government actions which would have the effect of improving the environment for mineral exploration and development activity in Yukon, including measures which would increase the potential for and attract capital for mineral exploration and development, ensure mines can be developed in a feasible and timely way, improve the potential for producing mines to remain viable, enhance Yukon participation in mining, reduce constraints on mineral development and carry out outreach with First Nations to explore opportunities and benefits that may accrue to them from mineral exploration and development.

The Board respectfully submits its 2008 Annual Report to the Yukon Minister of Energy, Mines and Resources and the Yukon Legislative Assembly.



Advanced Exploration Projects 2008

Executive Summary

Prior to this 2008 report, the most recent report of the Yukon Minerals Advisory Board was the 2006–2007 report. That report identified five top priority areas, including reform of the *Miners Lien Act* and the *Quartz Mining Act* (QMA), continued focus on the *Yukon Environmental and Socio-economic Assessment Act* (YESAA) process and timelines, employment and training, and energy strategy. As noted below in the *Report Card* section, good progress has been achieved in a number of areas, but continuing effort and work is required in some of these areas, particularly YESAA process and timelines. A new area of focus arising in this 2008 report is the land use planning process. Also of note is the need for policy, legislative changes or other means to provide Independent Power Producers with the ability to secure water rights for hydroelectric development, both for their own use and for potential expansion of the Yukon electrical generating capacity. Recommendations and comments on these matters were provided to the Minister by YMAB on a regular basis commencing November 2008 and throughout 2009.

REGULATORY COMPETITIVENESS

YMAB notes significant improvements in this area since the introduction of YESAA, something being recognized by improved rankings in independent surveys of Yukon's standing, relative to other mining jurisdictions, in respect of regulatory competitiveness. However, concerns remain regarding the scope and timeliness of Yukon Environmental and Socio-economic Assessment Board's (YESAB) functioning, which concerns are further accentuated by the draft proposals in the ongoing five-year review of YESAA. YMAB encourages YESAB to avoid overlap and duplication of the regulatory process, where possible, and also to improve efficiencies and shorten timelines in the various review processes. We have presented a number of recommendations to assist with improvements in these areas.

The mining industry, along with other sectors of the economy, is becoming increasingly concerned with the evolution of the land use planning process, which is at risk of becoming, in effect, a protected areas strategy through the alienation of considerable portions of Yukon from exploration and mining, to the significant detriment of Yukon's standing in regulatory competitiveness and the long-term viability of the mining industry. YMAB believes that the Yukon government (YG), along with Canada and First Nations, could improve the land use planning process by providing clear direction to land use planning commissions as to their mandate and scope.

YMAB also requests that YG work to promote regulatory efficiencies by preventing the proliferation of new regulations from various government departments, in particular those which are not objective-oriented and those which cause duplication of effort.

FIRST NATIONS

In order to provide direct benefits to First Nations from natural resource developments, such as mining, YMAB encourages YG to continue to place emphasis on supporting First Nation participation in the resource economy, including a more equitable arrangement with Canada in respect of fiscal benefits from mining projects. YMAB also encourages YG to continue to foster the creation and maintenance of strong open consultative relationships and partnerships between YG and First Nations. YG should also endeavour to facilitate discussions between industry and First Nations to assist in concluding bi-lateral arrangements between those parties and, to the extent appropriate, tri-lateral open and consultative relationships involving mining and exploration companies as well.

YMAB commends YG and the Yukon Mine Training Association (YMTA) for their work to provide education and training in mining-related careers to First Nations people and other Yukoners, as well as for their efforts to expand the training programs being provided. There are still considerable opportunities to increase First Nation participation in the mining industry and these efforts should continue, using a coordinated approach involving YG, YMTA and industry. An additional recommendation from YMAB this year is to document First Nations participation in the mining industry in order to better understand and enhance the progress achieved and to communicate such back to First Nations.



Minto Mine (Capstone) — Ore truck coming off the barge after Yukon River crossing at Minto Landing.

First Nations are also grappling with capacity issues as they work to participate in exploration and mine development projects. YG and First Nations need to work together to determine how best to build capacity within First Nation communities that will allow them to provide input on and reap benefits from industry activity, while avoiding overly burdensome or duplicative processes. YG should also endeavour, to the extent appropriate, to facilitate multi-party discussions before, during and after formal regulatory processes involving industry project proponents, YG, regulatory bodies and First Nations, in order to improve communication and understanding of applications and their implications.

ACCESS AND INFRASTRUCTURE

YMAB is encouraged by the progress of an integrated approach amongst various YG departments to assess development projects and identify priority road infrastructure requirements. YG should continue to work with and improve upon this approach, while it continues to maintain and develop Yukon's roads and highways. Outside of population-driven needs, YG should focus investment on road infrastructure in areas of advanced project development.

Port access is critical to a successful mineral industry in Yukon, since any such industry (other than gold) is likely to be dependent on exports of bulk products, and YMAB encourages YG to continue its participation in bilateral negotiations for the potential growth of the Port of Skagway, as well as the exploration of options that would provide new or expanded port loading facilities in Skagway or Haines.

YMAB also recommends that YG continue to evaluate and lobby for additional rail infrastructure in Yukon that could help support resource development in the territory.

Finally, YG should continue to support the interconnection of the territory's electrical grids within Yukon and connection to grids in Alaska and BC, as well as pursuing options for increased generating capacity to meet forecast industry needs. Lack of reasonable cost power is likely to be a significant impediment to long-term growth of a larger mining industry in Yukon.

SUSTAINABILITY

The success of the Yukon Mine Training Association is a major achievement and YMAB encourages YG to continue its support of the YMTA with funding, to ensure training programs will benefit First Nations, other Yukoners and industry through transferable skills that provide long term, sustainable participation in the mining industry that is not necessarily project specific. A key element of continuing success in this area is a coordinated approach involving the YMTA, industry and YG.

The implementation of the Yukon Mine Site Reclamation and Closure Policy (YMSRCP) and adoption of the associated technical and financial security guidelines has placed Yukon on a much-improved and more competitive platform compared with other Canadian jurisdictions. The



Faro Mine Complex — to reduce risk of contaminants being released into the environment, a product called Soil-Sement is sprayed on to the trailing at Faro to reduce dust in the air.

successful use of the policy and guidelines in the current permitting process is helping to alleviate many stakeholder concerns. One outstanding issue is reclamation security management, which can currently be held under a variety of authorizations. It appears to YMAB that the most efficient solution would be to focus security responsibility and management under the Quartz Mining License and allow the utilization of reclamation security trusts.

In addition, reclamation of abandoned mine sites is an important ongoing issue in Yukon, especially "Type II" sites. YMAB appreciates YG efforts to ensure appropriate environmental management at these sites, but also urges YG to do what it can to pressure the federal government to expedite the closure process at Faro, thereby mitigating environmental risk while, at the same time, increasing opportunities for additional local employment, small business growth and benefits to Yukoners.

A key sustainability issue for the mineral industry is the direction being taken by land use planning in Yukon. It threatens to become a divisive and controversial process. YMAB fully supports efforts to reduce or avoid, to the extent reasonably and economically prudent, land use conflicts through the proper use and implementation of the land use planning provisions of land claim agreements. Land use planning should work to share natural resources within a region in a sustainable manner. Actual assessment of projects should occur through YESAB and other established regulatory and governmental processes, not through (or be circumvented by) land use planning. With this in mind, YMAB recommends that YG, along with Canada and First Nations, re-examine the mandates and direction being provided to Yukon land use planning commissions and ensure they understand their purpose is to mitigate the risk of potential land use conflicts, rather than prescribing zoning or alienation of lands without appropriate assessments.

In the area of climate change initiatives, YMAB has several fundamental concerns with the draft Yukon Climate Change Action Plan. Keeping in mind that the health of Yukon's economy is largely dependent on the use of fossil fuels, YMAB strongly recommends against setting caps or targets or instituting carbon taxes.

GEOSCIENCE

The Yukon Geological Survey (YGS) continues its excellent work in geological mapping, mineral deposit studies, evaluation of mining projects, data collection and distribution, all of which supports mineral exploration and development in Yukon. We commend YG for its long-term financial support to the Survey and recommend YG maintain its commitment to geoscience in Yukon by ensuring the Survey is sufficiently funded and fully-staffed. YMAB also recommends that every effort be made to find a satisfactory space such that EMR, including all YGS staff, the EMR library, the core library and the Whitehorse Mining Recorder, can be located under one roof.

Key Recommendations for 2009

The following sets out YMAB's key recommendations for 2009. The substantial majority of these recommendations were delivered by YMAB to the Minister either verbally at meetings in November 2008 and January 2009, or during the year in the form of submissions in respect of particular items. These recommendations fall into six key areas, as noted below. Additional recommendations and commentary are provided throughout the report.

a. YESAA process and timelines:

- i. Industry should be extensively consulted and should be allowed to fully participate in the YESAA review process; YG should address industry issues and concerns, both with the existing processes and the ongoing five-year and Designated Office rules review.
- ii. Capacity-building should be done in YESAB Designated Offices and at the Executive Committee level to assist in handling the increasing number of projects in (or expected to enter) the YESAA process.
- iii. There is a need to ensure YESAA remains a review and not a regulatory process.

b. Land use planning:

- i. Land Use Planning (LUP) Commissions should be better directed on their roles and responsibilities to ensure an appropriate and acceptable balance between environmental protection and economic development.
- ii. YG needs to emphasize to LUP Commissions that land use plans are intended to manage and mitigate land use conflicts rather than prescribe zoning and land alienation.
- iii. The whole land use planning process needs a careful review by YG, Canada and First Nations to ensure that there are not unintended negative consequences to Yukon and its mining industry. The potential for extensive land alienation, affecting exploration, projects and access, should be addressed.

c. Short-term fiscal stimulus (to assist the mining industry during the economic down cycle):

- i. Infrastructure spending on power infrastructure, roads, bridges, pipelines, etc., in particular the connection of Whitehorse to Mayo grids, power generation capacity enhancements and Mayo dam expansion to provide Yukon with infrastructure to support continued economic development, while providing stimulus to the local economy.
- ii. Advancing abandoned mine site reclamation to address environmental issues and to provide employment and opportunities to local businesses, First Nations and Yukoners during the economic downturn.
- iii. Continued support for training for Yukoners, and especially First Nations, to build a trained workforce for the mining sector.
- iv. Continued funding of YMIP, with some modest recommended adjustments.

d. Longer-term planning and stimulus to prepare the mining industry for developments in the next economic cycle:

- i. Infrastructure power, highways and ports to support mining development, including a regulatory regime that permits private power projects.
- ii. Training especially for First Nations people.
- iii. Fiscal incentives for new mines In order to stimulate building of new mines, YG should look to introduce fiscal incentives in the capital recovery period for new mines or during major expansions of existing mines.

e. First Nations:

- i. YG and First Nations should engage Canada in discussions with the objective of obtaining a more equitable arrangement from the fiscal benefits resulting from natural resource development, including mining, for both YG and First Nations.
- ii. YG should endeavour to facilitate capacity-building within First Nations to assist them to participate in project reviews, consultation and operation of mining projects at all levels.
- iii. Yukon First Nations which have not settled land claims should be encouraged to complete land claim agreements.

f. Sustainability:

- i. YG should accommodate the use of reclamation security trusts to improve funding and functioning of project reclamation obligations.
- ii. Continued emphasis should be placed on training to build the work force needed for a vibrant and sustainable mining industry in Yukon.
- iii. Continued support is necessary for the Northern Safety Network to sustain high standards of safety in the workplace to ensure workers are able to go home to their families safe and well.
- iv. Governments should control proliferation of regulations, avoiding unnecessary and duplicative regulations.
- v. YG should continue funding of geoscience to ensure a long-term, viable mining industry.
- vi. YG should consolidate all parts of EMR in one building to improve the effectiveness, accessibility and usefulness of the department while providing an icon for Yukon's resource based economy, as it has done for tourism.

Report Card on Recommendations in 2006–2007 Annual Report

In the 2006–2007 report, YMAB identified the following as the top five priorities for Yukon to address in 2008. Noted below is the status of those priorities:

| Priority | Status |
|--|--|
| Miners Lien Act reform | Completed. |
| Quartz Mining Act reform, in particular the royalty provisions | Essentially complete. Regulations and implementation of royalty provisions pending and needs to be completed. |
| YESAA process and timelines | Five-year review and Designated Office Rules review underway. |
| Employment and training, especially return-to-work and YMTA | Good progress, but continued coordination, support and funding of training and education initiatives required. |
| Energy strategy, including water rights for Independent Power Producers (IPPs) | First steps, with the energy strategy review, undertaken by YG. Progress achieved in extending grid and its generating capacity. Development of a regime supportive of IPPs is underway. |

REFORM OF MINERS LIEN ACT

One of YMAB's key recommendations in its 2006–2007 Annual Report was the need for reform of the *Miners Lien Act*, which was considerably out of date and was a significant impediment to companies seeking project or debt financing for the development of new mines or the expansion of existing mines.

Following a meeting in January 2008 involving YMAB, the Yukon Premier and the Ministers of EMR and Economic Development, YG responded promptly by conducting an internal review of the *Miners Lien Act*. The review confirmed issues with the *Act* in its current form. YG then initiated a formal public consultation process in respect of reforms to the *Act*, provided a list of issues and possible alternate approaches to these issues, and set up a focus group comprised of representatives from the mining industry (large and small), mining contractors, suppliers, Chambers of Commerce and Mines, and lawyers experienced in mining, contracting and bank financing. With input from the focus group and the public, a draft of the proposed legislative changes was provided for comment, comments were addressed and final changes were made. The amendments to the *Miners Lien Act* were enacted in November 2008.

YMAB wishes to commend YG for the speediness of its response to the issue, the comprehensive consultation process undertaken and the balanced nature of the amendments, which ensure that the interests of miners, contractors, suppliers and lenders are balanced.

YMAB Recommendations

No further action required.

REFORM OF QUARTZ MINING ACT

A second key recommendation in the 2006–2007 YMAB Annual Report was reform of the *Quartz Mining Act* (QMA), with particular emphasis on the royalty regime which could, particularly for larger projects, result in punitive levels of royalties being payable, potentially exceeding 100% of a large project's operating profits. The potentially punitive rates and the general uncertainty contained in the royalty provisions of the QMA, combined with the highly-variable precedents when administered by the federal government, provided a significant disincentive to mine development in Yukon. YMAB also identified the staking regime for mineral claims as inefficient, overly costly and in need of reform. At its meeting with the Premier and Ministers of EMR and Economic Development in January 2008, YMAB stressed the need for significant reform to the QMA.

In response, YG initiated a two-phase consultation process in respect of proposed amendments to the QMA. Phase 1 focused on staking procedures and Phase 2 focused on royalty amendments. Following its initial consultations, which confirmed the need for reform of the QMA, YG initiated an extensive public consultation process, with draft proposals for amendments published for comment. A number of formal public consultation sessions were held with each of the mining industry, First Nations and the public. A parallel set of discussions was held with Minto Explorations and the Selkirk First Nation in respect of transition rules for the Minto mine (Yukon's only large operating quartz mine and one located on Category A land) to determine the date of implementation of the new rules.

Final amendments to the QMA were set out in Bill # 58 (*An Act to Amend the Quartz Mining Act*), which was passed on November 28, 2008. The claims administration portions of the amendments and associated regulations were effective April 1, 2009. The royalty regulations, including transition rules for the Minto mine, and amendments to Section 102 of the QMA, have not yet been completed and need to be.

As with the amendments to the *Miners Lien Act*, YMAB commends YG for completing the amendments to the QMA within 12 months of the first meeting with the Premier regarding this matter, while conducting a thorough public consultation process in respect of the amendments to the QMA. Based on detailed and comprehensive analysis provided by YG during the consultation process, Yukon would now appear to be competitive with other mining jurisdictions in Canada.

YMAB does emphasize that YG needs to get the new regulations published and operative as soon as possible. YMAB also recommends that YG continue its review of the QMA to determine what other amendments may be required to continue the modernization of the QMA to ensure it is a living, functional document that recognizes the current nature of the mining industry, public expectations in regard to environmental stewardship and reclamation, and other such matters.

YMAB Recommendations

Implementation and publication of regulations is required as soon as possible. Following that, no further action is required in respect of the QMA royalty provisions. YG should continue modernization of the QMA as required to ensure an effective regulatory regime in a modern mining environment.

YESAA PROCESS AND TIMELINES

YMAB recognizes that the implementation of YESAA and the establishment of the Yukon Environmental and Socio-economic Assessment Board (YESAB) have been positive steps, significantly improving the regulatory regime in Yukon. Proponent experience in several Designated Office evaluations has been reasonably positive, and we note that some Executive Committee processes have been completed or are ongoing. We note particularly the following:

- 1. YESAB staff members have been professional and helpful, providing concrete guidance about the process and proponent obligations under YESAA, when requested.
- 2. Community and First Nations input in the YESAA assessment process is valued, providing a forum for different interests to be heard and hopefully leading to concerns being addressed.
- 3. The YESAB Online Registry (YOR) ensures ease of submission of information by proponents and makes that information readily available to the public, so that the process is transparent. The YOR ensures that a project can be easily tracked throughout the assessment.
- 4. Recommendations made by YESAB have been generally objective and should continue to be based mainly on facts and relevant opinions submitted during the review process.
- 5. YESAB needs to ensure its assessments remain a review process and not a regulatory one.

As with any new process, there are aspects that could be enhanced or improved. These are discussed in the sustainability section below, with the key emphasis on maintaining a comprehensive, effective and timely process. We also note that the five-year review of YESAA and the Designated Office Rules review are currently underway.

YMAB Recommendations

- 1. YESAB should continue to focus on improving timelines and efficiencies in the assessment processes.
- 2. Industry should be extensively consulted and should be invited to participate in the YESAA review processes currently underway.
- 3. YG should ensure industry issues and concerns are considered and addressed.
- 4. YG and YESAB should ensure that the YESAA assessment process remains a review process and not a regulatory one.

EMPLOYMENT AND TRAINING

YMAB has for several years stressed the importance of employment and training in Yukon and, in particular, within First Nations communities. The formation of the Yukon Mine Training Association in 2006 as a joint industry and First Nations initiative was made possible with initial funding from YG, and later with funding from several federal and territorial government and industry participants. This vision and effort are seen as an important step in laying the foundation for prosperity in Yukon.

The partnership of industry and First Nations on this initiative is one of the major success stories in Yukon and has done much to build a trust relationship between First Nations and the mining industry. This trust must continue to grow if Yukon is to realize the value of its immense mineral endowment and maximize the participation of its First Nations people in the development of that endowment.

During 2007 and 2008, several intermediate and large mine development projects advanced to the prefeasibility and feasibility study stages. Collectively, these projects have the potential to create more than 1,000 direct jobs in the mining industry and an equivalent number in the service industries. If these jobs are to be filled within Yukon, massive education, training and skills enhancement activity is required.

In 2008, Yukon benefited from the completion of construction and commencement of production at the Minto Mine and from the commencement of construction of the Wolverine Mine. Other advanced projects have been delayed due to difficult economic conditions. The current economic slowdown is a reprieve in the rapidly rising demand for skilled mine workers. Government and industry should take advantage of this slowdown to advance education, training and upgrading of skills in Yukon. Upon recovery of the world economies, the demand for commodities will grow rapidly and put much pressure on the mining industry to provide metals. This growth is a major opportunity for Yukon to improve the quality of employment and life for its residents, particularly for First Nations, as they form partnerships in these developments. It is within Yukon's grasp to give many First Nation communities the opportunity to reduce or end their reliance on government support and thus strengthen their communities through sustainable, well-paid and transferable skills enhancement and employment.



Wolverine Mine — Portal to underground development.

ENERGY STRATEGY

One of the major challenges facing many development projects in Yukon is access to power at a reasonable cost; this is particularly problematic for projects well-removed from the current electrical grid in Yukon. Furthermore, a location near the current grid is no assurance of access to reasonable cost power, as there is currently little excess electric power available in Yukon. Currently available and near-term increases in power in Yukon are largely spoken for and developers are therefore on their own to find power. Most mining operations are not likely to be economic on diesel-generated power, especially large-scale, lower-grade deposits such as bulk tonnage copper or gold deposits. Access to lower cost power is therefore a necessity.

Recent power developments have largely been focused on providing power to communities reliant on diesel power and modest hydro generation capacity increases, such as Mayo B. For smaller projects, diesel power is commonly the power source of choice. This is due to the long permitting times for alternate power projects (such as coal-fired or hydro power) and capital hurdles to bring the power to site or to access alternate fuel supply (such as gas). Although YG indicates it is working on policy for independent power production and sale of this power into the grid, there is little activity to address the fundamental question of supply.

Yukon is blessed with many potential hydroelectric sites that could support resource development and, as well, potentially provide a long-term, sustainable export for Yukon, but there has been little progress in developing any of these sites. Given the renewable and clean characteristics of this type of energy, one would expect that these would be at the forefront of development, but there are no new hydroelectric power projects being advanced in Yukon. YMAB believes that a major disincentive to private investment in such hydro projects is the lack of a means to acquire the rights to use water for power generation without first going through a full YESAA review and obtaining a license from the Yukon Water Board (YWB). Investors are not likely to invest the time and money required for such a process without some certainty as to the rights being secured in advance.

In British Columbia, there is a plethora of Independent Power Producer projects which are developing hydroelectric power for sale into the electrical grid. In B.C., a proponent may make a water rights application and has an allotted time to perfect the application with submission of an acceptable development plan. With this certainty, the developer undertakes engineering, hydrology and environmental assessment of the project. No such certainty is available in Yukon.

YMAB suggests that, in order to attract investment in hydroelectric or other power projects in Yukon, there needs to be a process of securing such rights prior to entering the YESAA and Water Board process to have such a license granted. In the current environment, a proponent could spend millions of dollars, only to find that the development was later impaired by other processes that could effectively block the project development after expenditure of considerable sums by the proponent. Currently the only mechanism for such protection is an Order-in-Council by YG and this is not available to an industry proponent.

The recently-released YG Energy Policy does little to address the fundamental need to provide a means of acquiring water rights with an acceptable amount of risk. This is inhibiting hydroelectric development in Yukon. The territorial government should follow the lead of British Columbia, which broke BC Hydro's lock-up on hydroelectric power generation in BC many years ago, and introduced policies to encourage hydroelectric power generation by Independent Power Producers. Access to low-cost hydroelectric power would give Yukon mining projects a cost-competitive advantage over many similar projects in the world and would be very positive for mining and other resource industries in Yukon, as well as offering the potential for lower cost electricity to all Yukoners.

Further, were Yukon interconnected into the North American transmission grid, such hydro projects need not be dependent on the vagaries of commodity cycles, when mines can open and close or be delayed due to fluctuating metal prices. Once interconnected, Yukon could export excess power through the interconnection to BC (which has a growing power deficit) and beyond. The feasibility of such interconnection has moved a significant step closer with the approval of funding for the Highway 37 power line in BC.

YMAB Recommendations

- 1. YG should provide Independent Power Producers with the ability to secure water rights for hydroelectric development while they move their development plans through the environmental assessment and permitting process. Securing such rights would in no way provide an implied approval of such a project.
- 2. YG should provide policy direction for power generated by Independent Power Producers (IPPs) which is to be integrated into the Yukon electrical grid for distribution. Such a policy must provide certainty of ownership of IPP facilities and economic opportunity to sell IPP power on an equitable basis.
- 3. As part of its energy strategy, YG should pursue interconnection with the North American transmission grid.

Regulatory Competitiveness

YESAB

YMAB notes significant improvement in regulatory competitiveness since the introduction of YESAA. The significant outstanding concerns are in respect of the scope and timeliness of YESAB's functioning.

YMAB Recommendations

- 1. YG and YESAB should ensure the YESAA process avoids overlap and duplication with the regulatory process. YESAB should continue to conduct reviews and make recommendations and should not move into the realm of the regulators' role in issuing permits and approvals.
- 2. While maintaining its role as a review body, YESAB, to the extent possible, should work with regulators to integrate the processes of the regulators and YESAB, and thereby shorten overall timelines for proponents by running processes concurrently. There have been discussions about this concept with YESAB, YG and the Yukon Water Board; all groups seemed receptive to the idea and expressed an interest in working together to improve efficiencies. YMAB recognizes that this may require changes in legislation or regulation but most can likely be achieved by integrating processes.
- 3. Following an initial application, YESAB should ensure, to the extent possible, that it makes a single comprehensive request for additional information from a proponent before a project proposal is deemed complete. Again, this recommendation is aimed at decreasing timelines for the assessment process, as multiple information requests cause undue delay. YMAB recognizes the responsibility that a proponent has to ensure it provides as much information to YESAB as necessary, but also suggests that YESAB should not request unnecessary information, should restrict its scope to what is required for an assessment and should recognize the additional expense and potential delay that unnecessary or multiple requests may create for the proponent.
- 4. YESAB should introduce timelines into the adequacy review; currently, there are no timelines in this portion of a YESAA assessment, and, for major projects, the adequacy review can take a considerable amount of time.
- 5. YESAB should ensure that its assessments give appropriate consideration to both negative and positive socio-economic effects of a proposed project. There is sometimes a risk or tendency for the potentially-negative effects of a proposed project to be given undue weight and the potentially-positive effects to be given less weight or ignored.
- 6. YESAB should better define the proponent's duty to consult with First Nations and work with YG to ensure that YG understands and carries out its obligations to consult.
- 7. YESAB should consider an appeal mechanism for decisions; however, provisions should be made to ensure that such an appeal process should have little or no effect on project timelines.
- 8. YESAB should continue to build capacity in the Designated Offices and the Executive Committee to handle the anticipated increased flow of projects in Yukon, as the investment of the past several years begins to bear fruit.

LAND USE PLANNING

The Umbrella Final Agreement (UFA) provides a framework for determining land use planning regions and boundaries, so that planning commissions could then be tasked with developing land use plans for these regions. During 2008, the recommended Land Use Plan for North Yukon was submitted to YG for consideration and the Peel River Planning Commission was undertaking consultations in respect of its land use plan.

YMAB is becoming increasingly concerned that the land use planning process is becoming a *de facto* protected areas strategy and could result in the alienation of considerable portions of Yukon from exploration and mining, as well as potentially removing key access routes to areas open to mining (which would, in effect, alienate these areas from mining as well). A recent analysis by the Yukon Chamber of Mines of the North Yukon and the Peel River Land Use Planning Commission's proposal suggests that a high level of land withdrawal, actual or effective, is proposed.

YMAB is concerned that the land use planning process could have a significant unintended impact on the availability of land for mineral exploration and fails to recognize the progressive nature of mineral exploration, in which large areas are assessed with little or no impact, and whereby increasingly focused exploration activities lead to progressively smaller areas being involved, as the level of exploration activity and impact ramps up. Mining operations themselves impact an extremely small area, but locations of economic deposits cannot be known in advance and so excessive withdrawals of lands from exploration and potential mineral development could have a substantial negative impact on the Yukon mining industry and economy, to the detriment of Yukoners and First Nations in particular, since most mining areas are relatively remote and in areas mostly populated by First Nations.

YMAB Recommendations

YG should work to ensure that the parties to the UFA provide clear direction to the various land use planning commissions as to their mandate and scope, ensuring that the purpose of mitigating potential for land use conflict is addressed, rather than prescribing zoning and land alienation. The whole land use planning process needs a careful review by the parties to the UFA to ensure that there are not unintended negative consequences to Yukon and its mining industry. The potential for extensive land use alienation, affecting exploration, projects and access, should be addressed.

REGULATION PROLIFERATION

YMAB expresses some concern with respect to the profusion of new regulations from various departments in government with little coordination with EMR. New requirements for water treatment facilities for a new camp (for more than 20 people) are a recent example and are very prescriptive, rather than objective-orientated. YG needs to constantly monitor regulatory efficiency and focus on addressing the real problems, especially when resources are scarce and should not be wasted.

YMAB Recommendations

YG should monitor the proliferation of regulations and work to ensure that the focus is on real issues or concerns, as well as ensuring interdepartmental coordination of regulations to avoid duplication and overlap.

First Nations

REVENUE SHARING, RESPECT AND TRANSPARENCY

Chapter 23 of the Umbrella Final Agreement (UFA) ensures revenue sharing between the Yukon and First Nation governments. However, YMAB is concerned that the revenue sharing arrangements in the UFA may result in an inequitable distribution of benefits to both YG and First Nations. Therefore YMAB encourages YG, First Nations and Canada to enter into discussions that result in a more equitable distribution of net benefits from natural resource revenue, including mining operations.

The objective for such discussions should be that First Nations and YG should be able to realize net incremental gains in financial benefits resulting from natural resource developments, including mining projects, as compared to the current arrangements. YG currently has a cap of \$3 million in natural resource revenues (most of which capacity is used up by claim fees, etc.); incremental revenues beyond that cap are clawed back by Canada in reduced transfer payments. This arrangement provides little incentive for YG to encourage the development of new mines and realization of their related financial benefits in Yukon.

Similarly, the current revenue sharing arrangement under the UFA provides little to no financial benefit to First Nations for mining development in their territories, with a similar \$3 million cap on revenue sharing under the UFA to be shared amongst all First Nations in Yukon, a very modest sum compared to the potential revenues to Canada resulting from new mine developments. The inequity of the First Nations revenue sharing is further compounded by the distribution formula, whereby QMA royalties from a mine on Settlement A land are counted in the \$3 million allocation for revenue sharing, but the funds all flow to the First Nation that owns that Settlement A land parcel — the net result being that revenue sharing capacity for all First Nations is used up, but only the First Nation which owns that Settlement A parcel gets any cash. It is a perfectly realistic scenario that one mine could consume all of the revenue sharing capacity for all First Nations, but only one First Nation would get any payments, leaving nothing for all other First Nations. Such a situation would significantly reduce the financial incentive for First Nations to support mining on their traditional territory as an acceptable offset to the unavoidable environmental impact of a mine; First Nations may respond by not supporting development or by seeking revenue sharing directly from project proponents or by selecting land preservation as the preferred alternative in land use planning studies. With mining companies already carrying a significant financial burden, such incremental burdens could be untenable, potentially creating an environment for conflict between proponents and First Nations.

In summary, YMAB therefore recommends that the parties to the UFA engage in discussions to result in a more equitable distribution of natural resource revenues. An example for Yukon to look to is the Newfoundland-Canada revenue sharing arrangements for offshore resource revenues. Similarly, any such gains by YG should be shared on a reasonable and equitable basis with First Nations.

YG and affected First Nations also need to work together to establish forums and/or working groups to develop arrangements that engender respect and transparency between YG and First Nations regarding natural resource developments, including mining projects. YG can also take a leadership role in facilitating similar arrangements between potentially-affected First Nations and project proponents. The most important aspect of these kinds of arrangements is that both a project proponent and the potentially-affected First Nations recognize and respect each other's interests and objectives. This means that a project proponent must be fair and sensitive to requests from the First Nations and the First Nations must be realistic in terms of how potential projects are able to accommodate their interests, without affecting the operational and economic viability of the proposed project.

Transparency means that YG provides information in respect of a proposed project, including its possible economics, so that First Nations can better understand the implications of the proposed project. YG and the First Nation must both be open and willing to discuss their concerns and objectives. The process must respect, to the extent reasonable, the objectives of each party. Arrangements need to be considered for unique circumstances, such as development on Category A land.

YMAB Recommendations

YMAB encourages YG to enter into discussions with First Nations and Canada to obtain a more equitable arrangement in respect of net incremental revenue coming from natural resource development in the territory. YG and First Nations should continue to enhance collaboration and cooperation in the development and stewardship of mining projects.

SUPPORT DURING PERMITTING AND PROJECT CONSULTATION PROCESS

Permitting and project consultation processes should be transparent and open.

To obtain the support of the First Nation during permitting and construction of a mine, YG should endeavour to facilitate the establishment of working groups or committees involving a project proponent and potentiallyaffected First Nation(s). Such working groups or committees would include representatives of the project proponent, YG and the potentially-affected First Nation(s). The working group or committee would review all key aspects of the applicable regulatory processes or applications before each key part begins. For example, before a project proponent applies for a construction permit, the work that led up to the permit application and the application itself should be reviewed by a joint committee comprised of representatives of the appropriate First Nation(s), YG and project proponent. All issues of concern to the First Nation(s) would be tabled and discussed. The project proponent would explain to the committee how those issues might be addressed and accommodated. The parties would use their reasonable best efforts to reach a consensus on amended approaches to the permit application. The project proponent would, to the extent reasonable and practical, amend its application to reflect agreed-upon amendments before the application is submitted to the applicable regulators. However, the parties would clearly retain the right to disagree and the project proponent could proceed with its regulatory process, if it so chose. The First Nation would also retain the right to intervene in the regulatory process based on its own internal decisions. Simply put, the objective would be to get as many issues on the table and hopefully worked out ahead of the formal permit application.

YG should also:

- 1. Work with a project proponent to ensure any potentially-affected First Nation(s) are kept adequately informed, on a regular basis, about projects within their territories.
- 2. Endeavour to facilitate effective and timely communication by a project proponent to potentially-affected First Nation(s) as to what it is doing on a project and why.
- 3. Endeavour to encourage project proponents and First Nations to hold regular (perhaps monthly or quarterly, depending on the amount of project activity) meetings with the First Nation community to explain what will be taking place during the period leading up to the next meeting and review what has happened since the last meeting, including any variance from the original plans for that period.

The existence of an open, transparent relationship between YG, the project proponent and the potentially-affected First Nation(s) is more likely to result in a First Nation that is willing and prepared to support the project proponent during the permitting and construction phases of the project/mine.

YMAB Recommendations

YG and First Nations should work together to develop mutually-acceptable processes during permitting and consultation that address the legal requirements of the project proponent under the applicable process, while considering and addressing the First Nation's interest in the project. YG should endeavour to bring industry into this open and transparent process, with all parties ensuring appropriate communication and discussion procedures are established and utilized.

TRAINING

There are a number of opportunities to increase First Nation participation in the Yukon mining industry which have yet to be fully realized. There is a need to attract and retain more First Nation citizens as participants in the mining industry and thereby increase First Nation community support for the mining industry.

First Nations are concerned that the Yukon Mine Training Association and other training funds are too restrictive, potentially limiting First Nations participation in the mining workforce.

YMAB Recommendations

Flexibility should be built into the Yukon Mine Training Association and other training funds so that there is increased funding support for summer students, apprenticeship (e.g. electricians, millwrights) and wage subsidies for skilled employment (e.g. surveying and geology assistants, equipment operators, driller's helpers).

See "Sustainability" section below for related information and recommendations.

CAPACITY BUILDING

The abundance of new project proposals within Yukon has increased demands on First Nations to participate in the environmental assessment and permitting process, stretching resources in many First Nations communities to the point that they cannot participate in a meaningful way. The processes are time-consuming and drain community funding at the expense of necessary community programs and capital projects. Perhaps of even more concern to First Nations is that many communities do not have the capacity to participate in such regulatory processes using internal resources and are therefore reliant on external consultants to review submissions to YESAB and regulatory authorities. This approach further drains community monetary resources.

Industry, through its resource funding agreements, has provided some monetary support to this process, as has EMR. This funding has helped alleviate the problem but has still left the communities struggling to meet these needs. Clearly, building capacity in the communities will provide long-term benefits to communities, industry and all of Yukon, and this should be encouraged. Participation by First Nations in project reviews has in itself helped to build capacity out of necessity; however, First Nations participation in the project review process would benefit from coordination of the various participants.

YMAB notes that progress has been made in respect of capacity building in First Nations. During the past year, YMTA undertook a training program for Aboriginal Liaison Officers and the Introduction to Exploration and Mining program, and industry has run youth camps about mining and the environment.

YMAB Recommendations

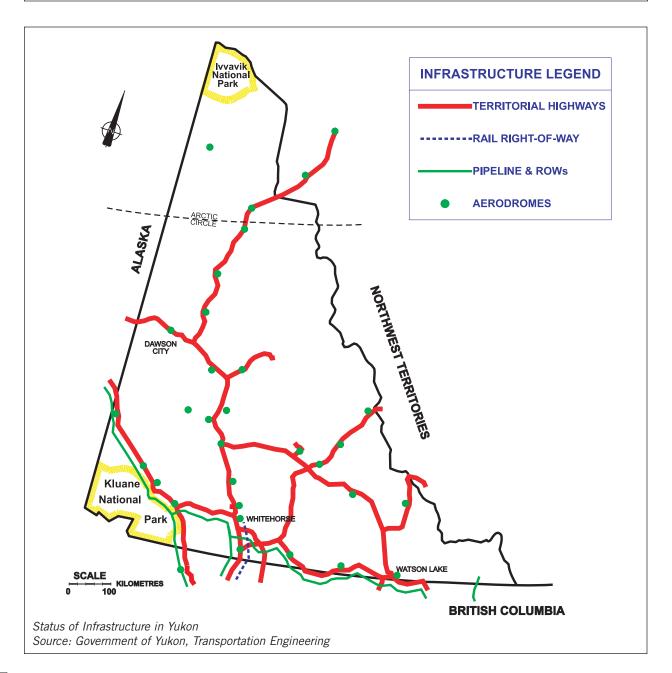
YG should consult with industry and First Nations to determine how to best build capacity in communities to address the growing need for participation in exploration and mine development projects, including project reviews, consultation and operation of projects, and the ongoing monitoring and reclamation of these projects. There is also a role for the federal government in helping to build capacity in First Nation communities.

Access and Infrastructure

YMAB has been advised that EMR continues to work with the departments of Economic Development and Highways & Public Works to develop an infrastructure policy framework that looks to a three-phase plan to support and develop critical infrastructure for the territory, including roads, power and ports. Funding of up to \$500,000 has been made available for maintenance and upgrades to existing resource access roads. As well, a Highways Management Board has been established to assess development projects to identify priority road infrastructure requirements. YMAB is encouraged by the progress of this integrated approach between different departments.

YMAB Recommendations

YG should continue to develop Yukon's infrastructure to anticipate and support a vibrant mining sector, including ports, roads and power.



HIGHWAY INFRASTRUCTURE

Yukon is served by an extensive, modern highway system, linking the territory to British Columbia, the Northwest Territories and Alaska. Most of the highway system is maintained and operated year-round by YG, and includes nearly 4,700 kilometres of roads and more than 140 bridges. The present upgrading of the Robert Campbell Highway is an excellent initiative to improve the infrastructure of southeastern Yukon for public use and resource development.

YMAB Recommendations

YG should continue to maintain and develop Yukon's roads and highways to support the development of mineral exploration and mine development. Outside of population-driven needs, YG should focus investment on road infrastructure in areas of advanced project development.

RAIL INFRASTRUCTURE

A narrow gauge railway connects Whitehorse to year-round ice-free port facilities in Skagway, Alaska. The system has not been used commercially within Yukon since 1982. It now serves as a tourist railway from Skagway to Carcross, Yukon in the summer tourist season. The 68-kilometre section from Carcross to Whitehorse is in disrepair, leaving a gap in this potentially important coverage.

Recent U.S. political support for the construction of a rail route through Yukon has resulted in the passage by the U.S. Congress of the *Rails to Resources Act* (2002). A joint Yukon-Alaska Commission has been created to study the feasibility of the rail connection. The Commission's report was reviewed by government and released in 2007.

The information in the report is of key importance to resource development planning in Yukon.

YMAB Recommendations

- 1. YG should conduct a study to evaluate the economics of rehabilitating the unused 68-kilometre section of the narrow gauge railway between Carcross and Whitehorse, so that the challenges and costs are understood.
- 2. YG should continue to lobby the federal government for support of the rail initiative and continue its bilateral negotiations with Alaska for a rail line connecting Yukon, Alaska and British Columbia.

PORT INFRASTRUCTURE

Port access is critical to maintaining a competitive position for Yukon's mineral industry. It is particularly important for the economic shipping of bulk commodities, such as concentrates from base metal mining and milling operations. The ports in Skagway and Haines, Alaska have played a pivotal role in the economic evaluation of Yukon mineral deposits and will continue to do so.

Yukon has long counted year-round access to deep-water ocean ports among its most important attractants for investment in the mining industry. Recent developments to accommodate additional cruise ship docking at Skagway may threaten the attractiveness and competitiveness of Yukon mineral development. For example, although the foundation, ore-loading conveyor, ship-loader and support buildings remain on site, the concentrate storage facility from the former Faro-related facility was removed. Working through Alaska Industrial Development and Export Agency (AIDEA), Minto Explorations has funded the construction of a new concentrate storage facility to meet its needs, and refurbished the ship-loader, which have been successfully used by Minto Explorations for the past two years. However, increased cruise ship traffic could compromise shipping schedules for concentrate and other bulk materials, given that AIDEA's lease with White Pass & Yukon Railroad (WPYR) gives priority to cruise ship traffic.

The growth of the cruise ship industry using Skagway as a port and destination presents significant seasonal challenges to the use of the port of Skagway for the export of bulk commodities. WPYR controls usage of the port of Skagway; AIDEA only has an agreement whereby WPYR will use its best efforts to accommodate shipping using the Skagway Ore Terminal (SOT), but cruise ships have specific priority.

The redevelopment of SOT for the export of concentrates from the Minto Mine is a positive development because port capacity is now available through an established facility. Although this development is largely the result of industry initiative, YG played a supportive and facilitative role through its relationships with Alaskan senior officials.

As a result of the above concerns, YG and Alaska established a Joint Task Advisory Committee to provide recommendations to ensure port access remains a priority. The Yukon Ports Access Study Final Report was released in 2007. Focus should continue to be placed on the development of environmental base line data, the completion of engineering studies to evaluate the possible expansion scenarios as demand for port services grows, the acquisition of additional land for the growth of the terminal and the coordination of permitting to meet expansion plan schedules.

YMAB Recommendations

- 1. YG should continue to participate in bilateral negotiations with Alaska concerning the potential growth of the Port of Skagway to ensure an outlet to world markets for Yukon mineral products.
- 2. YG should work with Alaska and industry to secure additional access through corridors to new or expanded port loading facilities in Skagway or Haines.

Electrical Transmission Grid

Yukon's electric power generation, transmission and distribution systems are as yet not fully developed (approximately 130 MW total capacity) and are not connected to the North American power grid (Yukon Energy Corporation, 2001). Furthermore, Yukon's cost of power is considerably higher than in areas connected to the North American grid and lower power costs could stimulate additional industrial development in Yukon as well as reducing individual Yukoners' cost of power.

Yukon's main transmission grid (138 kV) connects power generation facilities at Whitehorse and Aishihik with communities in Yukon between Whitehorse and Faro. A sub-transmission line (34 kV) extends south from Whitehorse to Carcross and Teslin. A 69 kV line was completed in 2004 connecting Dawson to the Mayo hydroelectric facility.

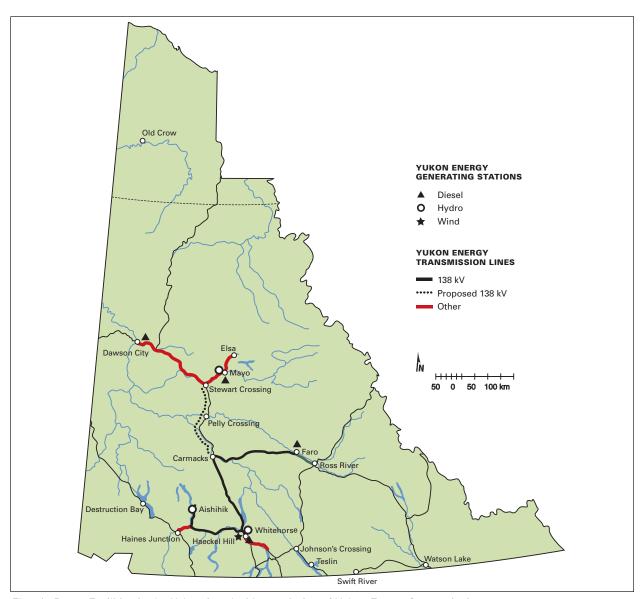
The Yukon Energy Corporation (YEC) recently constructed an expansion of the grid connecting Carmacks to Pelly Crossing and has built a spur line to Capstone's Minto Mine. YEC and Capstone's subsidiary, Minto Explorations, have entered into an agreement to provide grid power to the Minto copper-gold mine. This power supply was initiated in November 2008 and is viewed as a significant step toward creating viable infrastructure for Yukon mines. The continuation of this new line from Pelly Crossing to Stewart Crossing was approved in 2009, with a targeted completion date of 2010. The completion of this line will connect the southern Whitehorse-Aishihik grid with the northern Mayo-Dawson grid. Also approved in 2009 was the Mayo B hydro-electric generating station, which will add significant new clean renewable hydro-electric energy to the Mayo-Dawson grid. Funding for a third hydro-electric turbine at Aishihik has also been announced, which will add an additional 7 megawatts of power to the existing 30 megawatts of power generated at Aishihik. This new energy supply will allow peak winter demands for energy to be met by hydro power as opposed to the present use of diesel electric generators.



Minto Mine (Capstone) — Production commenced in 2008 — open pit.

YMAB commends YG for its continued support of the expansion and improvement of the YEC electrical grid throughout the territory. Based on YEC's forecast for continued growth in the user base and the addition of Capstone's Minto Mine to the grid, demand from current consumers, along with their anticipated growth, will absorb the majority of YEC's available surplus power by 2012 to 2015. In order to provide a sustainable supply of grid power to mining projects beyond the Minto Mine, a long-term plan for development of Yukon's generating capacity should be considered. The potential for new sources of electrical power generation in Yukon, including hydroelectric, wind, natural gas, coal and coal bed methane, is considered to be favourable, while the option of connecting to the BC and/or Alaskan transmission grid(s) should be pursued as a strategic imperative for the long-term growth of Yukon.

Factors influencing expansion of Yukon's grid and the development of new sources of electrical power would primarily be driven by industrial expansion in Yukon. However, interconnection to the North American grid via BC would substantially reduce the risk of new power generating capacity ending up with no customer base due to, for example, depressed metal prices forcing the closure of mines, as such power could then be exported to the North American market. Yukon could also develop a sustainable 'clean' export business through the development of 'clean' energy sources selling power into the North American market, and not be entirely reliant on demand from local customers, such as mining. Conversely, interconnection of the Yukon grid with BC or Alaska could allow Yukon to purchase lower cost power from other jurisdictions, for the benefit of all Yukoners.



Electric Power Facilities in the Yukon (used with permission of Yukon Energy Corporation)

Yukon Zinc's Wolverine mining project in southeast Yukon is being developed with diesel as the only power source. This is in response to there being no other reasonable available power alternatives. Lack of transmission line facilities and available surplus power will contribute to similar power decisions being made by other mine developers in Yukon, resulting in 1) missed opportunities to expand the power infrastructure and capacity in Yukon, 2) increased generation of greenhouse gases and 3) the potential that large scale, energy-intensive projects will not be developed at all, as a result of the lack of low-cost power. This is not in the best environmental or economic interests of Yukon.

The connection of the Mayo-Dawson and Whitehorse-Aishihik-Faro grids is seen as an important step toward upgrading Yukon's electrical supply capabilities. The availability of surplus energy in Yukon, if developed, would provide greater economic incentive to connect the Yukon power grid to British Columbia. Development of a long-term plan for additional generation capacity must be developed in conjunction with projects currently in the permitting and development stage.

YMAB Recommendations

YG should work with YEC to assess the potential energy needs in Yukon and develop a long term plan to supply these needs from Yukon-generated 'clean' energy, likely necessitating additional power developments and grid expansion.

YG should continue to support YEC interconnection of the Yukon electrical grids and pursue options for increased low-cost generating capacity to meet forecast industry needs, as well as connecting to the grid in Northwestern BC and/or Alaska to provide alternative markets for Yukon power or, conversely, purchase lower cost power from outside Yukon.

Sustainability

FINANCIAL INCENTIVES

YMAB has long supported the Yukon Mining Incentives Program (YMIP) and regularly encourages the Minister and YG to continue this support. YMAB was pleased to hear the Minister of EMR announce enhancements to YMIP on July 23, 2009. In order to continue to enhance the value of YMIP, further action is required.

YMAB also recommends YG investigate incentives for new mines in order to encourage and stimulate building of new mines. YMAB recognizes the limited fiscal capacity of the Yukon government compared to other jurisdictions, and encourages YG to enter into discussions with Canada aimed at ensuring a net fiscal benefit for Yukon as the mining economy grows, and the flexibility to offer fiscal incentives to encourage the development of new mines or expansion of existing ones.

YMAB Recommendations

- 1. YG should remove the application deadline in YMIP. There could be a Phase 1 deadline of March 31, for example, after which the initial evaluations and selections would be made, but applications could be made at any time after that for any funds that might remain in the YMIP pool of approved funding.
- 2. YG should increase the amount of YMIP funding available by up to 50% on any single project.
- 3. YG should consider assisting early stage drill programs, perhaps with a total project size cap of \$500,000 and a contribution of up to 10% of that amount.
- 4. YG should investigate fiscal incentives for new mines in order to stimulate building of new mines, or expansions of existing ones, while working with Canada to ensure a net fiscal benefit for Yukon from mineral development.

RECLAMATION

The implementation of the Yukon Mine Site Reclamation and Closure Policy (YMSRCP) in 2006 and the subsequent adoption of the technical and financial security guidelines required to support the YMSRCP has placed Yukon on a much-improved and jurisdictionally-competitive platform with respect to other areas of Canada. YMAB recognizes that the provision of a clear set of reclamation and closure requirements for planning, operation and reclamation of mine sites not only reduces risk for companies working or planning to work in Yukon, but also helps to provide transparency to all stakeholders with respect to future reclamation obligations and the necessary security to ensure that those obligations are not abrogated. Given the checkered history of historic reclamation activity in Yukon, the establishment of the policy and guidelines and the demonstrated successful use of those in the current exploration and mine-related permitting processes are also helping to alleviate many ongoing stakeholder concerns.

One outstanding issue is the efficiency of reclamation security management. Security can currently be held under a variety of authorizations, but most commonly a Quartz Mining License and/or a Water License. A preference to focus security responsibility and management under a Quartz Mining License would appear to be more efficient, given that most recent permits and licenses require project-related longer-term reclamation plans be reviewed every two years. This review is generally led by EMR and focuses on re-assessing technical and financial aspects of future reclamation plans. This format provides an opportunity for companies to review security requirements with government and appropriate adjustments can be made either up or down. To manage this process through the Yukon Water Board would be unduly burdensome and complicated for the Water Board, YG and the proponent.

Along similar lines, YG needs to continue work on utilization of reclamation security trusts as a mechanism to manage security and to ensure that money specified for reclamation is available to conduct reclamation work at the appropriate time.

Reclamation of abandoned mine sites remains an important issue for industry in Yukon, especially with respect to the several "Type II" sites. YMAB appreciates the effort YG is making to ensure appropriate environmental management at these sites. For the most part, benefits of this work are being realized through limited local employment and, in some cases, opportunities for local businesses, First Nations and Yukoners. As always, more can be done, and YMAB encourages YG to use whatever means or leverage it has with the federal government to try to accelerate the closure process at Faro.

YMAB Recommendations

- 1. Consideration should be given to consolidating reclamation security under the Quartz Mining License.
- 2. YG should accommodate use of reclamation security trusts to improve funding and functioning of project reclamation obligations.
- 3. YG should continue to pressure Canada to accelerate the closure process at Faro, thereby increasing opportunities for additional local employment, small business growth and broader benefits to First Nations and Yukoners.

EDUCATION/TRAINING

Yukon has enjoyed major investment in exploration and mine development during 2007 and 2008, which has resulted in many First Nations people being employed directly and indirectly in the exploration and mining industry. Industry sees employment and training of First Nations members and other Yukon people as an important part of educating First Nations and others about the benefits of mining and the potential for development of partnerships around mining and exploration. See section on YMTA below.

YMAB Recommendations

- 1. Continued emphasis should be placed on training in order to build the work force needed for a vibrant mining industry in Yukon.
- 2. YG, in conjunction with industry and the Yukon Mine Training Association, should undertake to document First Nations and other Yukoner participation in the mining industry as a means of demonstrating the progress that is being made in terms of First Nations and local citizens receiving benefits from mine exploration, development, production and reclamation activities.
- 3. Continued support is necessary for the Northern Safety Network to sustain high standards of safety in the workplace to ensure workers are able to go home to their families safe and well.

Associated with the resurgence of exploration and mine development comes increased social and economic pressures that will need to be met. The ability to address these issues is beyond the scope of industry alone. Much education and capacity-building must be done within First Nations communities to address their capacity problems in dealing with industry activities and to permit a broader participation by First Nations in those activities. Coordination of government and industry efforts is needed to ensure that exploration and mining do not exacerbate current and new problems that arise. Through 'memorandums of cooperation' and 'socioeconomic participation agreements', industry and First Nations are working together to address these issues, in an effort to assist their employees and ensure healthy communities.

YMAB Recommendations

Industry, First Nations and YG should meet, in a forum arranged by YG, to discuss the social and economic challenges of mine development and determine how they can best address these issues and ensure that potentially-negative effects are minimized and benefits maximized. Resources are scarce and coordination of efforts and resources is essential.

YUKON MINE TRAINING ASSOCIATION

The success of the Yukon Mine Training Association (YMTA) in securing \$9.3 million from the federal government, in a five-year commitment under the Aboriginal Skills and Employment Partnership (ASEP) program, is a major achievement and will go a long way toward providing training for First Nations members. This money is in addition to funding from YG under the Northern Strategy Fund and Yukon Workers' Compensation Health and Safety Board. It provides a solid base for YMTA to grow and expand its training programs.

The YMTA trained 208 persons from January 2008 to January 2009, including Basic Online Safety Training, Youth Awareness programs (in Gemology and Environmental Management), Environment and Monitoring, Truck Driver, Heavy Equipment Operator, Rock Truck Driver, Supervisor Training, Overhead Crane Operator and Emergency Mine Rescue. These programs were expanded in 2009.

With the ASEP funding, YMTA is now well-positioned to grow and implement training programs for First Nations. These funds will be further leveraged by contributions from industry representatives which are participating in the training programs. Although this is very positive, it should be noted that most funding available through YMTA under its contribution agreements is specifically targeted at First Nations, with less funding for training of non-First Nations persons. There is a need to ensure that adequate funding is available for all persons in Yukon, including new entries to the workforce. If many of the larger resource projects were to proceed to construction at the same time, there would be a significant shortfall in skilled labour and a significant influx of new workers should be expected. Plans should be made to address the integration of such new workers into the Yukon workforce.

YMAB Recommendations

YG should continue to support the YMTA with funding through the various government programs, in an effort to ensure that such programs benefit all Yukoners and the needs of industry.

YMTA is now a major participant in education, training and employment in Yukon and is partnering with Yukon College and numerous other organizations to expand and deliver its programs. There is much work to be done in coordinating the efforts of the various participants in education, training and employment associated with exploration, development, operation and reclamation of mines.

YMAB Recommendations

YG should ensure coordination with YMTA and industry in the delivery of education, training and employment within the mining industry.

CAPACITY BUILDING

The abundance of new project proposals within Yukon has increased demands on First Nations to participate in the environmental assessment and permitting process, stretching resources in many First Nations communities to the point that they cannot participate in a meaningful way. The processes are time-consuming and drain community funding for such activities. Perhaps of even more concern, many communities do not have the capacity to participate and are reliant on external consultants to review submissions to YESAA and the regulatory authorities. The latter further drains community monetary resources.

Industry, through its resource funding agreements, has provided some monetary support to this process, as has EMR. This has helped alleviate the problem but has still left the communities struggling to meet these needs. Clearly, building capacity in the communities will provide long-term benefits to communities, industry and all of Yukon, and this should be encouraged. Participation by First Nations in project reviews has in itself helped to build capacity out of necessity; however, First Nations participation in the review process would benefit from coordination of the various participants.

YMAB notes that progress has been made in building capacity in First Nations. During the past year, YMTA undertook a training program for Aboriginal Liaison Officers and the Introduction to Exploration and Mining program, and industry has run mining and the environment camps for youth.

YMAB Recommendations

YG should work with industry and First Nations to determine how best to build capacity in communities to address the growing need for participation in exploration and mine development projects, including project reviews, consultation and operation of projects, and the ongoing monitoring and reclamation of these projects.

LAND USE PLANNING

Land Use Planning threatens to become a divisive and controversial issue in Yukon, to the detriment of the investment attractiveness and economic wellbeing of the territory. Additional detail on this matter may be found in YMAB's submission to the Minister of Energy, Mines & Resources, dated May 20, 2009, in respect of the Draft Peel Watershed Land Use Plan (DPWLUP). In this 2008 Annual Report, YMAB is focusing more on the broader issues related to the overall land use planning process but has incorporated some of the information from the May 20, 2009 submission.

YMAB fully supports efforts to reduce or avoid, to the extent reasonably and economically prudent, land use conflicts through the proper use and implementation of the land use planning provisions of land claim agreements. YMAB also fully supports appropriate environmental assessment, regulation, monitoring, bonding and post-closure reclamation. Further, YMAB supports the principles of sustainable development as defined by the United Nations (UN), again to the extent reasonably and economically prudent. YMAB recognizes that resource extraction industries will, by definition, create some disturbance, and YMAB fully supports appropriate reclamation and restoration of disturbed areas.

Land use planning should have the objective of defining principles and processes for the sharing of natural resources (including the natural environment) within a region in a sustainable manner. The purpose of such plans should be to mitigate potential land use conflicts, rather than prescribing zoning and land alienation. Considerations should include protection of the natural environment (including flora, fish and wildlife), the wellbeing of First Nations and other Yukon residents, and sustainable economic development. The actual assessment of specific projects or activities should be conducted through established regulatory and governmental processes including, but not limited to, those defined in the *Yukon Environmental and Socioeconomic Assessment Act* (YESAA). The addition of another complex and uncertain regulatory process as proposed in the DPWLUP should be avoided.

The definition of sustainable development (as set out by the United Nations) clearly includes the extraction of resources; sustainable development must equitably meet both development and environmental needs. It is unfortunate that land use planning, such as that being proposed for the Peel Watershed, seems to be heavily biased toward outright protection, rather than balancing economic development and environment in a truly sustainable manner. This protectionist approach risks jeopardizing the economic future of Yukon for little gain, since very little of Yukon would be disturbed anyway; economic deposits that make it all the way to a producing mine are rare and have very small footprints. YMAB strongly urges that those coordinating land use planning for the Peel and other areas of Yukon re-examine the mandates for land use planning commissions and provide adequate direction as to what approach would be appropriate and acceptable to Yukon. Efforts should re-focus on fostering a cooperative approach to managing and sharing Yukon's resources for the benefit of all, with appropriate checks and balances, combined with appropriate review under YESAA and subsequent oversight and monitoring thereafter.

YMAB Recommendations

YMAB recommends that YG and related parties re-examine the mandates and direction being provided to Yukon's land use planning commissions and ensure that:

- 1) there is an appropriate balance between the environment and economic development,
- 2) existing assessment, regulatory and approval processes (including YESAA) remain paramount, and
- 3) another layer of regulatory bureaucracy is not added in Yukon.

CLIMATE

YMAB has reviewed the draft Yukon Climate Change Action Plan and made a formal submission to the Minister of EMR in respect of this matter. YMAB has two fundamental concerns with the basic premises of the plan.

First, climate change is nothing new. Evidence of global climate change, often on a scale much more dramatic than what we are experiencing today, can be seen in the geologic record dating back hundreds of thousands, and even hundreds of millions, of years, with evidence of ice ages to tropical conditions in the Arctic. This aspect of climate change is rarely addressed, but is an essential component of any analysis of climate change and development of a strategy to respond to it.

Second, the contention that global warming is significantly enhanced by anthropogenic CO_2 emissions is a hotly-debated topic and is by no means proven. Even if this contention is accepted and agreed to be harmful, published information suggests that Yukon emits less than 0.003 % of global CO_2 emissions and we suggest that Yukon would have no discernible effect on global climate if it stopped using fossil fuels entirely, including use of vehicles. As a result, YMAB recommends YG focus its efforts on adapting to climate change as opposed to trying to prevent it. In this respect, YMAB supports sound, science-based environmental management practices, resulting in a reduced environmental footprint.

The health of Yukon's economy is very much dependent on fossil fuels, generating power in those communities and projects not on the hydro grid, fueling almost all of our transportation needs and heating many of our homes and offices. Such cannot be changed and reasonable mitigation measures should be considered.

YMAB Recommendations

YMAB strongly recommends against setting caps or targets or instituting any carbon taxes for reductions in greenhouse gas emissions. Rather, we recommend that the momentum developed from the global warming debate be used in a positive manner to reduce, to the extent reasonably and economically practical, human impact on the environment in any form and to constantly seek ways to increase the efficiency of our energy utilization.

The reader is referred to YMAB's August 20, 2008 response to the draft Yukon Climate Change Action plan for a more detailed discussion and recommendations.

Geoscience

The Yukon Geological Survey (YGS) continues to do an excellent job of encouraging mineral exploration in the territory through its first-class geological mapping programs, mineral deposit studies, evaluation of exploration and development projects, data collection and distribution. The YGS continues to enhance its online presence and a major effort is underway to modernize and integrate its many databases.

YMAB congratulates YG for its long-term financial support to this important government agency. Department of Indian Affairs and Northern Development's (DIAND) Strategic Investment in Northern Economic Development (SINED) program has been important in providing supplemental funding for field programs and related geophysical and geochemical surveys. The SINED program comes to an end on March 31, 2009. Although the program has been renewed in the current federal budget, we have some concern that it will be less effective in supporting field programs that will be of benefit to mineral exploration.

YMAB supports the YGS initiative to expand and upgrade the H.S. Bostock Core Library and is pleased to see that the YGS has been awarded a \$3.885 million grant from DIAND's Arctic Research Infrastructure Fund toward this effort. The current core library is overcrowded and under-utilized, due to staffing difficulties and its distance from the YGS offices. One of the greatest legacies of mineral exploration, drill core, is at risk of being lost. In addition, YGS staff persons have for many years been physically divided from one another and field geologists separated from the EMR library. YMAB recommends that every effort be made to find a satisfactory space such that all of EMR is located in one building.



HC Mining — Hayden Cowan's family placer operation has mined for many years on Henderson Creek.

The YGS will also be participating in the new five-year, \$100 million GEM (Geo-mapping for Energy and Minerals) program throughout the Edges (exotic terranes of central and western Yukon), Selwyn Basin and possibly the proposed Wernecke/Mackenzie Mountain projects. These are collaborative programs with the Geological Survey of Canada and while GEM doesn't provide direct funding to YGS, it does help with logistical support for these important field programs.

Finally, YGS has been unable to fill some of its key positions during the recent exploration boom. It is to be hoped that in the new economic climate, high-quality candidates will now have a greater interest in applying for these positions, which include a Project Geologist (offer out) and Metallogenist/Mineral Assessment Geologist (hired).

YMAB wishes the new Chief Geologist, Carolyn Relf, success in this time of exciting growth and new directions for the YGS.

YMAB Recommendations

- YMAB recommends that YG maintain its commitment to geoscience by ensuring that the YGS is sufficiently-funded and fully-staffed in order to fulfill its mandate to build and maintain the territory's geological database, to support and encourage mineral and fossil fuels exploration, and to provide guidance to the territory on geological hazards, environmental issues (such as groundwater and permafrost), and mineral and hydrocarbon potential.
- 2) YMAB recommends that every effort be made to find a satisfactory space that would allow all of EMR to be located under one roof in order to provide a single, effective centre for Yukon geoscience and other services from EMR.

Acknowledgements

YMAB thanks staff within the Yukon government's Department of Energy Mines & Resources for contributing background information which summarizes mineral exploration and development activities in Yukon during 2008. Similarly, YMAB thanks the Yukon Mine Training Association for providing information on the YMTA's training programs.

Information was also obtained from the Yukon government's Department of Economic Development and from the following websites:

www.emr.gov.yk.ca/ www.yesab.ca www.yukonminetraining.com

Glossary of Terms

| AIDEA | Alaska Industrial Development & Export Agency | | | |
|--------|---|--|--|--|
| | Aboriginal Skills and Employment Partnership | | | |
| | Canadian Environmental Assessment Act | | | |
| CYFN | Council of Yukon First Nations | | | |
| DIAND | Department of Indian Affairs and Northern Development — Canada | | | |
| | Draft Peel Watershed Land Use Plan | | | |
| ECO | Executive Council Office | | | |
| EMR | Energy, Mines and Resources — Department of the Yukon Government | | | |
| ENV | Environment — Department of the Yukon Government | | | |
| GEM | Geo-mapping for Energy and Minerals Program | | | |
| IPP | Independent Power Producer | | | |
| IRM | Integrated Resource Management (Yukon Government working philosophy and subsequently approved strategy) | | | |
| ISC | Implementation Steering Committee | | | |
| KPMA | Klondike Placer Miners' Association | | | |
| LUP | Land Use Planning | | | |
| MLUR | Mining Land Use Regulations | | | |
| NMRS | Northern Mineral Records System | | | |
| PDAC | Prospectors and Developers Association of Canada | | | |
| QMA | Quartz Mining Act | | | |
| SOT | Skagway Ore Terminal | | | |
| UFA | Umbrella Final Agreement | | | |
| WC | Working Committee | | | |
| WPYR | White Pass & Yukon Railroad | | | |
| YEAA | Yukon Environmental Assessment Act | | | |
| YEC | Yukon Energy Corporation | | | |
| YESAA | Yukon Environmental and Socio-economic Assessment Act | | | |
| YESAB | Yukon Environmental and Socio-economic Assessment Board | | | |
| YG | Yukon Government | | | |
| YGS | Yukon Geological Survey | | | |
| YLUPC | Yukon Land Use Planning Council | | | |
| YMAB | Yukon Minerals Advisory Board | | | |
| YMETC | Yukon Mineral Exploration Tax Credit | | | |
| YMIP | Yukon Mining Incentives Program | | | |
| YMSRCP | Yukon Mine Site Reclamation and Closure Policy | | | |
| YMTA | Yukon Mine Training Association | | | |
| YOR | YESAB Online Registry | | | |
| YUB | Yukon Utilities Board | | | |
| YWB | Yukon Water Board | | | |

Appendix A: Order in Council Creating the Yukon Minerals Advisory Board

| M.O. | 1999/0 |)6 | |
|-------------|--------|--------------------|------------|
| ECON | OMIC | DEVELOPMENT | ACT |

A.M. 1999/06 LOI SUR LE DÉVELOPPEMENT ÉCONOMIQUE

ECONOMIC DEVELOPMENT ACT

Pursuant to section 9 of the *Economic Development Act*, the Minister of Economic Development orders as follows:

 ${\bf 1.}$ The annexed Yukon Minerals Advisory Board Order is hereby made.

Dated at Whitehorse, in the Yukon Territory, this 7 day of June, 1999.

LOI SUR LE DÉVELOPPEMENT ÉCONOMIQUE

- Le ministre de l'Expansion économique, conformément à l'article 9 de la *Loi sur le développement économique*, décrète ce qui suit :
- **1.** Le Décret créant le Conseil consultatif sur l'exploitation minière au Yukon est établi.

Fait à Whitehorse, dans le territoire du Yukon, ce 7 juin 1999.

| Minister of Economic Development | Ministre de l'Expansion économique |
|----------------------------------|------------------------------------|

Terms of Reference of Yukon Minerals Advisory Board

Organization

Authority

The Board is established under the *Economic Development Act* to advise the Minister of Energy, Mines and Resources on mineral development matters in accordance with these terms of reference.

Mandate of the Board

The Board shall:

- Make recommendations on specific matters referred to it from time to time, by the Minister;
- Undertake other initiatives, such as conferences and public workshops on mineral development matters, as requested by the Minister; and
- Make recommendations to the Minister to fulfill the objectives of the Board.

The Board shall table with the Legislature an annual report for the previous calendar year by May 1st. Matters to be addressed in this report include activities of the Board and, on the request of the Minister, recommendations on matters referred to it in the previous year.

Objectives of the Board

The Board shall recommend to the Minister measures, including government actions to:

- increase the potential for mineral exploration and development in Yukon;
- attract capital for the exploration and development of new mines;
- ensure that mines can be developed feasibly and in a timely fashion;
- improve the potential for producing mines to remain viable;
- enhance Yukon participation in mining;
- reduce constraints, including government constraints, on the development of minerals in Yukon; and
- outreach with first nations to explore the opportunities and benefits of mineral exploration and development in Yukon.

Duration of Mandate

The Yukon Minerals Advisory Board will be subject to review after five years, in 2005, to determine its continuance, according to policy objectives and priorities at that time.

Makeup of the Board

The Board consists of the following representatives:

- Member of the Yukon Chamber of Mines;
- Member of the Klondike Placer Miners Association:
- CEO or senior managers of companies with Yukon mineral exploration projects and/or mines;
- CEO or senior managers of junior mining sector;
- · Representatives of national mining associations;
- Other individuals who have at least five years experience in various aspects of the minerals industries.

The Board will consist of no more than 10 members.

Members will be appointed by the Minister of Energy, Mines and Resources. Appointments shall have a duration of up to 2 years, and terms can be renewed by the Minister.

The Minister shall appoint one member of the Board to serve as chair, for a period of two years. Such terms can be renewed by the Minister.

Secretariat

Secretariat services and other support as required, will be provided by Department of Energy, Mines and Resources. The secretariat will provide certain analytical, technical and administrative services necessary for the effective operation of the Board. Direction of the secretariat will normally be provided by the Chair.

Independent recording and minute-taking services will be provided for by the Department of Energy, Mines and Resources.

Proceedings

Meetings

The Board will meet, at minimum, once a year.

Quorum

A majority of the Board, including the Chair, constitutes a quorum.

Conflict of Interest

A member of the Board will not be considered to have a material conflict of interest if:

- The member has a financial interest in a mining company operating in the Yukon;
- The member has an interest in a mining company receiving financial assistance from government in association with a mineral exploration or development project;
- The member receives financial assistance from government in association with a mineral exploration or development project;
- The member has an interest in a mining company or property with regulatory applications and authorizations under consideration by the Yukon government.

Board Procedures

The Board may establish procedures and rules governing the conduct of its business.

Public Access

The minutes or other form of record of Board meetings shall be available to the public.

