



**YUKON MINERAL
DEVELOPMENT
STRATEGY**

WHAT WE HEARD

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1 Background

1.1 About the Yukon Mineral Development Strategy

In 2017, the Minister of Energy, Mines and Resources, the Grand Chief of the Council of Yukon First Nations, and Chiefs of the Self-Governing Yukon First Nations signed a Mining Memorandum of Understanding (the MMOU). The MMOU committed the Parties to work collaboratively to improve the management of placer and quartz mining in the Yukon. A specific commitment of the MMOU was the creation of a Yukon Mineral Development Strategy (the “YMDS”), which is intended to be a collective strategy for the management of placer and quartz mineral prospecting, exploration, development, production, reclamation, closure, and post-closure management that:

- Respects the special relationship between the Yukon government and First Nations governments that sets Yukon apart from other jurisdictions; and
- Creates jobs, strengthens and diversifies our economy, respects environmental stewardship and supports the development of a thriving and prosperous economy that benefits all Yukoners, and recognizes and respects the Yukon First Nations’ special relationship with the land and resource of their respective traditional territories.

In August 2019, the 11 Self-Governing Yukon First Nations and Yukon government established an independent panel to lead a public engagement process, culminating in recommendations for a Yukon Mineral Development Strategy.

The YMDS recommendations will help Yukon government, First Nations, and others to meet Yukon First Nations’ and Yukon government’s commitment to the long-term, responsible management of Yukon’s mineral resources, and to supporting a healthy mining industry that adheres to high environmental standards.

A Terms of Reference was mandated to the Independent Panel, with the expectation that the YMDS recommendations should:

- Encompass all aspects of placer and quartz mineral development including prospecting, exploration, development, production, reclamation and post-closure management;
- Be founded on respect for Yukon First Nations’ special relationship with the land and resources in traditional territories; and,
- Support the development of a thriving and prosperous economy that benefits all Yukoners.

1.2 About 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 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, Panelist 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.

1.3 About the YMDS Process

The YMDS process was designed around five distinct phases:

1. Pre-Engagement
2. Engagement
3. Draft Recommendations
4. Public Comment on Draft Recommendations
5. Final Recommendations

Phase 1: Pre-Engagement

In this phase, the YMDS Panel reached out to Yukon First Nations, trans-boundary First Nations and indigenous groups, a broad spectrum of Yukon organizations, and Yukoners to identify how they would like to be engaged in the YMDS process and what topics they felt should be discussed as part of the YMDS Process.

The YMDS Panel received input on process design through:

- 25 meetings,
- Written submissions, and
- A public survey, which 220 participants completed.

The pre-engagement work revealed that the participants wanted to speak to a wide variety of subjects related to mineral development, and that the Engagement Phase would need to be designed in a way that allowed for both a variety of engagement options and a variety of discussion topics.

The Pre-Engagement Phase ran from September to December 2019.

Phase 2: Engagement

Mineral development is a complex topic, with many interests and perspectives, depending on the context of each participant. Recognizing this and wanting to ensure that their recommendations are both well-considered and well-informed, the Independent Panel adopted a broad-based approach to engagement. As such, the YMDS Panel did not limit the discussion topics. Instead, the Panel invited participants to speak to anything affected by mineral development or to anything affecting mineral development that mattered to them. Not only did this approach respect the input the Panel received in pre-engagement, it allowed them to gain a better understanding of how mineral development affects Yukoners and the Yukon, both positively and negatively.

A number of engagement options were developed, including:

- Community open houses
- Ten-minute presentations to the Panel
- Written, audio, or video submissions
- An online discussion forum (using Kialo)
- An engagement survey

- Focus groups
- Meetings with First Nations and key stakeholders (not-for-profit organizations, industry organizations, organizations established under the Umbrella Final Agreement, mining companies, etc.)

Prior to COVID-19, the Independent Panel attended the Yukon Geoscience Forum in Whitehorse, the AME Roundup in Vancouver, and PDAC in Toronto, to meet with and learn from individuals involved in all aspects of mineral development (ex. prospectors, investors, etc.), and hosted six focus groups over a period of three days for Yukon businesses involved directly and indirectly 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.

With COVID-19, the Independent Panel had to modify some of the public engagement options. To help guide this work, the Independent Panel reached out to Yukon municipalities, First Nations, and trans-boundary indigenous groups to learn their preferences with respect to public engagement. A number of options were provided that complied with the Chief Medical Officer of Health's guidelines.

Based on feedback from the municipalities and First Nations, and to ensure that options were available for the general public to participate in the process, the Independent Panel:

- Hosted eight regional online open houses;
- Added a toll-free engagement line so Yukoners without Internet access could phone in to share their thoughts;
- Hosted a two-day session with First Nations elders; and
- Hosted over 90 meetings, both in-person (prior to COVID-19) and using Zoom (during the pandemic).

The existing online engagement options remained open. The YMDS Panel received 63 written submissions, which were posted to the YMDS website. 226 participants completed the online survey, sharing 2,931 unique comments.

To help ensure that placer miners could participate in the process, the Klondike Placer Miners Association offered to visit their members in the goldfields and conduct a survey using questions provided by the YMDS Panel. 48 responses were received.

Engagement was promoted using:

- Two rounds of radio advertisements on CHON-FM and CKRW
- Two rounds of newspaper advertisements in the Yukon News, Whitehorse Star, and the Klondike Sun
- Facebook and Google ads, and
- Two direct mailers to all Yukon mailboxes.

After a three-month extension due to the COVID-19 pandemic, public engagement closed on September 8th. Engagement with First Nations remained open after this date.

Yukon First Nations	Written Submission	Meeting	Pending Response or No Response
Carcross/Tagish First Nation	X	X	
Champagne and Aishihik First Nations			X
First Nation of Na-cho Nyäk Dun	X		
Kwanlin Dün First Nation	X		
Kluane First Nation	X		
Liard First Nation			X
Little Salmon/Carmacks First Nation		X	
Ross River Dena Council		X	
Selkirk First Nation		X	
Tr'ondëk Hwëch'in	X	X	
Ta'an Kwäch'än Council			X
Teslin Tlingit Council			X
Vuntut Gwitchin First Nation	X		
WRFN	X	X	
	7	6	4

Transboundary Indigenous Governments	Written Submission	Meeting	Pending Response or No Response
Acho Dene Koe			X
Dease River First Nation			X
Gwich'in Tribal Council	X		
Inuvialuit Regional Corporation		X	
Kwadacha Nation			X
Tahltan Central Government			X
Tetlit Gwich'in Council		X	
Taku River Tlingit First Nation			X
	1	2	5

Phase 3: Draft Recommendations

Using the input received during the Engagement Phase of the YMDS Process, the Independent Panel will develop a series of draft recommendations. The draft recommendations will be shared with the public for a period of public comment.

Phase 4: Public Comment on Draft Recommendations

Because the Independent Panel wants to ensure that their recommendations are both well-informed and well-considered, the Panel will be releasing their draft recommendations for a period of public comment, where everyone has an opportunity to review the draft recommendations and provide feedback. During this phase, the Independent Panel will be accepting only written comments.

Phase 5: Final Recommendations

After considering the feedback received during the Public Comment phase, the Independent Panel will then present their final recommendations to the 11 Self-Governing First Nations and Yukon government. At that point, it will be up to the 11 Self-Governing First Nations and Yukon government to consider the Panel's recommendations and, if they deem it appropriate, to act on them.

1.4 About this What We Heard Report

This document is an attempt to capture the wide range of perspectives the YMDS Panel heard related to mineral development in the Yukon. It attempts to capture what was said in over 90 interviews and meetings with individuals and groups, 63 written submissions, three days of focus groups, eight online open houses, and nearly 3,000 survey comments.

We have done our best to capture the essence of the participants' comments as they were received, without judgement or correction. In some cases, participants made comments based on inaccurate information or incorrect assumptions. In other cases, participants requested specific changes that have already been implemented. This document does not correct or render judgement on any of these comments or perspectives. It is an attempt to capture what we heard, not "what we want to say".

It is not always easy to summarize comments, particularly when the perspectives shared can contain subtle but important nuances. In this regard, we have endeavored to strike a balance between providing a thorough What We Heard Report and making it readable. We feel that the length of this What We Heard Report is necessary to adequately capture the range of perspectives and complexity associated with mineral development in Yukon.

To make it easier for readers to find the topics that interest them, we have categorized the input we received into themes – but because many of the topics are interconnected, readers may find it necessary to refer to several sections.

Everyone's voice matters and the YMDS Panel is grateful to all who participated in the YMDS Engagement Phase. If you provided input, we hope you find your voice represented here.

2 Summary of Key Findings

Throughout the Yukon Mineral Development Strategy engagement process, the Independent Panel learned that there is a general sense of frustration with the current state of affairs when it comes to mineral development in the Yukon. Participants asked for change in a wide variety of areas, ranging from the need for a more harmonized and efficient regulatory and assessment process to the requirement to modernize mining legislation, overhaul the mineral royalty system, and the need to complete regional land use plans.

Contained within this section is a summary of key findings based on what the Independent Panel heard from participants in the process. **It is important to note that this summary reflects the views of the participants and should not be interpreted as Panel recommendations.**

Each section in this summary has a corresponding chapter in this What We Heard report. If you would like more detail on what participants had to say, please refer to the corresponding section in this document.

2.1 Mining Legacies

- 1) The legacy of poor mining practices in the past looms large in people's consciousness, as do more recent incidents. While this has led to a loss of trust that affects the sector, positive changes in mineral development practices and the benefits that come from the sector were also noted.
- 2) To support mineral development, Yukoners need to be certain that the benefits of mineral development activities will outweigh the associated costs and risks.
- 3) Current and future mines need to have closure plans backed up with realistic, adequate and accessible financial security bonds.
- 4) The Yukon has the potential to be a "best in class" ethical mining jurisdiction, which will protect local interests and provide local benefits, while also creating a competitive advantage for attracting mineral development investment capital from global venture capital markets.

2.2 First Nations

- 1) Unresolved land claims create uncertainty for everyone.
- 2) Industry is especially concerned about the alienation of land for exploration due to land claims-related staking moratoriums. Unresolved land claims also complicate industry's consultation with First Nations and negatively influence investor confidence.

- 3) There is a need for governments and First Nations without land claims agreements, including trans-boundary First Nations, to negotiate and implement contractual arrangements for the management of lands and permitting of resource development activities.
- 4) Significant economic and capacity gaps exist between First Nations with Final Agreements and those without.
- 5) Existing mineral legislation is not in compliance with obligations under the Final Agreements. The development of modernized mining legislation must be a key outcome of the YMDS, and Yukon government and Yukon First Nations must work collaboratively and expeditiously toward new, “made in the Yukon” legislation that is rooted in collaborative management, sustainability and respect for the spirit and intent of the treaties.
- 6) The free entry system needs to be replaced or have numerous constraints placed upon it to be consistent with the Final Agreements.
- 7) Traditional knowledge must be given a much greater role in the assessment and regulatory approval processes.
- 8) Free, Prior, and Informed Consent and local decision-making should be incorporated into assessment and decision-making processes.
- 9) Industry understands the importance of early engagement with First Nations, but confusion exists around how to do consultation and engagement with First Nations properly (i.e. when the process should begin, who to engage with, how the process should operate, what the end results should be, etc.)

2.3 Environment

- 1) Environmental stewardship and protection are fundamentally important.
- 2) A lack of consistent and high-quality monitoring and enforcement is undermining the effectiveness of the regulatory regime and its ability to protect the environment.
- 3) While there are systems in place to assess environmental impacts, there are important traditional and scientific knowledge gaps that need to be filled.
- 4) Mechanisms need to be developed to address cumulative effects.
- 5) Climate change implications are numerous, and a climate change lens must be applied to all aspects of mineral development.

2.4 Communities

- 1) Mineral development activities can positively affect communities but also have significant adverse effects on the health and safety of communities. (Ex. substance abuse, violence against women and girls, impacts on families, etc.). Implementing the recommendations in the *Yukon Strategy on MMIWG2s+: Changing the Story* can assist with addressing these issues.

- 2) Municipalities and First Nations need to be resourced adequately to plan for, accommodate, and benefit from mineral development activities.
- 3) Community concerns need to be given greater weight in the YESAA process.
- 4) Alternative and community-based metrics should be developed to assess the impacts and benefits of mineral development activities on communities.
- 5) Governments and First Nations need to complete socio-economic and socio-cultural impact assessments on affected communities before (i.e. baseline), during, and after mineral development activities.
- 6) Agreements such as Participation Agreements, Exploration Agreements, Impact and Benefits Agreements, and similar agreements between mineral developers and communities form relationships that could lead to mutually beneficial outcomes.

2.5 Heritage

- 1) Heritage is not limited to historic sites, archaeology, or paleontology, but also includes living heritage like language, culture, and relationship to the land.
- 2) Land use approvals for advanced exploration and mining usually require heritage studies and the study areas sometimes wholly or partially overlap areas that have previously been studied by other operators. Duplication of studies is costly and time-consuming, and should be avoided.
- 3) Quality heritage data is necessary to make good decisions about land uses, but this data needs to be presented in a fashion that does not compromise important heritage areas and reduces the duplication of effort for operators who are required to study overlapping areas.
- 4) The need for a central repository or cataloging system was expressed by many to make the heritage assessment process more efficient.
- 5) Legislation and regulations are needed for heritage protection, and these tools should transcend departmental boundaries.

2.6 Consultation and Public Engagement

- 1) There is a difference between Consultation as a duty under Section 35 of the Constitution Act and consultation as a form of public engagement. The Crown's Duty to Consult is often devolved to industry, which creates both opportunities and problems.
- 2) Consultation and public engagement are both valuable and essential but are not always easy.
- 3) Consultation and engagement are not always meaningful. This has reduced trust and participation in these processes.
- 4) Consultation and engagement processes can be made easier and more effective with proper systems, resources, and approaches in place.
- 5) Negotiated agreements can form the basis of a relationship between mineral developers, First Nations and communities.

2.7 Land Use Planning

- 1) There is a general consensus that land use plans need to be completed urgently.
- 2) Although the Final Agreements contain provisions for how Regional Land Use Plans should be developed, additional clarity is required. The development of these plans has not progressed quickly for a variety of reasons that must be addressed, such as:
 - a) The delineation of planning boundaries,
 - b) The availability of data/information,
 - c) Capacity,
 - d) Concurrent vs. sequential planning,
 - e) Concerns about timelines,
 - f) The lack of clarity regarding mineral staking withdrawals, and
 - g) Compensation for claim holders affected by land use planning.
- 3) There is a need to consider land withdrawals in some fashion prior to each regional land use planning process.
- 4) Land use planning processes need to be resourced adequately, including the collection and analysis of information (biology, mineral resources, traditional and local, knowledge, etc.)

2.8 Prospecting, Staking and Exploration

- 1) Mineral exploration is a high-risk enterprise. Most grassroots exploration is carried out by junior companies and prospectors with little cash flow. There is heavy reliance on venture capital to finance exploration projects.
- 2) Class 1 Notification requirements have added significant time and expense for prospectors and exploration companies. The costs and delays may force venture capital and exploration companies to operate in more “exploration friendly” jurisdictions. The system could do a better job of delineating between invasive and non-invasive practices.
- 3) The free entry system is inconsistent with the Final Agreements and does not consider other potential land uses. However, prospectors and other mineral explorers consider some form of free entry to be essential to their operations.
- 4) Online staking has advantages and disadvantages. New legislation must allow for the implementation of online staking, should the decision be made to use online staking in the future.
- 5) The land base available to staking has been radically reduced in recent years and currently represents about half of the Yukon.
- 6) Policies relating to staking and representation work for claim maintenance need to be reconsidered.
- 7) Mineral staking and tenure needs clarification in a variety of areas (ex. Settlement Lands, titled lands, municipalities, overlapping placer and quartz claims, etc.)
- 8) Legislation and regulations must continue to adapt to changes in prospecting and exploration practices.

2.9 Reclamation, Remediation, and Restoration

- 1) There is broad support for stronger financial requirements and incentives to ensure reclamation is undertaken by project proponents.
- 2) There is a need to ensure that bonding for mining projects is both adequate and accessible.
- 3) Reclamation for exploration and mining projects should be progressive and follow established work plans and best practice guidelines.
- 4) There are opportunities related to post-mining reclamation, and there are ways to ensure that these opportunities result in benefits to local communities.

2.10 Environmental Assessment and Regulatory Systems

- 1) An effective and timely regulatory system will give Yukon a competitive advantage and ensure mining's social license.
- 2) Many industry participants perceive the assessment and regulatory processes as being overly complex, cumbersome and expensive. The forthcoming PwC report to the Yukon Minerals Advisory Board is anticipated to document many of industry's specific concerns.
- 3) There are opportunities to improve the Yukon's assessment and regulatory systems to ensure that they are both effective and efficient without compromising environmental, heritage, or social values.
- 4) Permit classes and terms can be reconfigured in ways that reduce the investment risk for mineral developers, while also meeting the needs of First Nations and the environment.
- 5) There is a need for comprehensive socio-economic and socio-cultural impact assessments to make informed decisions regarding mineral development projects.

2.11 Legislation

- 1) There is a general desire for legislative modernization for a variety of reasons. Importantly, mining-related legislation must be consistent with First Nation Final Agreements and align more readily with other legislation such as YESAA and the *Yukon Waters Act*.
- 2) Yukon government and Yukon First Nations must work collaboratively and expeditiously toward new, "made in the Yukon" legislation that is rooted in collaborative management, sustainability and respect for the spirit and intent of the treaties.
- 3) The mineral development sector would like to provide input on new legislation.

2.12 Government Revenues

- 1) Fees, taxes, and royalties must be competitive in order to attract investment to the territory, but they must also be set at rates that capture benefits for the territory and recognize the value of resources that are transferred to the private sector.
- 2) The royalty and taxation systems require changes.
- 3) The establishment of an investment fund utilizing resource revenues can help to ensure that mineral development provides long-term benefits for Yukoners.
- 4) A payroll tax could be used to ensure the territory captures more financial benefit from workers who earn their incomes in the territory, but who do not reside in the Yukon.

2.13 Economy

- 1) Mineral development is the largest private sector employer in the Yukon, with many Yukoners and their families depending on incomes associated with mineral development, directly and indirectly.
- 2) Although mineral development activities employ many Yukoners, there are Yukoners who have difficulty accessing employment in the sector.
- 3) It is important that ongoing efforts be made to develop a Yukon workforce (careers vs. jobs) to ensure that benefits from the sector remain in the Yukon in both the short and long term.
- 4) A significant portion of the mineral industry workforce does not reside in the territory and this reduces the benefits accruing to Yukon in the form of federal transfers, tax revenues, induced employment, local business revenues and so forth.
- 5) The boom/bust nature of the sector is disruptive to the economy and to Yukoners.
- 6) Mineral development provides economic benefits, but care needs to be taken to ensure these benefits are captured in ways that benefit the Yukon now and in the future.
- 7) Investment in mineral development depends on a variety of factors. Maintaining a positive investment climate is essential to a sustainable mining industry, however creating the conditions where both investors and Yukoners benefit is key.
- 8) Yukon-based placer miners are under pressure from a variety of direction (ex. larger competitors from outside the territory, regulatory uncertainty, etc.)

2.14 Infrastructure

- 1) While infrastructure expansion and maintenance are essential to mineral development, roads and other infrastructure can have significant negative impacts on the environment and traditional activities.
- 2) There is disagreement over the decommissioning of access roads (i.e. should it happen, by whom, and when?)

- 3) There is disagreement about who should pay for infrastructure (energy, roads, etc.) related to mineral development, with many wanting industry to assume a greater role in paying for new and existing infrastructure.
- 4) There are demands for increased use of renewable energy by and for the mineral development sector.
- 5) Access to tidewater is necessary for the viability of many mineral development projects.
- 6) Telecommunications infrastructure is essential for competitive operations in remote areas.

2.15 Technology

- 1) The technological landscape offers opportunities to do things better, but it also means changes to the job market.
- 2) Yukoners must be prepared for a changing job market.
- 3) Changes to mineral legislation must attempt to anticipate the impact of new technologies and encourage innovation.

2.16 Looking Forward

- 1) Participants shared that the Yukon Mineral Development Strategy needs to contain a vision for the territory.
- 2) There is a broad desire that the YMDS will be bold and transformational, establishing a framework that will allow for sustainable mine development within a positive environmental and social context.
- 3) Because the Independent Panel's recommendations are non-binding, it will be up to the Yukon government and First Nations to work together to consider and implement the Panel's recommendations. In this regard, the Yukon Mineral Development Strategy is not the end of a process, but a beginning.

3 Mining Legacies

3.1 A Mixed Legacy

Based on the feedback received through the process, there is little doubt that mineral development has a mixed legacy in the Yukon.

Many participants pointed to the positive impacts of mineral development, including:

- The ability to provide for and raise a family in the Yukon, through employment and the use of local businesses;
- Migration into the Yukon, contributing to its vibrancy;
- The direct and indirect economic contribution of the sector, not just for the Yukon, but the nation as a whole;
- Government revenues that help to fund public programs and services;
- Sponsorships, scholarships, and other direct community supports; and
- The use of minerals in the products we use to support our quality of life.

It is not surprising then that there are many who want more mining development, and to make it easier to grow the industry, although there is disagreement on this point. Many participants have pointed to negative impacts of mineral development, including:

- Environmental damage and ongoing threats to ecosystems due to exploration practices and operating and dormant/closed mines;
- The cost to the public for addressing orphaned and abandoned mines;
- The erosion of indigenous rights and cultures;
- Family disruption due to rotational work;
- Violence against women and girls and, in particular, indigenous women and girls;
- Social disruption in communities that can amplify existing problems and introduce new problems (addictions, violence and sexualized violence, increased crime and gang activity related to the drug trade, housing and homelessness, etc.);
- Increased cost of housing due to an influx of workers, and a corresponding drop in property values when mines close;
- Increased demands on public services (social services, mental health services, hospitals and emergency services, substance abuse programs, shelters for abused women and children, courts, public prosecution, policing, public infrastructure, conservation officers, inspection and compliance, etc.) and associated costs to taxpayers;
- The loss of employment on a large scale due to the boom-bust nature of the industry;
- Migration into the Yukon, changing the culture of the territory;
- Contributions to climate change;
- The loss of hunting and recreational areas and conflict over land use;
- Lost opportunities, as public funds are invested in supporting mineral development and not in other areas that could provide a public benefit;

The environmental impact, in particular, was raised as a concern. In the words of one participant, "A friend of mine many years ago decided he wanted to go gold mining. He went to Dawson for a summer and spent it ripping up a whole valley floor. All the riparian areas. Nesting birds, fish. They did not find any gold and left the area in a big mess. That is terrible."

A frequent criticism has been that the benefits of mineral development accrue to others outside of the territory while residents are left with the mess and the costs.

Some participants attributed the negative effects not to mineral development itself, but to people who don't live in the territory and who, therefore, do not have a vested interest in ensuring that the territory is taken care of. In the words of one participant, "People who live here work to make here a better place. People who visit to work here have nothing to gain by contributing." In the words of another, "What is positive about a bunch of people who have no interest in the intrinsic value of the Yukon and its communities?"

There is a sentiment that the current mining regime is built to encourage mining at any cost, and that Yukoners don't feel like they're benefitting. One participant explained, "YG receives more revenue from the sale of alcohol than from mining." Similar comments have been made saying the Yukon government receives more revenues from the sale of campground permits than it does in royalties.

Many participants questioned whether mineral development is needed at all. In the words of one participant, "...it seems the community does just fine even when mining is not prevalent." In the words of another, "Mining for gold is not essential - it can be recycled." Along the lines of reusing existing resources, others concede that mineral development is needed, "...because that's the way the world has evolved, but we can also reduce our consumption and produce things that last longer to stop using natural resources excessively." Still others advocate for leaving minerals in the ground until they are really needed.

In the face of such differing opinions, it's not surprising that some participants feel it's not possible to have safe and honest conversations about the costs and benefits of mineral development. Some blame the mining community for this. As one participant lamented, "Let's get real about the true costs and benefits. Mining is too much of a sacred cow and the polarized debate is preventing an informed one. The mining community is heavily subsidized and there is a legacy of environmental harms. Rather than propaganda about mining, I would really like to witness truly sustainable mining practices in Yukon that truly leave lasting benefit."

Some participants feel that mineral development's negative reputation is not accurate, or that the sector is being "demonized". Some blame this on media portrayals of the industry. Others blame environmental organizations. In the words of one participant, "There are anti-mining interests active in the Yukon, potentially well-funded from Outside interests. The mandate of these associations and individuals are essentially to limit and discourage

mining and exploration in this territory, and they are very adept at media usage to disseminate their ideas.” Certainly, those in the sector realize that mineral development is haunted by a legacy of projects gone wrong. Some in the sector point to themselves as the reason for this, criticizing bad actors and others explaining that the sector is bad about singing its praises.

While many participants have deemed mineral development as too high a risk, or too high a cost for too little benefit, others feel that mineral development is essential and that the benefits outweigh the costs. Others feel that the risks and negative effects of mineral development can be mitigated through assessment, legislation and regulations, enforcement, and incentives and disincentives.

3.1.1 Measuring the Costs and Benefits

Many participants called for transparent and honest assessments of the costs and benefits of mineral development in various forms, including:

- Full cost accounting, including the incorporation of government revenues and expenditures associated with mineral development activities;
- Independent audits of the positive and negative effects of mineral development in the short and long term (including beyond the life of the project); and
- Assessing the impacts of mineral development beyond the mining sector, or using a more holistic approach (long-term effects on the environment, water quality, traditional hunting practices, the societal challenges of sudden large scale unemployment following a bust or a company going insolvent, impacts on women, children, families, and communities, etc.);

3.1.2 A Changing Identity

Mining and the Gold Rush have been a large part of the Yukon’s identity for over 120 years, and for many participants – particularly those involved in mineral development – this is an important part of their personal identities as well as the territory’s identity.

Other participants feel that the Yukon is about more than mineral development and would like those aspects of the territory’s identity to evolve. In the words of one participant, “The Yukon is not just about the gold rush and mining. It is also about the land the people and the wildlife.” In the words of another, “I found upon moving to the Territory that there continues to be a mentality quickly adopted by newcomers like myself, which seems to have grown partly from the settler myths built on the Gold Rush era. This mentality involves a notion that the Yukon remains a “frontier” location where dreams can be realized and there is space to accommodate developments and the attainment of wealth and satisfaction including the ability to hunt and fish anywhere, build anywhere, and pursue mineral development anywhere. This myth is a dangerous and misconceived notion which fundamentally undermines First Nation rights, runs counter to necessary acts of reconciliation, and is not commensurate with the current local and global reality of human impact on lands and waters, including climate change.”

Many participants directly challenged the legacy of mineral development, questioning whether it is something to be celebrated and painting a vision of the future that challenges the territory to make environmental integrity more of a priority. In the experience of one participant, “I recently went to Dawson for the first time. I know a bit about the mining history there but was not prepared to see the kilometers of tailings left by the dredging in the gold rush. Driving along the north Klondike highway through that century-old dredging wasteland was profoundly disturbing. The fact that our society celebrates mining and the Gold Rush - and those dredge remains are what's left... a barren waste land of neatly piled rocks. Dredge Number 4, a Canadian Heritage attraction. It was truly horrifying to lay my eyes on the results of that. What will my daughter's grandchild say when he or she sees Faro? What will my daughter's grandchild say when he or she see the Casino Mine remnants? Our land is too precious to throw it away like the dredge piles of the Klondike Valley. Please, let us all reflect on what matters, what truly matters: the moment of a gold mine, or the pristine ecosystem that has been supporting humans and wildlife for countless generations!

Another participant reflected, “At the end of my life, when I'm lying in bed will I think... Oh, I developed a mine. I made a ton of money. Left a mess, but oh well, look at my house. Or... I left an intact ecosystem. I can drink the water. My grandchildren can see wilderness. Isn't that what this boils down to?”

Other participants looked to the future and worried about losing what makes the territory special. In the words of one participant, “Mining is of course an important part of our Yukon economy. But if not handled properly in the future we will slowly see the Yukon become what many people left behind in southern Canada.”

Many participants painted visions for the future of the Yukon with mineral development done very differently than it is done now.

3.2 Ethical Mining

Through the YMDS engagement process, supporters of mineral development and those involved in the sector explained that the sector needs to be held to high standards if it is to overcome the negative aspects of the sector's legacy.

Many participants called for high standards for the sector, with some using terms like “sustainable mining”, “green mining”, and “ethical mining”. When asked what ethical mining means to them, participants explained that ethical mining involves:

- Respecting First Nations rights, lands, and cultures and implementing the Free, Prior, and Informed Consent (FPIC) provisions of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP);

- Respectful engagement where everyone feels heard, with transparency and full disclosure for everyone;
- Conducting full-cost accounting, where all monetary and non-monetary aspects of the project and its effects are considered;
- Respecting the environment, including:
 - No long-term legacy of pollution or contamination;
 - Protecting plants, water, and animals;
 - Minimizing the footprint of activities (including roads, etc.);
 - Taking action on climate change, and reducing the project's carbon footprint;
 - Using low-impact techniques and more eco-friendly equipment;
 - Adopting a "ratio of protection" system, where a quantum of land developed results in a quantum of land protected;
- Full restoration of explored and mined sites, paid for by the explorer or miner;
- Safety and respect for employees and unions;
- Safety and respect for families and communities;
- Respecting other land users;
- Respecting private property;
- Benefits for local people, businesses, and Yukoners, corresponding to the needs and desires of communities and the territory;
- Financial benefits for the Yukon;
- A proponent-pay philosophy, rejecting government subsidies;
- Considers the needs of multiple generations;
- Ongoing research to mitigate or eliminate the risks inherent in the project; and
- Accepting responsibility and accountability for company practices.

A couple of participants suggested that the principles of ethical mining should bind companies operating in the Yukon to comparable ethical standards if they are operating in other countries.

It was explained that ethical mining is not just about obeying laws and regulations but about being "best in class".

In the words of one participant, "A mining engineer once said to me, 'You can't make an omelet without breaking the eggs', which is true; but many projects then go on to kill the chicken. Ethical mining would imply taking very good care of the chicken." Another explained that mineral development should be a positive social experience for all Yukoners, especially First Nations communities affected by mineral development.

Advocates for an ethical mining approach argued for its importance. One participant explained, "This is the only way forward. What we are doing now will cost Yukoners more than they can afford for hundreds of generations for little benefit."

Some participants questioned whether or not ethical mining is possible. Some said its only seen rarely. Others said it doesn't exist at all. Others felt that terms like "ethical mining" are a form of "greenwashing".

Ethical mining initiatives and third-party eco-certification programs currently exist, although they are typically voluntary. The Independent Panel learned about the Mining Association of Canada's "Towards Sustainable Mining" initiative, where members have to manage their performance against 30 different indicators. The system requires an annual internal evaluation and a triennial external evaluation, which results in a letter grade. As an example, Level A calls on companies to acknowledge UNDRIP and FPIC. The standards of the program are not static and have been increased over time.

It was explained that there is an incentive for exploration and mineral development companies to adhere to standards like the Towards Sustainable Mining initiative. Beyond making projects more socially acceptable, companies and nations are adopting ethical sourcing practices. As ethical sourcing becomes a global standard, it may be possible for mining companies to charge a premium on ethically sourced minerals. As an example, it was explained that the Canadian mint is now selling "Toward Sustainable Mining" gold sourced from Agnico Eagle (and others).

It was suggested that by having high ethical standards, the Yukon could identify the world's most ethical companies to work in the Yukon because a reputation for ethical mining will make the Yukon an attractive place to invest. It was suggested that even if it costs more to mine, there are benefits for everyone. It was also suggested that wanting to do things the old ways deters creative solutions and innovation, which keeps the territory "stagnant, limited, and trapped in the same loop of destruction and plunder with little return."

To implement more-ethical mining standards in the Yukon, participants have suggested:

- Updating the Quartz and Placer Mining Acts, and modernizing the accompanying regulations;
- Investigating and licensing mineral development companies;
- Ensuring enforcement and compliance, including legal and financial consequences for unethical behaviour;
- Working with First Nations, communities, scientists, miners, and environmental organizations to come up with ethical mining standards;
- Providing expert teams on ethical mining practices who use best practices to adapt to the location, emerging innovations and technologies, creative solutions, and comprehensive collaboration to develop the best mine possible;
- Looking to other jurisdictions and set higher standards;
- Adopting incremental performance targets along with incentives and recognition for exceptional behaviour;
- Adopting a transparent system of reporting/accounting; and
- Having courage and being willing to leave resources in the ground unless ethical mining can occur.

4 First Nations

Colonization has significantly affected First Nations. A leading reason for the colonization of the Yukon (and the establishment of the Yukon as a territory) has been mineral development. The rapid colonization of the territory – and the mining regime that supported it – was based on the concept of *Terra Nullius*, which was based on the false assumption that the lands of the Yukon were unoccupied or uninhabited. This overlooked the existence and the rights of sovereign nations already residing in and managing the area. The existence and rights of these nations have since been recognized by the *Constitution Act* and the Final Agreements, although issues remain.

Canada, Yukon government, and the courts have all emphasized the importance of honouring the Final Agreements, respecting Aboriginal rights, title, and interests, and working toward reconciliation.

4.1 First Nations Consultation

Some participants called for better education on the Duty to Consult, for governments, industry, and First Nations, and explained that “Big C” Consultation is not the same as public consultation, as it is an obligation under Section 35 of the *Constitution Act*. The distinction was explained by one participant in this way:

“First Nations signed their treaties decades ago with the expectation that they would now have a say in how things happened in their traditional territories. They would be co-managers as promised and decisions would be made jointly. The Final Agreements have not been fully implemented and a co-management model has not come to fruition as it was envisioned in the spirit and intent of the Final Agreements. The relationship between the Yukon Government and First Nation governments is a government-to-government relationship. First Nations are not stakeholders and so they must not be treated as such in consultation processes. Private industry is a stakeholder. A First Nation is a co-governing body responsible to co-management of resources and joint decisions. This concept has not permeated the status quo when it comes to discussions, negotiations and consultations. This needs to fundamentally change.”

It was recommended several times that prospectors – and perhaps all persons involved in mineral development in the Yukon – should be required to take a course in First Nations culture and colonialism.

One participant explained that “the current regulatory process does the bulk of ‘consultation’, but is poorly coordinated with YESAB, and First Nations comments about rights impacts submitted to YESAB are essentially thrown out and not considered by the

regulator, because they were submitted to YESAB. This means that impacts to Aboriginal and Treaty rights are often not adequately considered or mitigated, if considered at all.”

Holding meetings or engaging in correspondence and then presuming that consultation has occurred is one of many criticisms raised about current Consultation processes. Many participants raised concerns that First Nations are not actually listened to or understood and recommended that their input be taken seriously. It was shared that this isn't only important for First Nations, but that non-indigenous Yukoners and mineral developers also benefit when First Nations are heard. It was further suggested that Yukon government and businesses could adopt First Nations principles and practices into the ways they do things, rather than the expectation being on First Nations to adapt to how governments and businesses do things.

It is recognized that First Nations bring a wealth of knowledge (ethnobotany, wildlife, reclamation, etc.) to all aspects of the mineral development process and that by building and supporting capacity within First Nations, projects are better-informed and better-executed. Concern has been raised about having certain aspects of traditional knowledge shared in the public domain.

First Nations have welcomed opportunities to learn more about the technical aspects of mineral development.

Several participants felt that the current approach to Consultation with First Nations is haphazard and inconsistent in ways that make things difficult for both First Nations, governments, and mineral developers. Others called for Consultation processes to be co-developed between Yukon Government and First Nations.

Many felt that Consultation would remain inadequate until First Nations are engaged as full partners, in a co-governance role with decision-making powers. This may include having First Nations represented at the board level of mineral development companies.

Although it is recognized that First Nations governments have evolved rapidly to be able to respond to mineral development activity in their traditional territories, many First Nations are overwhelmed by the scale of mineral development activities. Many participants within and outside of First Nations feel that First Nations need additional capacity (financial, human resources, education, etc.) to engage in Consultation processes in a timely and effective fashion, beyond “token consultation”. Others have suggested that First Nations could benefit from a “hiatus” on mineral development activities, or more-controlled exploration and development.

It is recognized that each First Nation is unique, with its own culture, its own relationship with the land, and its own priorities. As such, each First Nation must decide how it wants to participate in mineral development.

Consultation is discussed more fully in *Section 8 – Consultation and Public Engagement*.

4.2 Indigenous Rights, Title, and Jurisdiction

Many participants called on governments and mineral developers to respect indigenous rights, title, and jurisdiction, and many others explained that these should be given priority. These rights are enshrined in Canada's *Constitution Act* and in the various Final Agreements.

Some First Nations in the Yukon and others with Traditional Territories overlapping the Yukon border do not have treaties or land claims agreements. Some participants feel that there should be no development – including the staking of claims – in these traditional territories until land claims agreements are settled and honoured. In some cases, the Panel heard, there is no intention to negotiate land claims. The Ross River Dena Council (RRDC), for example, is negotiating with the Yukon government to design a system for the RRDC Traditional Territory outside of the land claims agreements.

A lack of clarity regarding Traditional Territories and overlaps has created uncertainty for mineral developers, governments, agencies established under land claims agreements and First Nations alike.

Many participants called for the adoption of Free, Prior, and Informed Consent (FPIC) on matters affecting First Nations. Many participants feel that First Nations are consulted and then ignored. Many expressed the view that First Nations should have decision-making rights or “veto power” on projects in their Traditional Territories. Others specified that First Nations should have veto rights on Category A and B lands.

It was frequently pointed out that the Quartz and Placer Mining Acts need to be modernized to reflect the Final Agreements, and there is a high degree of frustration that this has yet to be done given that the first Agreements are 27 years old, and that the most recent agreement is 15 years old. It was also pointed out that the principles of FPIC can be incorporated into new legislation.

4.3 Relationships Between First Nations and Mineral Developers

Relationships between mineral developers and First Nations have evolved greatly over the past two decades, with the industry generally adopting the mantra of, “Engage early and engage often.” While this is true of some in the sector, it is not true of all.

Many mineral developers shared their challenges engaging with First Nations, whether due to capacity issues within First Nations, a perceived lack of interest, transboundary and overlap issues, or just not knowing the “lay of the land”. It is not surprising that mineral developers, First Nations and others have expressed a desire for clear, unambiguous procedures for First Nations Consultation to ensure that First Nations’ concerns and

interests are respected – and it has often been acknowledged that this is not always easy to do.

First Nations and others shared that mineral developers do not understand community needs or context and that First Nations cultural values, traditional knowledge, fish and wildlife, and heritage values are not respected by industry. In the words of one participant, “We look at the land differently from someone trying to make money off of it. Since the Europeans have moved into the Yukon, they’ve imposed their values on the lands and how those lands should be developed.”

To help bridge cultures, innovators in the sector are adopting new practices, like Golden Predator’s “Elders in Residence Program”, or reducing negative perceptions of indigenous employees with Outside miners by using educational brochures outlining cultural values, why things are done in certain ways, and protocols.

It was pointed out that for mineral developers, their priority is profit, but First Nations have other priorities, such as mitigating the negative effects of mineral development on their cultures, citizens, and traditional territories. For example, First Nations have expressed concern that their citizens have experienced racism at some mine sites and that there is a correlation between extractive industries and violence against indigenous women and girls. First Nations have also raised concerns about the impacts that access roads have on wildlife, harvesting, and cultural practices.

While relationships between First Nations and mining and exploration companies are sometimes formed through Impacts and Benefits Agreements, concerns were raised that women are not adequately represented at the negotiation tables. Concerns were also raised about what happens when the original signatory sells the company or project to another company. This leaves the First Nation in a position where they may be dealing with a company that doesn’t understand or have a relationship with the First Nation and may not honour the intent of the original agreement.

It was suggested that training for mineral developers should be available, so they can learn about the broader context of First Nations rights, title, and interests, but also to gain a better appreciation for First Nations cultures, how they are affected by mineral development, etc.

It was shared that, in response to COVID-19, First Nations requested concessions from industry that were not respected.

4.4 Relationships Between First Nations, the Government of Canada, and Government of Yukon

The importance of healthy relationships between Yukon First Nations, Yukon government, and the Government of Canada was emphasized. This not only creates a better climate within the Yukon, it benefits mineral developers because it provides more certainty.

Many participants feel that First Nations rights and cultures are not well-understood by Yukon government and Government of Canada employees and that, therefore, indigenous rights and perspectives are often overlooked.

There is a general sense that increased capacity (human resources, financial, training) within First Nations benefits everyone, however it was also shared that Yukon government needs to relinquish some control to First Nations. There is a general sense that resource revenues need to be shared more equitably.

Unresolved land claims create uncertainty for everyone, and First Nations governments and Yukon government are responding by developing approaches that respect aboriginal rights, title, and interests, such as the processes that is currently being negotiated between Yukon government and the Ross River Dena Council.

4.5 First Nations Interests

First Nations are unique and have unique interests. All Self-Governing Yukon First Nations have rights to subsurface resources on Category A lands and they would like to be the proponents for mineral development on those lands. They also have rights to surface resources on all Category B lands, which would be affected by mineral exploration. First Nations without Final and Self-Government Agreements have undefined rights to resources that are constantly shifting according to court rulings. Several participants have asked how those lands will get developed.

For others, mineral development is not attractive for a variety of reasons (such as the boom/bust nature of the sector, negative environmental and social impacts, etc.) and, is therefore, not a priority. Others have been placed in situations where they would not like to be involved in mineral development – or less affected by mineral development – but have not had that choice due to the nature of the current mineral regime and the free entry system.

Some First Nations have economic interests in mineral development. It was pointed out that First Nations and their development corporations will be playing a big role over the next 20-30 years in a wide variety of ways.

Many participants feel that First Nations need to benefit from mineral development activities and that these benefits can come in a wide variety of ways, including:

- Training
- Scholarships
- Employment
- Business opportunities
- Ownership
- Financial benefits
- Infrastructure development, and more.

First Nations have expressed interest in training and jobs and careers for their citizens, but that these jobs need to be better than entry-level cooking and cleaning jobs. One participant felt that making citizens into low-earning wage labourers “feels like another form of colonialism”. There is also concern that mineral development can take good citizens away from their Nations, where they are needed.

Some participants feel that agreements between resource developers and First Nations should be made mandatory under new legislation.

Other participants indicated that economic benefits are less important than healthy land and cultures. In the words of one participant, “The Land (which includes all living creatures including myself) is more important than anything else. No economic value can or should be placed on it.” As it was also explained, “First Nations cultures and relationship to the land is older and stronger than mineral development ever was or will be.”

Other participants explained the importance of connection to the land for wellbeing. Several participants explained that traditional activities should not be given less priority than mineral development. In the words of one participant, “A berry patch or good hunting ground is equally as important if not more so than mineral exploration. You cannot eat rocks.” In the words of another, “While some activities may have a lesser economic impact, it does not make them fundamentally less worthy. A fish camp is not less important than a mine.” Several participants pointed to the need to be able to have sustainable harvests.

Several indigenous participants in the process lamented what is happening to their traditional territories. As one participant observed, “Our country is being taken apart. Chopped up like a chainsaw.”

It was explained to the Panel that mineral development has a serious adverse impact on First Nations cultures and relationships to the Land. One participant went on to explain that “Mineral development rarely if ever happens with fostering these realities. Even when a mining corporation makes a real effort to accommodate First Nations culture and relationship with the land, typically the corporation is bought by a larger corporation which cares less.”

In the words of one participant, "Mineral development is incompatible with the relationship to the land taught to me by First Nations leaders in my community. That it happens, and that First nations individuals and leaders participate and support it is a sign of a lack of other options."

One participant observed that "every mineral development project appears to contravene the right to clean water for traditional use detailed in chapter 14 [of the Umbrella Final Agreement]."

Participants shared how they fear for the future of their cultures and relationships with the land. In the words of one participant, "The current mining and staking system/proliferation of both placer and hard-rock mining in the Yukon is rapidly making it impossible for Yukon Indigenous people to carry out their stewardship responsibilities to and continue their relationships with their lands. The impacts of this alienation will be far-reaching and long-lasting."

Some participants see First Nations playing an important role as stewards or guardians of the land. Some First Nations have moved in this direction already, developing Land Guardian and wildlife monitor programs. Others have suggested that mineral developers can help First Nations to do this work by providing resources and other supports.

5 Environment

5.1 Mining and Environmental Impacts

The YMDS Panel has heard a great deal of concern about environmental impacts related to mineral development, through all stages of the mineral development process. In addition to impacts on plants, fish, and wildlife, it was advised that it is important to also consider the physical and mental health benefits of clean water, air, and ecosystems on humans, and how mineral development can threaten or support human health.

Participants questioned Yukon government's commitment to considering natural and human environments. As one participant explained, "The Yukon does not even prevent mining from occurring right next to residential developments! Take the example of the Slinky mine on the Dome in Dawson (again). How this was permitted to occur is a mystery to me. This is a *residential* area with people and children living in close proximity to dangerous equipment emitting dangerous, hearing-damaging levels of noise, creating dust that probably included asbestos, and leaving behind a moonscape of gravel."

It was explained to the Panel that placer and quartz exploration and mining is expanding into new watersheds, damaging wildlife habitat, and creating new access for hunters. In the words of one First Nation representative, "We don't have very much area left in our traditional areas. I was thinking about the animals, wildlife, fish. We need to protect these lakes and wildlife. I think we're getting hit from all sides. Climate change, exploration, there are quite a lot of things affecting the wildlife and the fish. I'm a traditional person. I eat wild food and I really care for the animals and I really think we should start protecting the wildlife and the areas that are pristine. It's not all about minerals and exploration here."

One participant cautioned that biodiversity loss has cascading impacts and has been linked to increasing risks of pandemics like COVID-19. One participant raised concerns about pathogens being released from permafrost and the implications of that.

Participants expressed concerns about the severity and long-lasting negative impacts of environmental harm caused by mineral development. It has been suggested that the consideration of environmental and cumulative impacts needs to be done at a landscape level, and not just at the site of a specific project, and that greater consideration needs to be given to wildlife, from invertebrates to caribou. Participants called for better ecosystem protection, as discussed in *Section 5.3 – Methods for Ensuring Ecological Integrity*. In the words of one participant, "I would like to hold my head up and say that Yukon has a modern, environment-forward approach to managing and protecting land."

Generally, survey participants felt that too much emphasis is given to the economy and not enough to the environment. In the words of one participant, "Clean air, clean water [...] fish and wildlife, healthy and accessible land, and many other resources are essential services to humans for generations." One participant finds "environment vs. economy" discussions

unhelpful, explaining that “economic and environmental objectives are not two distinct necessities we somehow have to, or are able to budget and compromise. A fully functioning, integrated, and uncompromised system of lands and waters is the only tangible and true resource we have to sustain us in the long term.” Some participants would like to see conversations regarding mining in the Yukon to be more open and less politicized, as discussed in *Section 8 – Consultation and Public Engagement*.

Several participants called for different economic approaches. It was explained that the Yukon’s environment and intact ecosystems should be thought of as a shared heritage with tremendous value, and that the territory should think about what it’s promoting and investing in (such as renewable energies, protected areas, and employment in sustainable sectors). In the words of one participant, “Leave the land pristine. That would help Yukon people and communities to see benefits for millennium. Otherwise, the land is left in worse shape, the bulk of the money leaves the territory.” Another explained that “it’s all about keeping options open for the future; ecosystems provide life here and are the true wealth on the land. Our natural systems are becoming very rare globally and hugely valuable as a source of wealth for Yukon.”

Other participants want to see a healthy environment and economy. In the words of one participant, “Mining and prospecting can be a huge part of our economy. Lots of Yukoners – both First Nation citizens and non – are employed by mining, own operations or are involved in the economic benefits of mining. This needs to be recognized and cherished. There must be economic benefits for Yukoners, either through employment, royalties or self-owned operations, and we must ensure we protect sensitive areas with the best methods possible, environmentally.”

5.2 Data and Sustainability Metrics

In the words of one participant, “I do not believe the current system or allocation of resources is set up to protect ecosystems or even understand them enough to protect them.”

Many participants, whether they are working in the mineral development sector or not, have raised the importance of having good data - which applies to both scientific data and indigenous and traditional knowledge.

Several participants have spoken to the need for ecological baselines. Suggested areas for baseline data collection include water quality (a water quality network has been suggested), wildlife and species at risk (including plants, insects, and non-game species), and wetland health. It was requested that there be better understandings about interactions within ecosystems and that research should be conducted to identify sensitive habitats. Participants have further recommended that the results of this research should be published publicly, and that Yukon government data and mapping need to improve.

It has been further suggested that sustainability metrics should be developed, but that these metrics also need to make practical sense. The latter was in reference to policies for wetlands, where it was explained by a placer miner, “They set a policy of zero bogs and 40% fens, but if you perch it, it’s going to drain. If you do no bogs and 40% fens, then there’s nowhere you can mine. 80% of our (placer) reserves are under the wetlands.”

One participant suggested that metrics for wildfire risk should be considered, explaining that in British Columbia, at a certain level of risk, mineral development activity ceases.

Concerns were raised about the perception of data credibility, particularly from an industry perspective. In the words of one industry participant, “One of the problems that industry faces in YESAB assessments and cumulative effects is that if it comes from industry (like a waterfowl study), they don’t take into account positive effects or positive outcomes (like increased biodiversity). If it’s industry information, it’s “biased”. We’ve had science papers commissioned and they’ve dismissed it. We’ve offered to co-commission, but nobody is entering that path, either. It’s a burden on industry. If you try to position yourself on an argument and your data isn’t considered...”

It was recommended that strategic investments need to be made in ecological knowledge (both traditional and scientific) to guide land use planning, cumulative effects assessments, the planning of exploration programs and mine development, and to aid in environmental assessment. It was explained that, by doing so, everyone - including the mineral development sector - benefits.

5.3 Methods for Ensuring Ecological Integrity

Several different approaches have been raised for ensuring ecological integrity, including:

- 1) Establishing environmental best practices for all stages of mineral development, including the adoption of exploration, processing, and remediation technologies;
- 2) Prioritizing and supporting mineral development projects that are more sustainable;
- 3) Financial assurances (such as security bonding for all types of mineral development activity);
- 4) Financial penalties for ecological damage related to mineral development, possibly including the concept of quantifying the financial value of wilderness and charging mineral development companies for damage accordingly;
- 5) Using and developing technologies that minimize environmental impacts (including renewable energy);
- 6) Honouring and implementing environmental accords/agreements, including:
 - a. Transboundary obligations (such as salmon and caribou agreements)
 - b. The Paris Climate Accord

- c. *Our Clean Future - A Yukon strategy for climate change, energy and a green economy.*
 - d. Canada's Biodiversity Goals and Targets; and
 - e. Territorial climate emergencies
- 7) Honouring the Final Agreements
 - 8) Co-management of lands, including the co-development of land-based policies and the use of indigenous Land Guardians;
 - 9) Land use planning, including the identification of sensitive habitats and the adoption of cumulative effects thresholds;
 - 10) "No net loss" policies;
 - 11) Protected areas (recognizing that protected areas provide a type of certainty to industry, but that they can also lock away potential areas for mineral development, reducing the land base available for exploration);
 - 12) Identifying and protecting species at risk (including invertebrates, plants, fish, birds, amphibians, etc.);
 - 13) Legislative reform, including species at risk legislation;
 - 14) Addressing institutional conflicts of interest; within Yukon government;
 - 15) Improving coordination between assessors and regulators;
 - 16) Mitigating harm through planning and assessment using the Mitigation Hierarchy (i.e. using "Four Steps for the Land", which are to: Avoid, minimize, restore, and offset);
 - 17) Ensuring the territory has effective regulatory processes; and
 - 18) Increased inspection and better quality of inspection for mines and other mineral development activities.

Several participants advised that "ecological integrity should not be sacrificed for self-interest and politics". Another suggested that the territory needs a clearer definition on "Environmental Stewardship".

Co-developed policies - and the Wetlands Policy process, in particular - have been both praised and criticized. The length of time to develop the Wetlands Policy has been an issue of concern, and it was explained that people are being laid off from their jobs because of it, and others who have made investments in placer mining are worried about their financial security. Others feel that the proposed rules are overly complex and do not lead to wetland protection.

5.4 Cumulative Effects

The importance of - and difficulties associated with - considering cumulative effects has been a frequent topic of discussion. Cumulative effects include those on the environment, but also on First Nations peoples. In the words of one participant, "We're basically being displaced. Resource roads, hunters coming in. All of a sudden, the moose are wiped out of

the area.” In the words of another participant, “Each miner thinks ‘My little mine doesn't affect anything’, but when you put them all together, it affects a lot.

Another participant shared their perspective on how the impacts of development persist: “Currently Yukon government is permitting hundreds of kilometers of roads on an individual basis without consideration of the cumulative nature that each new road adds to the landscape. Placer roads are developed and support quartz operations and vice versa. All roads are to be reclaimed at the end of a project, but this work is never completed as someone is always using that road. Limit the long-term impacts. New roads create new access points which have further impacts such as hunting and human interference with nature. The cumulative effects should be considered. The system should be considered as a whole.”

One participant suggested that cumulative effects assessment should not bother with assessing economic effects like secondary and tertiary employment, explaining that “cumulative effects are the environmental and social ones, not the economic ones, which are temporary.”

Environmental cumulative effects mentioned by participants included:

- Surface disturbances
- Habitat and biodiversity loss, and
- The accumulation of contaminants, metal loads, and altered acidity in above and underground water systems

It has been pointed out that, in order to consider cumulative effects properly, there is a need to fill some cumulative effects “knowledge gaps”, including:

- Baseline studies and inventories
- Cumulative community impacts, and
- Ecological tipping points.

One participant asked for full disclosure of socio-economic and environmental trade-offs related to cumulative effects.

It has been pointed out by several participants that the free entry system creates uncertainty in the ability to respond to cumulative effects. In the words of one participant, “Mr. Smith might be a great placer miner, but it puts the pressure on YESAB to say ‘Mr. Smith, your project is the tipping point’ and that creates a problem for him and for industry.” Another participant suggested that free entry makes it difficult for the government of the day to say, “We’re good with what we have right now.” The expectation that governments would need to turn down projects is one of the reasons participants suspect there has been little movement in addressing cumulative effects.

It was suggested that this uncertainty could be mitigated with land use planning, cumulative effects plans, and other cumulative effects tools – although the use of development thresholds have been questioned by those in the mineral development

industry. In the words of one participant, “Does cumulative effects mean that two projects located in the same area will be trying to go into operation before the other because only one will be allowed? This will affect mine financing. The industry already grapples with this.” Another participant explained that “As a miner this is very scary. If this is to be enacted, there needs to be a model that allows an individual to see if the proposed project produces an adverse effect for cumulative effects.”

One participant explained that development thresholds would be advantageous to the territory. In their words: “The Yukon is not alone in failing to properly consider the cumulative effects of mines. The most likely reason for the otherwise bizarre refusal of regulators to consider the cumulative impacts of multiple projects is the concern that the result would show that the effects would, taken together, be intolerable, both socially and environmentally. We only have to look at B.C. and Alberta to see this writ large upon the landscape. However, if we institute, and adhere to development thresholds, the cumulative impacts could be managed. For example, the promoters of the White Gold mining district see up to 20 mines the size of the Coffee project within the district. This is clearly unacceptable all at once, but if each mine lasts about 20 years, and only one mine at a time is permitted, we could have a low(ish) level of activity for centuries instead of a boom and bust at the expense of the environment and the public purse.”

It was explained that considering cumulative effects can be “a huge, bureaucratic process”, but that fundamentally, it’s really about knowing “How do you develop and what values do you want to protect?”

This was illustrated by one participant, who explained how failing to consider the broader implications of projects in the assessment process leads to uncertainty and anger. In their words: “Cumulative effects assessment must be incorporated fully and holistically in the assessment process, including the need for strategic/regional assessment. Certain assessment thresholds should be revisited. As a case-in-point I draw on the ATAC Rau Road issue. This road passed through a District Office (DO) level assessment in 2016. The potential impacts that may come from such a development are extremely complex and large and entirely beyond the capacity and scope of DO level assessment. The quantity and nature of public opposition to this project was overwhelming and much more numerous than any public support expressed through YESAB. Yet the DO completed a very incomprehensive and inadequate review which ended up recommending the project proceed subject to terms and conditions. Such a project—when understood as more than just a sum of its assessable activities, but seen in the context of where it is going and who/what it is affecting—should have gone to an executive committee screening process.” The participant went on to provide another example, as follows.

“Likewise, the advanced exploration activities for the Coffee Gold Mine, including use of a significant winter access, was assessed at the DO level this year independent of the major mine project to which it is completely integrated. These disconnects within the triggers for assessment demonstrate how disjointed the assessment process is and the dire need

for strategic, broad, and regional approaches. All of which could be assisted with regional land use planning processes and comprehensive cumulative impacts studies.”

Many participants called for cumulative effects to be included in legislation and to be part of the assessment and permitting processes, and for cumulative effects assessments to be adequately resourced. One participant explained that “YESAA legislation allows for instigating studies into cumulative effects, which has been implemented in very specific cases. However, broad-level and holistic cumulative effects considerations absolutely must become integrated in all aspects of development from deciding when/where development takes place (land use planning) to how it takes place (assessment and permitting) to how negative effects are reclaimed and remediated (ongoing monitoring, reporting, closure, etc.).”

The entity responsible for cumulative effects works was a topic of discussion. Some participants see YESAB as the entity responsible, with one participant suggesting that that Yukon government should uphold YESAB recommendations for projects to not to proceed on the basis of cumulative effects. One participant suggested that “the Yukon's Science Strategy should oversee cumulative effects assessments as an independent and scientific body as YESAB does not have this kind of capacity.” Another participant called for a consolidated approach between agencies.

One participant spoke in favour of using collaborative and inclusive approaches, explaining, “Some First Nations, such as the Land Relationship Planning initiatives undertaken by the Southern Lakes First Nations of Ta’an Kwach’an Council, Kwanlin Dun First Nation and Carcross/Tagish First Nation, have begun to tackle the type of synthesis and analysis necessary to actually and broadly consider cumulative effects in a long-term planning context. I commend this work and thoroughly believe similar approaches must be taken for the entire Territory. There is significant scientific information to be gathered (wildlife and population data, water and climate data, ecosystem and habitat mapping, etc.); however, there is a huge amount of community knowledge and community desire which must be taken into account in true cumulative effects assessment.”

Many participants felt that cumulative effects need to be mitigated through the reclamation and restoration of areas that have already been affected. One participant suggested that there be incentives given for these activities.

Other participants suggested bigger, cultural and economic changes to address cumulative effects. In the words of one participant, “We need to phase out of the old way of existing and generating income and economies and move into a new era of planet healing, nature stewarding, life respecting, deeper contentment with less, economies. With a small population and lots of wilderness, the Yukon would be a perfect place to achieve this, and model it to the world.”

5.5 Climate Change

Climate change has been raised from a variety of different perspectives, with most commentators stressing the urgency and severity of the problem and calling for bold action, if not action in line with the territory's declaration of a climate emergency and Canada's international climate change and biodiversity commitments. It was pointed out that the Yukon is disproportionately affected by the effects of climate change. While urgent action is being called for, the importance of long-term thinking was also stressed. It was also pointed out by one participant that future federal and international climate change and environmental policies or agreements may end up dictating what can and cannot be mined in the Yukon.

Several participants spoke to the need to reduce greenhouse gas (GHG) emissions to help mitigate climate change, but also as a way to improve miner health because fossil fuel exhausts can contain carcinogens like benzene, and because failing to do so will increase the vulnerability of already vulnerable groups.

Some questioned the value of mineral development in the context of climate change because large, off-grid mines are likely to increase greenhouse gas emissions, and on-grid mines can do the same. Mineral development-related transportation was identified as one source of greenhouse gas emissions, as was the release of methane due to melting of permafrost during placer mining activities. One participant suggested banning all mining in permafrost and peatland areas.

It has been questioned if the minerals being mined are really needed, with several participants suggesting that the territory can instead be engaged in mining e-waste and recycling minerals that have already been mined. Others suggested leaving minerals in the ground until more carbon-friendly mining techniques are developed, or mining at a smaller scale.

Others have pointed out that mined materials are necessary to manufacture renewable energy technologies. Others have suggested that the Yukon has the ability to extract those materials in a (comparatively) good way.

Participants recommended the use of incentives and disincentives to reduce GHG emissions. Several participants spoke out against exempting the mineral development sector from carbon taxes. Some have suggested that mines should be required to install sufficient wind and solar energy generation to meet the majority of the mine's needs, and that the legacy of wind and solar generating capacity would be a net benefit to the territory. One participant suggested that small placer mines be exempt from this requirement. One participant called for investments in hydrogen fuel for heavy equipment.

One participant suggested looking at other jurisdictions already using or planning for renewable energy. In their words: "Glencore's Raglan nickel mine in Quebec and Rio Tinto's

Diavik diamond mine in Northwest Territories—both in Canada—have installed on-site wind turbines to offset some of their reliance on diesel. Newcrest’s Lihir gold mine in Papua New Guinea draws a significant portion of its energy from geothermal sources. IAMGOLD’s Rosebel gold mine in Suriname and B2Gold’s mine in Namibia have installed solar grids on site, which will be transferred to local communities to meet their energy needs once the mine closes. Goldcorp is pursuing full electrification at its Borden Lake deposit and plans to make the mine Canada’s first all-electric operation, and the world’s first diesel-free hard rock mine. Much more needs to be done, but these are encouraging steps in the right direction.”

It was reminded that climate change incentives can also create jobs.

Participants have expressed a desire to see more of a transition to renewable energy, with various opinions on which renewable technology is best. Others have noted that there are issues with generating capacity (including the challenges caused by drought years, and the absence of hydro science and social license to build another large hydroelectric dam) and that thermal generation (i.e. using fossil fuels) remains the cheapest way to generate electricity (financially). One participant complained about barriers to installing renewable energy systems, explaining that regulations for installation are too onerous and the expense too great, but that anyone can purchase a diesel generator. This participant also called for free technology education lessons on mining and renewable energy technology.

Some participants have noted the importance of climate change adaptation and planning for future changes to the land and environment. Suggestions have been included making climate change considerations for roads, adapting construction practices, and considering climate change impacts in the design of mine infrastructure (ex. Preparing for 1 in every 1,000-year weather events), and that failing to do so has already resulted in issues at Yukon mines.

Some have pointed out that the land may be quite different in the future, with changes to wildlife habitat, migratory routes and the seasonal distribution of animals. Other land may become more suitable for agriculture and there may be an increase in areas suitable for commercial forestry. It was also suggested that land use decisions made today (ex. protected areas or special management areas) could be quite different in the future due to climate change, and because of this, land use plans will need to be periodically reviewed. Some participants feel that the best way to fight climate change is to leave ecosystems in their natural state as they have built natural resilience over time. One participant explained that “the Yukon contains main areas that are important climate change refugia”, referencing [the work of Fiona Schmigelow at Yukon University](#), calling for these areas to be safeguarded.

[Our Clean Future - A Yukon strategy for climate change, energy, and a green economy](#), indicates that the Yukon government will be setting intensity-based targets for the mining sector. Several participants called for implementation of the Strategy, although one participant did not agree with the use of intensity-based targets.

It has been suggested that greenhouse gas emissions and energy consumption from mining should consider the full lifecycle of mining, including worker commuting. Some participants called for carbon budgets and the tracking and reporting of greenhouse gas emissions. One participant called for an independent audit of the mineral development sector to “shed some light on the link between mineral development and climate change in the Yukon.”

Several participants suggested that GHG regulations be included in new Quartz and Placer Acts, and that regulations regarding climate change need to be based on the most recent research and updated regularly. It was explained that climate change impact should be part of the permitting process.

6 Communities

6.1 Assessing the Impacts and Benefits of Mineral Development Activities

Perspectives on the impacts and benefits of mineral development vary greatly depending on whether participants are the recipients of the benefits or those being negatively affected by mineral development activities. It is felt by many participants that the benefits of mineral development are experienced by few, but the costs are experienced by many. In the words of one participant, "Yukon families are directly impacted by mineral development. It is our home and industry's money maker. Two very different viewpoints." In the words of another participant, "Private capital gain can never be the priority if you want sustainability at environmental, social, and economic levels. Put people first."

One participant cautioned that communities are not the primary interest of mining companies. In their words: "In the process of reshaping mining in Yukon, it is fundamental to recognize the mining industry is driven by economic return. This is the reality of our current day system. Anything added to the cost of a mine is undesirable for the mining industry. It is therefore essential to recognize the safety of people and environment, before, during and after a mine facility is in place is secondary (behind profits) and preferred to be minimized by the industry."

Some participants shared that "mineral development is good for the social health of communities" and that "communities are supported by mining through training, infrastructure, sponsoring teams, etc. One participant explained, "I feel like the Yukon is doing great things that you don't find in other jurisdictions and I feel like that's not represented."

One participant explained that many small placer mines are family operations, and another said, "Family operations provide employment for people who would otherwise be competing for jobs in the marketplace." It was explained that water licenses now cost more than \$5,000, which is very expensive for small operations and that it would be helpful to reduce that expense.

Others spoke less fondly of the effects of employment in the sector on families and communities, explaining that "the nature of boom-and-bust ventures is a risky thing to use to support families," and that "shift work in this sector that means families are separated for lengthy periods of time." There was a suggestion to alter two-weeks-in and two-weeks out rotations to nine days in and five days out. One participant suggested that mines need to give better rights to their workers and others suggested that focusing on jobs in sustainable sectors is better for the territory.

Participants spoke to negative individual and societal impacts related to mineral development such as: Impacts on the social fabric of communities, increases in pre-

existing challenges like drug and alcohol abuse, increases in violence, increased housing prices, and impacts on indigenous cultures and traditional land use. In the words of one participant, "The boom and bust cycles have a huge social cost. It is happening again in Mayo as we speak."

As one participant implored, "Please put the needs of Yukoners before development. So many communities and people have experienced significant loss, trauma and abuse as a result of mineral development."

Frustration was expressed that the increased need for services and infrastructure falls on the shoulders of taxpayers, and that fees, taxes, etc. for mineral developers are not representative of the cost.

A couple of participants noted what feels like a general erosion of communities. "Like they've collapsed," in reference to seeing fewer services like float planes and helicopters.

The Independent Panel was told that baseline data is limited or non-existent, especially on the social side of things. One participant asked, "Has anyone done a study to see the rate of children born between miners and community members and then leave, never to raise that child?" As another participant explained, "The Yukon's small population means that traditional statistics on the effects of mining on women are unavailable. However, there is ample qualitative evidence that can be found by consulting with women's organizations like ours and the Yukon Women's Coalition, the Yukon Women's Transition Home Society, and women's groups within the respective Yukon First Nations."

One participant spoke to the challenges associated with doing socio-economic studies, in terms of cost and the amount of community/First Nation capacity required to do the work. Another suggested that a distinction needs to be made between socio-ecological systems as opposed to socio-economic systems.

Some participants spoke to the need to reconsider how costs and benefits are measured. GDP was identified as a measure of limited value. One participant explained, "The Yukon Council on Economy and Environment had different economic models and evaluations like genuine progress indicators." It was also explained that the health of the environment affects human health, and that this also needs to be considered when measuring the costs and benefits of mineral development on Yukoners.

Some participants recommended that the communities, themselves, should identify which measures are important to them, and that these measures should become the area of focus and research.

Many participants called for proof of benefit. In the words of one participant, "The mining regime in place now assumes that mining is beneficial. Pretty much any mine will do. We need to end that assumption. Mining is good if its benefits outweigh its costs and not otherwise."

One participant asked for an explanation for how revenues are shared so Yukoners can see the financial benefits and to whom they support.

While it was recognized that some mining companies invest in education and encourage local business, others asked to see more local employment, better royalties, and greater investments in community and community infrastructure. Ensuring that the environment and communities are protected was a recurring theme. As explained by one participant, "Understand that positive benefits for Yukon people is not jobs, profit, and development, but rather preference given to traditional way of life, restoration of areas already mined, that mineral exploration and mining has not positive benefits other than money, which does not come to Yukon people but outsiders flying in to work at mines and large companies making money from mines."

One participant felt that the way forward is to ensure that the fewest people are negatively affected with the largest number of people benefitting.

Some participants called for better consultation, community involvement in planning and decision-making, and negotiated community impact and benefits agreements.

6.2 Impact and Benefits Agreements

It was explained that benefits agreements are not a transaction, but that they establish a relationship and shared expectations in a manner that can benefit communities, First Nations, and mineral development companies. One participant described Impact and Benefits Agreements as "treaties" between companies and First Nations or communities.

Several participants felt that benefits agreements should not be limited to only the immediately affected First Nations, but that they should be negotiated with other First Nations that may be affected by things like increased traffic through their communities.

Other participants suggested that benefits agreements should not be limited to First Nations, but that Public Impact Benefit Agreements should be negotiated with affected communities, and that this should be mandatory (clarifying that agreements should still be negotiated with First Nations, too). It was explained that communities are affected and that the resources belong to the public at large (not including Category A Settlement Lands).

It was suggested that benefits agreements, with accompanying frameworks, should be a legislated requirement. It was also suggested that negotiated agreements should be publicly available, with the exception of First Nations benefits agreements, where First Nations would retain the decision about sharing their agreements publicly.

It was pointed out to the Independent Panel that, when benefits agreements are negotiated, there are seldom women at the table and that this is an important voice to bring into the negotiation processes. It was explained there are “always socio-economic and environmental impacts and consequences that fall through the cracks in benefit-impact agreements. Who actually benefits and who doesn't can vary significantly.” It was advised that community preparedness is very important.

One industry participant suggested that improving the regulatory process could mean more money for community benefits because an efficient regulatory process means it is easier to attract mining investment and because the money isn't all spent on the regulatory process itself.

6.3 Corporate Social Responsibility and its Limits

Mineral development companies can play an important role in supporting education, cultural programming, recreation, and other aspects of life in communities, but participants also spoke to challenges and harms caused by mineral development activities.

In the words of one participant, “The correlation between shift work and divorce rates is well-documented and very real.” It was explained that extractive industries lead to disruption in the community, on the land, and on social service infrastructure. Other participants spoke to the loss of important community members and culture (to shift work), and others spoke out about racism and sexual violence in the sector, and its impact on communities (more on this in the section on racism and sexual violence below).

Some participants spoke to gaps in the communities that are preventing community members from accessing the benefits of mineral development activities. A lack of affordable daycare was a common concern. Other participants suggested that the language needs to be broadened from “parents” to “caregivers”, since participants also spoke to the need for elder care.

One participant suggested that things need to happen at the community's speed.

Some participants asked whether it is the mining companies that should be responsible for supporting community services and offering safety nets, or whether governments should be fulfilling that role. Others place the responsibility on the companies themselves, since they are the ones benefiting from engaging in mineral development activities.

6.4 Racism, Gender Inequality, and Sexual Violence

It was pointed out to the Independent Panel that mineral development creates employment opportunities for underrepresented groups, but several participants spoke to the challenges that underrepresented groups face in the sector.

It was explained that mining affects people within families differently, and that women do not benefit from activities such as employment or other economic benefits at the same level as men.

First Nations have expressed concern that their citizens have experienced racism at some mine sites, as have some individuals. Several participants explained that there is a correlation between extractive industries and violence against indigenous women and girls, and that male-dominated camps negatively affect Yukon women, in general.

In the words of one participant, "There is a plethora of research documenting the negative impact of an influx of horny young men with money to burn and little in the way of social norms on communities. Similarly, life for women in mining camps can be rife with sexism and sexualized violence." Another participant spoke to the availability of research indicating:

- 1) Increased rates of sexual and physical violence against Indigenous women and girls and LGBTQ2S+ people in communities with increase of transient workers;
- 2) Increased domestic violence and conflict in families of employees working a rotational shift schedule;
- 3) High rates of violence against women in the sex trade (the majority of whom are Indigenous), and trafficking of women within and outside of the Yukon; and
- 4) Workplace harassment against female employees – and their subsequent resignation due to sexist or discriminatory workplaces.

In the words of one participant, "I know in our community there's a lot of First Nations people that want to work at the mine and they come back and they quit. I'm always interested in why they quit. They say they're faced with racism, and women are targeted at mines. Men are targeting our women. Sexual harassment. I'd really like to see the mines change. They say they have zero tolerance policy on sexual harassment, but we never see their policy. And it still happens."

The enforcement and transparency of zero tolerance policies was questioned, with examples provided of times when these policies were knowingly broken without repercussion.

Other participants blamed "camp culture". In the words of one participant, "While we have a strong core of women in trades, the culture present in many mining operations promotes negative views of women." It was explained that, "The mining industry needs to address the

negative impacts of work camps in communities that were highlighted by the Truth and Reconciliation Commission.”

Mineral developers were called on to acknowledge and address these issues.

Participants called for action. “We have to protect our vulnerable women and persons from sexual assault, violence and drug use. This would include extra policing for the influx of miners for the smaller and larger scale mines.”

Other suggestions for improvement included:

- Paying attention to language. As an example, as explained by one participant, “Why call them ‘man camps’? Just call them camps.”;
- Educating young children on the history of colonization, residential schools, the Final Agreements, and that First Nations are stewards of the land;
- Supporting women’s groups and initiatives;
- Educating government and mineral development employees on the same;
- Offering elder-in-residence programs at mine sites (resulting in improved staff retention and better dialogue on land management issues);
- Improving gender representation in management and decision-making positions;
- Supporting the recommendations outlined in the *Yukon Strategy on MMIWG2s+: Changing the Story*; and
- Making the safety of women a priority when assessing and prior to approving any mining project. It was further recommended that this must entail dialogue with First Nations women and women's groups to not only address their concerns, but ensure a monitoring protocol is put into place which may include community and independent monitors, and that indirect benefits are discussed and delivered.

It was also suggested that there would be less gender-based violence “by dismantling these “man camps” where men are isolated from women and become sexually deprived, and there is an echo chamber of dehumanization of women, and this is partly responsible for sexual assaults especially on nearby indigenous women.” It was explained that the best way to address the issue is to have equal gender representation in camps. It was suggested that quotas may be necessary.

One participant explained that “the criminalization of sex workers is wrong and leads to more sexual repression and thus more sexual violence overall. If enough women cannot be achieved in all camps, the miners should be able to hire sex workers. There is nothing wrong with this. Sex work is work.”

Yukon Women in Mining was acknowledged as a great start, but it was suggested that the organization needs legislative support. The details of what that support might entail were not provided.

One participant said they would “like to see women working happily in a safe job that they can be proud of, for a company that does well for the Yukon.”

6.5 Municipal and Community-Based Services

Although some are more affected by mineral development activities than others, municipalities explained that they need activity forecasting because population increases and decreases affect municipal infrastructure and services and they need to plan for and accommodate different population scenarios. It was explained that municipal taxation does not generate enough revenue to offset the increased demand on municipal services and that resources need to be made available to offset the increased demand. It was also requested that land development and expansion of municipal boundaries be considered.

It was pointed out that dumps, sewer systems, recreational facilities and many other municipal services are strained when mining activity increases. It was also explained that “some mining companies promote their corporate responsibility image by partially funding (almost exclusively) recreation, however, few pay for using dumps or sewers.”

One participant suggested that municipalities must be given the power to tax mining corporations, including those that are active outside municipal limits.

Some municipalities indicated that better and more frequent communication with mineral development companies would help with their planning processes and give the companies a better understanding of the community’s ability to provide goods and services.

Many participants, including municipal representatives, asked that claim staking tenure issues in municipalities be resolved (in favour of the municipalities and residents). One participant asked that municipal zoning bylaws “respect mineral rights and avoid the conflicts we’re seeing in Dawson City and Whitehorse Raven’s Ridge where City planners have ignored mining history.”

Similar to municipal services, it was explained that mineral development activities “place increased demands on social services, ranging from imported diseases and injuries through alcohol and substance abuse problems, through to increased levels of violence.” It was also explained that mining camps often negatively affect communities through brief influxes of cash and increases in violence against women and that “the work environment often promotes a patriarchal, dominance-based culture that bleeds out into our communities.”

One participant suggested that the territory “stop encouraging industries that support these types of environments. Instead promote those that can exist within communities and allow family lives to continue uninterrupted with diverse gender and age interactions.”

Participants explained that “formal support systems for mental wellness are impacted in surrounding communities” and that “there are not enough social supports for women and the vulnerable.” It was recommended that formal supports be increased at mineral development sites. Additionally, nurse practitioners were requested for communities.

Participants recommended that mineral developers invest in libraries and schools and that they allocate money to communities for social services and support programs

As one participant explained, “While we cannot expect to eliminate these by-products of the mineral development industry and still have an industry, we can adequately resource the social services systems that address these consequences. Taxes and fees on corporations should be calculated so as to adequately resource the systems.”

7 Heritage

7.1 A Wide Scope

The Independent Panel heard from participants that heritage and cultural resources, sites, and uses are particularly susceptible to impacts of mineral development activities, from exploration to reclamation. The Panel also heard that the term “heritage” has broad meaning. Heritage includes things like heritage sites, paleontology, and archaeology, but there are living aspects to heritage, such as indigenous languages, stories, indigenous relationships and responsibilities to the land, and the integrity of the land and its relationship to culture. It was shared that heritage is a form of inheritance.

7.2 Heritage Data and Information

Historic and Heritage Site designations help identify and recognize sites of significance, but do not capture all sites of heritage value, many of which have not yet been formally identified or, for reasons of confidentiality, do not appear in current databases.

It was suggested that “there should be a comprehensive database or other information resource, the use of which should be mandatory for assessing and providing direction on proposed mineral development projects, as well as identifying cumulative impact concerns.” Data sets could include: Archaeological, palaeontological, historic site, traditional use, geological, and other information data sets and sources. It was also suggested that this work could be regularly supplemented with ongoing research and input by all governments and with reports prepared for mining companies, and that appropriate new protocols for information protection should be developed.

It was explained that the ability to protect heritage information is important, and data sources should not specifically identify confidential, site-specific information or locations. It was suggested that information could be included in a manner that is not accessible to the public or project proponents, but in a way that could still flag mandatory additional consultation or even preclusion of a proposed project. Industry participants expressed frustration that little heritage information is publicly available, which makes culturally sensitive exploration difficult and sometimes results in duplication of heritage studies.

It was suggested that mandatory use of the heritage database would:

- 1) Ensure better representation of heritage values requiring protection;
- 2) Improve assessment for individual projects;
- 3) Provide better direction for planners on both project and regional scales; and
- 4) Allow for continual incorporation of research and information.

7.3 Heritage and Legislation

Several participants explained that fragmented legislation does not reflect the importance of heritage considerations to Yukoners. They also explained that heritage is not an isolated subject and that it touches on many different areas. One example of this included Off-Road Vehicle regulations, which arise from lands legislation and only accounts for ecological impacts and not those to heritage sites and resources.

Participants expressed a concern that mineral-focused legislation and regulation arising from only one department will pose a similar threat, overlooking heritage. It was recommended that there needs to be tools that can transcend departmental boundaries to ensure heritage protection.

Participants recommended modernizing the Yukon Historic Resources Act to modernize its language and harmonize the legislation with the Final Agreements. It is felt that this would address implementation responsibilities while strengthening enforcement and compliance tools. It was suggested that accompanying regulations would be required to ensure the enforceability of the updated heritage legislation, such as those related to palaeontological resources and other legal, policy, permitting, and outreach tools that can facilitate and strengthen implementation and enforcement.

When developing modernized heritage legislation, it was suggested that the language of the Final Agreements and the existing heritage acts of Yukon First Nations governments be drawn upon because they illustrate what is valued from a heritage perspective, and how it may best be protected and perpetuated.

It was further recommended that the Memoranda of Understanding and the Heritage Working Group provide models for the kind of cooperative planning, decision making, and long-term monitoring that will help ensure success with respect to heritage considerations.

7.4 Mammoth Ivory

Concern was raised about the excavation, export, and sale of fossil tusks and ivory from woolly mammoth by miners, and the lack of Yukon government enforcement where such activities occur. It was pointed out that the lack of enforcement conflicts with the Tr'ondëk Hwëch'in (TH) Final Agreement, the Yukon Historic Resources Act, the TH Heritage Act and the standard operating conditions in regulations under the PMA and QMA, which make clear that:

- a) Yukon government and Tr'ondëk Hwëch'in own all paleontological objects found by miners in Tr'ondëk Hwëch'in Traditional Territory – these objects do not belong to miners and cannot be sold or exported without a permit; and

b) any person who finds a paleontological object in TH Traditional Territory must cease mining and report the finding to TH and Yukon government.

It was explained that the illegal export and sale of fossil mammoth ivory deprives the Yukon of objects of cultural, scientific and historic significance and value, as well as potential monetary revenue, and it undermines TH's responsibilities as stewards of the land.

It was recommended that a new mining regime must ensure that Yukon government enforces the prohibitions on illegal excavation, export and sale of fossil mammoth tusks/ivory by miners (ex. through inspections and issuing appropriate fines) and that a communication campaign may be necessary to educate Yukoners and miners about the cultural, scientific and historical importance of fossil mammoth tusks/ ivory, and that the sale and export of these objects without a permit is illegal.

8 Consultation and Public Engagement

Although it's felt by some that the Yukon does Consultation and public engagement well compared to other jurisdictions, neither are easy.

For First Nations governments, it means consultations with project proponents, regulatory bodies, governments, and their Citizens. The consultative load taxes First Nation's internal resources and takes time, and it was suggested that more support and time be provided for First Nations to prepare responses – although one participant said that strict timelines for consultation should be enforced whether First Nations have been heard or not.

Industry representatives expressed appreciation for various First Nations' willingness to engage in consultation, and acknowledged that that is sometimes difficult due to small staffing complements and high volumes of work related to consultation and permitting. There were concerns from industry that, when a First Nation is unable to engage in a dialogue, companies are negatively affected by the delays. There was a desire expressed from one project proponent that there be a method to ensure that dialogue is able to proceed, and that companies are not unduly penalized for factors outside of their control.

Due to the wide variety of issues including and beyond mineral development, communities are experiencing consultation fatigue. In some instances, such as the current pandemic, the immediate concerns of the communities far outweigh longer-term issues relating to consultation on proposed mining projects.

At times, there is frustration on the part of all parties due to language barriers and cultural differences. Everyone wants to be understood, but understanding doesn't always come easily. Everyone wants to make sure that consultative processes are effective.

Industry sees the value in engaging in consultation but sometimes feels like their projects get caught between government-to-government dialogue and disagreements. This makes it difficult for companies to plan their activities. It also means that industry is sometimes left out of conversations that affect them.

Industry noted that there is a steep learning curve for engaging in respectful consultation in the Yukon and that they don't always know where to turn for advice. Examples of questions from industry members include:

- What are the triggers for consultation, and the appropriate scope and scale of consultation? For example, if a portion of an access road travels through another First Nation's traditional territory, do they need to consult on the whole project, or only the portion of the road that travels through that territory?
- Should project proponents engage with only the Chief and Council, or with the community at large? This is sometimes acceptable, but sometimes creates issues within the community.

- How should consultation be done when projects are located in overlapping traditional territories – and particularly in territories where there are First Nations with and without Final Agreements?

In some cases, Yukon First Nations have consultation and engagement policies and/or guidelines for the mineral development sector. Project proponents are not always aware of these resources, when they exist. A desire was expressed for clear, unambiguous procedures for consultation with First Nations to ensure that First Nations' concerns and interests are respected.

One participant suggested that the first point of contact should be a department like EMR and that that's where the education should begin.

With respect to triggers for consultation, from one First Nation's perspective, concern was expressed about inadequate information provided with Class 1 notifications because "...the mapping is inadequate. You don't know where they're going and they're wrecking people's berry patches."

"Big C" consultation, as required under Section 35 of the *Constitution Act*, applies to Crown/First Nations relationships. In the Yukon, consultation has become an expected practice between project proponents and First Nations, communities, and with regulatory bodies. Not everyone feels represented in the existing consultative processes, however, nor does everyone feel that important subject matter is adequately addressed, including the effects of mineral development projects on indigenous women and girls, consideration for heritage values, traditional land use, and wildlife and ecosystems.

It has been frequently expressed that consultative processes feel fragmented. One YMDS engagement process participant asked: "Why can we not just be having all of these conversations together?"

The YESAB process, in particular, was identified repeatedly as a poor practice in public engagement. In the words of one participant, "The YESAB system is really challenging to participate in as a member of the public. It's onerous and intimidating, and no one knows when the projects are going on or when they're open to comments. Make it more accessible."

Accessibility comes in many forms, including cultural accessibility. In the words of one participant, "Many people in the Yukon come from an oral culture and they expect that when they speak words, or tell a story, it will hold the weight and respect that it used to in the old days and that it is warranted. Too often, this is not true, and the fact that someone didn't fill out the form or e-mail the questionnaire signifies they simply don't care. In truth, so many community members and Elders are sick of being asked for the same types of input for decades when it continues to prove that no one is listening with true intent because developments plow ahead regardless, and little benefit for communities is realized."

To reinforce the point on the importance of cultural accessibility, it was explained, "Some of this public do not have the means of developing comprehensive submissions but may know how to tell a story—perhaps a story about a place they used to pick berries which is now a placer mine and they don't get their berries there. In fact, they never go down that road anymore. This is the type of story I hear all the time in the community I live. It makes people feel cut-out from their lands and their ways."

Accessibility is one principle that participants felt make for a good engagement process. Other principles include:

- 1) Good communication between people
- 2) Inclusion
- 3) Making consultation meaningful
- 4) Providing information, including options and trade-offs
- 5) Transparency and honesty (with no "spin")
- 6) No coercion
- 7) Plain language and plain language documents
- 8) Early and ongoing engagement
- 9) Relationship-building and trust
- 10) Giving voice to non-humans (water, caribou, etc.)
- 11) Sincere listening
- 12) Balanced consideration of all community needs and ideas
- 13) Mandatory (for the proponent) meetings at all stages of the mineral development process
- 14) Involving participants in decision-making (in some cases), and
- 15) No pre-determined outcomes

There is a spectrum of engagement that must be considered when conducting a public participation process, ranging from educating the public to having the public being the decision-maker. If the process does not truly consider the input received and either act on it or explain why it didn't, or if the process does not meet the participants' expectations for the degree of influence they expect to have over the process, faith is eroded, as explained by one participant:

"There remains a status quo consultation process which is essentially fulfilling an administrative requirement but has given Yukoners no assurance that their voices (in processes such as this one) are actually taken into account, or how they are taken into account. How is it possible that when Yukon government consults an affected First Nation on a mineral development project in their Traditional Territory, and the First Nation says no to YESAB and no to Yukon government, explaining in-depth why the project would undermine their treaty rights and ways of life, yet time and time again, this project is recommended to proceed and plows ahead anyway? A redefinition and implementation of true Consultation must move forward. What we have now is frustrating the public, First Nations, and organizations to no end. It is not consultation."

In the words of another participant, "Often it feels like 'consult' is actually just being told what is happening, not true consultation." As another participant elaborated, "The public needs to be assured that their voices are not only heard in the meeting room or on an online survey, but that it is adequately incorporated into decisions. When the public and First Nation citizens do not want to see a project happen, or happen in a certain way, it must not happen. The people of this territory are who elected officials represent, and nothing moves forward without the public deeming it acceptable."

One participant recommended establishing a lobbyist registry and exercising caution when inviting think tanks to consultation processes. One participant raised their concerns about the impact of lobbying in this way: "Private industry has significant resources to provide lobbying efforts in their interest. In comparison, a significant portion of the public are largely fed-up with saying the same thing for years only to be consistently ignored and simply cannot go through the time and effort to be ignored yet again."

One participant disagreed with letting Yukoners have a say altogether. In their words, "Yukon people should not be the ones deciding on what is best. Science, based on what is best for the environment and all of its inhabitants and how to sustain all life on the planet should be how decisions are made." Others said that the public is not informed enough, explaining that current engagement and consultation processes are near meaningless because Yukon First Nations and Yukoners do not have the knowledge, capacity and financial resources available to them to provide adequate comment. One participant called for increased education for the public in how to access tools for consultation. It was pointed out that many Yukoners still do not have regular access to the Internet.

Many from within the mineral development sector spoke to the importance of involving sector participants in processes affecting them. One participant went further, explaining that "Since many mining/exploration operations in the Yukon involve workers/companies from outside the territory, those workers and companies should also have a say in what happens in the Yukon regarding mining."

Another participant countered, saying that a "place-based development" approach needs to be used, listening to the interests and values of local people and putting those interests and values and put these first, ahead of mining project proponents' interests. The participant went on to explain that "this also means allowing and waiting for land-use planning to be completed prior to transforming the very land for which planning is still ongoing. Waiting is better than not waiting in that it is precautionary and fair given that regional land-use planning is part of the Umbrella Final Agreement. Mining project proponents should not circumvent this agreed-upon-process."

Many participants spoke to the importance of moving beyond “token engagement” – particularly for First Nations – honouring the Final Agreements, and adopting the principles of the principles of Free, Prior, and Informed Consent.

Several participants emphasised that Consultation is not consent. It was also explained that consent must be on the terms of the affected First Nation(s). In the words of one participant, “Do what they want and make sure they see benefits. They have taken the brunt of our laissez-faire processes for far too long. If they don't want a project, then shut that shit down. It is up to the business to provide enough benefit to the community for them to get on board.”

A couple of participants felt that “Consultation should not be done not with the idea of 'buying' First Nation agreement by preying on their current needs and vulnerability.”

Although a great many participants advocated for FPIC, a couple of participants disagreed, with one explaining that there should be adherence to the Final Agreements “unless it impinges on their Class A or B lands.”

Several participants suggested that Consultation with First Nations should always start by asking them how they would like to engage. Others recommended co-designing consultation processes.

Other suggestions for improving public participation processes included:

- Using locals to do the consultation
- Working more with the local Renewable Resources Council to engage whole communities
- Better advertising to announce new projects and applications
- Establishing consultation protocols
- Multi-party consultative processes (i.e. getting everyone together at the same time)

Several participants suggested that there is a need for public education on mineral development. One participant cautioned that “industry can be killed off by a vocal few passing misinformation. We need to be vigilant to not allow that to happen here.” In the words of another participant, “Collaboration with public education programs such as Below BC would probably be very beneficial in educating people within the territory of the need for minerals in everyday life. Since most opponents to mineral development focus on historical mining disasters, more public outreach from companies and government should be undertaken to highlight positive outcomes of mineral development such as A) relatable statistics regarding modern mining environmental impacts (lack of disasters), and B) the economic and social benefits from mining (jobs, funding, social programs). The social/economic benefits of mining related infrastructure should be communicated to the public along with details of the rigorous environmental studies conducted in order to obtain these permits.”

One participant suggested that “especially younger Yukoners in high schools and at the university need to start being educated and informed in classes.” Several participants felt that mineral development companies should stay out of Yukon schools.

Several industry participants shared that they don't like consultation and notification processes or would like changes to thresholds for consultation and/or notification. In the words of one participant, “It's honestly a waste of time and a creation of unnecessary work for both parties. At least for the stage of Class 1 to class 3.” In relation to Class 1 notifications, another participant explained, “Get rid of class 1 notification permits again, it doesn't change anything except for the fact that they create a whole lot of work that they can't keep up with. Deadlines get extended 95% because often the First Nations take forever to answer. Too much work for everyone on a matter that is already regulated.” In the words of another participant, “It's open land which means you can stake in it and with having open land to stake in it there comes the right to explore it.”

One participant asked that consultation be kept as simple as possible for family operations.

Caution was provided, however, about how the failure to do consultation properly results in problems for everyone. As one participant shared, “A particular example of how messed up the mineral development process is, is the ATAC Road proposal. This road has been given the go-ahead without proper consultation of the First Nation or the public. Most comments on the YESAB page are actually against the proposal, and NND is very against it. This road would be built in a very fragile ecosystem, threatening the livelihood of local first nations people by putting animal populations at risk and irrevocably opening up a huge swath of pristine wilderness. At what cost are we willing to throw this all away for money that rarely even gives back to the local community in any meaningful or long-term way? This case sets a terrible precedent and is a good example of what has to never happen again.”

One participant explained that “The Yukon has an opportunity to be a leader on the duty to consult and accommodate.” Another challenged the Independent Panel, explaining, “It is your job as a panel to understand the context of years of broken and dysfunctional consultation processes which are the norm and to make sure you contextualize the submissions and feedback so it truly is reflective of the public good and First Nation vision. How you choose to incorporate consultation on a Mineral Development Strategy will doubtless be reflected in your recommendations relating to consultation within the Strategy. I have trust and high hopes, but also high expectations for what you bring forward. Fundamental change is needed. You have the ability to facilitate that change.”

9 Land Use Planning

9.1 Reasons for and Against Land Use Planning

Much has been said about the importance of land use planning: How regional land use planning is part of the Final Agreements; how it can provide certainty to land users of all types; how it can be used to develop a vision for how the land is used; and how it can be used to prevent land use conflicts in the future.

Some participants feel so strongly about the importance of land use planning that they would like staking moratoriums until land use planning is complete, or before any decisions are made regarding “transformative mining projects”. Others would like to see land use planning be used to set targets for protected areas, or to identify areas that are not open to mining in any form.

This raises concerns from some industry participants, who note that few exploration projects turn into active mines and that removing vast tracts of land from exploration will significantly hinder the industry (and mining investment) in the future. Others have commented that removing lands from exploration is acceptable provided it is done in a fashion that industry can plan around (i.e. ample notification). Some within industry feel that land use planning is holding up projects and road construction.

One participant questioned the value of land use plans in this way: “Why use pompous invented language in planning documents? Leadership changes every few years and there's never any certainty anyway. Land use is governed by the issues and personalities of the day...”

Because there are usually competing interests with respect to how lands are used, it has been recommended that land use planning processes need to make space for all visions and values and increase certainty in the long run. Objective 11.1.1.2 of the *Umbrella Final Agreement* states that land use planning is intended “to minimize actual or potential land use conflicts both within Settlement Land and Non-Settlement Land and between Settlement Land and Non-Settlement Land.”

It has been suggested that the uncertainty caused by recent land use planning processes (i.e. differing approaches used in the processes, legal challenges, shifting timelines, and more) and the decisions made during those processes have driven away investment. It has also caused frustration in communities, as this participant’s story illustrates:

The ATAC Rau Road was used as an example of a poor consultative process, where free-entry staking was used for the purpose of creating road access to a property against the wishes of the First Nation and community. This led to a sub-regional land use planning process outside of Chapter 11, with the assumption made by many that the future road would be part of the plan and the landscape. In the words of the participant, “This is

planning done entirely backwards and driven by private industry action without consideration of actual community- and Indigenous-driven processes.”

At present, for most of the Yukon, mineral development activity is being framed outside of the context of Regional Land Use Plans, and, according to some participants, this is making YESAB assessments more difficult. It has been suggested that land use plans will help the assessor to consider cumulative effects, improve the efficiency of the assessment process, and provide consistency in recommendations to approve projects or not.

Land use planning, done properly, also provides an opportunity to consider indigenous rights and traditional use. In the words of one participant, “For me land use is how do we move across land and migrate? It’s reciprocity and stewardship. Current and future. And do we want to bring back previous uses and language? And do we want to have meetings on the land? We don’t have those answers yet because it’s [i.e. responses to mineral development projects] been very project-specific, rather than sitting down and asking what we want all of it to encompass.”

It was explained that Regional Land Use Plans assume there are trade-offs and the process prompts the question: “What is the best use of that land base when considering the trade-offs?”

9.2 Withdrawals and Compensation

Concern has been expressed by industry about how land use planning removes lands from staking, exploration and development, sometimes before the mineral potential of an area has been properly evaluated and sometimes after a property has proven promising. Similarly, those concerned with ecosystem protection feel that mineral staking during land use planning erodes areas of ecological and cultural importance. As one participant explained, “Ecologically and culturally important areas could be staked and mined before better options for these areas are considered and written into the plan. Even when areas are protected by planning, mining claims must be grandfathered (i.e. allowed to remain). Before planning started, there were 1,658 claims in the Peel Watershed. Six years later, there were 8,431. This has put future protected areas at risk of development and led to demands for compensation.”

The Panel has also heard support for staking withdrawals during land use planning processes, to prevent or discourage nuisance staking. One participant suggested that staking withdrawals occur with the proviso that the withdrawals can be lifted with the agreement of the Yukon government and affected First Nations.

It was suggested that notification be given well in advance when an area was going to be subject to a land use planning process, to help prospectors and exploration companies

make decisions about where to invest. Others felt this approach would lead to more nuisance staking. The concept of nuisance staking was questioned by some in industry, pointing to the costs involved and nebulous benefits that might be received.

It was suggested that it should be a common planning practice to pause not just staking, but development, and that this would apply for all land use planning processes from small-scale urban zoning to regional plans. Others disagree, pointing to how long each land use plan takes to complete and stating the importance of respecting existing tenure (including claims in municipal boundaries and on First Nation settlement lands).

It has been suggested that, if the Yukon had a simple, transparent compensation policy, industry could continue with the exploration cycle. One participant suggested that there should be “clarification, through legislation if necessary, that staked claims do not create government liabilities in cases where land use planning removes staked claim areas from mining development.”

Some feel that anyone who stakes after a planning process is announced (i.e. without land withdrawals in place) shouldn’t be eligible for compensation, and that this would address issues related to nuisance staking. Similarly, it was felt that there should be a “Statute of Limitations” on compensation, recognizing that some claims have not seen meaningful investment in decades.

It was also suggested that, if a planning process determines that new access cannot be built to a claim, a *de facto* expropriation has occurred and that the claimholder should be compensated accordingly. Others felt that having a mining claim should grant the explicit right to build access to the claim, notwithstanding land use planning processes.

Commissioner Richard Schwindt’s [“Report of the Commission of Inquiry into Compensation for the Taking of Resource Interests”](#) (August 21, 1992, British Columbia) was recommended to the Panel as a valuable read on the subject of compensation.

9.3 Data/Information for Decision-Making

Numerous participants have spoken to the need for good data/information for decision-making in land use planning processes. Because land use planning uses modelling, extensive and varied data are required. It has been suggested that this data/information be collected prior to engaging in land use planning processes, in part because collection while the process is underway could cause substantial delays in decision making.

The range of data/information needed is diverse, including:

- Mineral occurrences and geology,
- Geochemistry,
- Water quality,

- Geophysics,
- Geomorphology including wetlands,
- Cultural heritage,
- Migrations,
- Flora and fauna,
- And more.

Traditional knowledge is recognized as very important for land use planning decisions because traditional knowledge holders often understand the land better than scientists. Many First Nations are conducting their own traditional and indigenous knowledge research and it was asked if there is adequate integration between that work and land use planning processes. It was shared that the Umbrella Final Agreement-based approach to land use planning does not take into proper account Yukon First Nations' traditional management systems, and that it should. Several participants advocated for "traditional land use" plans to be developed before regional land use planning processes are conducted.

Some participants feel that their voices are not adequately considered in processes like land use planning, and, indeed, some participants feel that other perspectives should not be given as much priority. This includes participants advocating for communities and the environment, and those advocating on behalf of or as part of the mineral development sector.

Several participants referenced the Peel planning process. One participant criticized the process as being biased by environmental NGOs. One participant criticized the mineral development industry because it "did not step up to the plate, do its homework or participate effectively, preferring to do end runs politically supported by governments of the day."

Some participants suggested that a better job needs to be done addressing biases when making appointments to land use planning committees. Others suggested that industry and environmental organizations participating in land use planning processes should disclose and make public their funding sources. Another participant suggested that political donations should be disclosed, and that doing so might lessen the influence of lobbying groups over political decisions related to land use planning.

Some industry participants have suggested that they have greater input into the science that's done (such as geoscience research) so the surveys can more accurately reflect mineral potential. It has also been suggested that, if governments cannot collect the information needed, that project proponents be able to pay for the research by hiring independent professionals who stake their professional reputations on the quality of their research. This statement has also been made in reference to information collected for assessment and regulatory processes.

An industry participant asked about making archaeological assessments that the company has paid for accessible to the public (albeit in a manner that maintains the integrity of archaeological sites). Unsurprisingly, First Nations are reluctant to share where heritage resources might be located, out of concern for damage to those sites, but prospectors and exploration companies would like to know, generally, where those sites are so they can avoid them when planning exploration activities and making investment decisions.

It was asked if drilling information should be public or private. In many jurisdictions, including the Yukon, core libraries have been developed that are public resources. In some of these jurisdictions, companies are required to submit core samples and pertinent information to the libraries. It was suggested that these core samples and information are valuable for companies interested in exploring a property that has been abandoned. A permanent record of drilling will also help geoscientists evaluate mineral potential during land use planning processes.

A suggestion was made to develop socio-economic frameworks, agreed upon by the various governments, that would help to guide the preparation of land use plans. Another suggestion was made to create a development matrix with critical habitat areas as “no go areas”, to help provide clarity to mineral developers and the public.

One participant suggested a process to manage project proposals after land use plans have been completed. In their words: “If a proposal is not consistent with the land use plan it should not proceed further in the permitting process until the plan is amended like any OCP amendment is handled now. Any proponent should be able to apply for an amendment, especially if there is relevant new information. A full review should be triggered if the proposed change would result in a substantial change to the plan’s direction, but spot applications should be discouraged if they compromise plan integrity.”

9.4 Planning Regions and Prioritization

Several issues were identified with respect to planning regions and the prioritization of those planning regions. It was felt that the regional Land Use Plans should be “triaged” and that action needs to be taken on defining concrete planning regions. Transboundary overlap for First Nations Traditional Territories has yet to be resolved in a functional way, and it is the responsibility of the respective governments to resolve overlap issues.

For various reasons, sub-regional plans are occurring outside of the Land Claims Agreements and regional land use planning process. Concern has been expressed that doing too much spot regional planning makes it more difficult to integrate those plans into the more comprehensive, regional plans. Concern was also expressed about road applications being a trigger for sub-regional plans because the processes are “too long and arduous for industry and leaves investors hanging”.

The sub-regional plans are occurring outside of the Land Claims Agreements, whereas the development of Regional Land Use Plans is envisioned in the Final Agreements. Although there are 6 clauses in the Land Claims Agreements that talk about sub-regional planning, there needs to be further delineation about when sub-regional planning should be done and how it should be conducted. Participants have requested clarity on the roles and fit between regional and sub-regional land use planning.

Some participants have expressed the opinion that Regional Land Use Plans should be completed before any other plans are undertaken.

Municipal planning is also affected by mining and exploration within municipal boundaries. It was noted that not all municipalities have the capacity to manage mining/municipal conflicts. Clarity on this matter has been requested.

9.5 Timelines

Mining industry participants have expressed concern about the length of time needed for land use planning processes because of the uncertainty that is created during the process – particularly those who are operating in areas undergoing a planning process. The use of fixed timelines has been suggested, although this may not be possible depending on capacity, the availability of data/information, the complexity of the issues affecting the planning region, etc.

Participants have recommended that the lifespans for completed land use plans should be specified, with dates for expiry, review, or consideration for review. It was also suggested that there should be triggers for review (like if a hard rock mine of significance becomes possible and it wasn't previously considered).

9.6 Supporting Land Use Planning

Participants have suggested that the Yukon government needs to put more resources into land use planning (research, capacity, data inventories etc.).

It was recognized that there are benefits to having multiple Land Use Planning Commissions up and running simultaneously, but that there is also a point where there are not enough planners to conduct effective planning processes.

It was suggested that the *Umbrella Final Agreement* doesn't provide enough clarity on land use planning, and that a *Planning Act* or land use planning agreements are required to help provide clarity. It was also suggested that a territory-wide vision for mineral development would help to move things along. It was also suggested that the progress on land use planning is restricted by having three First Nations without Final Agreement.

It was alleged that industry perceives land use planning as a threat and another encumbrance on mining, although many participants inside and outside of the sector have encouraged the parties to hurry up with land use planning.

10 Prospecting, Staking, and Exploration

The Independent Panel has heard much related to prospecting, staking, and exploration, and the perspectives on these activities vary depending on how these participants engage with the land.

10.1 Land Quantum and Levels of Staking Activity

Industry participants expressed concern about the current, comparatively low level of staking, and that this affects all stages of mineral development in the future (i.e. low staking activity means low exploration activity in subsequent years). A request was made to pay attention to the “grassroots, early stage” of the mineral development cycle.

One reason offered for lower levels of exploration is the degree of legislative and regulatory complexity for prospectors and other early-stage explorers. In the words of one participant, “I’d hate to be a new company coming into the Yukon, trying to figure out what they need to do. You need five years of Orders in Council. Go to the Mining Recorder, and you get a different story. I don’t even know if you have to file a report anymore. There needs to be some coordination.”

Several participants involved in the mineral development sector feel that the Yukon is under-explored, and that more information is needed before good decisions can be made regarding mineral development investment and informed land use planning. It was explained by several participants that “One in a thousand claims may become a mine, but looking at the 999 claims created a lot of economic benefits and jobs.” Another participant said, “The big money is in exploration, establishing where there isn’t a mine.”

With this sentiment in mind, participants in the mineral development sector expressed concern that lands withdrawn from staking reduce Yukon’s potential to provide economic opportunities for future generations. Conversely, participants – including some involved in mineral development – raised concerns about claim staking in culturally and environmentally sensitive areas, and that there is a lack of information about where those areas are. It was explained that knowing where these areas are can help mineral explorers know which areas to avoid.

Some First Nations and participants in communities expressed concerns about high levels of staking activity, the capacity of First Nations governments to respond, and the effects on traditional use, important cultural areas, wildlife habitats, and more. Alienation from traditional use areas was a particular concern.

Many participants feel that the level of staking activity (and subsequent exploration) should be slow and manageable for capacity, sustainability, and population management reasons, and because the resources will have more value in the future.

One participant discussed how the current system leads to instability. In their words, "Claim staking is inherently an unpredictable, speculative gamble that occurs in waves following a classic boom and bust cycle, yet it is also an essential precursor to determine eventual mine feasibility. Prospectors promote a story of hope and try to get in and out with the greatest profit for the least effort. If a prospect looks good, they stake as much ground as possible... Speculative claim rushes are difficult to manage and easily get out of control."

Many participants feel that staking should not be allowed while land use planning processes are underway. Some participants called for indefinite staking bans.

Some participants lamented that "Over 50% of Yukon land is now off-limits for prospecting and staking - this is too much land removed." Others reminded that mineral resources occur in unexpected or inconvenient locations and explained, "You have to mine where the resources are. You can not specify that 'mining is allowed here but not there'. You can only permit and regulate actions taken where the most amount of extraction requires the least amount of disturbance."

Some participants want all of Yukon to be accessible, including Category A lands and the South-east Yukon, where there is currently a staking ban. One participant asked that the government "Open up the Peel."

Other participants disagreed, countering "That portions of land earmarked as vital to environment, animal migration, water, trees are never to be explored or mined and that mining needs to focus on giving back land not taking more." Other participants raised similar thoughts in the context of cumulative effects.

10.2 Free-Entry

The free entry system was a frequent topic of discussion for participants, primarily as a source of criticism. It was explained to the Independent Panel that, for over one hundred years, the free entry system has displaced people from their homes and First Nations peoples from their traditional harvesting areas, and that it has severely damaged ecosystems that include fish and wildlife resources. In the words of one participant, "Miners shouldn't have free range to explore. The impacts are visible from the air." The use of free-entry, linear staking to build unregulated and unplanned roads was frequently criticized.

A major criticism of the free entry system is that it doesn't take into account the other potential uses or interests in an area. Many participants explained that it should not be assumed that mining is the "highest and best use of land". As one participant explained, "The free entry system disadvantages all other wilderness activities including tourism."

Many participants recommended banning staking in areas without completed land use plans.

Some took exception that staking automatically implies rights to develop. In the words of one participant, "Having staked a claim under the free-entry system should mean nothing, give no rights, and require no compensation. What a load of rot, that we, the taxpayers, should have to compensate some guy for doing some paperwork and sticking a metal stake in the ground." Others explained that staking is what leads to land tenure, which is needed by mineral developers to seek investment and do their work. As one participant explained, "From the first staking to actual mining many decades may come and go while testing, development, permit acquisition, and financial arrangements may be ongoing. This all requires a huge commitment and needs to be as straight forward as possible. The current state of staking encourages those investments."

It was pointed out to the Independent Panel that the free-entry system is inconsistent with the Final Agreements and with recent court decisions, and that consideration for an alternative to free entry must be assessed carefully from mining, government, and First Nations governments' perspectives.

Several alternative systems have been offered, including:

- 1) Restricting free entry staking to Yukon or Canadian residents;
- 2) Limiting the number of free entry claims an individual or family can hold;
- 3) A constrained claim staking system;
- 4) Using an application process to secure mineral rights for exploration and development (as is done in Alberta);
- 5) Requiring expressions of interest to obtain consent;
- 6) Adopting a tag system;
- 7) Adopting a bid or fee system;
- 8) Limiting claim staking to lands designated for that purpose (as is done in Quebec);
- 9) Limiting the areas available for claim staking (as is done in Ontario);
- 10) Requiring prospecting licenses (as is done in the Northwest Territories); and/or
- 11) Requiring the consent of surface rights holders prior to entry for prospecting or staking (as is done in the Northwest Territories);
- 12) Co-designing a new system with First Nations with Final Agreements;
- 13) Co-designing and co-managing new systems with First Nations without Final Agreements; and
- 14) Placing a long-term moratorium on claim staking.

There was a suggestion that the staking of claims should be subject to an initial socio-economic and environmental assessment with the thought that early consideration will reduce potential conflicts and costs to the claim holder later on. One participant explained, "Placer miners take an excavator to go prospecting, and I have an issue with that."

Adopting the principles for Free, Prior, and Informed Consent was a frequent topic in the context of staking and other stages of mineral development.

Several industry participants spoke to the need to modernize the way that claims are staked, but none suggested that the free entry system be completely abandoned. Many feel that the free entry system is essential to maintaining healthy mineral exploration and mining industries in the Yukon, and that the system is necessary to “claim” an area before someone else. As was often explained, “1% of all projects ever advance to production. Reducing prospecting access will reduce the future mines,” and “This activity is the lifeblood of mining. Do not inhibit it.”

The importance of the free entry system to prospectors was also explained in this way: “Prospecting has been the cornerstone of mineral development in the Yukon. No deposits get discovered without prospecting. It’s no use prospecting if you can’t stake it.” Another participant appealed to tradition, explaining: “This is a valuable Yukon tradition and calling even if some prospector’s dreams of ‘making it big’ are over-rated. We need the optimists of the world just as we need artists.”

One participant called for a system that is simple, straight forward, transparent and fair.

10.3 Map Staking/Online Staking

Participants were divided on the subject of map staking and online staking, for a variety of reasons.

Some industry participants expressed frustration with the cost of staking, and that staking costs cannot be applied to flow-through tax credits. Others were frustrated with spending money on staking only to discover the area was recently claimed. In the words of one participant, “On a regular basis we’d spend \$20,000-50,000 staking and sometimes you’d find out someone was there the day before and staked it and you just wasted \$50,000.” Safety issues were also expressed about conventional staking, notably that following a straight line can be dangerous in mountainous terrain and that winter staking can be very hazardous due to cold temperatures and avalanche concerns.

The cost of staking was raised as an issue that makes the Yukon less competitive than other jurisdictions. In the words of one participant, “We’re not going to spend \$50,000 to stake a claim when we can do it for \$2 in Saskatchewan.”

These participants see online staking as a better way to do things. It is felt that saving money on staking means more money for exploration, and that there is certainty of tenure when staking online. Because the claims are delineated using coordinates, it is felt that this will address issues related to the disappearance or destruction of claim posts (ex. through decomposition or forest fire).

Another criticism of physical staking is that it is disrupting animal behaviour during birthing and mating seasons.

Map or online staking could allow for year-round staking, which could make it easier for mining and exploration companies to plan around the regulatory system (if timelines aren't adequately addressed otherwise). In the words of one placer miner, "In Dawson, there was a staking season. April. You apply for your lease; it takes you three months to get it. Now it's the middle of July. You do your \$1,000 worth of work per mile, you come back in, and then you've got to go back through the full process again. I'm actually a bit scared right now."

Not everyone is keen on map staking or online staking. Perhaps the most frequent criticism heard by the panel was in relation to the lost economic benefit of physical staking. It was shared that the current system creates employment and business opportunities in the communities, and that online staking will negatively affect local businesses (ex. Local helicopter companies and others). Advocates of online staking suggest that helicopter companies, in particular, would not suffer, because that money will be spent on exploration, "flying around geologists, etc. instead of useless stakes."

Concerns were raised that online staking would lead to nuisance staking. To avoid this, it was suggested that online staking could be made to cost what it would cost to conduct physical staking, and that the claimholders could then receive a credit so they get their staking costs back when they do work on the claim. In the words of one participant, "That's how you keep the speculators out because they're not going to spend \$40k to stake a claim that they might not be able to sell."

Concern was raised about having to pay a higher fee for staking because it "may not work for the guys in the field who don't have \$10,000 to their name." It is felt that the current system advantages local prospectors, but it was also recognized that the current system can discourage some explorers.

Nuisance staking was also raised as a concern from a technological standpoint, and it was suggested that an online staking system should use "captchas" to prevent people from using automated staking systems.

One participant explained that there are alternative options that don't have to include online staking, but who advocated for "having whatever's on the computer be the final word instead of the actual claim post."

Some grief was expressed at the loss of the Chief Mining Recorder, because "That's who made the decision and the consistency."

10.4 Claim Tenure

The Independent Panel heard from industry participants about the importance of tenure on mining claims. It also heard from industry participants that Yukon's tenure system is "archaic and non-competitive".

Concern was expressed about the certainty of tenure, particularly with respect to land use planning processes and the uncertainty of working in the traditional territories of First Nations without Final Agreements. It was asked by one participant, "How do you move to greater certainty when you have these processes underway?"

Without clear delineation of traditional territories, industry is not always certain about which First Nation(s) they need to engage with.

Several participants questioned why someone who stakes a claim receives pre-eminent rights over others, including the public, no matter how valuable that land may be for other uses. This land use conflict occurs amongst miners, too. Several industry participants explained that overlapping quartz and placer claims are an issue, and that there is insufficient legal or regulatory precedent delineating the respective rights of the claimholders.

Similarly, claims staked within municipalities, on titled land, and on First Nations settlement lands were of concern to many participants, who would like to see clarity on this issue.

Some participants raised the issue of clarity for compensation of other rights holders on staked lands. It was suggested that First Nations should be compensated for claims staked on Category B lands, with the compensation's form being subject to the affected First Nation's agreement. Compensation was also raised in the context of land use planning. This is addressed in *Section 9.2 – Withdrawals and Compensation*.

Although [Free, Prior, and Informed Consent](#) of affected First Nations was often raised in the context of moving a claim into a lease and/or producing mine, it was also raised in the context of having Free, Prior, and Informed Consent before a claim is even staked. Several First Nations participating in the YMDS process have made this request, and other participants have raised this concept as a recommendation, as well.

Issues related to the accuracy of claim locations were raised by several participants. In particular, the locations of older claims and claims affected by forest fires are not always certain. Some parties have run into problems where replacement stakes were posted in a forest fire area, only to discover that the original stakes weren't burned, they just weren't where they thought they were.

Several participants have called for new claims to be surveyed (and existing claims surveyed for verification purposes) so affected parties know where the claims actually

are. It was explained that this is particularly important where there is an encumbering right, and that other economic land uses (ex. agriculture) need to have their lots surveyed. "Claim squatting" is discussed in the following section on Representation Work.

10.5 Representation Work

After a claim is staked, the claimholder is required to do work to keep the claim in good standing. This work can take many forms and is referred to as "representation work." If more work has been done than is needed to satisfy the annual requirement, then the claimholder can apply the excess credits against requirements for future years (to a maximum of 4 years). A claimholder is also allowed to apply excess representation work done on one claim to other nearby claims through a process called grouping. Current regulations allow groupings of up to 750 claims. The amount of work required annually to maintain a claim has not been increased for many years.

Many participants, whether they work in the mineral development sector or not, are concerned about the large number of claims currently held in the territory and how few of those claims lapse each year. This is partly due to staking and assessment moratoriums but is also due to the low representation work level and the large groupings allowed under current legislation. Concerns were raised that the low amounts of representation work and large groupings lead to huge claim blocks being held for many years without being extensively explored or developed.

For some claimholders, this is seen as advantageous. As explained by one participant, "We're sitting on a property for when it's less expensive to explore," making reference to the potential construction of a road into the claim area.

Others feel the policy requiring work on claims can sometimes lead to outcomes that don't benefit anyone. In the words of one placer miner, "With placer claims you have to do work. We excavated an entire city block so nobody else could stake our claim - so here we are ripping up ground for no other reason than we didn't have any other alternative."

The Independent Panel heard that the low cost of holding claims is advantageous to the claimholder, but not advantageous to Yukon's economy, overall, as promising claims can be tied up by claimholders with no near-term intention of advancing the claim.

Beyond economic considerations, it was explained to the Independent Panel that the minimal investment needed to meet good standing requirements can alienate land for generations, affecting indigenous use of staked lands.

10.6 Claim Access

Claim access was raised from a variety of perspectives. Prospectors and exploration companies expressed frustration with what they feel is a double standard for vehicle use, with hunters and recreational users using 4WD vehicles but prospectors and exploration companies not being allowed to do the same. There is a feeling that flying into exploration sites can cause greater wildlife disturbances and that they should be allowed to use existing roads and trails as other land users do. In the words of one participant, “equal access to land for mining as for other land uses.”

The “equal access” sentiment was also expressed thusly: “I can go camping, pick berries, look for fossils and even go hunting on the land with no land use permit. Should I take a rock hammer or pan, I am now required to have a permit. I have difficulty understanding how this is fair.”

Frustration was expressed about miners and exploration companies using a series of staked claims to construct road access. It was suggested that staked claims should not be used to access other staked areas unless the access is assessed in accordance with assessment legislation. Roads are discussed in greater detail in *Section 16.1 – Road Infrastructure*.

One perspective regarding claim access was in respect to which areas claims should be allowed. One participant suggested that “access to land for the purpose of mineral development should not be granted until ecological baseline data and Land Use planning has been completed on the proposed area; and areas which have been identified as critical wildlife habitat should not be developed (e.g. Exploration on Southern Lakes caribou winter range should not be permitted).”

Others interpreted access from the perspective of non-mining land users, explaining that Yukoners, especially First Nations, must have access to the land. In the words of one participant, “First Nations must have ongoing access to their traditional territories and the land must be kept in a state of health such that traditional activities can be continued.”

One participant expressed frustration about recreational access. In their words: “Mining claims regularly prevent public access to land and waterways. This is not right! For example, along the Klondike River near Dawson City, last year I tried to get my canoe in the river along the stretch across from Bear Creek where there used to be lots of access points – but they were all being ripped up. The roads were gone, the accesses were gone, and I had to drive right by an active rock washing plant just to get anywhere near the river. I found that to be outrageous, depressing, and also dangerous. There is no way miners should be able to completely take over an entire river frontage like that.”

In terms of good practices, one participant felt that, “The gold standard is Old Crow’s solar array which local berry pickers demanded and got a fenceless solar array they can walk

right up to. People should be able to walk all over Yukon without breaking law as long as they don't harm equipment, land or people. I absolutely hate fences and signs.”

It was also explained, “You know, the biggest reason we have these fences is liability. The idea that everyone can sue for their own stupidity has caused people to panic and treat us like children. We need to reform our liability standard so that if people are fairly warned that mining is going on in an area, and walk into a pit, they are solely responsible. Caution signs are OK but not fences.”

One participant expressed concern that “It is too easy for those who have no vested interest in the environment and sustainability of the Yukon's ecosystems, to access and potentially destroy land.”

10.7 Exploration Regulations and Policies

The need to continue to adapt legislation and policies relating to mineral exploration was brought up by a number of industry and non-industry participants. As one participant explained, “The current climate of mineral exploration commonly enables a much faster pace and larger scale staking effort. The concern is with how modern-day transportation methods such as helicopters which are now commonly used for Class 1 Programs, could possibly be considered ‘grassroots’ with low potential to cause adverse environmental effects. Research related to the potential adverse impacts of helicopter travel in wildlife habitat are well documented and acknowledged within publications such as Yukon Government’s ‘Flying in Caribou Country’ and ‘Flying in Sheep Country’ brochures.”

Prospectors feel that Class 1 notifications are unduly restrictive and preclude early-stage activities on claims that are “no more invasive than many unregulated activities such as hiking, camping, mountain biking, hunting and berry picking.”

It was pointed out that current Class 1 exploration approvals include a highly diverse range of activities ranging from early stage prospecting up to and including diamond drilling. It was suggested that this category be divided into invasive and non-invasive activities, with the invasive work still being subject to Class 1 notifications and the non-invasive activities able to be performed without notification. It was also pointed out that very few if any Class 2 applications are made because the approvals have only a one-year term. It is felt that this category has merit, but the term should be longer, possibly with a range of three to five years.

The use of bulk sampling was raised by participants who want to use the practice and by those who have concerns with the practice.

Bulk sampling is normally done during advanced exploration to establish mining and milling characteristics of a mineral deposit and to address metallurgical issues, but some

participants see bulk sampling as a means to generate revenues during the exploration stage, and as a way to prevent share dilution.

Those opposed to the practice (and the volume of bulk sampling) likened it to high-grade mining. Concern was expressed that the practice is environmentally destructive and that claims using the practice should be assessed as small mines or have other parameters in place. One participant explained, "There are three mines doing bulk sampling that are into sulphide ore that haven't been assessed."

Some industry participants feel that bulk sampling that is intended to generate a profit should be assessed as a small-scale mine, but that new regulations should be developed to simplify the evaluation process for this type of operation.

10.8 Yukon Mineral Exploration Program

Several industry participants spoke favourably about the Yukon Mineral Exploration Program. This program is seen as a highly effective way to encourage early-stage mineral exploration, especially by local prospectors.

One participant went a little further and proposed that, "All certified Yukon prospectors should receive an annual stipend, perhaps \$100,000 to recognize their tremendous contribution to society."

11 Reclamation, Remediation, and Restoration

11.1 Responsibility for Reclamation, Remediation, and Restoration

Participants have pointed out that mineral development often results in a “Private Profit/Public Problem” model, which lets companies come in and make profits but leave the clean-up for the next owner or the public. It was suggested that abandonment is part of the business strategy.

Often, on-going maintenance and reclamation activities become a burden to taxpayers. Many participants criticized the Yukon track record when it comes to mine reclamation, remediation, and restoration. Reclamation, remediation, and restoration are defined as follows:

Reclamation: The process of reconvertng disturbed land to its former or other productive uses.

Remediation: The removal, reduction, or neutralization of substances, wastes or hazardous material from a site so as to prevent or minis any adverse effects on the environment now or in the future.

Restoration: The process of restoring site conditions as they were before the land disturbance.

One participant requested that definitions for these terms be defined in legislation.

Some participants suggested that restoration should be the goal. It was also suggested that restoration, reclamation and remediation should be regarded as a last resort, with the recommendation that the Mitigation Hierarchy be adopted and followed, which would then reduce costs associated with remediation.

One participant explained that “If full habitat restoration proves impossible, then it should be well understood that the impacts of mines are effectively permanent.” Several participants felt that there should be no new mines until all un-reclaimed or un-restored sites are addressed.

There were also participants who were concerned that reclamation my affect future projects. In one participant’s words, “In Canada, half of the “new” gold mines during the past 20 years have been developed in the area of old mines. Therefore, do not insist that all traces be removed during closure. Leave roads and even buildings that can be used again when new resources are developed. Just deal with actual environmental threats.”

Participants identified many hard rock mines and some major mineral exploration sites in the Yukon that have become inactive and are leaking contaminated water on the ground and/or into streams and rivers. Landform disturbances have also not been rehabilitated at many historical work sites. One participant said that are not part of the Northern Abandoned Mine Reclamation Program need to be cleaned up.

Concern was expressed that, even though the Yukon has a modern regulatory system, the bonding system failed for the Wolverine mine. Several participants explained the imperative to get reclamation right, with a common refrain being, "We cannot afford another Faro."

Industry representatives have stated that un-reclaimed, abandoned mines and exploration sites are a serious legacy issue, They, and others, have offered several ideas as to how this can be rectified and what can be done to avoid similar situations in future.

Generally, participants would like to ensure that companies are held accountable and are responsible for the costs associated with reclamation, remediation, and restoration.

11.2 Ideas for Improving Reclamation

- 1) Financial security arrangements related to reclamation have been a popular topic amongst participants, and there is a general sentiment that these arrangements need to be reviewed and strengthened. Some ideas have included:
- 2) Requiring mining company executives to make personal guarantees and holding them personally liable for damage;
- 3) Being able to lay criminal charges for failing to adequately cover reclamation costs;
- 4) Banning individuals or companies associated with orphaned or abandoned mines from operating in the Yukon;
- 5) Requiring mining companies to hold insurance for clean-up costs, with no upper limit on coverage (with the intent that the insurance industry will police their clients);
- 6) Requiring bonding to be paid up-front before work can proceed (with no opportunity for political interference);
- 7) Ensuring that securities are only in the form of cash, never promissory notes or cash alternatives;
- 8) Charging security deposits that will exceed actual costs, incentivizing companies to complete the work efficiently and effectively in order to retrieve the deposit (One participant proposed a simple "test" for determining the adequacy of security deposits by asking "Is it cheaper for a mining corporation to walk away from its obligations or to fully comply with them?");
- 9) Charging penalties when payments are missed;
- 10) Withholding profits until the mine is remediated;
- 11) More inspections and enforcement;

- 12) Preventing companies from being able to claim their bond when they sell the mine (i.e. the bond transfers to the new company or remains with Yukon government);
- 13) Charging a reclamation tax or surtax to mineral development companies to fund reclamation work; and
- 14) Strengthening legislation and regulations, including bankruptcy legislation to make the Yukon government the first guarantor.

One participant requested that security bonding not be so onerous that it makes a project unviable. Another said, "Stop any consideration of burdensome new requirements."

A couple of participants suggested that there should be agreed-upon best practices and standards. Another felt that the existing reclamation guidelines are a good reference document for best practices. It was suggested that these need to be updated regularly.

Many participants spoke to the need for the importance of front-end work to address reclamation. This includes legislation or regulations that require any exploration or mine development plan to include provisions for progressive reclamation to minimize the amount of unrestored disturbance at any given time and to reduce the amount of remediation that might have to be paid for out of bonds. Progressive reclamation reduces the risk to Yukon taxpayers and is better for the environment. It has also been recommended that any mineral development proposal that does not include a final closure plan with full costing and bonded security, should not be allowed to proceed.

Several participants, including some from the mining industry, have suggested that perpetual water treatment or perpetual reclamation is not practical because no amount of bonding can adequately cover long-term costs of a perpetual nature, and that projects that need perpetual care should be denied. It was also suggested that reviews of projects that are likely to need perpetual care should include risk assessments for cost increases and assured access to cash attached to reclamation bonds.

It is felt by some industry participants that the process to assess mine closure plans, which need to be resubmitted every 2 years, takes too long. These participants were unsure as to why the assessments were taking so long.

It is felt by some that company and regulator assessments on remediation and closure costs are often wildly optimistic. One recommendation was to have reclamation cost estimates for each project augmented by a publicly available third-party review. Another recommendation was to establish an independent body of knowledgeable people whose role would be to oversee reclamation funds and operations of a mine closure plan (as has been adopted in the NWT). One participant recommended establishing a realistic, useful, and publicly transparent security review process.

It has been suggested that technological innovations and changes to mining techniques could eliminate the need for perpetual remediation at some projects.

Industry participants have stated that they have an interest in seeing reclamation done properly, as poorly reclaimed projects (especially projects requiring perpetual care) negatively affect everyone in the industry.

Mining industry participants and others have recommended designing the bonding system to incentivize doing the work properly up front. In the words of one participant, "I think there's a way to finance relinquishment by setting up a fund and drawing from that fund. That's the economics of it and if you can manage that back end with funding then maybe it's a worthwhile development." One industry participant said he'd rather see "really strong natural assurances" for reclamation built into legislation and not in policy.

It has also been suggested that, if a company cannot afford the anticipated cost of a cleanup, then the company and/or project might not be viable, and that it might be better for projects of this nature to be sold to bigger mining companies with an interest in managing their reputation and corporate profile.

One participant explained, "It doesn't make much sense to reclaim everything after each class 1 year, if you want to keep going on the same spot you should be able to leave it as is cause you go in the next day (with your new class 1) and keep going."

It has been suggested that there should be security depots required for Class 3 and 4 mineral exploration programs, and that these should be assessed periodically.

One participant explained that there is a mismatch between YG and Water board security but did not provide details.

Several participants asked that reclamation and disturbances be tracked and reported on. One participant suggested that Yukon government maintain a disturbance database. A few participants suggested that disturbance thresholds should be adopted, forcing companies to reclaim areas that are not used.

It was pointed out that federal funding for abandoned mines is treated as "one offs"; that seven abandoned mines are treated as seven separate projects, all managed under the same department, with the implication that there might be better ways to fund reclamation.

One participant called for public accountability of all security bond funds held by Yukon government or First Nations governments, explaining that, "Government employees or consultants should not be drawing on these funds for their helicopter trips."

Generally, it was recommended that there needs to be more communication and collaboration on contaminated sites.

One participant provided a technical recommendation, suggesting the use of biosolids, often used as soil conditioners in agriculture, to increase the revegetation rate at former mining sites.

11.3 Differing Standards for Placer and Quartz Mining

It is felt by many participants that quartz miners and placer miners are held to very different standards. One example offered was regarding road reclamation. Another was related to reclamation securities, which quartz miners pay. It was stated that placer miners are destroying riparian zones, which are not being reclaimed. Others questioned the value of placer reclamation, stating that there has never been an evaluation of any placer reclamation project and that there's no evidence that it works. Regardless of evaluation, others have suggested that placer mining projects should perform progressive reclamation.

It was recommended that reclamation policies need to be reviewed for both quartz and placer mining and that standards and best practices need to be established for both. It was also suggested that there needs to be more and better scientific research to support design of those standards and best practices.

A few participants suggested that placer miners be required to post bonds. One pointed to Alaska, explaining that it is a requirement there.

11.4 Opportunities Arising from Reclamation

Some communities are seeing opportunities related to mining reclamation projects. One participant suggested that the federal government's mandate for orphaned and abandoned mines is too narrow; that it should also consider human factors, such as culture, economic opportunities, and land uses. It was recommended that communities be engaged when designing reclamation projects.

One participant suggested that communities might have ideas for alternative uses of the mine site.

Another participant suggested that emotional and societal remediation should go hand-in-hand with environmental remediation because, "People also need to be healed when employment ends, hopes are dashed, promises are broken, and they are left with a damaged environment."

It was asked how the restoration of abandoned mines could be incorporated into the training programs for new geologists and others.

It was pointed out that reforestation/revegetation of mine sites can lead to carbon offsets.

Long-term monitoring and reclamation activities at closed mines can create local employment and cushion the effects of mine closure on the local economy, however there was criticism directed to the federal government for “selling the rights” to orphaned and abandoned mines to companies while also paying them for reclamation and site management. It was also suggested that this approach is not adequately building capacity in First Nations or Yukon communities because the approach favours the lowest bidder.

One participant requested “Less destruction of the historic resources at the Keno Hill mine, during the “reclamation” project.” Another participant wasn’t as keen on the practice of treating abandoned mines as tourist attractions. In their words, “The fact that we try and market abandoned mines and the refuse of abandoned claims as fun tourist spots with historicity is a nothing shy of a joke. The amount of trail notes for hiking that have instructions about looking out for abandoned mining trash is utterly ridiculous. The fact that the trails on Montana mountain had to be closed this year because of potential contamination from a long dead mine just goes to show how much the mismanagement of abandoned mines has a massive and long-lasting impact on future development of sites.”

One participant suggested that reclaimed sites could be incorporated into Indigenous Protected and Conserved Areas (IPCAs).

12 Environmental Assessment and Regulatory Systems

Many participants feel that the environmental assessment and regulatory systems are flawed, although for different reasons. Many participants feel that the assessment and regulatory systems do not adequately protect communities and the environment and called for more rigour. Others feel that the system has become a “bureaucratic nightmare”, “adding layers and never consolidating or simplifying.”

One participant shared that they felt that the assessment and permitting process is straightforward and easy to use, although many participants disagreed. Ideas for helping mineral developers to navigate the process included publishing a downloadable guidebook and offering a “navigator” service to help proponents work their way through the process.

In spite of concerns as to its effectiveness and ease of use, it is widely recognized that having a regulatory system benefits everyone, and many participants in the YMDS Engagement Process have stressed that there is no desire to be without one. Several industry players commented that the regulatory system in the Yukon is not only ahead of the curve, but that – in a global marketplace where investors want a high degree of regulatory certainty and are demanding more-ethical sourcing of minerals – an effective regulatory system is a competitive advantage. One industry representative from outside the territory advised that the Yukon’s regulatory system, while not without faults, should be celebrated.

One participant explained that one of the benefits of going through the permitting processes is that it’s how project proponents learn the laws related to mineral development.

While there is recognition that the regulatory process is beneficial, overall, for everyone, there is ample room for improvement. A common refrain is “We want the process to be effective, but we also need it to be efficient.” As some participants have pointed out, “there is no local economic benefit to having an inefficient regulatory system.” In other words, there is less money to spend on employment and community benefits if that money has to be spent on permitting processes.

Obviously, permitting delays negatively affect mineral development companies by increasing project timelines and making it necessary to raise more investment dollars. When this happens to all operators in the Yukon, this creates a negative perception of the regulatory processes, which affects the overall investment climate – making it more difficult to raise investment, potentially affecting the viability of projects across the Yukon.

It is recognized that there are many factors that lead to the current timelines and/or delays relating to permitting applications, including the fact that there are multiple permitting processes.

12.1 Assessment and Regulatory Timelines

The YMDS Panel has heard clearly that there is frustration with the length of the assessment and permitting process timelines. Unsurprisingly, there are project proponents calling for fixed and enforced timelines for assessment. It is recognized that delays in the assessment and permitting process can be brought about by assessors, intervenors, and the project proponents themselves. It was noted that one source of delays are questions for project proponents that come at the end of the assessment period. With respect to modifying timelines, it has been pointed out that applicants have no flexibility, but governments do.

An exploration company expressed difficulties with the timing of heritage assessments (and the availability of heritage assessment services), having lost entire seasons waiting for heritage assessments to be completed.

In contrast, some feel that the timelines are too short. The short length of the public comment was specifically described as “a defect”. It was suggested that a different approach to the Q&A could extend the public comment period and get better outcomes.

Not everyone had issues with the time periods, as some placer operators noted. Others would “...like some honesty on the timelines. Don’t say it’ll take two to three years if it’s going to take four to five.”

Suggestions for easing permitting and/or improving timelines included:

- Identifying areas with high mineral potential and lower ecological or recreational interest for reduced or simplified permitting;
- Defined timelines, including moving on with the process if First Nations or other intervenors do not respond within a defined timeline;
- Improved coordination between assessors and regulators;
- Improved coordination between legislation, or legislative consolidation;

At least one participant felt that the focus on timelines is misplaced. “The focus is on the clock and not on assessing the damn project.”

12.2 Concurrent, Sequential, or Singular Assessments?

Many participants spoke to the need to find efficiencies in the regulatory process. It has been pointed out that YESAA and the Water Board are both doing environmental assessments, resulting in a duplication of effort on the part of the assessment agencies and a duplication for project proponents. In the words of one participant: "There are two environmental assessment processes which are separate from the licensing process. One project, one review? No. It's two processes. There's a duplication and there doesn't need to be." One participant suggested the system is further complicated by the Department of Environment's role in environmental assessment.

Most-commonly, there are requests to have coordination between the assessors and regulators so that projects can be assessed concurrently (i.e. assessed by YESAB and the Water Board at the same time) rather than sequentially (i.e. being assessed by YESAB and then being assessed by the Water Board). One participant suggested that concurrent assessments could save 6-9 months (or more) in the assessment process. With investors seeking projects that can be approved within predictable timelines as part of their investment criteria, any time saved by reducing assessment timelines should improve the investment climate for mineral development companies operating in the Yukon.

An additional argument for concurrency was made when concern was expressed that, as projects move from YESAB to the Water Board, a project's operating criteria can change and that these changes are not reflected in the previous assessment work.

Regulatory creep also causes confusion for some proponents as to what is an adequate degree of disclosure; what was accepted in one application may be deemed inadequate in a later, very similar application.

Some participants expressed frustration with YESAB's "mandate creep" into the regulatory process as this also creates duplication with the regulatory process and creates further delays for the proponent. Some participants feel that environmental assessments are intended to be carried out at a high level with a focus on whether a project should be approved, while permitting phases are intended to narrow in on more technical details to determine how a project should proceed.

A less common suggestion to reduce duplication and improve timelines was the dissolution of the Water Board, with the Water Board's activities being assumed by other existing assessors and regulators.

Another suggestion for improving the speed and coordination of the assessment process was to meet differently, hosting venues for "big picture dialogue with multiple actors", including First Nations representatives, government representatives, and industry representatives, when appropriate.

12.3 Other Approaches to Assessment

A few proponents suggested approaching assessment in different ways. One proponent asked for regional and strategic environmental assessments so “the best available information (science and Indigenous knowledge) can be used to inform plans.” Another suggested incorporating the principles of ["next generation environmental assessment"](#),

Many participants recommended the use of cumulative effects plans to determine when the environment is at its capacity to accept new development, and identified land use plans as important for the assessment and permitting process.

Many proponents advocated for using science-based decision-making tools in conjunction with traditional, indigenous, and local knowledge.

12.4 YESAA Scope

The scope of assessments under YESAA has been a topic of much discussion, with many participants from First Nations, NGOs and industry feeling that YESAA should be assessing, or is inadequately assessing, some of the following topics:

- 1) First Nations’ interests, including and especially relationships with the land
- 2) Social and community impacts and benefits
- 3) Economic costs and benefits
- 4) Environmental benefits
- 5) Gender inclusivity and diversity
- 6) Heritage potential and heritage impacts, with consideration made for different interpretations of heritage.
- 7) Cumulative effects (environmentally and socially, including consideration for the number of projects the Yukon or a particular traditional territory can handle at any given time)
- 8) The socio-economic effects of mine closure.

With respect to the assessment of socio-economic impacts, there appears to be disagreement as to the interpretation of the Yukon Environmental and Socio-Economic Assessment Act, with some believing that the Act does not provide for socio-economic assessment, and others believing that it does and/or should.

While some participants are asking for more things to be assessed, or for higher-quality assessments, some in industry feel that the YESAA process has become highly prescriptive, with assessors and legislative requirements demanding more and more information.

Concerns have been expressed from a variety of interests that the process is becoming longer and more expensive, but, in spite of the increasing detail and overall volume of

information, the process isn't really addressing environmental risk. In the words of one participant: "The assessment process tries to assess everything, and it doesn't do that well. You have to assess what matters." Another participant explains, "When you're out there, it's not the project that was in front of YESAB. We're not seeing comprehensive assessments, just conceptual assessments."

Some participants have spoken to the need for better approaches to project scoping in the assessment process, and the need for Terms of Reference.

The YMDS Panel has heard that there are important matters "falling between the cracks" in the mandates of the Yukon Land Use Planning Commission, YESAA, the Water Board, and Yukon Government. Some of these matters include cumulative effects, heritage, and other items identified earlier in this section.

Generally, it was felt that all organizations involved in the regulatory process need to work together better, although one participant said, "It seems there are too many cooks in the kitchen."

12.5 Responsibility and Decision-Making

12.5.1 Assessment and Decision-Making

Responsibility and decision-making arose in a variety of contexts, notably with concerns about issues "falling through the cracks", such as heritage protection, community concerns, the Final Agreements, cumulative effects, matters related to land use planning, and adequacy of socio-economic assessments – particularly the ability to consider both positive and negative effects of projects.

It was suggested that, in some ways, regulatory effectiveness is negatively affected by legislation regarding roles and decision-making. Currently, YESAA maintains that it is only legislated to assess negative environmental impacts, but others feel that YESAA's legislated mandate is broader, and that the assessor should be considering all environmental and socio-economic effects. There is broad support to have both positive and negative environmental and socio-economic effects considered.

Others feel that assessing the positive and negative impacts of mineral development is a government responsibility. In the words of one participant, "YESAA is supposed to consider socio-economic impacts but there are no tools to implement other than the recommendations. The regulatory rules on it aren't really there. You can't offset a negative environmental impact with a positive economic impact. That's what the government needs to do is say 'we acknowledge that, but...'" and that is where it should be. It's a government responsibility. The Act says what it says and it's pretty clear."

It has been suggested that the government should be doing cost-benefit analyses but isn't, and that those cost-benefit analyses should be made public. Consequently, it is felt that

decision documents aren't well-rationalized and that there is no explanation for variations in the decision documents. This statement has also been made with respect to Water Board decisions. One participant suggested that YESAB recommendations should be binding and that Yukon government shouldn't be allowed to vary the recommendations. As they explained, "Why create such a robust (though still imperfect) assessment system, directly mandated from the UFA, only to allow politics to intervene at the last moment? It creates a complete loss of faith in the system."

With respect to government decision-making on project permits, some participants feel that YESAB is doing their job making recommendations, but that government is either risk-averse or not empowered to make decisions. There is speculation that this fear of making decisions leads to projects being over-assessed and projects being delayed.

One participant suggested that the decision document process must be exhausting for everyone and, because there are three versions of the document, some proponents do not review the final version. Comments are sometimes added at the last minute and can get overlooked because people have read the document already. It was suggested that "If a proponent agrees to change things, they should have to change the initial proposal so it eliminates confusion, because someone picking up the original document could be confused."

Several suggestions were made to alter the way that decisions are made with respect to assessment and permitting, including:

- YESAB recommendations having more clout with proponents and governments
- YESAB having the authority to issue certain classes of permits
- Using outcome-based permits
- Improving investor confidence by guaranteeing a license will be issued if a project hasn't received an "all-stop" at the beginning of the process
- Transferring the issuance of water licenses to the Department of Fisheries and Oceans
- Using a voting process for major project decisions for qualified representatives and community leaders, based on the principle that the people most-affected by the decisions should be a part of the decisions, and
- Moving to a co-governance model (where First Nations are also decision-makers).

It has been suggested that changes in legislation, regulations, and/or policies can be made to facilitate better compatibility between the assessment and regulatory bodies, and to help ensure that important matters are not being overlooked or given less importance than they deserve.

It was pointed out that processes are needed for First Nations that don't have Final Agreements.

It has also been suggested that there be an opportunity to appeal YESAB recommendations. While this suggestion was made from the perspective of a project proponent, it is not clear if the request for an appeals process would only apply to the applicant or to parties opposed to YESAB's recommendations.

12.5.2 Conflicts of Interest in Decision-Making

For various reasons, many participants feel that there are conflicts of interest in government decision-making regarding mineral development.

Many participants don't want to see the department responsible for regulating mining playing a promotion role. Some participants feel that the regulatory role and the compliance and enforcement role should be separated, with some suggesting that compliance and enforcement should be housed in a separate department, and others suggesting that the compliance and enforcement role should be given to a separate, independent agency. Two reasons were offered for housing compliance and enforcement in a separate, independent agency:

- 1) It is less likely to be influenced by departments with an interest in advocating for mines who are not in compliance, and
- 2) An independent agency can be designed in such a way that it is not subject to political interference, which a few participants alleged to have occurred both to the advantage and detriment of mineral development projects. In the words of one participant, "They need to trust YG staff to do their job and stop directing DMs and ADMs to apply pressure to staff for outcomes that they (the governing party) wishes to see happen. Not every mine is a feasible project for the Yukon so if the assessment shows this, then the Government has to put its big person pants on and make the call. Some of the longest delays to timelines have been caused by government dragging its heels on decision documents following a YESAB assessment."

One participant suggested that the responsibility for project approvals should be removed from EMR to an arms-length "Development Assessment Branch". Another suggested that promotional activities should reside within an arms-length entity, like a development corporation acting in the economic interests of the public, leaving the regulatory, compliance, and enforcement roles in the hands of the government.

One participant suggested that elected officials should not be part of the regulatory process. Another recommended that government employees and politicians should not be allowed to hold investments in mineral development companies. Another participant suggested that political parties should not be involved in promoting mineral development; that this role should only be done by the entity responsible for promotion. Several participants shared that they don't want to see governments promoting mineral development at all.

One participant felt that mining companies should not be allowed to lobby or make donations to political parties.

12.5.3 Reconsidering Decision-Making Rights and Representation

For various reasons, a great many participants have called for First Nations to have decision-making authority (including veto powers) when it comes to mineral development projects. Some recognize that First Nations have constitutionally protected rights. Others feel that First Nations do a better job of considering the very long-term and the health of the land. Still others feel that those most affected should have a say in whether or not a project proceeds. Some participants have called for First Nations to be partners in mineral development.

A few participants disagree and feel that First Nations have too much power in the assessment and approval processes already. One participant explained that having more decision makers slows down projects and this negatively affects mineral development companies.

A few participants have suggested that decisions should be made democratically, by the communities most affected. One participant challenged this concept, explaining that communities will make decisions based on their own desire to prosper and that decision-making processes should be science- and climate change-based.

Some participants called for decision-making to be more representative, particularly with respect to women and indigenous women. Other participants advocated for assigning rights and/or voices to nature and wildlife, as some countries and organizations have done.

12.6 Information Requirements

Several comments were made with respect to information requirements, in addition to the duplication of information requested through the various assessment and regulatory processes, and the expanding scope and volume of information being requested. Specific suggestions regarding information requirements included:

- 1) Ensuring that information requests are relevant to the project at hand;
- 2) Using drone pictures before land disturbances occur, then if heritage resources are discovered, the project is halted (as an alternative to heritage assessments);
- 3) Expanding the scope of how heritage is defined and ensuring that assessment tools and processes adequately account for or protect heritage considerations relevant in the Yukon context;
- 4) Simplify information requests;
- 5) Allow environmental assessments to be submitted with one year of baseline, but don't allow projects to pass adequacy without a second year to corroborate the baseline;

- 6) Having ecological baseline data using traditional and local knowledge combined with environmental science;
- 7) Having socio-cultural assessment;
- 8) Compile the information in the assessment files and make it public.
- 9) Replace large and difficult to read reports with standardized or pre-approved practices; and
- 10) Ensure mine assessment and permitting incorporate independent, transparent, peer-reviewed science and indigenous knowledge.

12.7 Dialogue and Information Sharing

The importance of dialogue has been a common theme raised during the YMDS engagement process. Early engagement with everyone (First Nations, community, assessors and regulators, and project proponents) is universally seen as beneficial, though it is not always the common practice at present in the Yukon.

It was expressed that the “dialogue through correspondence” nature of the assessment processes means that there is too much information from large projects for the general public to comment, and that the current approach alienates female and indigenous voices, and those of the general public. It was suggested that resources be provided to support historically marginalized voices in the assessment processes. Many participants feel that First Nations and individual input into the assessment process is not taken seriously enough.

One project proponent expressed appreciation for “a project where we got people together and it’s good because Traditional Knowledge and science could question each other.” From a heritage perspective, it was suggested that, “A more cooperative, inclusive process will help pre-empt concerns and allow for development activity that receives sanction by parties and communities for the way in which it is approaching heritage protection.”

Continuing with the theme of being able to sit down and talk, another participant explained that, “Consultants and reviewers need to be able to sit down and talk. They get thousands of pages and information requests and then consultants have to go through the registry, and they don’t know why decisions are made.”

A participant pointed to the Nunavut Impact Review Board, which “uses a Terms of Reference at the start of a process and an oral hearing process near the end of the project. That’s good because you can cut through the crap and are able to answer questions directly and get on with it.”

Another participant said, “There’s nothing in the Act that says YESAA shouldn’t do anything it needs to do to understand a project but they’re reluctant to sit around the table to talk about a proposal face-to-face.” While a rationale for this wasn’t provided, another

participant said, “EMR got a legal opinion. They used to talk to proponents, but one of those legal people told them they couldn’t do that.” Notwithstanding reasons preventing alternative approaches to dialogue and the sharing of information, there is generally a broad interest in making it easier for parties to provide input into the process.

Dialogue, while beneficial, is not always easy. In the words of one mineral development company, “For our class 3 we were supposed to reach out to the trappers in our area. Do you think anyone would help us? We have to reach out to them, but they were impossible to contact. Do I have to hire a PI to find this guy?”

Another participant spoke to when public comment is beneficial, suggesting that public comment isn’t needed during the adequacy stage of the assessment process.

At least one mineral development company requested that project proponents be consulted prior to the finalizing of Designated Office-level decision documents.

12.8 Capacity and Expertise

It has been mentioned that all organizations, including First Nations, Yukon Government, YESAB, the Water Board, need additional capacity to do their work. Capacity in this context includes: Having enough people to do the work, having people with the skills necessary to do the work well, and having the financial resources to accomplish the work.

12.8.1 First Nations

Concern was expressed that duplication in assessment processes strains the capacity of First Nations, who tend to have very lean Lands and Resources departments and often are faced with numerous projects being undertaken simultaneously in their traditional territories. While busy even in quiet times, the workload required due to high levels of exploration or particularly demanding projects can quickly overwhelm the capacity of a First Nation’s staff. This leads to delays in the First Nation’s ability to make and respond to assessments.

Industry recognizes that First Nation assessment capacity is essential to an effective and timely regulatory process. A few representatives pointed out that, in some jurisdictions, industry is responsible for paying for additional capacity. Another project proponent explained that, in British Columbia, some First Nations have the authority to lead the assessments. One project proponent explained, “The more capacity the First Nation has, the less risk my investor has. If I can say the First Nation has a whole team that can assess my project and we all speak the same language, for me that’s massive.”

Others feel that it’s a conflict of interest to pay for the reviewer’s costs, and some have suggested that First Nations’ capacity needs to be increased, but that it should be the government that bears the cost.

One First Nation pointed out that there are high levels of activity in their traditional territory, but that all of the administration and enforcement is based elsewhere.

12.8.2 Assessors and Regulators

Capacity within YESAB, the Water Board, and Yukon government was raised in a variety of contexts. A common refrain from industry was a desire for assessors and regulators – who are making recommendations and decisions affecting mineral development projects – to understand mining businesses and the mineral development process (for both quartz and placer mining). A specific request was for assessors and regulators to understand how delays affect mining businesses.

Some industry members feel that, in addition to there not being enough people to do the assessments, there wasn't enough technical expertise and experience within the assessment and regulatory bodies. There has been speculation that less-experienced staff who need to make decisions will want to avoid risk and ask for more information from project proponents as a delay tactic.

Positive references were made to other jurisdictions with higher volumes of mineral development assessment activity having more in-house expertise. Several industry members suggested that the assessment and regulatory bodies should use contracted expertise to help with assessments and to “make sure the right things are being done on the ground.” Using contracted expertise may be difficult for YESAA to do, as their ability to scale their capacity depends on their funding.

One participant felt that regulators are poorly equipped to deal with many of the issues that come across their desks and do not have the necessary education to deal with issues like cumulative effects, requests for innovative consultation processes, indigenous rights and the Duty to Consult, etc. Another suggested that better appointments need to be made at the YESAB board level.

Concern was expressed about staff turnover in all organizations – but particularly within YESAB – and how that loss of continuity complicates the assessment process for individual projects and for assessments in general. In the words of one participant, “It's hard to build institutional knowledge when there's so much turnover.”

Additional concern was expressed by industry about how, for capacity management reasons, project assessments are sometimes moved to a YESAB Designated Office other than the one where the application was made, and where previous assessments of the project may have been made. From a YESAB perspective, this is an efficient allocation of resources. From an industry perspective, there is frustration with assessments being done differently between the offices and concerns that assessors from other Designated Offices don't understand the project's history and local conditions.

There have been suggestions from industry that best practices guidelines could be used to streamline assessments and free up capacity in the assessment process and improve consistency between the designated offices.

12.8.3 Consultants

While some have suggested that assessors and regulators supplement their existing capacity with contracted professional expertise, as many First Nations do, others have gone further and have suggested that contracted expertise could be shared between First Nations, project proponents, and assessment and regulatory bodies. In addition to being more efficient and cost effective, it prevents situations where consultants get into arguments over who's right. Because of this, some feel that outside consultants can complicate matters.

Frustration was expressed by industry members about technical experts being challenged by assessors who do not have expertise in the technical experts' fields, It is felt that regulators and assessors alike are dismissing input from professionals and that more weight is put into opinion and perception and not enough into professional opinion and scientific evidence. Justified or not, some participants were concerned about the perception that technical experts working on behalf of industry could be biased in favour of their client.

One consultant explained that the Yukon needs professional associations for biologists, geoscientists, and other professionals. Accreditation bodies require professionals to put their reputations and careers on the line and ensure that their work is based on sound science and professionalism.

An idea was proposed to have a list of professional experts that can be provided to YESAB project proponents and new players entering the territory. It was asked who could lead the development of the list or registry.

Another idea was proposed to have the Yukon government create project coordinator, navigator, or ombudsman-type positions, who would help guide proponents through the assessment and regulatory processes. A few industry members said they feel the position(s) could be underused because "Most people in the Yukon understand that our permitting is well-understood, just not fast."

12.9 Notifications, Licenses, and Permits

Generally, it was felt that permits must come with terms that hold permit holders to high environmental standards, with adequate enforcement and corresponding penalties for a lack of compliance.

Industry members identified several areas for improvement with respect to permits.

Class 1 notifications were described as, effectively, a permit. Frustration was expressed with the delays the process creates, because the field season is so short. It was felt that mushroom pickers and hunters are able to do more than prospectors. One project proponent explained that they may have to do Class 1 notifications for 130 projects, because they don't know which of those projects they'll be working on that summer.

A request was made to ensure there is an efficient process for amendments to Class 1 notifications, which tend to be minor. It was also recognized that not all amendments are minor and that amendment processes should take into consideration the materiality of the changes to the project and/or to the landscape (i.e. forest fire). Making it easier to renew permits was a frequent request by industry. It was suggested that renewal criteria should be established.

Industry members explained that project proponents avoid applying for Class 2 approvals because the one-year timelines for those approvals are too short. Consequently, they make the decision to apply for Class 3 approvals and incorporate every work activity they could possibly do during that approval, whether they expect to engage in that activity or not, so they have the maximum flexibility in planning their annual work programs. This results in over-permitting and doesn't represent the activity level actually anticipated for some projects. It has been suggested that this happens in all classes of approvals because project proponents feel there's so little opportunity for change once the approval is granted.

It was suggested that longer permits be allowed for projects operating in historically mined areas.

One participant asked why separate Quartz Mining Licenses couldn't be issued for prescribed facilities (i.e. processing plants) and mining activities. It was explained, "That way, if you need to apply for a variation, you're only assessing the part that needs to be assessed, which is more efficient. Changes to tailings come under the mine Quartz Mining License. This approach will encourage central processing facilities because there's no advantage to not building a central processing plant for each project." It was further explained that this change could improve the economic viability of a mining district while limiting the environmental footprint of mining.

Generally, it was felt that there are opportunities to adjust permit lengths and to allow for changes to approved work plans to discourage over-permitting and accommodate minor changes to activities.

It was suggested by industry representatives that any regulatory changes be communicated and phased in, so operations have time to adjust.

12.10 Inspections, Compliance, and Institutional Learning

First Nations, environmental organizations, Yukoners, and mineral development companies themselves are calling for better and more-frequent inspection and enforcement. From an industry perspective, inspections are essential for gaining and maintaining public trust and for holding companies accountable. Recognizing that there are “bad apples”, one industry participant asked, “How do you support companies that are doing a good job and address those companies that aren’t?”

Generally, it is felt that there are not enough inspectors and the current inspectors don’t have enough or resources time to do their jobs properly. As such, it has been said that there are matters that aren’t being reported. As one participant explained, “There are so few inspectors that they cannot visit each mine site even once a year. They cannot properly implement even the very good Fish Habitat Management System for Placer Mining. Consequently, even really conscientious operators do not always know their operating conditions, and when they fall outside of them, there is rarely any consequence.”

The timing of inspections was criticized. One company alleged that inspectors are traveling from Whitehorse and conducting their inspections on Fridays and Mondays so they can hunt in the area over the weekends. Another participant explained that the inspections aren’t a surprise, so things are being covered up at some operations. One participant suggested the use of spot drone monitoring or other forms of air observation.

Participants have suggested that there is a need for more inspectors, especially for placer mining, and that those inspectors need to be better-trained and more consistent in their inspections. One specific area for training that was identified was for the collection of water and sediment samples, with the participant explaining that, too often, samples cannot be taken to court because of improper sampling techniques.

Concerns have been expressed that the quality of inspections has declined since the responsibility was transferred to Energy, Mines, and Resources as part of the transfer of resource management authorities from Canada to the Yukon Government in 2003. Others have expressed their concern that there exists an institutional conflict of interest, given that EMR has played a promotional, investment attraction role.

A number of reasons were provided for having mineral developers more involved in environmental monitoring and reporting, with the main reasons being the overall cost to taxpayers and the lack of resources to inspect all of the sites frequently enough. Ideas for self-monitoring and reporting included:

- Submitting dated aerial photographs (taken with a drone) of the site weekly to be inspected by experts;
- Monthly reports on water discharge quality, plus whatever event-specific requirements are indicated in the water licence;

- Requiring that mineral developers to take samples at times that reflect potential changes in water quality, such as heavy rains or snow melt; and
- Providing all reports to the government to verify compliance.

Several participants were concerned about conflicts of interest when it comes to mineral developers or their consultants conducting water quality testing. Although self-monitoring is a necessary part of compliance, there is scepticism about mining companies acting ethically and being held accountable. In the words of one participant, “The mining community tells us that they know how to do it right and that they do things better now. But that is often not what we see happening. What we see is mining companies always pushing the limits, rather than respecting them. The government also tells us that they have regulations and processes to ensure that things are done properly, but instead what we see is weak government oversight.” In the words of another participant, “I’ve heard of small-scale placer miners dumping old fuel on the ground because no one is monitoring them.”

Several participants, including industry members, would like to see First Nations have more responsibility over inspections. Others have pointed out that several First Nations already have their own inspectors, guardians, or environmental monitors and that they might be able to assume the inspection role. One participant suggested that embedding First Nations inspectors and pairing them with Yukon Government inspectors would mean access to real-time information for what’s actually happening at mineral development sites. Another participant went further and suggested that companies should build quarters near a project that indigenous guardians or land stewards can use as a base to inspect the mine site and surrounding land.

Inspection and enforcement on settlement lands needs clarification and it was suggested that the a collaborative or join-inspection approach may help with that.

There were also suggestions to use third-party inspectors or to establish an independent inspection agency. It was noted that BC uses an independent environmental monitor that reports back to the assessment office and makes sure that everything in the permit is being followed.

It was suggested that the inspectors are struggling with permit continuity between YESAA and the Water Board. Participants felt that, in the past, inspectors had more discretion. In the words of one placer miner, “Now they’re not inspectors, they’re officers and they’re afraid to use their discretion because our licenses say to refer to the application for terms and prescriptions which are detailed and prescriptive.”

There are reasons for inspectors having some discretion. In the words of two mineral development companies, “Rigid licenses don’t allow inspectors to apply common sense. That’s not how to get good results on the ground,” and “Without flexibility it can lead to abandoned mines. If things are being done according to the permit but that’s not what’s

needed on the ground, it can deteriorate and become an ongoing saga. The permit conditions often do not result in addressing the original intentions.”

Many participants called for stricter enforcement, with more-severe penalties for non-compliance. Penalty suggestions included bigger fines, the ability to stop work, criminal charges, and the denial of future permits. It was recommended that “fines must be reflective of the actual damage, both short- and long-term, to the environment, to First Nation rights and ways of life, to the public good, and to the measurable ecosystem services compromised by the activity.” A couple of participants criticized the “educational” approach sometimes taken by inspectors. As one participant asked, “How many times do you have to educate the same placer miner before he/she gets a fine?” Another alleged that the inspectors are “there to make it as easy for the mining community and not for what really matters.”

It was noted that the job can be difficult for inspectors – particularly those doing placer inspections, who have received death threats and experienced property damage. One participant is concerned that “regulatory and compliance officers are reputed to become buddies with miners,” although others think more favourably of the inspectors, explaining, “I think enforcement staff are generally keen at their jobs but there is a lack of courage at the political level to follow through on hard decisions.” One participant assessed the situation in this way: “I have experienced the Yukon government creating laws that appear to be robust in solving sector specific challenges and problems, only to see government being actually unwilling to apply it and exercise the law that it made. The law becomes a discretionary decision of a person, and often, the person is either afraid that applying the law will upset someone, or create extra work, or some other irrelevant consideration.”

It was recommended that inspection reports be made available to the general public. One participant proposed developing level of service standards and appropriate field checklists that inspectors can fill out and file online while in the field, with a copy provided to the mine operator. Another asked for a record of warnings and fines. It was explained that the data and information gathered in these reports can contribute to understanding and measuring cumulative impacts on a watershed scale, which will be necessary since inspectors may one day be required take action to address infractions or regional-level impacts.

Some participants also called for audits – not just audits for current and abandoned mineral development sites – but audits of the permits, “post-recommendation assessments”, the permitting process, and the assessment and permitting organizations.

It is felt that YESAB is unwilling to change and that the organization’s performance is measured under their own rules and processes and is therefore fundamentally flawed because their performance assessment is not based on achieving the outcomes of the Act. It was also suggested that because YESAB has no inspectors, there is no feedback to assessors concerning the effectiveness of their recommendations.

It was recommended that “institutional learning” needs to be considered as part of the assessment, permitting and inspection process. Adoption of recommendations made after assessments result in permits with prescriptive measures that may or may not make sense on the ground or in changing conditions. There is a broad consensus that the assessors, First Nations, industry, and the community as a whole can benefit from more inclusive and transparent reporting of monitoring and enforcement activities.

12.11 Standards, Incentives, and Accountability

There is a general call for industry standards, both from within industry and outside of it. In particular, the YMDS Panel has heard numerous calls for permits to be less prescriptive in terms of how things should be done and more-focused on outcome-based targets. The perception is that the current process requires assessors to imagine every possible scenario, which is not possible, and account for those in the recommendations.

This prescriptive approach poses challenges for companies, too. In the words of one placer miner, “Placer applications used to allow us to be more-vague – like where to put a ford across a creek – but they want it to be more and more specific. When our license gets so finite it deprives us of the ability to adapt to changing prices, different ground, etc. You might want a small change, like moving 100m down a creek, but they view it as a big change.”

Participants who favour the outcomes-based approach note that it provides industry and inspectors flexibility in terms of how those outcomes are achieved. Under this approach, they would also like to see more enforcement, which is seen as preferable to more permitting.

It has been further suggested that an outcomes-based approach could allow for standardized recommendations across the territory and that well-documented best practices could allow for more flexibility where modifications to a permit are required.

Others spoke to the need to ensure there are consequences for companies that don’t achieve the required outcome-based targets. One industry member suggested that there also be incentives for meeting or exceeding outcome-based targets. In his words, “If you have a performance-based standard, like 10% employment from a mine, and there’s an incentive around it, we’ll figure out how to do it, plain and simple. The ultimate carrot is if you have 20% employment from the Yukon, we’ll reduce your taxes, as an example.”

Participants have repeatedly said that placer and quartz mining are held to different standards, and that placer mining should be held to a higher standard than it currently is. It is typically argued that placer operations are more like family farms or “mom and pop” operations, but it has also been pointed out that there are placer operations with large staff complements and revenues in the millions.

13 Legislation

13.1 Reasons for and Against Legislative Change

The Independent Panel has heard a great deal about legislative changes. Most comments concern four Acts: The *Quartz Mining Act*, the *Placer Mining Act*, and the *Yukon Waters Act*, which are under the jurisdiction of the Yukon Territorial Government; and the *Yukon Environmental and Socio-economic Assessment Act*, which is a federal statute.

There is general consensus that the *Quartz Mining Act* and the *Placer Mining Act* must be addressed, with some commentators suggesting that amendments to the Acts can alleviate concerns, although many others are calling for completely new legislation to replace the Acts. Several reasons have been raised for wanting legislative change, including:

- The *Quartz Mining Act* and *Placer Mining Act* are very old pieces of legislation with numerous amendments, which cause confusion;
- The *Quartz Mining Act* and *Placer Mining Act* do not reflect modern realities or priorities;
- The *Quartz Mining Act* and *Placer Mining Act* are not consistent with constitutionally protected obligations contained within the Final Agreements with First Nations;
- A desire for greater clarity. The lack of harmonization between various pieces of legislation creates confusion, inefficiency, and affects the competitiveness of the Yukon as a jurisdiction for mining investment and results in government “working against itself”; and
- Concerns that regulatory effectiveness is sometimes negatively affected by legislation.

Some commentators expressed grave concerns about revisions to the existing mining legislation, typically with respect to aspects of legislation that are seen as beneficial to mining businesses. Examples of this are “the right of free entry”, “the right to mine” and/or “the right to the property” (i.e. legal tenure), which some want to keep intact as part of the *Quartz Mining Act*. Others oppose this approach, arguing:

- “The *Quartz Mining Act*, Section 50 conveys ownership of the mineral via the staking of the claim. There is no acknowledgement that the new owner obtained the mineral without paying its previous owner, the public. The royalty does not reflect the value of the commodity.”
- “Free-entry needs to be replaced by a collaborative regime that fairly assesses competing interests then assigns priority in land use according to the Final Agreements and the public interest.”
- The right to water is undermined by industrial development, the right to maintain a way of life through subsistence harvesting is undermined by ecosystem damage, and the right to harvest forest resources is affected by strip mining/placer mining.
- YESAA provides for an assessment of activities based on the *Quartz Mining Act* and *Placer Mining Act* and can recommend constraints on those activities, but due to

provisions of the mining acts, mine development cannot be denied (and many participants feel that there are occasions when it should be).

The need for consistency between territorial legislation and the Final Agreements with First Nations has been a frequently raised concern. It has been pointed out that legislative rights cannot supersede constitutional rights and, therefore, some Yukon legislation is unconstitutional. One participant suggested making the legislation consistent with the Final Agreements without opening up the mining acts completely; instead making smaller, achievable changes that will give industry more time to prepare and adapt.

The majority of participants have supported legislative modernization. The *Forest Resources Act* - especially the "purpose" statement of that act - has been mentioned as a model for modern mining legislation.

There has been a request for modernized legislation to clarify legislative paramountcy, certainly with the Final Agreements, but also with Official Community Plans under the *Municipal Act*.

Many participants would like to see new legislation that:

- Holds governments and mineral developers to higher social, environmental, and economic standards
- Ensures the Yukon receives a fair royalty
- Reflects the scale and intensity of modern mining practices
- Re-considers decision-making with respect to permitting (ex. FPIC or alternative models for decision-making)
- Considers the rights and needs of non-humans (water, wildlife, etc.)
- Respects or prioritizes other land uses
- Strengthens enforcement, and
- Ensures adequate security for reclamation, remediation, and restoration.

Some have raised concerns about aspects of mining that are missing from current legislation, including:

- Bulk sampling;
- Technological advancements;
- Metallurgical certificates;
- Analytical certificates for water quality (including recourse and audits); and
- Wetlands.

With respect to wetlands, some participants suggested that a Wetlands Policy or wetlands legislation should be completed, with joint input from industry and First Nations. Frustration was expressed that delays in wetlands legislation have held-up water license renewals for placer miners.

Some participants expressed concern about legislative creep as it relates to mining activities. Specific examples included: insurance changes for roads, minimum standards on applications, and Occupational Health and Safety requirements.

One participant suggested that new legislation should reduce the power and influence of the industry. In their words, "I once heard a government official say mining is king. I agreed. The concept of a king is outdated, and modern societies have rewritten their laws to greatly reduce the power of kings. Probably a good idea to that for mining."

A suggestion was received to integrate the Placer Mining Act, Quartz Mining Act, and Waters Act. Another suggestion was received to shift sections of legislation to regulations, where appropriate.

Many participants have taken exception to the royalty regimes set out in the *Placer Mining Act* and *Quartz Mining Act*. Suggestions include tying royalties to current market prices for metals and calculating the *Quartz Mining Act* royalty based on a percentage of the cost paid by the smelter receiving the mined metal, or the net smelter return. Further discussion of this topic can be found in *Section 14.4 – Royalties*.

Several stakeholders suggested that changes should be made to the *Yukon Environmental and Socio-economic Assessment Act* including:

- Modifications to the scope of project assessments so that positive social and economic impacts can be considered;
- More rigorous timetables for completion of assessments; and,
- Specification of certain conditions that would allow for extensions of time-lines for approved projects and/or minor expansions to the scope of approved projects, without triggering reassessment of the projects.

Some feel that the *Yukon Waters Act* is outdated or unnecessary, and that it should be abolished. Others feel strongly that this Act plays an important role in the Yukon's regulatory regime and that it should not undergo legislative amendments. It was suggested that the act's implementation can be modernized by making changes to the Water Board's policies and practices to better harmonize its activities with other assessment and regulatory bodies.

With respect to other existing legislation, some commentators would like to see updates or amendments to:

- The *Miners Lien Act* (to protect service suppliers in the Yukon);
- The *Motor Vehicles Act* (to provide more clarity regarding commercial vehicles and inspections); and
- The *Yukon Heritage Resources Act* (which, according to participants, predates the Land Claims Agreements and does not contain appropriate tools to enforce the existing legislation).

13.2 Regulations

Several participants spoke to how they are affected by mining regulations.

Some participants feel that the regulations do not do a good enough job protecting the environment. Some feel that the mining regulations are too onerous, have made it so small prospectors are no longer able to make a living, risk driving away investment, jobs, and opportunities and need to be reduced. One participant explained that mining regulations are important for protecting the environment, but that they also need to keep Yukon mines and mining companies strong.

One participant suggested that Yukon government apply the same standard for land use to all Yukoners, so the general population understands the regulatory regime the mining industry operates under.

13.3 Making Legislative and Regulatory Changes

Some participants provided suggestions on how to proceed with legislative amendments or modernization, if pursued, such as:

- 1) Ensuring that there is enough capacity to make legislative changes;
- 2) Including industry in discussions concerning legislation and policy changes; and
- 3) Providing ample advance notice for changes in legislation and policy so industry has time to adapt.

Concern was expressed that existing legislation is not always known, understood, or followed, even by government employees responsible for its implementation and enforcement, let alone by miners who have to comply with the legislation.

14 Government Revenues

14.1 Fees, Taxation, and Royalties: Incentives and Disincentives

Government receives revenues from a variety of sources related to mineral development. These revenues include (in no particular order):

- Fees
- Royalties
- Income taxes, and
- Corporate/business taxes

Government uses fees, taxes, and royalties to incentivize and disincentivize certain activities, and to provide beneficial services to the general public.

When conducting economic impact analyses, governments examine the direct, indirect, and induced impacts of an industry. Direct effects are the initial spending that creates additional activity in the local economy (ex. Exploration investment being used to hire a local drilling company). Indirect effects are the business-to-business transactions that result from the direct effects (ex. The local drilling company hiring a local expediter to deliver an important piece of equipment). Induced effects are the increased personal incomes in the economy caused by the direct and indirect effects (ex. local people spending their money in the local economy).

A suggestion was made that analysis of the industry should go further: That there should be an annual report that outlines the total economic costs and benefits of mining. Expanding on the concept of evaluating costs and benefits is to also consider the social and environmental costs and benefits by adopting a triple bottom line approach. It is felt that this information will provide decision makers with the information they need to make better decisions for the economy and the environment.

With respect to government revenues related to minerals, several participants shared that they would like more information about where they come from and how they are used. In the words of one participant, "If revenues were explained more, perhaps, just perhaps, there would not be so much opposition to development." One participant was more critical in their request for this information. In their words, "Government collects these revenues as a fiduciary for the public. As mineral resources are a public resource, which government seems to understand poorly to date, these revenues need to be reported publicly, and transparently, e.g., tabled in the Legislature by the Minister responsible."

With respect to minerals as a public resource, concern was expressed that the mining industry works on a "Private Profit/Public Problem" model, which lets companies come in and make profits, but transfers the costs for clean-up or maintenance to the next owner or the taxpayer." The concern is that an analysis of short-term benefits may not adequately account for long-term costs.

It was suggested that, similar to industry, governments need to look at mineral development from a Return on Investment perspective, because the Yukon gives up certain things (environmentally, socially, politically, and branding/reputationally) in exchange for a return.

Investors caution that Yukon's taxation and incentive regime must be competitive with other jurisdictions as it is a factor when making investment decisions. Some investors feel that the total tax regime is currently on "the heavier side" for hard-rock mining.

Concern has been expressed that government revenues from mining and exploration are low, and don't keep enough revenues in the territory. This is a common sentiment for placer royalties, in particular, but also for quartz mining royalties.

Several participants expressed the opinion that mineral development companies can afford increased fees, taxes, and royalties but, it was also acknowledged that "mining companies routinely go bankrupt" (intentionally or coincidentally). It was explained by some investors that taxation and royalties act jointly to affect project economics, and that all expenses, taxes and royalties must be considered when determining a project's relative competitiveness.

One participant advised that there may need to be a special arrangement with Canada regarding the formula financing, to avoid penalties "simply for asking for a fair return on our resources."

Participants expressed concerns about fly-in/fly-out workers' income taxes benefiting other provinces and territories, but not the Yukon, and suggested that this could be addressed through a Payroll Tax, similar to the Northwest Territories.

Royalties and taxes are addressed in more detail in separate sections, below.

14.2 Fees

Many participants called for higher fees for the mining sector, arguing that the public is indirectly subsidizing the industry through extremely low fees that don't reflect the cost to government of regulating or cleaning up after the industry. Others felt that the territory should make a net profit from mineral development activity since it is providing critical infrastructure.

It was pointed out that the current fee system relating to claim tenure may be holding back exploration and development of promising projects. Participants from the mineral development sector noted that some claims with high mineral potential are not being developed because of low annual holding costs (assessment work expenditures or

payments-in-lieu of work), and because years of assessment credits can be built-up. The low holding costs and grouping of built-up of credits allows large claim blocks to be held for many years without work occurring on most of the claims. Thus, areas that might be attractive to other explorers for other reasons lie dormant.

Unsurprisingly, not everyone is keen on fees or on fee increases. In the words of one participant, "Fees should be minimal as they add no value other than maintaining a government registry." Another pointed to a list of expenses, taxes, and fees incurred by mineral developers, as well as "cumbersome regulations", implying that fees result in more time-consuming paperwork and are another frustrating aspect of doing business. Yet another participant explained that additional fees may be unwarranted because, "Individuals and corporations already contribute to the tax base in filing annual income tax returns." Taxes are discussed in the following section.

One participant suggested that fees should be set in the middle range of other Canadian jurisdictions, and should be increased on an automatic, continuous basis.

Another participant asked that fees be kept "simple and transparent, reflective of the type and nature of services provided. Don't nickel and dime industry like banks do! Look for efficiencies to keep them low but reflective of true costs."

One participant felt that the fee system is unfair for other sectors. In their words, "I'm not in favour of discouraging business. I am in business myself. But I function in a responsible sector, so it burns me up that mining gets a free ride. Fees for access to canoe rivers, fees for access to take out minerals from the land. It's all the same, except in one case. Nothing is lost with a canoe on the river, but a miner takes the minerals away from us forever. How hard is it to see that there has to be a price for this?" Royalties are discussed in *Section 14.4 – Royalties*.

14.3 Taxes

14.3.1 Corporate/Business Taxes

Several participants called for higher taxes for mineral developers, linking the need for higher taxes to reclamation work paid for by taxpayers, increased use of public infrastructure (ex. road repair), and local benefit capture.

Another participant suggested that the Yukon should position its tax rates to be in the middle range of rates when compared to the rest of Canada. Others called for tax equality, suggested that mineral development should be taxed no differently than any other industry in the territory, eliminating tax breaks that are not available to other sectors.

14.3.2 Payroll Tax

Many participants have commented on fly-in/fly-out workers, who work in the Yukon, but who pay taxes to their home provinces/territories. While some would like to see these jobs go to Yukoners, others have noted that sometimes the positions are very specialized, short-term jobs and that it is impractical to train Yukoners to fill them. It was also recognized by some commentators that there are not enough Yukon workers to fill all seasonal jobs in the mining and exploration sectors. Some participants have suggested that the Yukon should encourage fly-in/fly-out workers to move to the territory, but others, for various reasons, have expressed disapproval with this approach.

One proposed approach to ensuring the Yukon benefits, financially, from fly-in/fly-out workers is to institute a Payroll Tax, similar to the tax in the Northwest Territories. In the NWT, the Payroll Tax applies to all workers in the territory, regardless of their residency, but local residents are able to recapture some or all of their tax payments through tax credits.

Another suggestion was to charge mineral development companies a “non-Yukon employee fee”.

Generally, several participants felt that workers earning their income from Yukon resources should pay their taxes in the Yukon.

14.3.3 Carbon Tax

Participants from the mineral development sector - including local companies providing services to the sector - expressed a desire for more clarity on carbon taxation, including exemptions. This information would be useful to those providing transportation services related to the mining industry, who are unsure if they qualify for exemptions or not.

Others would like to see the Carbon Tax disappear. The Carbon Tax, even with rebates, affects cash flow, particularly for carbon-intensive businesses.

Frustration was expressed about long-term contracts with the Yukon Government that were signed prior to the implementation of the Carbon Tax. There was no opportunity for these businesses to adjust their prices in consideration of the new tax, negatively affecting those businesses.

14.3.4 Taxes: Other

A participant suggested that governments should provide a tax credit for the entire 200 hours required to become a commercial pilot, because the cost of this flight time is considered educational flying.

Another advised that taxation policies and objectives need to be upfront and as transparent as possible.

14.4 Royalties

The Yukon Financial Advisory Panel's [Final Report](#) explains that royalties are not taxes. Rather, they are how the owners of a natural resource (the public and/or Yukon First Nations) are paid some of the value of that resource when extraction and production is done by another party. In other words, it is a payment made to recognize the sale of a publicly owned resource.

The Final Report highlighted that, in recent years, the Yukon government has earned more selling campground permits than it has from collecting mining royalties. While governments also derive revenues from mining operations through fees and direct and indirect taxes, the royalty payments do not recognize that some publicly-owned resources are being transferred to a private or corporate entity for substantially less than the market value of those resources, and, in some cases, for much less than neighbouring jurisdictions.

Government royalties from Quartz Mining have been low in recent years, in part because the only major producing mine (Minto) was located on Category A Lands and the mining royalty was paid to the local First Nation, not the Yukon Territorial Government.

The low royalties have been soundly criticized by many participants, often described as "ridiculous", "embarrassing", and "a joke". Many participants called for higher royalties, particularly for placer mining royalties, which were frequently criticized by participants.

It is often pointed out that many placer operations are "mom and pop" operations or family businesses that cannot afford increased royalty rates, but it was also pointed out that there are large placer operations that yield millions of dollars in revenues each summer. The Yukon Financial Advisory Panel has offered several ideas as to how royalty systems could be structured to consider the different scales of placer mining businesses. One participant was worried that changes will not be made in this regard. In their words, "I suspect government will not have the resolve to make certain changes, for example they won't increase placer royalties because of fear of the placer industry – same as the last 100 years."

Frustration was expressed that some placer royalties may not be paid because gold is being sold under the table or not reported. Frustration was also expressed about minimal returns to the public as many of the placer miners are from outside Canada. One participant was frustrated that nobody is employed within government, tasked with the responsibility for making sure that royalties are paid.

It was explained that the *Quartz Mining Act* royalty system is complicated and does not yield a fair return for publicly owned resources. Some participants feel that royalties should be based on Net Smelter Revenues and not Net Profits Interest. Caution was offered that, while a different approach may be needed for royalties, that the economics of projects

needs to be carefully considered. A deposit's size and grade, its internal continuity, mining techniques employed, initial capital costs and fluctuations in metal prices are among many factors that can strongly influence a mine's profitability. A rigid Net Smelter Return royalty may not capture a fair return at some points in a mine's lifecycle and could be a severe impediment to continued operations in other parts of the cycle. In other words, a royalty of this type may accentuate the boom-bust nature of the mining industry.

Several participants would like to see the gold royalty tied to the market price of gold.

It was cautioned that royalties should not be reduced to incentivize investment and advised that it must be possible to adjust the royalty rates with inflation.

Some participants have stated that they would like to see more-equitable royalties paid to Yukon First Nations, in part because annual payments from revenue sharing agreements currently fall far short of the anticipated benefits.

Several participants shared their thoughts on how royalties should be used, including:

- Establishing a legacy fund (like Norway)
- Reclamation
- Investing in infrastructure like a new building at Yukon University
- Supporting communities
- Investments in economic diversification
- Social Services
- Education
- Not putting royalties into general revenues

One participant suggested tempering Yukoners' expectations around royalties because "mineral development requires a long series of expenditures before the companies earn any revenues. Therefore, Yukon people and communities should have low expectations beyond participating in the industry until there is a producing mine. And some mines result in relatively low profit, so they can't be expected to spin off huge riches to the community at large. But they are a valid source of employment and industrial activity that benefits the overall Yukon mining industry."

14.5 Using Government Revenues to Create a Legacy

It was shared that government revenues can vary dramatically, depending on the level of mineral development and mining activity in the Yukon, and that windfall taxes are great, but need to be managed responsibly with consideration given to the future.

It was recommended that the territory shouldn't distribute money to Yukoners, as has been the practice in Alaska. Rather, numerous participants have recommended the establishment of a fund with patient capital, like the Norwegian Sovereign Wealth Fund,

where royalties or other income from mineral development are invested for the benefit of future generations of Yukoners. The Alberta Heritage Fund was raised as an example of a model to be avoided when establishing such a fund.

15 Economy

15.1 Economic Benefits

Mining is an important and historic part of Yukon's economy, both in Whitehorse and in many Yukon communities, but, as many participants have explained to the Independent Panel, the economic benefits derived from mining are anything but black and white.

The Independent Panel heard from participants who benefit financially from mineral development activities as employees, business owners, and investors. The Independent Panel also heard from participants who benefit from the economic contributions of mining to the territory through spending on goods and services in areas like transportation, accommodations, restaurants, and retail.

While many Yukoners benefit from mineral development activity, some participants questioned the net economic benefit of mineral development activities and recommended that there should be socio-economic reporting before, during, and after the development of mining projects. Others suggested that a full economic cost-benefit analysis should be conducted on the mining sector, taking into account such factors as taxpayer-funded government expenditures on mining promotion, regulation, inspection, reclamation and remediation on orphaned and abandoned mines, economic leakage, etc.

One participant questioned the emphasis placed on the economy; specifically, the meaning of the word "wealth", asking if it also refers to wellness, health, and culture.

Some participants pointed to broader economic trends, noting that, as the cost of living increases (housing, food, etc.), the workforce is in rapid transition, and real wages have stagnated, young people don't have faith in the economy.

Another participant cautioned the Independent Panel, explaining that "Resource Curse" economies are not necessarily thriving or prosperous in the long run.

Numerous other aspects of Yukon's economy as it pertains to mineral development were raised, including:

- The impacts of boom and bust cycles
- Reducing economic leakage
- Economic diversification
- Mineral development investment
- Local businesses, and
- Employment

These topics are discussed in the sections following.

15.2 Boom and Bust

Many participants have raised the issue of boom/bust cycles, citing the destabilizing effects these cycles have on communities, businesses, and families. Some participants feel that boom/bust cycles leave people with a feeling of mistrust, anger, and being left “holding the bag” when exploration and mining sites are abandoned. Others spoke to the effects on communities and women through unstable employment, violence, and substance abuse.

It was explained that a lack of job security was one reason why some Yukoners will never commit to a career in mining. It was also explained that the instability of the sector is a reason why Yukon businesses cannot or will not invest in the sector.

As one participant explained, “We are constantly sold on the story of the big mine that will be built bringing wealth and jobs and opportunity, but they never manage to deliver on that dream, or not for long enough for small business to pay down the investments and make a profit.”

A desire to have smoother cycles, or to have increased resilience to boom/bust cycles has been expressed. Some have stated a desire to have 3-4 small mines that are mining different resources operating at any given time, although it is recognized that achieving that state is a difficult prospect given the nature of the commodities markets and the manner in which mines are financed.

A few ideas have been shared on how to address boom/bust cycles:

- Ensure the maximum benefit is attained during booms (royalties, taxes, etc.)
- Planning for boom/bust cycles
- Requiring mines to pay for infrastructure
- Ensuring there are funds for remediation and restoration that can provide long-term funding and jobs
- Establishing a legacy fund using royalties and other mineral development-related government revenues
- Establishing a non-mining economic development fund, contributed to by the mining sector
- Providing employment transition programs, including training for lower-carbon footprint occupations.
- Economic diversification
- Deprioritizing mineral development
- Limiting the number of mines and exploration projects
- Limiting the amount of land available for exploration
- Only granting permits to long-term mining projects
- Designing mines to be more resilient to commodity price fluctuations
- Fast-tracking exploration permits

- Investing in communities to develop long-term, sustainable economic projects like renewable energy and local agriculture
- Ensuring that unclear rules or excessive requirements don't kill projects, and
- Cultivating investor confidence because having investor confidence will lessen the impact during times of low commodity prices.

Several participants advised that the focus should not be on responding to boom/bust cycles, but on sustainability.

One participant suggested that government support should be increased during busts and reduced during booms. Another disagreed, recommended that boom/bust cycles not be used as an excuse to grant the sector, special allowances, rights, or incentives. Another participant suggested that traditional incentives for industry need to be reconsidered. In their words, "We have to think beyond typical incentive requests from industry such as strategic infrastructure investment, tax incentives, and royalty rates, and take into account risk, user pay principles, legacy costs for closure etc. and look at other ways we can attract investment interest such as: running our own geoscience programs to improve base knowledge, support new mining technology, and provide a Yukon-based, trained workforce. Better record keeping with online access, simplified permitting forms and tracking mechanisms, level of service standards, alternative methods of claim registration and limits on claim life all help."

15.3 Economic Leakage

Several participants have spoken to economic leakage. Economic leakage occurs when money leaves the territory, whether that's employees working in the territory who reside elsewhere, profits going to owners who reside outside of the Yukon, or money leaving for the purchase of products or services. In the words of one participant, "It's the Yukon that bears the costs (of mineral development), and the Yukon should benefit. The money shouldn't be leaving the territory."

Specific ideas for reducing economic leakage have included encouraging workers to reside in Yukon, promoting increased use of First Nation businesses, finding alternatives to fossil fuels and investing in biomass. Some have spoken in favour of local refining, smelting, and processing. One participant asked, "Are there opportunities for the Yukon to own more of the supply chain and add value?"

15.4 Economic Diversification

Many participants have expressed a desire for economic diversification, although the desire to see economic diversification takes many forms. One participant asked, "Why put emphasis on mineral development when there are other job-creating sectors?" Several

participants would like to see consideration of the opportunity-costs when looking at developing the mining sector versus developing other industries.

Other participants have questioned this perspective, explaining, “Economic diversification is usually spoken about in the context of moving away from mining. The mining sector is already an important part of economic diversification.” As one participant explained, “Our economy is like a three-legged stool based on government, tourism and mining. It is already unbalanced by the disproportionate size of government in relation to the private sector. Cut back federal transfer payments and we are in serious trouble. We are not diversified enough to afford the loss or diminishment of the private sector driven mining sector.”

In a third take on the matter of diversification, some feel that it is not a question of “this or that”, but “this *and* that”, explaining that the mining sector can be leveraged to help diversify the economy. One participant suggested that mines could be offering tours for a fee (as some placer mines do). Biomass, in particular, was identified as a complementary economic activity to mining.

It was explained that biomass can supply mine sites with heat and electricity, reduce economic leakage, create jobs, and smooth out seasonal economic cycles. “It’s most active in the winter, as opposed to mining, which is most active in the summer.” Other suggestions included encouraging remote mine sites to use renewable energy options (solar and wind) as part of their energy use infrastructure. This could then be passed onto local communities at the conclusion of the mining project to permit the community to become a clean energy generator.

Some participants have explained that “mining and the green economy go hand-in-hand”; that some minerals are necessary for the production of green/renewable energy technologies. One participant pointed out the ironic disconnect in the renewable technology investment climate: “A lot of (investment) funds want to invest in renewables, but not in the mines that produce the materials needed for renewable energy.”

One participant cautioned that some sectors in the economy are negatively affected by mineral development, identifying harvesting and tourism.

15.5 Mining Investment

It has been explained to the Independent Panel that placer and quartz mining investment is high-risk and capital intensive, and that the industry competes in a global marketplace. There are many factors that influence the decision to invest in a Yukon-based mineral development project, as discussed below.

15.5.1 Investor Perception

Participants have told the Independent Panel that investors know Yukon is pro-mining, and that the Yukon brand has grown to a point where it is recognizable. The Panel was told that it is harder to market a small jurisdiction and that individual companies were spending half their time in presentations to investors explaining where the Yukon is located and clearing up misconceptions about the territory. It is felt that collaborative marketing has made significant headway in this regard.

The Independent Panel has also been told that Yukon is a “naturally competitive market that makes us unique from bigger jurisdictions.” One industry participant from outside the territory explained, “Yukon has an ethical investing advantage. Investors are becoming more discerning about where they put their money.”

The geology and history of the Yukon are part of the territory’s appeal to investors, although that should not be taken for granted. In the words of one participant, “Broadly, the Yukon has a certain shine on it because of a storied history of mining and a lot of people internally admit that we punch above our weight in terms of appeal. There’s good geology here. A report said it’s the best in the world but that went to people’s heads. Good geology, but if you can’t build a mine it doesn’t matter.”

While the Yukon may offer many appealing reasons to invest, investors and those who benefit from mining investment have raised red flags. Some have pointed to the limited direct involvement of major mining companies in exploration and development projects in the territory as an indication that the Yukon has declined in investment attractiveness. Many participants have pointed to the regulatory regime as the cause. Participants explained that the regime used to be a selling point for mining investment, but due to regulatory creep and delays in permitting it is now seen as a detriment. Erosion of the quantum of land available for exploration and concerns relating to unsettled land claims are also seen as negatives.

Regulatory timelines, in particular, are deterring investors, who require a return on their investment within certain timeframes. It has been explained that the longer it takes for a company to permit a mine, the more the company’s shares are diluted and the less economic the mine becomes. One participant pointed to the [Lassonde Curve](#), explaining, “New property, you get your first discovery, the value is building up. As soon as you pass resource in your first economic statement, you crater once you enter permitting. The Valley of Death. The broader the Valley of Death, the harder it is to get through it.” During the permitting period, it has been explained, there is no value being created for investors.

While there are factors in the Yukon that shape investor perceptions, there are national and global factors at play, also. Participants have shared that there is a widely held perception that Canada is declining in competitiveness as a whole and that resource projects in particular are becoming harder to permit. Furthermore, it is felt that the resource markets are not healthy and that there is a shortage of capital, worldwide. These

statements were made prior to the COVID-19 pandemic and the corresponding increases in the prices of precious metals.

15.5.2 Competitiveness

Many within the mineral development sector are concerned about the Yukon's competitiveness as a jurisdiction to attract investment. Because capital is fluid, it will relocate to jurisdictions that provide the highest return for the lowest risk.

Several factors were identified that affect the territory's competitiveness from an investment perspective, including:

- The relative remoteness and subsequent expense of doing business in the Yukon
- A Lack of clarity and certainty of rules and regulations
- A cumbersome regulatory process with long permitting timelines, and
- An absence and quality of infrastructure

Not everyone agrees that competitiveness is important. One participant explained, "I would rather see mining companies consider corporate responsibility and sustainability."

Criticisms of competitiveness as a concept include it being "propaganda by the mining companies", "A race to the bottom in terms of environmental measures, First Nations rights, regulatory processes, labour rights, etc.", or a "code word for corporate advantage and selling out local interests." One participant challenged, "If the Yukon was not so competitive, then why are the companies holding onto so many claims?"

One participant elaborated, "Global mining investment cares little for the rules and regulations we put into place in the Yukon; they are purely interested in the richness and size of the ore body. Global mining corporations understand that minerals do not deteriorate underground, that if they have to wait a few years until prices rise or until they can meet environmental and socio-economic regulations, they shall eventually profit. The Yukon might want to make the issuance of mining licences dependent on the environmental, social and human rights records of companies that also operate abroad."

Some see greater advantage to holding onto the territory's resources until a local benefit is assured. In the words of one participant, "We have gold in the ground. Gold. We shouldn't be bending over backwards to 'convince' miners to come here and take it from us." In the words of another, "Yukon's resources will only increase in value. What is the damn rush?"

Many participants called for increased royalties, explaining that, "Miners will still come here and still make a killing."

Others explained that higher standards for mineral developers is actually a competitive advantage. As one participant explained, "Countries with strong environmental regulation and First Nation rights can still attract investors, they just attract the type of investors

who have a good track record of responsibility.” In the words of another, “Let’s slow down and prepare for the work on our terms, let’s lead the world in truly sustainable mining.”

15.5.3 Investment Requirements and Incentives

Investors have explained that there are many factors considered as part of their decision-making process, including (in no particular order):

- A return on their investment within specific timeframes;
- Reasonable regulatory certainty;
- Certainty of land tenure; and
- A taxation and incentive regime that is competitive with other jurisdictions.

Uncertainty regarding the ability to obtain licenses to mine is affecting mine planning and investment. One participant shared that a placer miner “is planning his mine around a ten-year license because he doesn’t believe he’ll be able to get a mine ten years from now. I’ve heard this from three mines and I’m probably the fourth. Eight years from now when my longest-lasting permit expires, do I really want to spend another half-million on a dozer or excavator when I don’t know if I’ll be able to recover my money.”

Another participant explained, “My parents are placer miners and they’re all in – they’ve got everything invested. They can’t move. We moved there with a 30-year mine plan, but the license is only for 10. Now we have a permit, but it took two years. Do you invest knowing the goalposts [speaking to the Wetlands Policy] might change?”

One industry participant explained that her company is taking a different approach to mine development through bulk sampling (i.e. taking larger samples and processing them and selling the minerals to develop a revenue stream). Because the exploration process does not usually generate revenues, this can be attractive to investors. As the participant explained, “Investors want revenue focus (as opposed to continually exploring properties). We’re not profitable by doing bulk sampling, but we’re slowing down the (share) dilution.” It was also explained by the participant that current legislation and regulations are ambiguous on bulk sampling practices and that this should be addressed.

Other participants spoke to the importance of the taxation system as a means to attract or deter investment in mineral development activities. [Flow-through shares](#) (“FTS”) are one tool used in Canada to help exploration companies finance their projects. The Government of Canada’s FTS program provides tax incentives to investors who purchase FTSs by allowing: Deductions for resource expenses renounced by eligible corporations; and Investment tax credits for individuals (excluding trusts) on resource expenses in the mining sector that qualify as flow-through mining expenditures.

Some participants questioned why the Yukon doesn’t offer “super-flow-through”, pointing to jurisdictions like Quebec and British Columbia, where the province also allows the use of flow-through shares when calculating provincial taxes. In one participant’s words, “Why are Quebec and BC getting all this treatment? Why can’t we come up with some sort of

mechanism for the Yukon? Is there not a way to incentivize working in the North that is 30% more effective?"

It was explained that, to get the full advantage of the flow-through treatment in those jurisdictions, you have to be a resident of British Columbia or Quebec, and that there are jurisdictions that provide benefits back to the company rather than the individual investor.

Many participants raised concerns about how low annual payments-in-lieu-of-work and years of built-up assessment credits are resulting in high-potential claims in the Yukon not receiving the level of investment they should be receiving.

One suggestion was to offer tax incentives to stimulate mineral development activities in economically depressed areas. An example used to illustrate this approach is British Columbia's pine beetle incentive, where companies receive a tax break for operating in designated areas affected by the pine beetle infestation.

15.5.4 Questioning Public Investments in Mineral Development

Not everyone is keen on incentivizing mining investment. Many participants expressed their disapproval of using public funds to support private interests, suggesting that mineral development companies should "pay their own way".

The benefits of public investment in the sector were questioned in relation to the costs, financially, socially, and environmentally. In the words of one participant, "Unless they leave the land as it was, unless they take out everything they take in, unless they pay the social costs they engender... what investment? We separate the money they bring in from the money we need to spend to mop up after them, sometimes in perpetuity. Take a look at Alexander St. and 4th Avenue. Is mining helping with that situation? When those expensive pick-up trucks line Alexander St. and the barely functioning intoxicated women are pulled into and pushed out of one truck after another while the long-term residents of that area cover the eyes of their children... is that helped or fueled by mining? We cannot isolate the one line in an accounting sheet of money coming in from mining, from all the other issues we have in the Yukon. It is all ONE thing. It is all related."

Some participants questioned what is lost in exchange for mining investment. In the words of one participant, "New resource roads open up an otherwise untouched area of land, cut down trees and impact old growth ecosystems for mines that will last only a couple of decades. For that short-term economic gain, the people of the Yukon lose centuries of environmental heritage."

Some participants called on Yukon government to provide a clear accounting of how much it subsidizes the mineral development sector, directly and indirectly (e.g. funding for mining promotion, conferences, trade shows, as well as the costs of administering the mineral development sector, building, maintaining, and repairing infrastructure, and money spent on reclamation and remediation). It was also suggested that the government

should report on how much mining revenue stays in the territory, benefiting Yukoners. It also suggested that this be done as an independent audit. It was further suggested that there should never be any deals between investment and government that are sealed away from public scrutiny.

A couple of participants suggested that the mining sector receives a disproportionately high amount of government subsidy and support than sectors that are felt to result in more benefit to the territory (when considering overall costs and benefits), with less risk. In the words of one participant, "We seem more attached to propping up the mining industry because of our emotional attachment to its historical legacy in the Yukon than because it makes any fiscal sense." In the words of another participant, "It is one thing to partner with the private sector to upgrade infrastructure to reduce operating costs and improve competitiveness, and another to subsidize industry with no surety to recover public investment costs when something goes wrong."

It was suggested that other economic sectors should receive comparable levels of support. It was also suggested that government investments would be better directed to:

- Environmental protection
- Creating non-extractive employment opportunities
- Tourism
- The technology and knowledge sector
- Renewable energy
- Social justice
- Education, including early childhood education, and
- Mental health.

Several participants questioned why the territory is so eager to attract mineral investment, rationalizing, "The rest of the world is coming for our minerals. We should be confident and not give them away because someone offers a few jobs and nothing else, and then demands that we spend millions on power infrastructure to help them extract, and then leave a mess." In the words of one participant, "It's disrespectful to every non-miner and every taxpayer to keep giving this resource away."

One participant recommended that the Yukon avoid giving concessions "to unscrupulous foreign companies who ignore Canadian laws and responsibilities." Others suggested that the territory prioritize inviting responsible mining companies to invest in the Yukon.

15.5.5 Sources of Investment Capital

Aside from traditional mining investment vehicles, participants have noted that Quebec is investing directly into projects and that the Northwest Territories has purchased a mining project. It has been asked if the Yukon should consider investing directly into mineral development projects.

There is broad interest in developing legitimate equity partnerships between First Nations and industry. Some participants feel that First Nations ownership in mines and/or supporting infrastructure is the next evolution in the relationship between resource developers and First Nations.

Many participants called for local (Yukon or Canadian), responsible, and/or regulated ownership for mineral development companies operating in the Yukon. Reasons included retaining economic wealth, and ensuring accountability to communities, the environment, and federal/territorial laws.

Suggestions for regulated ownership included:

- Background checks on proponents of large mines
- The ability to qualify or disqualify developers based on criteria and performance
- Requiring companies to register in the Yukon and pay business taxes in the Yukon
- Establishing higher standards and bonds for foreign-owned companies

One participant suggested a moratorium on mining by non-Yukon businesses. Another suggested that mines be limited in size and only worked by people who live in the territory. Another suggested that social enterprises should be more involved at every stage of mineral development to limit private gain in favour of collective benefit.

One participant suggested that tax breaks be granted to individual Yukon investors on their when buying shares in Yukon-based mining companies.

15.6 Local Businesses

Local businesses are seen as one of the ways that communities capture economic benefits from mineral development activities. Criticism was raised that the bulk of large-scale mining operations are held by owners outside of the Yukon and, therefore, the bulk of the economic benefits accrue outside of the territory. Many participants shared ideas for ensuring or increasing the local economic benefit. It was shared that mining exploration may benefit local businesses more than operating mines do.

A number of local business owners and managers pointed to the strengths of the local mining service and supply sector, including geographic proximity to exploration and mining operations, the availability of a wide range of services needed by the mining industry, and how well Yukon supply businesses work together.

These participants also pointed to some of the challenges associated with serving the mining sector, with the most common challenge being the uncertainty caused by both the boom/bust nature of the mineral development industry and the regulatory system (and its impact on the mining investment). While it is recognized that service and supply businesses must consider the mining lifecycle when making business decisions, this

uncertainty makes it difficult for businesses to plan, requires that businesses have a lot of working capital to survive quiet times, and can lead to the loss of trained employees. Some participants expressed that the instability of the sector is not worth the risk of starting a business.

One participant noted that “mining leads to greater strain on our utilities and creates situations where power/telecommunications go out. That costs local businesses.”

Generally, it was recognized that there is a benefit to supporting local businesses.

15.6.1 Supporting Local Businesses

Local businesses face a number of challenges, some of which can be addressed more easily than others.

The loss of trained employees is of particular concern to aviation companies because the loss of experienced, local pilots becomes a safety issue. Local pilots know the area, the weather, the landing strips, etc., and it could take years before pilots who are new to the territory acquire this knowledge and experience. Federal regulations concerning hours of work between breaks are a specific concern for helicopter companies because the seasonality of exploration in Yukon would make it hard to attract pilots if hours of operation were severely restricted.

Businesses - and aviation businesses, in particular - have suggested that the Yukon government can play a role in addressing the seasonality (and safety) of work through their procurement practices. It was shared that the Procurement Support Centre is an improvement but was also shared that movement in improving procurement practices is slow.

With respect to procurement, the following suggestions were made:

- Use value-based and not price-based processes for contracts (and aviation contracts, in particular);
- Focus on local and social procurement (through value-based processes);
- Setting local procurement targets;
- Using aircraft shuttles for medical travel, rather than paying for patient mileage;
- Consider a 20% advantage for local businesses, similar to the Northwest Territories' Business Incentive Policy; and
- Incorporate “post-work feedback” in the procurement process.

It was advised that Yukon suppliers should be supported, but that they must remain competitive (i.e. no price gouging).

Concern was expressed that smaller transportation operators are disappearing and that employees are going to work for larger operators.

In recognition of the financial risks already being borne by local businesses, several participants have pointed to the need to review the *Miners Lien Act* as a way to protect Yukon businesses. In the words of one participant, “Local businesses shouldn’t be the ones taking the loss when mines fail.” Suggestions included laws mandating personal liability, where corporate officers are personally liable for the debts incurred through their action, and ensuring that accounts are settled before shareholders and corporate bonuses are paid.

Some participants would like to see infrastructure and support programs (financial, training, promotional, and otherwise) to help to foster the economic environment in communities. Other participants feel that supports would be better directed to more sustainable and stable industries than mineral development.

One participant suggested that mining companies should be required to partner with Yukon First Nations and Yukon companies if they want to work in the Yukon and remove a publicly owned resource.

15.6.2 First Nation Development Corporations and Business Owned by First Nations Peoples

Several First Nation Development Corporations and businesses owned by First Nations peoples have expressed that they want to make sure they have the opportunity to participate in all aspects of exploration and mining.

Industry participants recognized that First Nation Development Corporations are getting more experience in the sector and are becoming more dynamic. Explorers and miners have expressed a desire to work with First Nations to continue to build local capacity.

15.7 Employment

Employment is often touted as one of the benefits of mineral development and, indeed, many Yukoners are employed by the sector, directly and indirectly. While employment is generally recognized as beneficial, there are complexities that need to be considered.

15.7.1 Local Hire

Many participants advocated for the importance of local hiring practices, although sometimes for different reasons. Some participants want wages to be kept in the Yukon, rather than going Outside, for the economic benefits. Others feel that people living in the territory will have more respect for the environment and the people living here. Others are concerned that outside workers bring with them drugs and violent/abusive behaviour.

Several participants proposed methods of incentivizing local hire, including financial penalties for hiring non-locals – or setting employment targets (with the risk of being shut

down unless the local employment targets are met). One participant noted how local hire requirements were used for the NWT diamond mines, and how these requirements were used to create additional employment in diamond sorting and gem cutting.

Other participants proposed scaling projects to allow for a long mine life, creating employment for Yukoners for many years.

15.7.2 Fly-in/Fly-out Workers

Fly-in/fly-out workers were a common topic raised in the engagement process, with many different perspectives shared. Some participants would like to see fewer workers coming into and out of the territory, expressing concern that these workers have no attachment to the territory and, therefore, do not care about looking after it. Others would like to see these workers move to the territory (voluntarily or mandatorily), reducing economic leakage and contributing to the vibrancy of the Yukon. While still others saw regulated Fly-in/fly-out workers as a way to minimize negative impacts on local communities. Many participants would like to see more benefits from mining employment staying in the territory (i.e. through increased local employment and/or a payroll tax).

Those in industry point out that a lot of fly-in/fly-out workers are specialized and that few of these specialized workers stay for the life of the mine. For various reasons, others have suggested that the territory may not want these workers to settle in the Yukon. It was also explained that there is a limited pool of available and interested workers in the Yukon. In response to this, some would like to see mineral development activities kept at a relatively low level, employing mostly Yukoners. In the words of one participant, "If Yukoners can't even fill the jobs that are available now, I am not sure what benefit there is to creating even more mining jobs."

Some participants advocated for bringing in expertise only to train Yukoners.

Many participants called for the introduction of a payroll tax. This topic is discussed in more detail in *Section 14.3.2 - Payroll Tax*.

15.7.3 Employment Opportunities

Some participants are enthusiastic about mining employment, explaining that mining jobs help Yukoners prosper, help communities to develop, and help to make the territory less dependent on programs like Employment Insurance and federal transfer payments.

Many participants expressed their disinterest in working in mineral development, explaining that the jobs are short-lived or insecure, and do not offer long-term skill development opportunities.

Others questioned why the territory would want mining employment for similar reasons, like large-scale unemployment when a mine closes or the sector goes through a "bust".

Some questioned whether the jobs created are worth the environmental damages and economic risk of another Mount Nansen or Faro.

Participants have also criticized employment opportunities in the mineral development industry (and those in operating mines, in particular) as being basic or entry-level, and have suggested there is little opportunity for advancement.

Some jobs, such as truck driving, have become less attractive than they once were. In the words of one participant, "Nobody wants to be a truck driver now. It's poverty wages."

As several participants have pointed out, the rise of automation means that the number of entry-level positions is likely to decline. Yukon First Nations and other Yukoners have expressed interest in training and education for more than entry-level or low-paid positions.

It has been pointed out that there are many career opportunities in mining beyond those that stereotypically come to mind, including: accountants, records clerks, pilots or aircraft maintenance engineers, lawyers, policy makers, and teachers. These jobs provide transferable skills if mineral development activities are no longer sufficient to maintain these positions.

Participants have pointed to specific positions where there is a shortage of qualified employees, including:

- Pilots
- Aircraft engineers/technicians
- GIS technicians/specialists

It was shared that many First Nations are not interested in seeing jobs that poach employees away from the First Nation, and that the benefits associated with mining have to be greater than just jobs. The mineral development industry was challenged to "think outside the box".

One participant explained that "Mine employment can take the most functional people out of the community. Mine rotations need to consider the impacts on those people and their families."

Some participants have suggested that the focus should be on creating employment in service of the environment, whether that be focusing on remediation and restoration, or creating land guardian programs.

15.7.4 Training and Education

It is generally recognized that education is important, but that education must range from life skills and entry level positions to senior level positions. One participant called on more

support for social programs to help people who are struggling to get the education they need to gain meaningful employment in the industry.

Several participants expressed a desire to see more locally available training. Unsurprisingly, some participants see Yukon University and its community campuses as a vehicle for supporting training in a wide variety of mineral development occupations.

It was suggested that Yukon University should offer an Earth Science Degree and that this is necessary “to build a truly Yukon-based industry.” It was also suggested that the University could provide distance education for future geologists, millwrights, heavy equipment operators, media relations experts, information technologists, and environmental monitors. One participant felt that Yukoners should be encouraged to get training in fields outside of mining that are more sustainable.

Some in industry have pointed to the Centre for Northern Innovation in Mining (“CNIM”) as doing a good job, commenting that they have hired new employees directly from CNIM’s programs.

Concern was expressed that vocational training is unregulated, with no standard practice for training drillers, as an example. Concern was also expressed about the territory’s reliance on Alberta for apprenticeships.

One participant questioned the future of education and training services in a changing technological context. In their words, “We saw the [Auditor General’s report](#) with respect to education and the lack of high school completion and lack of access to the foundations that people need to work in a 21st century economy. There’s an enormous gap there, particularly in the rural communities. It’s growing because these things become more technical. How do people get the skills they need?”

It was suggested that government investments in the mineral development sector should be redirected to supporting training and education so Yukoners can attain employment that is currently going to Outside workers.

Concern was also expressed that Yukoners get trained, but then the territory loses them when they go to work elsewhere. It was suggested that mining companies should pay to establish a trained workforce of people who live in the Yukon.

Many participants called for and asked for education beyond career-oriented education. Many in the mineral development sector would like Yukoners to know more about mineral development. Others would like Yukoners to know about the long-term environmental effects of mineral development. Many would like to know more about the costs and benefits of mining, including how Yukon government receives and uses mining-related revenues, and more.

15.7.5 Employment Accessibility

It was pointed out by several participants that age, gender, sexuality, and culture are not proportionally represented in the mining sector. A Yukon Mineral Sector Diversity and Inclusion Working Group has been established to study and track representation in the sector.

Many reasons were shared as to why the sector is not representative of the territory's population, including:

- A lack of daycare, particularly affordable daycare, in some communities, or a lack of childcare appropriate for multiple days or multiple weeks of on-site work;
- A lack of Elder care in some communities;
- A shortage of affordable and available housing limiting the mobility of and availability of workers;
- A lack of access to training and skills development;
- The need to consider traditional and cultural activities (such as traditional harvesting and community celebrations and ceremonies);
- Community attitudes toward mining;
- Drug testing; and
- Issues related to the criminal justice system.

Recommendations made by participants to improve representation in the mineral development sector have included:

- Ensuring that accommodations are available for traveling or out-of-town workers;
- Making local hire a priority;
- Offering training and skills development in Yukon communities;
- Paying attention to barriers (ex. The lack of daycare and how it affects women)
- Better promotion of career opportunities; and
- Employment opportunities that are not situated in camp settings

The Independent Panel also heard about challenges faced by women in the mining sector, including:

- Women having to put off having families so their careers can be fast-tracked;
- Young women being judged differently (ex. Being asked if they have "earned" their position);
- Women being discriminated against or being treated differently (including being discriminated against by bureaucrats); and
- Mine locations creating barriers for women because they don't want to leave their families for extended periods of time.

Recommendations shared by participants to support women in mining included:

- Better promotion of career opportunities for women;
- More efforts to retain and promote women; and
- Making mine sites more inclusive of children (ex. Some placer mines are family businesses with children onsite).

Participants recommended that the companies that support diversity and inclusion should be celebrated.

15.7.6 Health and Safety

When asked about health and safety related to mineral development, several participants explained that, it is not only the health and safety of workers that needs to be considered, but the health and safety of worker's families and communities.

Issues raised included:

- Changes to drinking water quality/health of the environment
- Substance abuse
- Sexualized violence, and
- Cancer and respiratory disease from diesel exhaust

It was explained that workers need better enforcement of the rules, possibly through government inspection, and that enforcement could include fines or mine closure.

- Suggestions for improving health and safety included:
- Slower, planned development
- Mental health supports, including on-site counselling
- Workplace cultures that are safe for people of all genders
- Literacy, arts, and charitable activities programs in camps
- Bans on alcohol and drugs
- Health and safety risk assessment and mitigation plans
- Modern legislation and regulations, and
- Giving communities more of a voice

It was explained that mining camps present an opportunity for people to upgrade themselves.

One participant said that miners have one of the best industry safety records.

COVID-19 was raised by a few participants. A couple of participants felt that mining should not be considered an essential service and that communities and local miners were put at risk. One participant suggested that local workers should be trained to carry out care and maintenance activities so fly-in workers are not required in the case of an emergency (e.g. a pandemic like COVID-19).

It was suggested that emergency response plans need to be developed for mineral development projects, so companies and the territory are prepared for earthquakes, pandemics, forest fires, etc.

15.7.7 Responsibility for Employment Services

Finally, there are different perspectives on whose responsibility it is to help people find employment and address social issues. Some point to government, but others suggest that “If industry wants to come here and take stuff out of the ground it’s on them, not government.” Industry participants point out that there are a number of things that are supposed to be done by governments but are being done by industry.

16 Infrastructure

Many aspects of infrastructure were raised during the engagement process, including:

- Roads
- Air infrastructure
- Ports
- Energy
- Telecommunications, and
- Housing

16.1 Road Infrastructure

Road access significantly improves exploration and mine economics but, in the words of one participant, “Every time you open a resource road you open up a Pandora’s Box.” Access roads affect ecosystems and the ways that people engage with those ecosystems and lead to cumulative effects that are sometimes difficult to predict.

To mitigate potential negative impacts of mining road access, some have suggested that mining roads be restricted to industry use, as is allowed for under the *Forest Resources Management Act*. Others have suggested that First Nations should be owning and maintaining the roads, with the authority to make decisions over and benefit from the use of those roads.

Several participants called for a stop to new road (and trail) construction, for a variety of reasons, including concerns about ecosystems, traditional land use, and a sense that governments “should not be building roads/infrastructure just for mines.” Others would like to see roads decommissioned “according to rigorous standards to prevent habitat fragmentation and access to wildlands.”

Others argued that roads and trails should not be removed or decommissioned because they are “very important to mineral exploration, and therefore should never be reclaimed. This helps to reduce the cost of access for future exploration.” One participant asked that all old roads and trails be shown on the GeoYukon website. “Recently they have been omitted, despite being critical infrastructure from an exploration point of view.”

Participants have spoken both for and against the proposed Freegold Road, part of the Gateway Project, with some questioning why there needs to be two roads into the Casino/Coffee Creek area; one from the north through the Klondike Goldfields and one from the south extending from the Freegold road. Those opposed are concerned about impacts on ecosystems and traditional harvesting, a lack of First Nations consultation on those matters, and a feeling that the funds used for road construction would be better directed into the delivery of public services. Those in favour speak to better access to

their exploration/mine sites, including alleviating timing issues related to ice bridges and barging. One industry participant recommended working closely with affected First Nations to address their concerns and get the road built, even if it results in limited access.

The late entry and early removal of both the Dawson and Minto ferries were identified as negatively affecting some mining projects.

Concerns were raised over road maintenance responsibility; that it's not always clear who is responsible for road maintenance (i.e. who should be called when a road needs maintenance) and that the Department of Highways and Public Works taking over mine access roads can affect insurance requirements.

Frustration was expressed about wear and tear on Yukon roads by mineral development/ore haul traffic, and how this creates an additional cost that is imposed on the public purse. In the words of one participant, "We can readily see the effects on Yukon roads, where southbound lanes, carrying loaded trucks, deteriorate far more than northbound lanes. Yet, mines do not pay for the additional upkeep required." It has been suggested that additional road taxes or fees be charged to mining companies to offset this damage.

Transportation service providers have advocated for the use of flashing strobe lights (like Yukon school busses) on ore haul trucks to improve road safety.

Questions were raised about the value of inspections being conducted at the Whitehorse weigh scales even when companies had recently paid for inspections. Frustration was expressed about the refusal to allow vehicles to be driven from the weigh scales to repair shops, even for minor repairs.

While the importance of road access was stressed by industry, it was also noted that road access can negatively affect local air service providers.

Specific to the Alaska Highway, it was recommended that the Yukon work with the Department of Foreign Affairs to get the United States to pay for capital upgrades on the Shakwak again, which will free up Yukon budget money for other projects.

16.2 Air Infrastructure

Several recommendations were received regarding air infrastructure. The most prominent recommendations were that the government continue to maintain its system of gravel air strips for safety reasons, and that airstrips built by industry not be decommissioned when land use approvals expire because bush airstrips also serve a valuable role in safety. It is felt that the more airstrips there are, the less money exploration companies need to spend

slinging (by helicopter) materials into their sites. It was also recognized that government-maintained and bush airstrips benefit the tourism and outfitting industries.

In the words of one participant, "The government spent \$20,000 to \$30,000 on the Finlayson airstrip and it made a big difference. Now that needs to be done with MacPass. MacPass is also used by Dechinla Lodge." In the words of another, "It's important to keep air strips open. I've seen them closed, but I've never seen one built."

Some participants spoke to the need for changes at the community airports, such as keeping the washrooms accessible in the winter or keeping the airports open for safety reasons (particularly in the winter because some airports are quite far from the community they serve). There was a request to have somewhere to plug in heaters at the airports, particularly in Whitehorse, Dawson, and Mayo.

It was suggested that an updated airport plan needs to be done for the Whitehorse Airport (YXY) and that mining logistics needs to be a part of the planning process. There was a desire to have more land around the airport made available for industry expansion. A hope was expressed by industry service providers that Air North would expand their freight offerings.

A desire has been expressed for industry to use new and less-intrusive techniques to access their mine sites. Airships are often cited as a means to service the mineral development sector and avoid the impacts of access road construction.

There was a recommendation to make the end of the Freegold Road twice as wide to accommodate the landing of aircraft.

16.3 Port Infrastructure

Because of issues related to ownership and potential future uses, concerns were raised about the viability of Skagway as a port in the long term. It was explained that port access can significantly affect project economics and that other ports (like Stewart or Haines, Alaska) may not be viable, depending on the location of the mine and other aspects of the mines' economics.

16.4 Energy Infrastructure

Similar to road, air, and port access, access to energy (electricity and heating) can significantly affect the economics of a mine. With the territory reaching its hydro-electric generation capacity, there is a need to be able to generate electricity from new sources for both Yukoners and for upcoming mining projects. Because energy projects can take a long time to permit (depending on the project), there is a need to pre-build infrastructure,

but this is difficult because the future mining load is uncertain and, as it has been explained, the Yukon Utilities Board doesn't like the utility (Yukon Energy Corporation) to spend money when there isn't certainty. One participant explained that this forces Yukon Energy Corporation to "lurch along with ill-planned, costly, ineffective projects."

The rate base (i.e. the amount of money the utility is allowed to earn based on the value of their assets) is not adequate to pre-build energy infrastructure projects. This problem is exacerbated by the Yukon's closed grid system, which does not support the export of surplus power to neighbouring jurisdictions. Mines have to pay for the cost to connect to the territory's electrical grid, but they don't have to pay for the cost of new generation. The utility is obligated to provide electricity when a mine connects to the grid and this typically coincides with a similar increase in demand on the system by service suppliers and new residents associated with the mine.

There have been many recommendations to address this dilemma:

- A business, First Nations Development Corporation, or Yukon Energy Corporation (creating an unregulated subsidiary) running an unregulated power solution business for off-grid situations;
- Developing a number of smaller hydro sites that could be added to the system incrementally as mining projects become more certain;
- Geothermal (ex. Evor loops or other prototypes);
- Micro-nuclear (although the permitting cycle has been estimated at 20+ years); and
- Biomass.

Biomass, in particular, has been touted as a beneficial alternative to supplying both electrical and heating needs at mine sites, as it does not have the same timing issues as wind or solar. It was recommended that wood harvested for mining should come under the auspices of the *Forest Resources Act* to ensure the wood is not wasted. It has been suggested that burning wood cleared in the process of developing mines and access roads should not happen *in situ*; rather it should be used for energy generation. Using biomass (wood and garbage) for energy generation/heating is seen as a way to reduce greenhouse gas emissions, which is called for under *Our Clean Future: A Yukon Strategy for Climate Change, Energy, and a Green Economy*. It was further suggested that surplus heat from biomass can be used for greenhouse food production.

16.5 Telecommunications

The need for communications and technology infrastructure was stressed.

Communications outside of Whitehorse are often unreliable due to incomplete cell phone coverage and limited internet capacity. Furthermore, fibre optic lines connecting Yukon to the rest of Canada are vulnerable to breakage. Many community members do not have access to the internet or personal communication devices. All of these issues can

negatively affect the mining industry as well as the ability to communicate with employees, prospective employees, and First Nation governments.

16.6 Housing

It has been suggested that Whitehorse could be promoted to fly-in/fly-out workers with an interest in relocation, but it has also been explained that a growing population has contributed to a shortage of affordable and available housing. This shortage is:

- Limiting the mobility of and availability of workers in all sectors, because housing is a major barrier to employment for Yukoners (who don't have stable housing) and non-Yukoners (who cannot find and/or afford housing);
- Contributing to homelessness; and
- Making women and others vulnerable to exploitation and abuse.

Some participants are worried that the rising housing prices are unsustainable. In the words of one participant, "Something in the system needs to be disrupted or we are going to get ever more hooped, ever more housing-related crises, until the whole thing collapses because nobody at all can afford the prices anymore."

Solutions to address the shortage of affordable and available housing have included:

- Developing a territory-wide housing strategy;
- Addressing the existing legacy of substandard housing (and creating sustainable housing);
- Developing land in urban areas, including:
 - Giving municipalities the ability to plan for high-population scenarios by having an appropriate residential lot supply;
 - Developing neighbourhoods using the private sector;
- Developing housing for the spectrum of society, including low-to-medium level income earners;
- Placing limits on the profits housing developers are allowed to make; and
- Requiring mining companies to:
 - Build staff housing to accommodate the influx of employees to Yukon communities; and
 - Invest in mixed, affordable housing and mixed housing.

One participant suggested that home construction could be incentivized by requiring mineral developers to have a set percentage of their employees residing in the Yukon, but allowing the cost of developing new housing to be written off against their taxes.

It was recognized that having fly-in/fly-out workers is not always a bad thing and that some communities prefer it, but it was also recognized that camps uproot community members, parents, and volunteers. One participant suggested that use of mining camps erodes social conscience and makes companies less inclined to participate in community well-

being. It was acknowledged that communities need to have the discussion about whether they want miners and their families to move there or not.

16.7 Other Comments on Infrastructure

It was suggested that roads should not be developed without a commensurate investment in power infrastructure. It was also suggested that efficiencies should be found for connectivity related to fibre, energy, and roads. One participant suggested that there be a continental northern corridor that pre-permits utilities, pipelines, electric transmission, highways, and railways.

With respect to infrastructure, one participant suggested, “We need more strategic, integrated long-range planning to determine priorities and which improvements generate the best immediate and long-term benefits. We need to do that from an all-sector perspective, not just mining.” From an assessment perspective, another participant felt that, “The costs to society and the environment from all the associated infrastructure to a mining project are seldom accounted for.”

There was some controversy over who should be responsible for paying for new infrastructure, recognizing that the cost of building and maintaining infrastructure is subsidized by taxpayers but that shareholders elsewhere are the ones who benefit. Several participants were opposed to any public subsidy of infrastructure used by mining companies, arguing that the companies should be able to pay their own way. From another perspective, other participants recognized that most of Yukon’s energy infrastructure was built to service the mining sector and that the federal government was instrumental in supporting that development.

One participant suggested that a broader definition of infrastructure is warranted, and that the definition should include schools and healthcare. It was pointed by another participant that certain projects and initiatives (mineral development or infrastructure developments) result in business services (such as hotels), housing, and municipal services being taxed or overwhelmed.

An interesting infrastructure suggestion was that Dawson City should have something similar to the Johnson Geoscience Centre in St. John’s, Newfoundland, which is a working science centre run in conjunction with Memorial University of Newfoundland, but with a focus on paleontology, as an adjunct to the Beringia Centre.

17 Technology

17.1 A Changing Technological Landscape

Several participants from varying disciplines spoke to an evolving technological landscape. While autonomous vehicles and equipment were popular topics, drone technology, advances in mining and milling practices, machine learning and Artificial Intelligence (AI) were also discussed.

One participant cautioned that unproven mining technology used to process ore will need to be carefully considered, keeping the long term in mind. One participant explained that advances in technology (like drones, ground penetrating radar, and small-diameter jet boring) are resulting in less-invasive exploration, mining, and transportation, and are also being used to help evaluate and mitigate environmental impacts.

Machine learning and AI are being used to mine more efficiently and help target mineral resources, but it was also explained that this technology can be used for other types of data like wildlife and heritage data.

Some participants called for leadership in technology to minimize environmental damage and energy use, with some wanting governments to make these investments and others calling on industry to do it. One participant suggested that it would be better for governments to invest in research and innovation than in physical infrastructure like roads. One participant suggested that Yukon University should be supported to develop knowledge and technologies for mine site remediation.

It was predicted that underground mining will be automated and that, in ten to fifteen years, transportation companies will be using autonomous electric transport trucks in the Yukon and on mine sites. Trucking technology is rapidly changing, sometimes posing challenges for existing companies. The Independent Panel heard that e-logs for trucking companies are disproportionately expensive in the north because they can't be run off 3G networks, requiring considerably more-expensive GPS systems. It was also explained that e-logs don't consider longer service days in the North.

While there are undoubtedly benefits and opportunities owing to these technological advancements, they will change the types of jobs available in the mineral development sector. Some participants have predicted that automation is likely to lead to fewer jobs in the sector.

It was explained that the skill sets needed to participate in the mineral development sector are changing. In particular, critical thinking and problem-solving skills are needed. Exposure to and experience with technology is also needed, and it was explained that this isn't always available to community members. In the words of one participant involved in education and training, "You need to know it and have access to it, and I think that's where

we have the gap. You don't know what you don't know. People are asking me to train people for today's requirements – heavy equipment operator programs – then I have a whole suite of people learning about that, but what's going to happen in ten years?"

There was concern that older miners may be reluctant to embrace new technologies, but the Panel was also reminded that the Yukon and the mining industry is full of ingenious and intelligent people, constantly researching ways to find and process minerals, and ways to help the environment. It was explained that it will be important to make sure that the technology and the people developing it remain in the Yukon. It was suggested that this can be done by ensuring that the Yukon provides an unparalleled quality of life.

18 Looking Forward

Participants shared that the Yukon Mineral Development Strategy needs to contain a vision for the territory. There is a broad desire that the YMDS will be bold and transformational.

Participants shared their hope that the Yukon Mineral Development Strategy will survive partisanship within the legislature because “partisan games” have resulted in increased costs, “lost time, patience, goodwill, and lost opportunities”, and have resulted in “unnecessary court cases”.

There is concern that there is not enough will or capacity to make the changes that need to be made. It has been suggested that there should be a report card on the progress made implementing the Panel’s recommendations and that “someone needs to hold everyone accountable.”

Because the Independent Panel’s recommendations are non-binding, it will be up to Yukon government and First Nations with traditional territory in the Yukon to work together to consider and implement the Panel’s recommendations. In this regard, the Yukon Mineral Development Strategy is not the end of a process, but a beginning.