

YUKON MINERAL DEVELOPMENT STRATEGY AND RECOMMENDATIONS

28 December 2020

FINAL DRAFT

Yukon Mineral Development Strategy and Recommendations

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Yukon Mineral Development Strategy and Recommendations

Preface

In early 2017, the Yukon Minister of Energy, Mines and Resources, the Grand Chief of the Council of Yukon First Nations and the Chiefs of Yukon's self-governing First Nations signed the Mining Memorandum of Understanding. The Mining Memorandum of Understanding commits the Yukon Government and Yukon First Nations to the long-term responsible management of Yukon's mineral resources and to supporting a healthy mining industry that adheres to high environmental standards.

This report is the final product of the Mineral Development Strategy Panel (MDS Panel) appointed in April 2019. MDS Panel members include Angus Robertson (Chair), Math'ieya Alatini and Doug Eaton. The completion of the Yukon Mineral Development Strategy marks just the beginning of the transformation of the Yukon's mineral industry for the benefit of all Yukoners. Timely implementation of the recommendations in order to achieve the transformation will require effective collaboration and accountability by all governments.

The Yukon Mineral Development Strategy respects the broader recognition of Indigenous rights that has evolved in the quarter century since the template for the modern Yukon treaties, the Umbrella Final Agreement, was signed in 1993. Reconciliation with Yukon First Nation people is at the heart of the place-based approach embodied in the Yukon Mineral Development Strategy.

The Yukon Mineral Development Strategy is the result of an extensive engagement process over 16 months. Through the engagement process, the MDS Panel identified seven principles to guide the development of Yukon's mineral resources for the benefit of all Yukoners. Adoption and integration of the seven principles is intended to create a foundation for a healthy Yukon mineral industry within an attractive investment climate. The 79 recommended actions outlined in this report are presented within the context of six Strategic Priorities and include a wide range of legislative, policy and administrative initiatives.

The MDS Panel is confident that this Yukon Mineral Development Strategy and Recommendations report fulfills the desire of many engagement participants for a bold, transformative and contemporary approach to Yukon mineral development. An approach that establishes a framework for sustainable mineral resource development within a positive context of economic, social and environmental reconciliation.

The MDS Panel is also confident the mining industry will finally be able to see a clear development pathway and know the goal posts at each stage of the mineral exploration and development cycle. Full implementation of the Strategy will create the certainty sought by the mining industry and spark the flow of investment dollars needed for industry development.

Yukon Mineral Development Strategy – The Independent Panel



Angus Robertson, Panel Chair

Angus Robertson has held a number of leadership positions with federal, provincial and territorial governments. He started his career in 1980 with the Department of Indian and Northern Affairs and held a variety of posts in Yukon, Northwest Territories, and Ottawa. He then served the B.C. Government in several positions including Assistant Deputy Minister of treaty negotiations with the Ministry of Aboriginal Affairs. Robertson joined the Yukon Government's Executive Council Office in 1997 serving as Yukon's Chief Devolution Negotiator and assistant deputy minister of intergovernmental relations for four years. He was deputy minister of the Department of Economic Development for almost two years and then deputy minister of the Department of Energy, Mines, and Resources for nine years. Robertson holds a Bachelor of Arts and a Master of Arts from the University of British Columbia.



Math'ieya Alatini, Panel Member

Math'ieya Alatini's name might come to mind when you think of innovations and advances in northern governance, renewable energy, and partnerships. She's a capable and experienced leader, known for trailblazing in her community of Burwash Landing. Her no-nonsense approach allows her to get results in the sectors of mining, economic expansion, and tourism with a focus on community wellness.



Doug Eaton, Panel Member

Doug Eaton obtained a Bachelor of Arts degree from the University of Alberta in 1971 and a Bachelor of Science degree in Geology from the University of British Columbia in 1980. He has been with Archer, Cathro & Associates (1981) Limited since 1971 and has been a principal of that consulting firm since 1981. He has exceptional knowledge of Yukon geology and has contributed to several important discoveries. Mr. Eaton has served as a director and officer of numerous public companies on the TSX Venture Exchange since the mid-1980s.

Yukon Mineral Development Strategy and Recommendations

Introduction

The Mining Memorandum of Understanding

The Yukon Minister of Energy, Mines and Resources, the Grand Chief of the Council of Yukon First Nations and the Chiefs of Yukon’s self-governing First Nations signed the Mining Memorandum of Understanding in early 2017.

The Mining Memorandum of Understanding commits the Yukon Government and Yukon First Nations to the long-term responsible management of Yukon’s mineral resources and to supporting a healthy mining industry that adheres to high environmental standards. Through the Mining Memorandum of Understanding process, Yukon First Nations and the Yukon Government have together created this Mineral Development Strategy with industry input. The Strategy considers all Yukoners’ needs, values and interests and is a long-term plan for a robust and responsible Yukon mining industry.

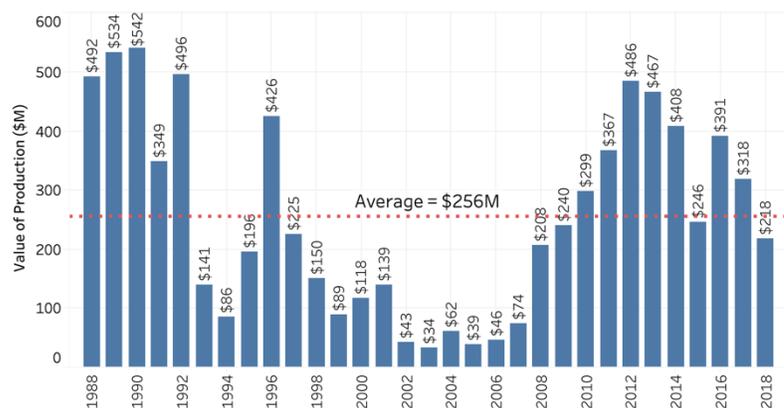
The Yukon Mineral Development Strategy speaks to both placer and quartz mining activities. The Strategy encompasses all aspects of the mineral resources development cycle including target research, claim staking, prospecting, exploration, development, production, reclamation, closure and post-closure management in a manner that:

1. respects the special relationship between the Yukon Government and Yukon First Nation governments that sets Yukon apart from other jurisdictions; and,
2. creates jobs, strengthens and diversifies our economy, respects environmental stewardship and balances the development of a thriving and prosperous mining industry that benefits all Yukoners and recognizes and respects the Yukon First Nations’ special relationship with the land and resources within their respective traditional territories.

Mineral Development and the Yukon Economy

The Yukon’s mining industry is a key contributor to the Yukon economy. As shown in the chart to the right, the total value of mineral production in the Yukon over the period 1988 to 2018 ranged from a low of \$34 million in 2003, to a high of \$542 million in 1989, and averaged \$256 million per year. The total values include production from both quartz and placer mines in Yukon.

Total Value of Yukon Mineral Production (\$M)
1988 to 2018



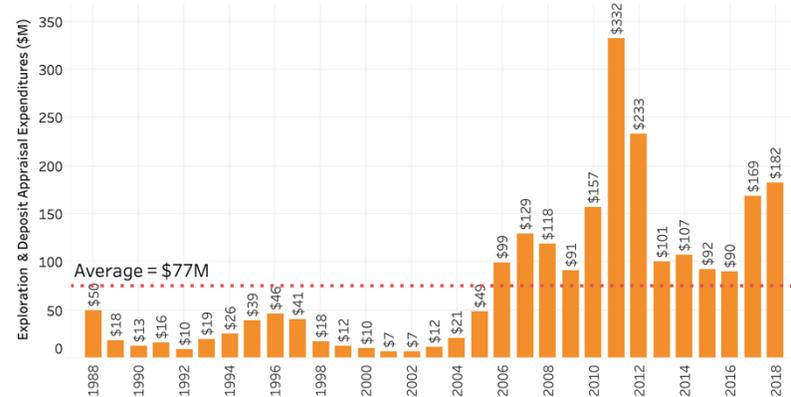
Source: Natural Resources Canada.

Yukon Mineral Development Strategy and Recommendations

Peak production years in the chart correspond with the size and number size of mine operations. The high levels of production in the late 1980's are attributable to the large-scale Faro mine. Peak production levels around 2012 are attributable to multiple operating mines including Minto, Bellekeno and Wolverine. The variation in mineral production levels also demonstrates the 'boom and bust' nature of the Yukon's quartz mining industry. In contrast, Yukon's approximately 100 placer mines made a steady contribution to mineral production over the 1988 to 2018 time period, with the value of annual production ranging between \$19 million and \$96.5 million.

Mineral exploration activities also make a significant contribution to the Yukon economy on an annual basis. As seen from the chart to the right, Yukon mineral exploration and deposit appraisal expenditures over the period 1988 to 2018 ranged from a low of \$13 million in 1990, to a high of \$332 million in 2011, and averaged \$77 million per year.

Yukon Mineral Exploration and Deposit Appraisal Expenditures (\$M) 1988 to 2018



Source: Natural Resources Canada.

The significant contribution of mineral development activities to the Yukon economy can also be demonstrated in terms of Gross Domestic Product. Over the 12-year period 2008 to 2019, the mining sectors' share of Yukon Gross Domestic Product averaged 10.3%. It also bears noting that the Yukon's mining industry creates substantial numbers of spin-off jobs in other economic sectors including transportation, accommodation, construction and retail sales. The mining industry's geographic presence creates economic benefits throughout the Yukon and not just in the Whitehorse area.

The contributions of the Yukon's mineral exploration and development sector to the Yukon economy are achieved despite challenges and risks not faced by other industries. The inherently unique risks and constraints under which mineral exploration and development companies operate in the Yukon are summarized in the box on the following page.

Mineral Exploration and Development Risks and Constraints

Location: "You have to mine it where you find it" – the location of a mine is primarily determined by geology rather than cost-effective access to infrastructure, availability of workforce or proximity to customers.

Discovery: The probability of successfully establishing a mine is very low. A common metric is that of 1,000 grassroots exploration projects, only 100 will receive detailed exploration, fewer than 10 will proceed to advanced explorations phase, and only one will result in a mine.

Geological: The probability of discovery may be low, but chances of finding a deposit of superior quality are even lower. Mine developers focus on projects with projected profit margins in the top 25% of mines for the same mineral.

Infrastructure: while many parts of Yukon are accessible by tote roads and trails, most mineral discoveries are located significant distances away from existing highway corridors. Haul road access is required if deposits are to be developed as rail service is not currently a transport option for mine operators in Yukon.

Seasonality: undertaking exploration and development activities in remote areas with harsh and highly seasonal climates such as the Yukon can add several years to development timelines, making Yukon projects more expensive than in other geographic locations.

Time-frame: The long duration of the exploration and development phases means that there is an extended period of negative cash flows before revenues begin to accrue from production.

Economic: The long time frame and large capital costs means that exploration and mining firms are very sensitive to uncertainties about the regulatory regime, taxation regime, commodity prices, operating costs, etc.

Environmental: Once in production, mines are subject to the effects of a changing climate and natural disasters, in addition to risks associated with large scale industrial operations located in geographically remote regions such as the Yukon.

Yukon Mineral Development - The Statutory Landscape

Under provisions of the Devolution Transfer Agreement which came into force in April 2003, the Yukon Government holds administrative responsibility for Yukon's mineral, forestry, land and water resources. Notwithstanding that 17 years have elapsed since the Devolution Transfer Agreement came into force, the *Forest Resources Act* is the only example of Yukon natural resource legislation to be developed since 2003.

The basic design of the both the *Quartz Mining Act* and the *Placer Mining Act* can still be directly traced to the Quartz and Placer Regulations in the *Dominions Lands Act*. The Quartz and Placer Regulations were enacted in 1898 at a time when Canada's north was considered to be empty of everything except natural resources. Over the intervening 122 years, a patchwork quilt of amendments have rendered the Yukon's mineral resource legislation unresponsive to evolving industry circumstances and difficult to enforce.

Yukon Mineral Development Strategy and Recommendations

Modern treaties have been established with 11 of 14 of Yukon's First Nations. The treaties are truly comprehensive and designate approximately 9% of Yukon's land area as Settlement Land and afford province-like governance powers. The Yukon's modern treaties are comprised of two parts, Self-government Agreements and constitutionally protected Final Agreements. The Yukon treaties establish legislated fiscal arrangements and provide direct taxation powers to Yukon First Nations. Beyond Settlement Land, the modern treaties with Yukon First Nations also establish roles and responsibilities for the joint stewardship of the First Nation traditional territories by Yukon First Nations and the Yukon Government.

Not all Yukon First Nations have concluded modern treaties. The Yukon Mineral Development Strategy is meant to be inclusive of the three Yukon First Nations who have yet to sign modern treaties. The Strategy acknowledges the contemporary case law which guides development activities on the Yukon's unceded Traditional Territories and the interests of the Yukon's transboundary First Nations.

The Yukon Mineral Development Strategy respects the broader recognition of Indigenous rights that has evolved in the quarter century since the template for the Yukon treaties, the Umbrella Final Agreement, was signed in 1993. Specifically, the Yukon Mineral Development Strategy has been developed within the context of Article 32 of United Nations Declaration of the Rights of Indigenous People and Call to Action No. 92, issued by the Truth and Reconciliation Commission of Canada:

Article 32 of United Nations Declaration of the Rights of Indigenous People states:

- 1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.*
- 2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.*
- 3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.*

Call to Action No. 92, issued by the Truth and Reconciliation Commission of Canada states:

"We call upon the corporate sector in Canada to adopt the United Nations Declaration on the Rights of Indigenous Peoples as a reconciliation framework and to apply its principles, norms, and standards to corporate policy and core operational activities involving Indigenous peoples and their lands and resources. This would include, but not be limited to, the following:

- Commit to meaningful consultation, building respectful relationships, and obtaining the free, prior, and informed consent of Indigenous peoples before proceeding with economic development projects.*

Yukon Mineral Development Strategy and Recommendations

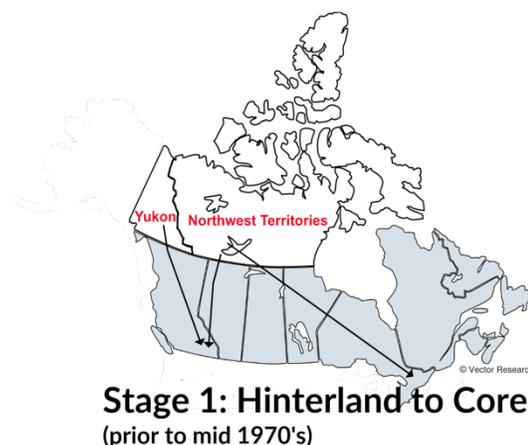
- *Ensure that Aboriginal peoples have equitable access to jobs, training, and education opportunities in the corporate sector, and that Aboriginal communities gain long-term sustainable benefits from economic development projects.*
- *Provide education for management and staff on the history of Aboriginal peoples, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, Indigenous law, and Aboriginal–Crown relations. This will require skills-based training in intercultural competency, conflict resolution, human rights, and anti-racism.”*

Reconciliation with Yukon First Nation people is at the heart of the place-based approach embodied in the Yukon Mineral Development Strategy.

Place-based Development

In the future, unlocking the resource potential in Canada’s North must follow a different path than history would suggest.

The Stage 1 diagram shown to the right is a representation of ‘staples theory’ or the ‘core – periphery’ model of regional economic development. Natural resources in raw form (e.g., mineral ores) are extracted in the northern hinterland (or periphery) and shipped to smelters in the south. The now ‘value-added’ products would then be used as inputs for manufacturing in centralized ‘core’ locations, typically large Canadian urban centres.



The traditional hinterland-to-core model of regional economic development was “spatially blind” — it focused mainly on the potential value of resource wealth and the transportation infrastructure needed to get raw resources to Canadian markets. Stage 1 prevailed in Canada’s north until the mid-1970s. When regional development is spatially blind, the specific attributes of an area or place – people, culture and governance – are discounted and ignored.

In the 1970’s, recognition began to grow that Canada’s northern “hinterland” has always been home to Indigenous peoples of diverse cultures, languages and traditions having in common an unassailable connection to the land. The idea of “homeland” was articulated to a wide audience in 1977 by Justice Thomas Berger in *Northern Frontier, Northern Homeland: The Report of the Mackenzie Valley Pipeline Inquiry*. A new and relatively shortly-lived stage of northern economic development – homeland-to-core – saw a slowdown in northern resource development with most projects having entered the development pipeline many years prior.

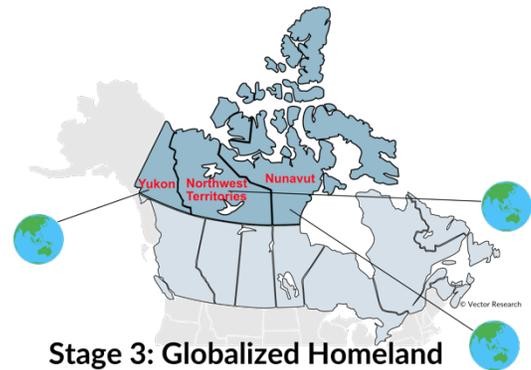
Yukon Mineral Development Strategy and Recommendations

It was also during the homeland-to-core stage that the practice of environmental assessment began to be applied to northern resource development projects. Whereas federal regional economic development showpieces such as the Faro Mine in Yukon and the Pine Point Mine in the Northwest Territories were built without screening for adverse environmental effects, projects which followed have faced a much higher level of environmental and regulatory scrutiny.



Stage 2: Homeland to Core
mid 1970's to 1999

In Stage 3, beginning in the late 1990's, the homeland-to-core approach to economic development was replaced by a new reality – globalized homeland. The globalized homeland approach recognizes that Indigenous people have always lived in Canada's north and, through modern treaties, have a constitutionally protected say in how natural resources are developed and how the land is to be returned to its natural state after resources have been extracted.



Stage 3: Globalized Homeland
1999 and forward

The Globalized Homeland stage of northern economic development is also characterized by the rapid pace of technological change in Canada's north. Internet connectivity and other technological innovations mean that successful resource development is no longer simply a matter of "getting there first" before your competitors do. Ownership of resource development companies has become globalized and resources are shipped to locations far away from Canada for processing.

Mineral Strategy Development

The Yukon Mineral Development Strategy is the result of an exceptionally extensive engagement process with Yukon people, governments and organizations as well as companies, individuals and organizations invested directly or indirectly in the Yukon's mining industry.

The MDS Panel adopted a broad-based approach to engagement and invited participants to speak openly about how mineral development affects the Yukon and what matters to them about mineral development. This approach allowed the MDS Panel to gain a comprehensive understanding of how mineral development affects Yukoners and the Yukon, both positively and negatively.

Yukon Mineral Development Strategy and Recommendations

The engagement was conducted outside of the Yukon Government's *Engage Yukon* template and so resulted in the collection of a significant volume of qualitative evidence used to directly inform the Yukon Mineral Development Strategy. Over the course of the engagement process the MDS Panel conducted comprehensive research on mining policies, management infrastructure and practices in other jurisdictions within and outside of Canada.

Prior to the COVID-19 pandemic, the MDS Panel attended the 2019 Yukon Geoscience Forum in Whitehorse, the 2020 Association for Mineral Exploration Roundup in Vancouver and the 2020 Prospectors and Developers Conference in Toronto. At the three events, the MDS Panel met and learned from people involved in all aspects of mineral development (e.g., prospectors, junior and senior mining companies, investors and government officials). The MDS Panel hosted six focus groups with Yukon businesses directly and indirectly involved in mineral development. Roughly 35 businesses attended the focus groups, which were coordinated by the Yukon First Nations Chamber of Commerce, the Yukon Chamber of Commerce, and the Yukon Chamber of Mines.

In response to the COVID-19 pandemic declared in March 2020, the MDS Panel modified the public engagement options, based on feedback from Yukon First Nations and municipalities. To ensure all Yukon people could participate, the MDS Panel:

- hosted eight regional online open houses;
- set up a toll-free phone line so Yukoners without Internet access could leave recorded messages;
- hosted a two-day session with Yukon First Nation elders; and
- hosted over 90 meetings, both in-person (prior to the COVID-19 pandemic) and using Zoom (during the COVID-19 pandemic).

Through the various engagement efforts, the MDS Panel received input through:

- 90+ interviews and meetings with individuals and groups;
- 63 written submissions;
- three days of focus groups;
- eight online open houses; and,
- 2,900 survey comments.

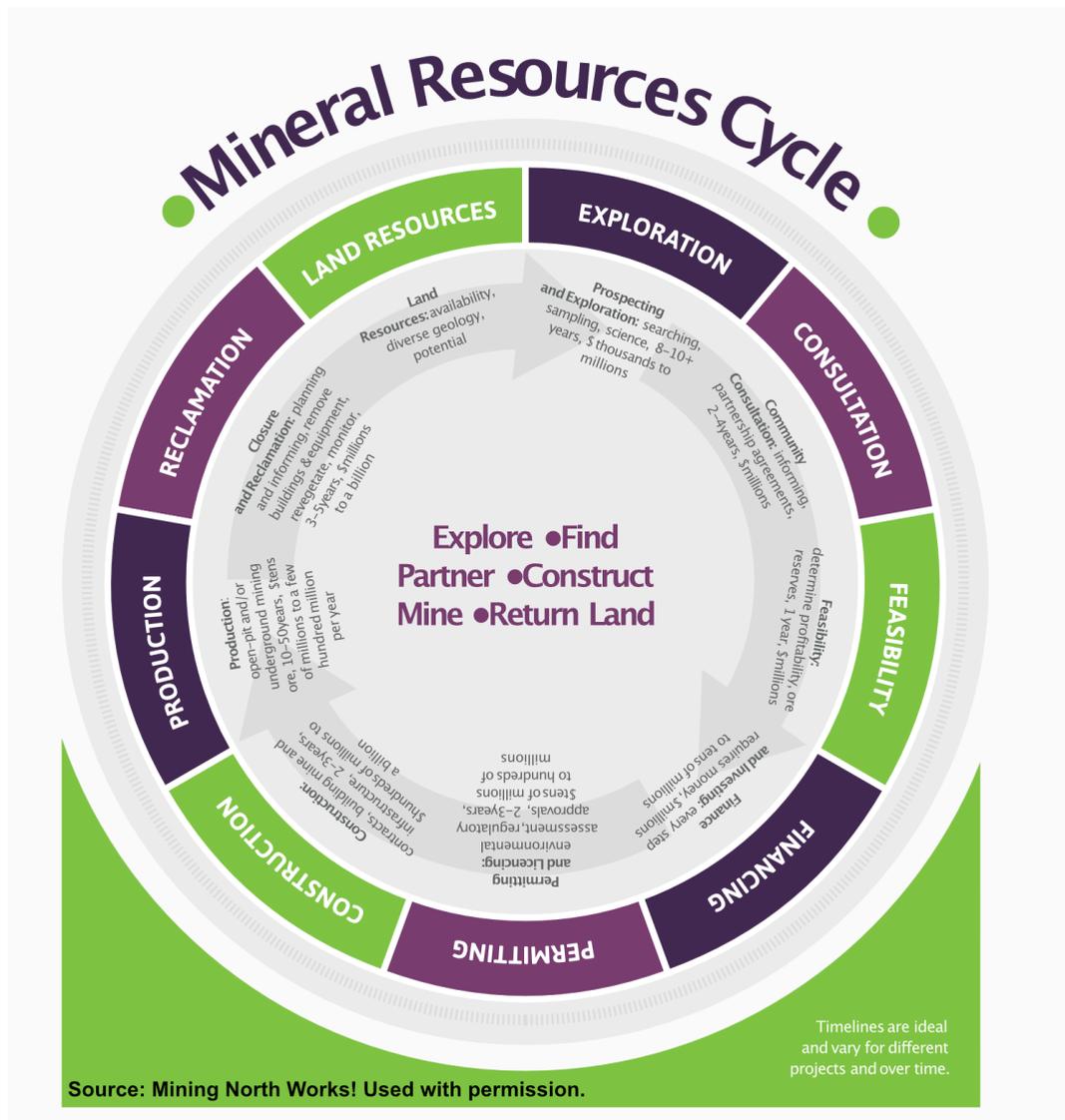
Public engagement closed on 8 September 2020 after a three-month extension due to the COVID-19 pandemic. The engagement period with Yukon First Nations remained open until late November 2020 to help ensure the MDS Panel could hear the perspectives of Yukon First Nation people to the greatest extent possible while still meeting the timeline for completion.

Yukon Mineral Development Strategy and Recommendations

Vision

The Yukon Mineral Development Strategy lays the foundation for the collaborative and place-based development of Yukon mineral resources in a way that benefits all Yukoners and ensures the continuation of a balanced mining industry. The Strategy envisions a future where:

- all mineral development activities will honour modern treaties with Yukon and transboundary First Nations and will respect First Nation values;
- all mineral development projects earn and maintain a social licence to operate through positive contributions to the social, cultural and economic well-being of all Yukoners;
- the mining industry operates in Yukon without leaving adverse environmental legacies behind; and,
- the Yukon’s mineral exploration and development industry is a global leader in ethical and sustainable mining practices and attractive to global investment markets.



Guiding Principles

Through its extensive engagement with a full cross-section of Yukoners, the MDS Panel identified seven principles to guide the development of Yukon’s mineral resources for the benefit of all Yukoners. Adoption and integration of the seven principles will create a foundation for a healthy Yukon mineral industry within an attractive investment climate.

1. Collaboration	A better Yukon built through collaboration among all government entities, Yukon First Nations and industry to ensure all Yukoners benefit from mineral resource development activities.
2. Honouring Our Ancestors	All mineral development activities reflect the spirit and intent of Yukon’s modern treaties with Yukon First Nation peoples, trans-boundary treaties, the United Nations Declaration of the Rights of Indigenous Peoples and the findings of Canada’s Truth and Reconciliation Commission.
3. Sustainability	Resource development based on environmental impact levels acceptable to Yukoners as resource stewards, and responsive to evidence of cumulative effects.
4. Future Generations	Holistic consideration of the social, economic and environmental effects of development on future generations of Yukoners through all stages of mineral development.
5. Respect	Respect for the Yukon’s natural and human environment demonstrated by timely, balanced and evidence-based decision making informed by many voices.
6. Transparency and Trust	Mining industry expansion founded on transparency and trust to create economic and social viability.
7. Certainty and Clarity	Legislative and regulatory certainty for access to Yukon lands for mineral exploration and development with clarity and transparency in the permitting, monitoring and enforcement processes.

Strategic Priorities

The Yukon MDS Panel's vision for the Yukon's mineral exploration and development industry will be achieved according to the principles outlined above and through implementation of the six strategic priorities listed below:

1. Establish a modern mineral resource management regime aligned with the modern treaties with Yukon First Nations, transboundary treaties, the principles of reconciliation enshrined in the *United Nations Declaration on the Rights of Indigenous Peoples* and the recommendations of Canada's Truth and Reconciliation Commission;
2. Create substantive and sustained Yukon socio-economic returns from resource development that benefit Yukon First Nations, local communities and all Yukoners today and in the future;
3. Establish effective, efficient and transparent environmental and regulatory processes;
4. Operate within an attractive investment climate which supports competitive and innovative mineral development enterprises;
5. Demonstrate environmental responsibility and preparedness to adopt practices to address climate change including the implementation of green energy measures; and,
6. Provide support for leading edge workforce development and public awareness initiatives.

In this section of the Yukon Mineral Development Strategy, the MDS Panel presents a summary analysis of each of the six priorities and recommends a series of action items. It is the hope and intent of the MDS Panel that, taken together, the action items will result in the Yukon achieving the MDS Panel's vision of a responsible and sustainable mineral exploration and development industry that is consistent with the modern treaties with Yukon First Nations, transboundary treaties and the principles of reconciliation.

Yukon Mineral Development Strategy and Recommendations

Strategic Priority No. 1

Establish a modern mineral management regime aligned with the modern treaties with Yukon First Nations, transboundary treaties, the principles of reconciliation enshrined in the *United Nations Declaration on the Rights of Indigenous Peoples* and the recommendations of Canada's Truth and Reconciliation Commission.

It is time to thoroughly modernize Yukon's mineral management regime and replace the *Quartz Mining Act* and the *Placer Mining Act* with new mineral resource legislation. The new legislation will align the development of Yukon's mineral resources with the modern treaties established with Yukon First Nations over 25 years ago. The new legislation will also complement contemporary federal and Yukon legislation and policies. Entities and agencies established for co-management of Yukon lands as part of the modern treaties will be fully recognized in the new legislation, including the Yukon Environmental and Socio-economic Assessment Board, the 11 Renewable Resource Councils, the Yukon Water Board and the Yukon Land Use Planning Council.

The new legislation will replace the patchwork of amendments that have rendered the Yukon's century-old mineral resource legislation unresponsive to evolving industry circumstances and difficult to enforce. The roles and responsibilities of government decision makers and front line staff will also be clarified in the new legislation.

The modernized mineral resource legislation must be developed collaboratively on a government-to-government basis with Yukon First Nations, including First Nations that have not yet established a modern treaty. An early example of a collaborative approach to the development of natural resource legislation can be found in the *Yukon Forest Resources Act*. The 2008 *Act* is consistent with Yukon First Nation Final Agreements, meets the requirements of Section 35 of the *Constitution Act, 1982* and is aligned with the Truth and Reconciliation Commission's Call to Action No. 92.

The Yukon's mining industry is deeply rooted in Yukon history. Modernizing Yukon's mineral resource legislation holds unprecedented potential to advance economic, social and environmental reconciliation between the Yukon Government and Yukon First Nations. A collaborative approach to legislative development is also in keeping with commitments found in the 2003 *Devolution Transfer Agreement* between the federal and Yukon Governments. To gain wide acceptance, the new mineral resource legislation must be developed in a transparent manner that allows for participation of all affected stakeholders including the Yukon's mining industry and representative entities.

Yukon Mineral Development Strategy and Recommendations

To achieve Strategic Priority No. 1, the MDS Panel recommends that the Yukon Government:

Develop a modern mineral management regime for Yukon by:

- Completing, together with Yukon First Nation governments, a comprehensive engagement with mineral industry representatives and interested Yukoners to confirm the design parameters for the new mineral resource legislation for quartz and placer mining. The specific features of the new mineral resource legislation are outlined in strategic priorities two through six of this Yukon Mineral Development Strategy.
- Drafting and bringing into force the new mineral resource legislation and regulations within the next three years (by the end of 2023).
- Amending the *Yukon Waters Act* to ensure a seamless statutory fit with the modernized mineral resource legislation, *Yukon Environmental and Socio-economic Assessment Act* and the Yukon First Nation Final Agreements.
- Amending *the Historic Resources Act* and its enforcement and compliance tools to be fully harmonized with the modernized mineral resource legislation and the Yukon First Nation Final Agreements.
- Ensuring the new mineral resource legislation and regulations are aligned with Yukon's modern treaties, *Canada's Constitution Act*, the *United Nations Declaration on the Rights of Indigenous Peoples* and current case law by:
 - acknowledging the *United Nations Declaration on the Rights of Indigenous Peoples* principle of Free, Prior and Informed Consent;
 - modifying the free entry staking system to be consistent with Yukon's modern treaties and case law;
 - requiring the negotiation of benefit agreements for mineral exploration and development activities.
 - providing for the full delegation of regulatory enforcement tools to Yukon First Nation mining lands officers; and,
 - adding reconciliation to the list of reasons the Yukon Government may use to justify a prohibition of entry order for prospecting, staking and mining under the *Quartz Mining Act* and the *Placer Mining Act*.

Yukon Mineral Development Strategy and Recommendations

The MDS Panel recognizes that some of the recommended actions in the Yukon Mineral Development Strategy must be preceded by modernized mineral resource legislation. While modernized mineral resource legislation is under development, the MDS Panel recommends that the Yukon Government implement the following interim measures to establish a respect-based foundation with Yukon First Nations for future mineral sector development:

- Creation of programs to better fund participation by Yukon First Nations in mineral resource development opportunities and environmental assessment processes.
- Encouragement and strengthening of early engagement pathways between industry and Yukon First Nation governments.
- Recognition and co-leveraging of opportunities for Yukon First Nation equity positions in mineral development projects.
- Development of a semi-annual report card on progress by the Yukon's mineral sector towards honouring the principles contained in the *United Nations Declaration on the Rights of Indigenous Peoples*.
- Design and implementation of resource revenue sharing measures that provide meaningful and steady revenue flows aligned with land-based resource activities.
- Funding support for First Nation participation in the development of the modernized mineral resource legislation and related legislative changes, including amendments to the *Waters Act* and the *Historic Resources Act*.
- Dedication of resources to ensure the principles of reconciliation are embodied in the implementation of the modern mineral regime to improve regulatory certainty for all stakeholders.

**Strategic
Priority
No. 2**

Create substantive and sustained Yukon socio-economic returns from resource development that benefit Yukon First Nations, local communities and all Yukoners today and in the future.

The socio-economic viability of Yukon depends on exploration and mining activities being carried out in a sustainable manner. The MDS Panel heard that true sustainability involves more than good environmental stewardship. Social and economic sustainability are also key to the well-being of Yukon communities.

Yukon Mineral Development Strategy and Recommendations

Social sustainability requires effective consultation and consideration of how people and families in Yukon communities are affected by mining projects. Recognition that the adverse effects of resource development are borne locally while many of the benefits are exported outside the Yukon, is crucial to social sustainability. Positive aspects beyond employment opportunities such as whole-career human capital development, cultural resilience and social well-being need to be discussed and enhanced.

Economic sustainability means helping Yukon businesses be positioned to take advantage of opportunities presented by mineral sector development such as camp support, construction, transportation, logistics, drilling, equipment operation and maintenance, accounting, human resource management and environmental monitoring. Early and open conversations about how Yukon businesses can capture benefits from mineral development opportunities are essential to ensuring Yukoners and communities benefit to the greatest extent possible.

Resource royalties are intended to provide a payment to the owner of the resource for use of the resource. In Canada, minerals are owned by the Crown on behalf of the people resident in a province or territory. As such, resources royalties are collected for the benefit of Yukon people as payment for the extraction of Yukon's non-renewable resources.

The Yukon Government has collected only a small amount of resource royalties on behalf of Yukon people. Over the period 2006/07 to 2019/20, the Yukon Government collected an average of \$23,218 per year in placer gold royalties. Excluding the royalties collected by the Yukon Government from the Minto Mine on behalf of the Selkirk First Nation, the Yukon Government received a total of \$724,113 in *Quartz Mining Act* royalties (\$72,411 per year), over the ten years between 2010 and 2019.

Over the most recent 10 years for which data is available, combined placer and quartz royalty revenues collected by the Yukon Government have averaged less than \$100,000 per year. In contrast, the value of mineral production over the same time period has averaged \$335,399,000 per year. Thus, the Yukon Government has managed to collect a mere 0.03% of the value of mineral production on behalf of the people of the Yukon as payment for use of the Yukon's mineral resources.

The Yukon's modern treaties allow Yukon First Nations to share in resource royalties collected by the Yukon Government under the Chapter 23 provisions of the Umbrella Final Agreement. With placer and quartz royalty revenues collected by the Yukon Government averaging less than \$100,000 per year, Yukon's royalty approach has resulted in a negligible amount of royalties being collected and shared with the 11 self-governing Yukon First Nations.

Yukon Mineral Development Strategy and Recommendations

It is important to note that increasing royalty rates to collect a higher level of resource revenues is in itself not enough. In order for mining royalty payments to rise significantly, new and profitable mines must be opened, and existing mines must be profitable. In addition, changes to the Yukon's resource royalty scheme must be balanced within a package of measures to create substantive and sustained Yukon socio-economic returns from resource development.

To achieve Strategic Priority No. 2, the MDS Panel recommends that the Yukon Government:

- Adopt the 2017 recommendation of the Yukon Financial Advisory Panel that the Yukon Government:

Undertake a comprehensive review of resource-sector policies, with a particular emphasis on ensuring fair and efficient royalty rates, fee structures, permit and licensing costs, tax exemptions, and minimum work requirements.

- Modify Yukon's quartz royalty regime in the modernized mineral resource legislation to ensure all Yukoners receive fair and meaningful financial returns from mining activities while also ensuring competitiveness with other Canadian jurisdictions.
- Implement the Yukon Financial Advisory Panel's suggestion to introduce a profit-based placer gold royalty. Yukon citizens can then receive rents due from the extraction of a publicly owned resource by profitable mine operators while placer operations that are truly marginal in terms of profitability will continue to pay essentially no royalties. Consideration should be given to a placer royalty system that favours local operators over non-Yukoners.
- In collaboration with CanNor or other public sector agencies, initiate and fund baseline socio-economic studies for all Yukon communities so that information is readily available to support socio-economic assessments of mining or other major projects. The socio-economic studies could also be used to inform the completion of the remaining Regional Land Use Plans (Dawson, Northern Tutchone, Kluane, Whitehorse, and Teslin).
- As part of the socio-economic baseline studies, evaluate the readiness of individual Yukon communities to benefit from resource development activities by assessing:
 - current community interest and desire to host resource development activity within proximate traditional territories, including the potential hosting of itinerant workers.

Yukon Mineral Development Strategy and Recommendations

- the current capacity of the community to effectively capture significant benefits from resource development activities.
 - the interest and pathways for skill development for community members joining the labour market.
 - possible impediments to community participation in mining projects, such as inadequate infrastructure in the form of housing, child care, education, training and health care.
- Consider creating an alternate avenue for Yukon citizens to receive rents due from the extraction of publicly owned resources through the imposition and collection of an industrial water tax by the Yukon Water Board. The industrial water tax would for the first time place an economic value on Yukon's water resources and provide a new resource revenue source to be shared with Yukon First Nations, similar to the approach recently adopted in British Columbia. The industrial water tax could be designed to encourage sustainable resource extraction activities. For example, the tax rate could be made variable and adjusted according to water quality at producing placer mines such that the higher the water quality, the lower the effective rate of tax.
 - Ensure that Yukon First Nations receive a fair financial and social return from mining and exploration within Traditional Territories by strengthening the connection between revenue flows and Indigenous interests in the land itself by:
 - introducing a First Nation Resource Charge based on self-governing Yukon First Nations power of direct taxation, in addition to the sharing of limited resource revenues being collected by the Yukon Government. The First Nation Resource Charge would involve a set of pre-specified charges (e.g., a water use fee or land rental fees) and be linked to tax room currently occupied by other governments.
 - creating a statute-based template for the negotiation of benefit agreements between project proponents and affected Yukon First Nations. Advanced-stage quartz exploration and development activities would require participation agreements. Quartz mine development, construction, production and decommissioning activities would require impact and benefit agreements. All benefit agreements would include a range and depth of measures proportional to the scope of the exploration or mine development project. Measures could include opportunities for training, employment, contracting, community infrastructure and equity project participation. Establishment of a legislated and independent dispute resolution body with a mandate to adjudicate any negotiation impasses will streamline the drafting of benefit agreements. Negotiation and implementation of benefits agreements will help ensure

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- engagement between First Nations and developers and help to build trust and understanding.
 - improving the flow of information between placer gold project proponents undertaking exploration activities in previously un-mined areas and Yukon First Nations prior to the submission of a Form 1 project proposal to the Yukon Environmental and Socio-economic Assessment Board. Improved information sharing will provide Yukon First Nations opportunities to express concerns and propose mitigations that will help placer operators prepare more comprehensive project proposals to the Yukon Environmental and Socio-economic Assessment Board.
 - designing, in collaboration with Yukon First Nations, measures to enable Yukon First Nations to acquire equity positions in mining projects and related infrastructure initiatives. Seek funding support from Canada and model the measures on initiatives such as the Ontario Aboriginal Loan Guarantee Program and the Alberta Indigenous Opportunities Corporation.
 - exploring, in collaboration with CanNor, joint venture and public-private partnership opportunities with Yukon First Nations for investments in energy and infrastructure projects that enable mineral development and provide First Nations with opportunities to acquire secure returns on equity investments.
- Ensure that all Yukoners receive a fair fiscal return from mining and exploration within the Yukon by retaining more of the potential financial benefits from mineral development activities by:
 - introducing a Yukon payroll tax, modelled on the approach used in the Northwest Territories, that applies to all non-resident workers in the Yukon, to better align the location of income tax revenues with the location of the service-providing government. Currently, personal income tax on the earnings of non-resident workers living outside the Yukon accrues entirely to the province or territory where the worker is resident on December 31 of the year. For Yukon residents, the payroll tax would be deductible from Yukon personal income taxes paid. Alternatively, federal tax collection methods could be modernized to allow the allocation of personal income tax revenues between more than one jurisdiction, similar to how corporate income taxes are divided up according to the permanent establishment rules.
 - enhancing procurement opportunities for Yukon businesses and First Nation Development Corporations using an approach similar to that used in the Northwest Territories which genuinely favours northern businesses under the same trade agreements to which Yukon must abide. Acknowledge and act on the exemptions already contained in Canada's interprovincial and international trade

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agreements specific to municipalities and Indigenous entities. Make the case for the abandonment of the current Yukon Government approach of ten \$1 million exemptions (which by design can only benefit less than 0.5% of Yukon businesses) to broaden the reach of procurement-enabled business support.

- Ensure that future generations of Yukoners receive a fair fiscal return from mining and exploration by establishing a Yukon Heritage Fund. The Fund would allow for the intergenerational transfer of wealth such that royalties from non-renewable resources extracted today are paid forward to provide opportunities for future generations of Yukoners.

A Yukon Heritage Fund would provide a visible link between mining activity, royalty revenues from mining and long-term prosperity in Yukon, thereby enhancing sustainability and the industry's social license to operate. The Fund could be used to minimize social and economic impacts resulting from the boom-bust cycles of the mining industry. Proceeds from a new Yukon payroll tax and/or a new industrial water tax could also be used to endow a Yukon Heritage Fund.

Since 2012, the Yukon Government has had the option to change its approach to resource revenue offsets under territorial formula financing arrangements to match the approach used in the Northwest Territories. Under Yukon's current arrangements, the offset rate is 0% on the first \$6 million and 100% thereafter, meaning that the maximum amount of resource revenues Yukon can collect and keep is \$6 million, an amount too low to capitalize a Yukon Heritage Fund.

Under the NWT fiscal arrangements, the offset rate is 50%, capped at 5% of the Gross Expenditure Base used to calculate the territorial formula financing grant. Implementing the NWT approach would increase the amount of resource revenues Yukon can collect and keep to approximately \$54 million, opening the door to a financially viable Yukon Heritage Fund.

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**Strategic
Priority
No. 3**

Establish effective, efficient and transparent environmental and regulatory processes.

In a globally competitive mining industry, a transparent and predictable environmental assessment and regulatory system is critical to attracting financing for mineral exploration and development. Conversely, regulatory complexity and uncertainty deter investment in exploration and development.

Borne of the modern treaties with Yukon's First Nations, the Yukon's environmental assessment process was intended to be a one window approach to resource regulation. As the Yukon Water Board is not a Decision Body under provisions of the *Yukon Environmental and Socio-economic Assessment Act*, the Yukon continues to feature a dual-window approach to resource regulation.

As all placer and quartz mining projects require water licenses, the Yukon's mining sector is disproportionately affected by the duplication of regulatory efforts. Increasingly louder calls by the mining industry to streamline the Yukon's environmental and regulatory processes will not solve the underlying dual-window structural issue.

Designation of the Yukon Water Board as a Decision Body by the Yukon Government will go a long way to creating a single window for the environmental assessment of Yukon mineral exploration and development projects. The creation of a true one-window approach will rapidly advance constructive discussions about how to streamline the Yukon's environmental assessment process for mineral exploration and development projects in a way that is aligned with Yukon's modern treaties. A greater emphasis on utilization of established best practices would also streamline environmental assessments and preparation of decision documents.

Beyond the question of assessment and regulatory efficiency, the MDS Panel also suggests that more attention must be focused on monitoring and inspections following the issuance of permits. Additional financial and human resources are needed to achieve consistency and transparency for inspection and monitoring activities.

Effective progress towards reconciliation with Yukon First Nation peoples will require meaningful engagement with Yukon First Nations and communities beyond the initial permitting stage. Having permits in hand should not mean the end of conversations started to acquire mining and land use permits. Early and ongoing conversations, including First Nation roles in the monitoring and inspection of mining activities, help build trust and understanding and are important steps in engaging and consulting with Yukon First Nations.

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More focus and financial support are required to bring environmentally positive technological innovations to mine sites. Remote technologies are changing how the environmental integrity of mining projects can be monitored in real time to avoid or reduce adverse environmental impacts. Applying new technologies and solutions, including solutions developed at Yukon University's Research Centre, will help make the Yukon a leader in practical and effective mining and remediation practices.

To achieve Strategic Priority No. 3, the MDS Panel recommends that:

- The Yukon Government should designate the Yukon Water Board as a Decision Body under the *Yukon Environmental and Socio-economic Assessment Act* to create a true single window approach to the environmental assessment of Yukon mineral exploration and development projects.

- The Yukon Government implement the recommendations in the recent PricewaterhouseCoopers report on regulatory duplication prepared for the Yukon Minerals Advisory Board. Key recommendations consider:
 - improvements to project coordination between the Yukon Government, the Yukon Water Board and the Yukon Environmental and Socio-economic Assessment Board by having the Yukon Government establish a major project manager role to work with quartz project proponents from the time of project proposal submission through to license issuing. The project manager would help proponents understand the assessment and regulatory processes and promote coordination and understanding among assessors and regulators within the public sector.
 - clarified project scoping by the Yukon Environmental and Socio-economic Assessment Board to reduce the potential for overlap and duplication between assessment and regulatory processes.
 - clarified adequacy requirements for project proposals by establishing clear guidelines as to what is required for an "adequate proposal" and clear guidance on when environmental and socio-economic effects are to be considered significant.
 - improved communication opportunities between project proponents and staff from the Yukon Environmental and Socio-economic Assessment Board and the Yukon Water Board, including possible amendments to the *Waters Act* to remove restrictions on Yukon Water Board members and staff to communicate directly with project proponents.

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- In addition to the enhanced project coordination role proposed by PricewaterhouseCoopers for Major Projects Yukon (for Executive Committee screenings) or Mining Lands Officers (for Designated Office evaluations), it is recommended that the project coordination role of Major Projects Yukon be expanded to provide comprehensive information to proponents to facilitate positive First Nation engagement and consultation processes, including arranging introductory meetings between proponents and appropriate First Nation representatives when requested to do so.
- The Yukon Government address the effects of having delegated decision-making authority to more than 12 departments and branches for purposes of Designated Office evaluations. Greater clarity of roles and responsibilities among the Yukon Government's delegated Decision Bodies, the Yukon Environmental and Socio-Economic Assessment Board and the Yukon Water Board is required if assessment efficiency is to be improved. To help achieve greater clarity, the Yukon Government, Yukon Environmental and Socio-Economic Assessment Board and the Yukon Water Board should create project charters and swim lane diagrams at the start of every mine project assessment that define roles, responsibilities and timelines for each agency and the proponent to follow.
- Upon completion of a project, the swim lane diagram and decision documents should be audited by the Yukon Government to identify and prevent mandate creep among Yukon's assessment and regulatory authorities.
- The Yukon Environmental and Socio-Economic Assessment Board should complete and implement the "pre-submission engagement" process currently under development, in part to help surface any competing priorities. Annual independent audits of the efficacy of the "pre-submission engagement" process should also be conducted to assist both government regulators and project proponents to achieve best-practice standards.
- The Yukon Environmental and Socio-Economic Assessment Board and proponents should adopt the Gowlings WLG 2020 recommendation to broaden the scope of a proposed project to include likely future minor modifications in order to reduce reassessment possibilities for minor project amendments.
- In conjunction with the Yukon Environmental and Socio-Economic Assessment Board and the Yukon Water Board, the Yukon Government should undertake a legislative and regulatory review of the feasibility of establishing a mining district or zone approach to

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mining development project assessments and permitting. Such a holistic approach would mitigate the need for Decision Bodies to ask the Yukon Environmental and Socio-Economic Assessment Board to review minor changes to an established mining plan for a district or zone to permit development of newly identified deposits. Such an approach would be restricted to changes involving similar types of mineralization and host rocks, minor changes to the mining or extraction processes and changes which do not result in cumulative environmental impacts that exceed limits set by the decision documents for the established mining plan.

- The positive and negative socio-economic impacts of major mining projects should be addressed by including a requirement for improved assessment of cumulative effects and heritage impacts, either by the Yukon Environmental and Socio-Economic Assessment Board or by Decision Bodies.
- Regulators should be empowered to more thoroughly address positive and negative socio-economic considerations in licenses and permits in the modernized mineral resource legislation. The accompanying licencing regulations must also enable the use of innovative practices and technologies that support outcome-based environmental performance with reference to industry best practices.
- While the efforts to improve the transparency of mining inspections by posting the results of water licence-related inspections on the WATERLINE website are acknowledged by the MDS Panel, Yukon Energy, Mines and Resources should go further and post all mining inspection reports online. The online reports, whether posted on WATERLINE or another web-based site, should be project-specific and include warnings issued and company compliance/non-compliance with mine permit conditions.
- The establishment and enforcement of performance standards that apply across Yukon and First Nation governments and require regular, timely and transparent inspections and monitoring of mine operations. Introduce in-field digital data collection and reporting technologies to support the achievement of the performance standards and real-time web-based reporting to the public. Provide training support to inspectors to ensure effective adoption of the new performance standards.
- The establishment and application of minimum qualification and experience standards for Yukon Government inspectors to ensure mining inspections are conducted in a fair and consistent manner, especially for large-scale and complex projects.

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- A range of enforcement tools be built into the modernized mineral resource legislation to allow inspectors to effectively and efficiently address non-compliance with licenses and permits.
- The establishment of clear lines of accountability within Yukon Energy, Mines and Resources to support adaptive management decisions made by front line staff including mining inspectors.
- Energy, Mines and Resources be provided with the resources to evaluate and refine approaches to the co-inspection of permits and mining activities by Yukon Government and Yukon First Nation inspectors, and to expand the co-inspection joint stewardship pilot project to include all interested First Nations.
- The full delegation of regulatory enforcement tools to Yukon First Nation inspectors should be built into the modernized mineral resource legislation.
- Any residual responsibilities for the promotion of mineral development should be transferred from Yukon Energy, Mines and Resources to Yukon Economic Development. The mandate transfer will address the conflict of interest inherent in the same department have responsibility for both mineral sector development and regulation. Reinforce the mandate change with a public communication initiative to improve transparency and competitiveness with other mining jurisdictions.

**Strategic
Priority
No. 4**

Operate within an attractive investment climate which supports competitive and innovative mineral development enterprises.

Yukon has tremendous mineral resource potential, but this alone is not enough to guarantee that investment and mineral development will occur. Modernized Yukon mineral resource legislation, respectful and collaborative relationships with Yukon First Nations as well as improved regulatory clarity and certainty are all prerequisites for the Yukon to compete for global investment capital.

Investors hate uncertainty. In recent years, a number of legal and regulatory decisions have resulted in staking moratoriums and delays to Yukon exploration and development projects. Certainty of land tenure and the belief that economically viable projects can proceed are fundamental to investor confidence. Until land use plans are completed in all parts of the Yukon, mining industry proponents and investors will remain uncertain as to whether or not

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there are potentially un-mitigatable concerns about any given exploration area or mining project. Completion of land use planning will give governments and industry greater confidence as to which roads are likely to be needed to support mineral development.

During the course of engagement, the MDS Panel heard concerns from all corners about the current mineral claim situation in Yukon. Some presentations from industry suggested that large, relatively unexplored claim blocks often include areas that other explorers might wish to look at for different minerals or deposit types. Others observed that rock-bottom annual work requirements mean that little work is needed to maintain claims in good standing and that low annual payments-in-lieu of work often makes it more cost effective for owners of small claim blocks to do no work at all.

Some mineral deposits and highly prospective placer ground have been held for many years while receiving little or no work. If more claims were to expire, more prospective ground would be available for staking by new entities that might develop it or at least explore the targets faster and more thoroughly. First Nations people and others expressed concern that staked claims diminish the value of the land for other uses and that some claims threaten wildlife habitat and cultural sites. Others pointed to claims being staked simply so that roads can be constructed more easily or so that cabins can be built without proper authorization.

It is clear that the Yukon can do much more to bolster the investment climate for the mining industry. Cross-industry initiatives can help make Yukon a sought-after destination for national and international investments in sustainable and ethical mineral exploration and development. Investors and regulators world-wide are paying increasing attention to the environmental and social policies and practices of companies in all economic sectors, especially companies involved in resource extraction.

One of the most critical factors identified by participants in the Yukon Mineral Development Strategy engagement process was the need for clarity around land access to mineral claims. Improved certainty is required concerning when and where roads and trails can be constructed and what assistance, if any, is available from government to assist with construction.

Infrastructure gaps were also noted in many high potential mineral zones in Yukon. The gaps include the lack of cost-effective electrical energy and incomplete communications infrastructure. The infrastructure gaps have significant impacts on capital and operating costs for companies undertaking exploration and development activities and are considered to be serious impediments to mine development. In many cases, infrastructure upgrades would benefit all Yukoners.

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The need for incentive programs, supportive taxation regimes, reliable and readily accessible environmental science and heritage data, as well as geoscience data in general, were also referenced by engagement participants as being important contributors to the creation of an attractive and competitive investment climate in Yukon. Public geoscience maps, data and reports reduce the cost and risk of exploration by allowing prospectors and companies to identify areas of high mineral potential, reducing the need to spend time and money exploring less prospective ground. Geoscience information also informs government policy decisions for land use planning, infrastructure development and environmental protection.

Creating an investment climate which supports competitive and innovative mineral development enterprises requires a multi-faceted approach involving industry support, modernized land access and enhanced strategic knowledge.

To achieve Strategic Priority No. 4, the MDS Panel recommends that the Yukon Government:

Land Access and Planning

- Direct additional resources necessary, including some of the not-as-yet allocated \$360 million in federal and territorial funding for the Yukon Resource Gateway Project, to expedite the completion of the remaining Yukon Regional Land Use Plans envisioned in the Umbrella Final Agreement: Dawson, Northern Tutchone, Kluane, Whitehorse, and Teslin. To the extent possible, regional planning processes should be undertaken concurrently rather than sequentially and all Plans should be completed within the next five years.
- Assist the Regional Land Use Planning Commissions by ensuring ease of access to the spatial data already collected (e.g., mineral, forestry, wildlife, heritage trails, historic sites) in a centralized geographic information system housed by a Joint Secretariat structured as a special operating agency co-founded by the Yukon and Yukon First Nation governments. Within appropriate data sharing protocols, include data already collected by Yukon First Nations.
- Assist the Regional Land Use Planning Commissions by establishing time-limited staking moratorium parcels to tightly encompass specific high-value environmental, social and cultural attributes in a planning area upon initiation of a Chapter 11 regional land use planning process. The parcel-specific staking moratoriums should be withdrawn before completion of a regional land use plan if it becomes clear that areas will be designated, in whole or part, to allow mining development in the Final Regional Land Use Plan and that the Parties are in agreement with the designation. A proactive approach to identifying staking prohibition zones at the beginning of regional planning

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processes will reduce a major source of uncertainty for the industry and a significant concern for First Nations, non-governmental organizations and Yukoners in general. Similarly, early recognition of areas where mining development will be permitted will provide certainty to industry.

- Facilitate the negotiation and implementation of contract-based arrangements for the management of lands and permitting of resource development activities with First Nations, including trans-boundary First Nations and First Nations that have not yet established a modern treaty.
- Introduce clear, consistent and specific constraints on land access and the existing free entry system to provide greater investment certainty and enhance the mining sector's social license to operate. Legislative adjustments must include:
 - specific constraints on free entry, including prohibitions from prospecting and staking on Category B lands, lands held in fee simple title and lands within municipal boundaries, without the written consent of respective Yukon First Nation, landowner or municipality. The constraints should extend to the staking of placer claims over existing quartz claims and vice versa without consent of the prior owner.
 - continuation of the Class 1 exploration notice process, with adjustments to exclude from notification "low impact, non-mechanised" prospecting activities on Commissioners' lands. Such non-mechanized activities would include geological mapping, prospecting and geochemical and geophysical surveys conducted without line-cutting.
 - the addition of reconciliation to the list of reasons the Yukon Government may use to justify a prohibition of entry order for prospecting, staking and mining under the *Quartz Mining Act* and the *Placer Mining Act*. For example, Part 2 of the *Quartz Mining Act* provides the statutory authority to uphold socio-economic and environmental values identified in the United Nations Declaration of the Rights of Indigenous People and to respect modern treaty rights.
 - a reduction in the maximum size of claim groupings for assessment filings.
 - an escalation of annual assessment work requirements over time for both placer and quartz claims and a doubling of escalated payments-in-lieu for quartz and placer claim assessment costs to encourage claim owners to explore more quickly and not sit on large claim blocks without assessing mineral potential.
 - the forced conversion of quartz and placer claims, 30 years after staking, to mineral leases subject to significant annual advanced royalty payments in place of annual assessment charges.
 - a prohibition of claim staking solely for the purpose of securing road access or to link separate claim blocks.

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- Increase funding for the Yukon Geological Survey to ensure that regional mapping and assessment of mineral resource potential are completed ahead of or in conjunction with land use planning initiatives. Funded activities should be expanded to include identification and categorization of wetlands and areas at high risk due to climate change.
- Authorise online map staking to bring Yukon in line with staking practices now prevalent in Canada as part of the modernized mineral resource legislation. Online map staking will provide greater assurance of land tenure, improve safety and bring environmental benefits. Online staking will also allow the Yukon Government to uphold its court-confirmed obligations to provide advance notice to Yukon First Nations of potential on-the-land exploration activities.
- Given the complexity of introducing a comprehensive electronic system to manage online staking, claims and mining land use, a phased approach for implementation is suggested. The initial phase should focus on quartz claim staking, claim management and permit submissions, followed by placer claim staking and management at a later date. Look to the Newfoundland and Labrador system as an example of a tried, tested and improved approach that integrates claim staking, assessment and fee collection as well as inspection functions.
- The new online staking system must also feature mechanisms to prevent nuisance staking, including a sizable cash deposit to be reimbursed when actual work is carried out on the claim. The reimbursement provisions could be subject to decisions yet to be made regarding possible use of staking fees for security bonding.

Industry Support and Incentive Measures from the Yukon Government

- Establish the Yukon Mineral Exploration Program in regulation and allocate core funding of \$2.5 million for three years to provide certainty to the mineral industry.
- Continue to fund the Yukon Mining Alliance and the Yukon Chamber of Mines who are actively promoting the Yukon's mineral potential at the national and international levels. Enhance funding support for Yukon First Nation participation in mining promotion activities.
- Design and implement tax-based exploration incentives for designated geographical areas, similar to Saskatchewan's Targeted Mineral Exploration Incentive program. Investigate measures to create incentives to explore for critical metals (metals considered rare in supply or of strategic importance).

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- Establish clear compensation rules for existing mineral claims stranded by land use planning exercises to protect Yukon's reputation as a secure jurisdiction for mineral investment.
- Launch a nation-wide branding campaign under a banner of "ethical mining" once an improved regulatory environment is established in Yukon. The campaign should be created together with the Yukon Chamber of Mines and the Yukon First Nations Chamber of Commerce and be used to promote the Yukon as a progressive mining jurisdiction where minerals are extracted in ethical and sustainable ways.
- In partnership with Yukon First Nation governments and industry, develop a focused business case to pursue federal funding support for infrastructure in the form of electricity generation, roads and telecommunications.
- Establish a Yukon First Nation Equity Fund to offer low interest loans to Yukon First Nation Development Corporations for investment in energy, communication and other mining-related projects.
- Maintain a negotiating position for port access in both Skagway and Haines, Alaska.

Strategic Knowledge

- Fund, create and support an integrated central repository for all research reports and documents prepared by proponents for environmental assessments and regulatory reviews. The material in the repository should be catalogued and managed by the Joint Secretariat operated by the Yukon and Yukon First Nation governments.
- Dedicate additional resources to consolidate, standardize and store spatial data in a centralized geographic information system housed in the Joint Secretariat operated by the Yukon and Yukon First Nation governments. Types of spatial data sets to be standardized and stored in a repository include geology, geomorphology, mineral potential, vegetation, wildlife, heritage and when possible, traditional knowledge. Improved public access to the data will assist with project assessments, land use planning and regulatory processes. The comprehensive data base will also help mineral explorers pre-assess sensitivities that might exist within proposed exploration target areas.
- Build an electronic and comprehensive 'cradle to grave' mineral management data system within Yukon Energy, Mines and Resources that includes, or is linked to, a centralized repository of information for forestry, fisheries, water, placer claims, quartz claims, geographical surveys and heritage trails, etc.

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Strategic Priority No. 5

Demonstrate environmental responsibility and preparedness to adopt practices to address climate change including the implementation of green energy measures.

Many people and organizations who engaged with the MDS Panel pointed to the positive impacts of mineral development in the Yukon. Benefits associated with the mining industry include employment as well as direct and indirect economic contributions to the Yukon and national economies. Other specific examples of benefits included sponsorships, scholarships and other direct community supports. The need for minerals used to manufacture the products Yukoners use to support our high quality of life was also noted, especially critical minerals required for the green economy.

Many other people and organizations who engaged with the MDS Panel spoke to a legacy of negative environmental and social effects from past mining activities. Environmental damage and ongoing threats to ecosystems as well as costs to the public purse to clean up abandoned mines were mentioned many times. Water quality is of particular concern. The erosion of Indigenous rights and cultures and adverse social effects, such as violence against women and social and family disruption, were brought forward as examples of adverse social effects.

Industry and its supporters indicated that companies involved in mineral exploration and development need to be held to high standards to overcome the negative aspects of the sector's legacy. Improving the public profile of the mining industry extends to recognizing how Canada's climate is changing, especially in the north, and how the industry can reduce its climate change footprint.

To achieve Strategic Priority No. 5, the MDS Panel recommends that the Yukon Government:

- Finalize and implement progressive mine reclamation policies that exemplify “best practices” and require legally enforceable mine closure plans that are backstopped with adequate and accessible security and bonding plans. The modernized mineral resource legislation must give the Yukon Government the authority to:
 - seize security and bonds before costs are incurred.
 - require an annual corporate profile to assess a company's financial viability including the adequacy of its insurance coverage.
 - recover costs for technical reviews of closure plans and cost estimates.
 - ensure long term maintenance and environmental liability will be vested in the operator.

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- Develop clear and enforceable progressive reclamation policies and financial security provisions for the advanced exploration industry, particularly where bulk sampling will be pursued.
- Direct Yukon, Energy Mines and Resources to assess the feasibility of retaining a portion of staking fees (established in the modernized mineral resource legislation) as a security bond for future reclamation work.
- Similar to British Columbia and the Northwest Territories, institute a requirement for all mineral claim stakers and owners to hold a Prospecting License to ensure best practices are implemented from the earliest stage of mineral development and that current contact information is available for all claim holders.
- Recognize that financial security is already within the scope of both the *Waters Act* and the *Quartz Mining Act* and establish an integrated process to eliminate any duplication of effort in administering financial security for advanced exploration and mine licensees.
- Work with industry, through the Yukon Minerals Advisory Board and the Mining Memorandum of Understanding table, to facilitate environmental monitoring of closed mines by Yukon First Nation entities. Consider allocating a portion of a mine's closure security to support long term monitoring activities.
- End the practice of accepting perpetual care and maintenance of a mine site as part of any mine closure plan. Project proposals must show how proponents are planning to return the mine site to conditions that are as close as possible to the pre-mining state with minimal environmental degradation and no ongoing risk to the environment. Final closure plans must be fully costed and reclamation security amounts sufficient to return the mine site to a balanced environmental state.
- Monitor cumulative effects by creating a program within the Joint Secretariat with a mandate to track and publish the annual volume of functional land disturbances (surface disturbance and linear density) in Yukon. Make the functional land disturbance data available at no cost for use in environmental assessment and regulatory processes as well as monitoring of all Regional Land Use Plans.
- Build on the recent work of the Yukon Water Board and finalize the policy for extractive resource activities in Yukon wetlands founded on the recognition that wetlands cannot be returned to a pre-disturbance state within seven generations. Fund a second

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program within the Joint Secretariat or the Yukon Geological Survey with a mandate to locate, categorize, map and monitor Yukon wetlands.

- Consider initiating public consultations on whether the extraction of certain minerals should be prohibited in the Yukon, specifically uranium and coal.
- In collaboration with the Department of Fisheries and Oceans Canada, undertake comprehensive aquatic surveys of strategic rivers and tributaries where mining has not occurred to determine whether salmon habitat would be at risk if mining was permitted.
- Acknowledge and address the community-level tension that follows from the creation of resource access roads under cover of the free entry system by amending the Yukon's Hunting Regulations to restrict hunting via new roads. Collaborate with Yukon First Nation governments to establish parallel restrictions for Yukon First Nation hunters.
- Expedite the completion and approval of the Resource Roads Regulation to provide a modern framework for management and enforcement of resource roads from start-up construction and use through to closure and remediation.
- Direct Yukon Energy (through a policy directive, regulation or an Order-in-Council to the Yukon Development Corporation) to assist project proponents to implement renewable energy options such as solar and wind to advance the objectives of *Our Clean Future*. Where possible, facilitate the connection of renewable electricity infrastructure at mine sites to the Yukon's electricity transmission grid.

**Strategic
Priority
No. 6**

Provide support for leading edge workforce development and public awareness initiatives.

The most significant net benefit to Yukoners from the Yukon's mineral industry over past decades has been the creation of thousands of high-paying jobs. Further multiples of jobs have been created through indirect employment in the firms supplying goods and services to miners and explorers.

However, less than half of the Yukon's mineral industry's workforce currently resides in the Yukon. Benefits accruing to the Yukon in the form of federal transfers, tax revenues, induced employment and local business revenues are being minimized rather than maximized. Developing the Yukon workforce is critical to ensure that benefits from the mining and exploration industry remain in Yukon in the short and long term.

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The minerals industry has changed dramatically over the past few decades. Unlike the 'pick and shovel' operations of the distant past, modern mining is a highly technical enterprise. Advanced technologies have made exploration far more precise and mineral production has become far more automated. Education is the cornerstone of increased participation in the mineral sector workforce by Yukon people.

It is also apparent to the MDS Panel that the level of understanding about mining careers, and mining in general, is uneven at best and that perceptions are coloured by the negative legacy of past mining practices. The public deserves to have a better understanding of the different phases of the mining cycle, and the inherent environmental and social risks at each phase. An improved understanding of the mineral industry is in the interests of not only the public but also industry itself, Yukon First Nation governments, non-governmental organizations and regulatory agencies.

In short, greater efforts must be made to advance "mineral literacy" – notably initiatives to build public awareness of the mineral industry activities and benefits, including the introduction of a mining component in the public education curriculum. While it is recognized that there have been public awareness initiatives in the past (such as the Yukon Chamber of Mines campaign, "Our Yukon - In it Together"), the MDS Panel believes that a more concerted, coordinated and sustained effort would be beneficial. Better awareness will lead to increased public knowledge and more informed decision making.

To achieve Strategic Priority No. 6, the MDS Panel recommends that the Yukon Government:

- Create a coordinated communications and education strategy to inform Yukoners of the foundational importance of the mining sector. The strategy should be led by Yukon Economic Development in partnership with the Yukon First Nation Chamber of Commerce and the Yukon Chamber of Mines and in collaboration with the Yukon and Whitehorse Chambers of Commerce, as well as the service and supply sectors that have linkages to the mining industry. The strategy should strive to enhance public awareness of First Nation involvement in the mining sector by providing opportunities for First Nations to share their own stories of successful collaboration with mineral explorers and developers.
- Direct the Department of Education to ensure that Earth Science and Geology are well represented in Yukon's school curriculum, and government and industry should collaborate to ensure that students from K to 12 are aware of career opportunities in mineral exploration and mining. Engaging early with children and youth is key to opening the sector to a more diverse range of participants and getting young people

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interested in the innovative, high-tech careers that will build the mining sector of the future. Yukon Women in Mining should be approached to help design programs that highlight opportunities for women in the mining industry, including mining service and support businesses.

- Develop a response outlining how the Yukon Government as a regulatory authority will support the implementation of the recommendations of the Yukon Advisory Committee on Missing and Murdered Indigenous Women, Girls and Two-spirit+ people to:
 - eliminate violence related to development projects in both workplaces and communities.
 - increase the workforce capacity, mitigate negative impacts, and improve the positive benefits for Indigenous women and Yukon communities.
- Develop and implement, with industry partners including Yukon Women in Mining, an Action Plan to attract and retain women in mining careers, including innovative measures for work rotation schedules and childcare options.
- To improve awareness about the full range of employment opportunities in the mining industry, update and digitally distribute the Yukon Mine Training Association's 2008 publication *Yukon Mining Careers Handbook*. Create greater public awareness about the spin-off jobs in the mining industry such as legal, accounting, bookkeeping, environmental monitoring and human resources services. Highlight that many skills related to mining are directly transferable to other career paths.
- Provide project funding to the Centre for Northern Innovation in Mining at Yukon University to develop a comprehensive Yukon Mining Innovation Roadmap. The Yukon's mining sector is undergoing a technology-driven transformation driven by automation, digitization and climate change adaptation. The mining innovation roadmap will serve to coordinate and accelerate the transformation.
- Direct and resource Yukon Economic Development, in collaboration with Yukon Energy, Mines and Resources, to expand its program to encourage innovative technologies, specifically targeting new concepts for less invasive exploration practices, progressive reclamation methods and wetlands rehabilitation practices.

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Looking Forward

Based on our assessment of Yukon First Nation and stakeholder input, as well as our own collective experience, the MDS Panel has recommended a wide array of actions needed to support balanced and sustainable mineral development in the Yukon.

The MDS Panel is grateful to have had the opportunity to engage with so many Yukon people, governments and organizations and the Yukon mining industry in the preparation of the Yukon Mineral Development Strategy and Recommendations. We are confident that the depth and breadth of engagement undertaken over the past 16 months has resulted in a series of recommendations that will resonate with all Yukoners and lays a solid foundation for the collaborative and place-based development of Yukon mineral resources in a way that will benefit all Yukoners.

We note, however, that full, effective and successful implementation of the recommended actions will require transformational leadership by the Yukon Government. In the division of powers between the Yukon Government and Yukon First Nation governments, the Yukon Government alone has been delegated administrative responsibility for the Yukon's mineral resources by Canada, on behalf of all people in the Yukon. Aligning the mineral development aspirations of all Yukon people will require the Yukon Government to function as a coherent and singular entity. The whole of Yukon Government must embrace the principles of reconciliation and work to build the trust and respect of Yukon First Nation governments, and the entities and agencies borne of the modern treaties. True collaboration is hard.

Through the extensive engagement process, the MDS Panel believes that industry will seize the opportunity to respond positively to the alignment of interests among the people who live here. Establishing the alignment of development interests among all Yukon people will make the Yukon a rare and unique jurisdiction in the world. Such alignment, combined with the Yukon's abundance of mineral resources, will ensure that the Yukon is highly attractive to the global investment capital essential to the long-term success of the mineral exploration and development industry.

The mining industry will finally be able to clearly see the Yukon development pathway and know the goal posts at each stage of the mineral exploration and development cycle. Risks and constraints to mineral resource development in the Yukon will be further reduced by entrenching the transparent pathway in mineral resource legislation which, in turn, will create the certainty sought by the mining industry.

The MDS Panel is also confident that Yukon people will respond positively to the alignment of mineral development interests with the interests of the people who live here. The Mineral

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Development Strategy fulfills the desire of many engagement participants for a bold, transformative and contemporary approach to mineral development in the Yukon. An approach that establishes a framework for sustainable mineral development within a positive context of economic, social and environmental reconciliation.

Certain recommended actions outlined in Mineral Development Strategy exemplify the scale and complexity of the effort that will be required to fully implement the Strategy:

- 1\ co-development by the Yukon and Yukon First Nation governments of modernized mineral resource legislation within the next three years. The new legislation will be aligned with the modern treaties with Yukon First Nations, transboundary treaties, the principles of reconciliation enshrined in the *United Nations Declaration on the Rights of Indigenous Peoples* and the recommendations of Canada's Truth and Reconciliation Commission. The new legislation will be developed in a transparent manner that allows for the participation of the mining industry.
- 2\ directing resources, including some of the not-as-yet allocated \$360 million in federal and territorial funding for the Yukon Resource Gateway Project, to expedite the concurrent completion of the remaining Yukon Regional Land Use Plans envisioned in the Umbrella Final Agreement (Dawson, Northern Tutchone, Kluane, Whitehorse, and Teslin) within five years.
- 3\ meaningful sharing of payments in respect of the land with Yukon First Nations, within the next two years, through a combination of: funding for First Nation equity participation in projects, revamped resource royalty measures, a First Nation Resource Charge and an industrial water tax.
- 4\ establishment of regulatory clarity and land access certainty to ensure the Yukon can compete for global investment capital.

The final recommended action of the MDS Panel is the establishment of a Yukon Mineral Development Strategy Implementation Agency empowered with a systems change mandate. The purpose of the Agency would be to hold up the vision of the MDS Panel and to facilitate the legislative, policy and administrative initiatives needed to fully implement the Strategy over the next three to five years. The Agency would also be tasked with reporting on implementation progress on a quarterly basis at the Yukon Forum and with a web-based scorecard.

Respectfully, Shāwníthän

The Yukon Mineral Development Strategy - Independent Panel

Angus Robertson, Chair

Math'ieya Alatini, Panel Member

Doug Eaton, Panel Member

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