

2021 Dawson Draft Plan Engagement Submission

Type: Email ref 061

From: Linda Cameron

Date: Nov 1 2021

To the Commission

This is a followup to my sending support for the submission of CPAWS Yukon .

Since sending off my letter I have had a very unpleasant feeling THAT the areas that I see as weak and neglectful of having a strong land use plan seems like a redo of the Gold Rush.

We need to stop what happened during the Gold Rush and will continue when we do not honor the land, water,wildlife, First Nations Traditional Territory and Today For Our Children Tomorrow.

Please make this a strong forward plan.

Linda Cameron

Whitehorse Yukon



2021 Dawson Draft Plan Engagement Submission

Type: Letter ref 062

From: True Point Exploration (Lauren Blackburn)

Date: Nov 1 2021

Subject:

TruePoint Exploration - Comments to Draft Plan

From:

Lauren Blackburn <lblackburn@truepointex.com>

Date:

2021-11-01, 10:31 p.m.

To:

"dawson@planyukon.ca" <dawson@planyukon.ca>, "tim@planyukon.ca" <tim@planyukon.ca>, Nicole Percival <nicole@planyukon.ca>, "charlotte@planyukon.ca" <charlotte@planyukon.ca>, Sam Skinner <sam@planyukon.ca>

CC:

Greg Johnson <gjohnson@mmsgsilver.com>, Charles Noyen <cnoyen@truepointex.com>, Pieter van Leuzen <pvanleuzen@truepointex.com>

Greetings Commission Staff,

Please accept the attached as a formal contribution to the current Draft Plan. We are grateful to each of you in how you have made yourselves available to discuss and address questions. Please let me know if you encounter any issues in accessing the attached file.

We would welcome the opportunity to discuss any of the comments we have made in this document with the commission or its staff to provide further context.

Until then, best wishes,

Lauren Blackburn

Manager - Lands, Regulatory & Community Relations



c. 867-993-3698

Attachments:

TPX_DLUPC_Response_01NOV2021_reduced.pdf 3.2 MB

DRPC File Name 062.ltr.Truepoint.20211101.2

Suite 201, 307 Jarvis St.
Whitehorse, Yukon
Phone: 867-667-7397

RE: Dawson Regional Planning – Commission Draft Plan

Dear Planning Commission,

Please accept this letter as a formal commentary on the Dawson Regional Planning Commissions (DRPC) Draft Land Use Plan (June 2021) and supporting documents. We appreciate the challenges associated with the DRPC's mandate, the scope and the many years of work that have culminated in the 2021 DRLU Draft Plan. As this plan is part of fulfilment of the §11 (Land Use Planning) of the Umbrella Final Agreement (dated July 16, 1998) we are grateful to be part of the discussions for planning the future and the stewardship of land management and resources of the Dawson Region in Tr'ondëk Hwëch'in (THFN) Traditional Territory.

Recognizing that the documents are first drafts, the intention is nonetheless to utilize these documents as the basis for refining, developing, and finalizing a more balanced and defensible Regional Land Use Plan. The window for comment spanned from June to October; this is the active field season for mineral industry activities. As a result, numerous companies and operators did not have adequate time to review the Draft Plan. We believe that more time and information are required to properly assess and comment on this important Regional Planning framework.

Nonetheless, TruePoint was able to allocate internal resources to attend DLUPC workshops, Open houses, and review the Draft Plan and supporting documents. A summary of process and technical issues were identified through reviewing the Draft Plan and are provided in the appended report. However, below is a high-level snapshot of issues with the Scope of the Plan and Key Recommendations.

Scope of the Draft Plan – 5 Key Issues

1. At present the Draft Plan does not seem to fully meet the objectives outlined in its Vision statement, concerning environmental and heritage conservation efforts with only 3.8% of the area being designated as full protection. Nor do we believe it fully ensures for a bright, stable, economic future for generations to come with the current designations and thresholds of specific Land Management Units (LMUs) open for development.
2. The Plan is unclear in how it arrived at the currently proposed LUDs and associated cumulative thresholds. The methodology described in §1.6.2.5 (Priority Criteria for Candidate Conservation Areas) do not appear to match Draft LMUs and currently proposed Land Use Designations (LUDs). Based on the methodology described in the Draft Plan, high-protection LMUs should be defined by high-density overlap of high-value features, such as habitat and heritage, and thus result in a more restrictive LUDs. Conversely, high potential economic areas with lower heritage and habitat values should be classified as less restrictive LUDs. If methodology was not based on THFN outlined values, but some other management intent, this should be made clear.
3. As the mineral industry is the single largest economic driver in the Planning Region, we were surprised that there doesn't appear to have been significant mineral industry input into this first Draft.

4. There is currently no implemented monitoring of disturbance or impact assessment in the Dawson Planning Region. How can cumulative disturbance threshold indicator values be defined without a current understanding of the levels of disturbance? Without this key information, it will be impossible to discern if the Land Use Plan will be effective in meeting the outlined objectives.
5. It is unclear how the DLUPC foresees regulatory implementation and mitigation to avoid the unintended consequences of a potential disturbance rush. Nor is it clear how the Plan will work with the current, effective, in-place regulatory regime for permitting which incentivizes concurrent restoration efforts and includes permitting conditions that guide land-users to mitigate potential impacts whenever possible.

6 Key Plan Recommendations

1. Increase total area under protection while maintaining the future integrity of a healthy mineral resource economy to ensure long-term ecological and socioeconomic health of the Planning Region:
 - (a) Increase areas under Special Management Area 1 (SMA 1) Land Use Designation with high value heritage & habitat resources from 3.8% to 26.88%; and
 - (b) Re-assign specific LMUs to appropriate Integrated Stewardship Areas (ISA) designations in areas with significant existing development (mining, industrial) that are outlined as having lower heritage and habitat resource values.
2. Simplification of the number of Land Use Designation classes to allow for clearer regulatory implementation:
 - (a) Removal of ISA 1 Land Use Designation resulting in three (low, moderate, and high) ISA classes; and
 - (b) Removal of SMA2 Land Use Designation for clearer management intent of LMUs with high levels of protection.
3. Assess the current levels of cumulative disturbance, implement monitoring, and utilize predictive ecosystem mapping to establish science-based ecological habitat disturbance thresholds for the regional planning area. Does progressive reclamation get factored back into the cumulative disturbance threshold accounting? With the approach that has been taken in the study with tracking the levels of disturbance it is critical that restoration in wetland and non-wetland areas be credited back towards the disturbance accounting to ensure a long-term sustainable mineral industry. A near-net zero disturbance accounting should be the goal of the plan in economically developed areas.
4. Extend regulatory processes within the hard-rock industry to the placer mining industry to incentivize habitat restoration of modern and historic disturbances. This should occur alongside creation of approved wetland restoration policies which define acceptable industry practises and allow for implementation of permitting conditions that outline seasonal localized wildlife key areas to reduce impact.
5. We believe a second comment period should be provided to allow adequate time for reviewing all the response submissions and a publicly released updated draft. We further recommend that within the current DLUP working groups that at least two (2) experienced individuals be nominated by the placer and hard rock industry to assist with the refinement of the next phase of the Plan.

6. Lastly, it is critical that while the plan is being refined and implemented that the stability of the economy may continue and that the existing permitting processes for active projects in mining, forestry and agriculture be allowed to progress in ISA designations utilizing the existing land use permit system. A freeze in the permitting process in these LMU's could unnecessarily shut down new economic investment in the region.

It is our belief that a balanced final plan would set the tone for future land use planning and inspire other Yukon First Nations and Land Use Planners to see this as an opportunity for the Yukon Territory and its future. We are grateful to be included in this planning process and hope for a bright, balanced future for THFN citizens, community members a Yukoner's alike in the years to come.

Sincerely,



Greg Johnson
Chairman
Metallic Group of Companies
Suite 904 - 409 Granville Street
Vancouver, BC V6C 1T2

Appended:

*TruePoint Exploration Comments on Dawson Regional Planning Commission Draft Plan
64 pp.*

TruePoint Exploration Comments on



Prepared by:



Suite 904-409 Granville Street,
Vancouver, BC
V6C 1T2

Lauren Blackburn

Manager - Lands, Regulatory & Community Relations

November 1st 2021

Importance of the Dawson Regional Plan

True Point Exploration (TPX) is writing to provide comments on the Dawson Regional Planning Commission's (DRPC) Draft Land Use Plan (June 2021) and supporting documents. TPX has appreciated the challenges associated with DRPC's mandate, the scope, and difficulty of the task that has been delegated to them. We recognize the many years of work that have resulted in the 2021 DRLU Draft Plan, and there are numerous aspects of the current draft that we believe can provide a solid foundation for a plan that can aid in responsible sustainable development for the years to come. We are grateful to the commitment and efforts of the Commission and Staff who have made themselves available to discuss and address questions.

TPX personnel appreciated being involved in the Dawson Land Use Planning Commission (DLUPC) meetings held in Dawson City¹ and Whitehorse. The Committee and Land-Use Planners have done an exceptional job in preparing this holistic-approach draft plan as well as hosting and maintaining a respectful meeting environment for the various Tr'ondëk Hwëch'in (THFN) citizens, local Dawson Community, Yukon residents and stakeholders in attendance.

This Plan is crucial to fulfilment of the §11 (Land Use Planning) of the Umbrella Final Agreement (dated July 16, 1998). In particular, §11.4.1 (Regional Land Use Planning Commissions):

"Government and any affected Yukon First Nation may agree to establish a Regional Land Use Planning Commission to develop a regional land use plan."

It is our belief that a balanced final plan would set the tone for future land use planning and inspire other Yukon First Nations and Land Use Planners to see this as an opportunity for the Yukon Territory and its future. As such, please accept this report as a formal contribution of TruePoint, a mineral exploration operator in the Yukon, on behalf of the Metallic Group of Companies.

We have taken a holistic approach to responding to the Draft Land Use Plan and particularly have strived to bring a balanced mineral industry perspective to the table in our responses.

We would welcome the opportunity to discuss any of the comments we have made in this document with the commission or its staff to provide further context.

Lauren Blackburn

Manager - Lands, Regulatory & Community Relations



¹ Three personnel from True Point Exploration (herein TPX) partook in the Dawson Land Use Planning Commission (DLUPC) meetings this past August. This report summarizes TPX's thoughts and recommendations moving forward with the draft plan.

About TruePoint Exploration

TruePoint Exploration (TPX) is a North American geological supply & services company serving the Metallic Group of Companies, which includes Metallic Minerals (Keno Hill Project and Australia Creek Alluvial Project, YT); Group Ten Metals (Kluane PGE-Ni-Cu mafic-ultramafic belt Projects, YT); and Granite Creek Copper (Carmacks Project, YT). TruePoint staff members are primarily based in the Yukon.

TPX's Approach to taking part in the Planning Process

- To fulfill Chapter §11 ("Land Use Planning") of the Umbrella Final Agreement and to honor Tr'ondëk Hwëch'in (THFN's) outlined heritage & habitat values.
- Utilize provided heritage & habitat (ecological) layers to strike a balanced approach of habitat preservation and land-management while supporting continuation of existing economic and industrial activity in the region.
- Look to increase total protected area of high-value heritage & habitat resource areas and develop a manageable regulatory framework for areas that have lower heritage & habitat values but significant pre-existing or potential economic and industrial value.

TruePoint is grateful to be part of the discussions for planning the future and the stewardship of land management and resources of the Dawson Region in Tr'ondëk Hwëch'in (THFN) Traditional Territory.

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Summary

The Land Use Commission, comprised of the Dawson Regional Planning Commission (DRPC), Committee Staff, Senior Liaison Committee (SLC), Technical Working Group (TWG) and Yukon Land Use Planning Council (YLUPC), have produced a Draft Plan and Resource Assessment Report. These plans describe a plan forward to “include a diverse economy” and recommends “ensuring that economic development in the region continues with the intention of providing for current and future generations” (DRPC, 2021a).

The Dawson Region Planning Commission was established in 2011, but the process was suspended in 2014. At this time, the Commission had published foundational documents including an Interests & Issues Report (2011), a Resource Assessment Report (2013), and Plan Alternatives (2014). In 2019, the Commission resumed with new Commission members and proceeded to create a new vision statement and updated its foundational documents, working towards public engagement. In June of 2021, a Draft Plan was released for Public and stakeholder review, which is a commitment towards an inclusive process in the development of the Dawson Region Land Use Plan (DRLUP).

Recognizing the documents are first drafts, the intention is nonetheless to utilize these documents as the basis for refining, developing, and finalizing a more balanced and defensible Regional Land Use Plan. A high-level summary of process and technical issues identified through reviewing the Draft Plan are provided below:

1. Plan Objectives

- (a) **At present the Draft Plan does not seem to fully meet the objectives outlined in its Vision statement, concerning environmental and heritage conservation efforts with only 3.8% of the area being designated as full protection. Nor does it ensure a bright, stable, economic future for generations to come with the current designations and thresholds of specific LMUs open for development.**
- (b) If Methodology was not based on THFN outlined values, but Management intent, this should be made clear.

2. Plan History

- (a) The original Planning Commission (2011-2014) created an Interests & Issues Report (2011), a Resource Assessment Report (2013), and Plan Alternatives (2014). Although these “foundational” documents were created less than a decade ago, the documents present a very different Regional Plan in some important economic development areas.
- (b) The details describing how this Commission arrived at these important differences in the Draft Plan are not explained.
- (c) **Although the mineral industry is the largest non-government economic contributor to the region there appears to have been limited consultation with this industry prior to the development of the draft plan, particularly in areas with high potential for exploration and development activity. It is recommended that within the current DLUP working groups that at least two (2) experienced individuals be nominated by the placer and hard rock industry to assist with the refinement of the next phase of the Plan.**

3. Publicly Available and timeframe provided for comment

- (a) The Draft Plan was released June 2021 with November 1st comment closure. The mineral industry is most active during the snow-free months. As a result, the allotted timeframe provided for comment left little time to provide adequate review and constructive input.
- (b) Limited information was released to outline the basis for many of the current Draft Plan proposals, including important maps for wildlife habitat and migration corridors, heritage areas, wetland mapping, watershed boundaries, as well as datasets and scientific studies that support the basis for the proposed disturbance thresholds.
- (c) **More time and information are required to properly assess and comment on this important Regional Planning framework. A second comment period should be provided to allow adequate time for reviewing all the response submissions and a publicly released updated draft.**
- (d) In reviewing the Draft Plan, TPX spent considerable time attempting to obtain and compile information that was indicated was the basis of the Draft Plan. Limited public information was released to allow for systematic review of important data layers that were stated to have been weighed in developing the current Draft Plan, including: datasets and shapefiles utilized for predictive ecosystem mapping (including factors utilized as input data); present-day disturbance datasets for disturbance-type; wetland mapping datasets and associated shapefiles differ from YG. In addition, when we inquired on certain datasets that were shown in figures in the Draft Plan, we were informed that the information was not currently publicly available.

4. **Definitions:** consistent language surrounding key topics is crucial to the interpretation of the currently Drafted Land Use Plan. In comparing documents from the scientific community, YG and other independent groups who have completed studies, terminology is inconsistent in defining:

- (a) **Wetlands:** it is recommended that the Canadian System of Wetland Classification (National Wetlands Working Group, 1997) be consistently defined. Although desktop wetland mapping can characterize water and vegetation quite effectively, it is very difficult to do with respect to classifying soil-type. Most regional soil mapping is too coarse of a scale to define wetland-types accurately at the scale required for implementation.
- (b) **Management versus Ecological Thresholds:** an ecological threshold is the point at which a substantive or non-linear change in the dynamics or distribution of an individual organism, population, or community is observed relative to some level of disturbance. Ecological thresholds can be challenging to define, leading to use of a management threshold, established at a regional or local level, that is a defined magnitude or extent of human disturbance that is permitted after which unacceptable ecological change or conservation risk is expected (Environment Yukon, 2021). It is unclear in the document that the disturbance thresholds are Management Thresholds nor is the basis of the 5%, 2.5% and 1% disturbance thresholds defined for the ISA areas.

5. Land Use Designation Methodology

- (a) **The methodology described in §1.6.2.5 (Priority Criteria for Candidate Conservation Areas) do not appear to match Draft Land Management Units (LMU's) and currently proposed Land Use Designations (LUD's). Based on the methodology described in the Draft Plan, high-protection LMU's should be defined by high-density overlap of high-value features, such as habitat and heritage, and thus result in a more restrictive LUD's. High potential economic areas with lower heritage and habitat values should be classified as less restrictive LUD's. We address these points in our specific recommendations for individual LMU's.**
- (b) Simplifying the number of LUD's Integrated Stewardship Areas (ISA's) to three categories (low, moderate, and high development) and a singular Special Management Area zoning delineating full protection (SMA 1) should reduce potential management challenges in implementation and regulatory management and the need for increased capacity within YG and THFN. Specifically, we recommend removal of SMA 2 and ISA 1 categories to make the distinctions between categories more distinct and more straightforward to manage.
- (c) Transitions from higher-protection LMU's to higher-development ones should be more gradational. Higher protection LMU's should logically cover areas with high habitat and/or high cultural values. Areas with high economic potential and lower habitat and cultural heritage values should allow for future economic development with corresponding higher disturbance thresholds, with such thresholds based on sound scientific studies for species and habitats.
- (d) Implementation of Integrated Stewardship Practises could provide excellent holistic, opportunities for the Planning Region. However, no concrete examples or techniques for connecting various land-users from seemingly different usage backgrounds, is provided.
- (e) Some high protection LMU's partly or wholly enclose areas of high historic and current placer and hard rock mining activity (LMU's 19, 21 and 22). These areas have significant potential future economic value, have extensive mining claims within them and have already seen substantial disturbance. Designating these active mining and exploration areas as high protection LMU's will result in land use conflict and the potential need for economic compensation to mineral rights holders (refer to point 6g). These areas should be recognized for the current and future economic value and placed into more appropriate LMU designations.

6. Cumulative Effects Threshold Methodology

- (a) The discussion in the Draft Plan appears to suggest that the Cumulative Disturbance Thresholds for the ISA LMU's are based off of Ecological derived habitat needs and predictive ecosystem modelling, however these are not consistent with the referenced Land Use Planning Conservation Thresholds (Environmental Law Institute, 2003).
- (b) Threshold values presented are very low compared to other land use plans in comparable sub-arctic, low-density populated areas and particularly relative to ecologic thresholds from

scientific studies which generally indicate threshold preservation of >60% of habitat or perhaps 80% for rare species. This compares with preservation of 95%, 97.5% and 99% of habitat for the high, medium, and low development LUD's that are proposed.

- (c) §3.5.1 (Cumulative Effects Indicators) specifies that surface disturbance does not include areas deemed as recovered. This could be interpreted to align with in-place regulatory practises which incentivize restoration efforts in economically developed areas. However, it is unclear whether this means industry could operate in net-zero land disturbance if areas are progressively recovered, thus lowering the LMU's active disturbance threshold. The Plan should clarify that successfully reclaimed areas are returned to the disturbance allowance accounting.
- (d) On October 12th 2021, the DRPC released 'Analysis of "Current" Disturbance Levels'. The outdated 2014 dataset provided was indicated to be the result of a lack of information, however figures from the document show recent satellite images mapping disturbance. If current disturbance levels are not defined, how can thresholds be proposed for each land management unit, especially if the thresholds are arbitrary management levels and not based on habitat needs or species criteria?
- (e) How Disturbance Classes (Industry, Forestry, Agriculture, Road-development including aggregate resource extraction) are categorized and monitored is not described in the Draft Plan. Would future disturbance totals include all categories? The draft document states that only mining related disturbances were utilized in the development of thresholds.
- (f) In ISA areas that are open for development the thresholds need to allow for future economic activity; it is unclear based on "current" disturbance whether that would be the case for the 5%, 2.5% and 1% disturbance thresholds that are proposed in the Draft Plan. Baseline "current" disturbance needs to be established for each of the ISA LMU's and to confirm that there remains sufficient room for continued current and future economic development.
- (g) The Draft Plan states that existing mineral rights will be honored in the LMU's but unless these areas are removed from the calculation of disturbance in the LMU's this may not be achievable. Likewise, the Draft Plan states that there would be no new disturbance of some classes of wetlands. If those wetlands cover existing mineral rights, then either the mineral rights have been lost, or no net loss would only apply outside of the existing mineral rights. The Draft Plan is unclear on both of those points. The plan is also unclear on how economic compensation for lost mineral rights would be handled. In areas with known in-ground metal inventories and/or extensive invested exploration costs these compensation values could be substantial (millions to 10's of millions of dollars).
- (h) Recommend the establishment of science-based ecological habitat disturbance thresholds for the regional planning area. This could be achieved with the formation of an objective special technical working group who can advise on suitable disturbance thresholds to ensure the integrity of key values (ecological habitat and heritage) whilst allowing for sustainable economic development. Following the development of recommended ecological thresholds Management Thresholds could still be utilized.

- (i) §4.1.7 (Forestry) specifies that timber-harvesting is considered part of the disturbance thresholds (Table 3-2); however, no information is provided on how this will be evaluated or what the current forest-harvest disturbance levels are. Need to clarify that replanting and restoration of these areas after harvest would then add them back to the disturbance allowance accounting.

7. Predictive Ecosystem Mapping & Modelling (ALCES®?): In §5.5.2.1 of the DRPC Resource Assessment Report (2020), predictive ecosystem mapping is stated to be based on the bioclimate zones, slope, aspect, geology, and land cover (obtained from satellite imagery). However, proposed LUD do not appear to be based on habitat integrity or value systems² through this predictive ecosystem mapping as outlined in the maps provided.

- (a) There was no explanation of input data used, nor mention of analysis techniques or model parameters.
- (b) If such predictive ecological modelling is to be used to develop appropriate local ecological thresholds the scientific studies for relevant species should be disclosed. Ideally, this would come from the recommended objective technical working group in point 6h above.
- (c) Current Land Use Planning software uses predictive ecosystem mapping to outline the potential effects of development; however, currently, there is no implemented monitoring described in the Draft Plan.

8. Key Species: §4.2.1 outlines management for maintaining key species habitat and includes widespread restrictions that are unclear and are already mitigated through the current YG-implemented regulatory regime permitting conditions.

This includes:

- (a) Species at Risk (SAR): Special Management Areas (SMAs) are recommended where species at risk occur. However, SAR typically are found in small-scale habitats occupying small regions within portions of LMUs.
- (b) Avian: land-users are advised to avoid activities in key migratory bird areas, at elevations greater than 1,000m and during key migratory periods (spring and fall). This advisory guidance is currently implemented in YG-issued permits and land-users have demonstrated through responsible management.
- (c) Moose: users are to avoid activities in seasonal use areas and movement corridors with particular emphasis on known calving areas and areas of post-rut aggregation. However, neither Map 4 nor YG (GeoYukon) outline these smaller-scale habitats (only widespread regions are outlined by the latter).
- (d) Sheep: considerations that well-managed industry practises and permitting conditions outline how land-users can co-exist with sheep. Minimal industrial work occurs within habitats favourable to sheep short of aerial transportation. Industry-supported aviation

² For example, according to DRLUP maps, LMU19 has relatively low ecological habitat, only 10% wetlands, and low concentration of heritage, and is wholly surrounded by a high-development area; yet it is currently designated as SMA2.

companies do employ Guidelines for Flying in Sheep Country (MERG Report, 2002-6). Yukon-based research has clearly defined that the biggest impacts on sheep populations are largely created by climate-change (a global issue) and over-harvesting (Environment Yukon, 2019).

- (e) Caribou: users are to avoid activities (including road and trail development) in significant caribou habitat during important biological periods (seasonal migration corridors, migration pinch-points, calving areas, rutting areas *etc.*). This advisory guidance is currently implemented in YG-issued permits and land-users have demonstrated through responsible management that caribou and industry can co-exist. However, neither Map 4 nor YG (GeoYukon) outline these smaller-scale habitats (only widespread regions are outlined by the latter). It is clear that conservation efforts have been successful with the return of the Fortymile caribou-herd which in 2020 was estimated to be 84,000-strong (CBC News, 2020). This suggests that the current regulatory-regime, which includes permitting conditions, are sufficiently managing responsible industry-practises.
- (f) Recommend that all permitted land use activities in specific LMU's utilize the existing land use permitting regime (for hard rock mining these are Class III or IV mining land use permits), where site specific conditions including species habitat and migration corridors can be considered to maintain the health of key species.

9. Wetlands

- (a) Outlined thresholds could have serious economic development consequences (in particular to placer mining which occurs in wetland areas) but are unclear in the Draft Plan.
- (b) The Federal Policy on Wetland Conservation (Government of Canada, 1991) describes no net loss of socioeconomic or ecological wetland function. Restoration of wetland function has been demonstrated globally on various projects in various biogeoclimatic ecozones. Therefore, it is recommended that criteria be developed for habitat and functional wetland restoration in ISA LMU areas.
- (c) Why is there no development allowed in undisturbed bogs and marshes throughout the region within only specified SMAs and ISAs? Why is there inconsistent policy towards specified habitats? Placer mining often occurs in marshes, fens, and bogs, as may hard rock exploration and development. A blanket restriction on disturbance rather than providing criteria for functional restoration would effectively shut down economic activity in these areas.
- (d) What are the factors included in the scientific basis considered with allowing development of an arbitrary 25-75% range for fens in each applicable LMU? Recommend this be looked at by the recommended objective technical working group (point 6h, above) to develop appropriate science-based disturbance thresholds for all wetland classes.
- (e) Bond (2019) notes: "Within the Tr'ondëk Hwëch'in Traditional Territory, wetland density is higher in the Tintina Trench and Ogilvie Mountain ecoregions compared with the Klondike Plateau ecoregion." However, the LUD's within the current Draft Plan, do not reflect this (see our specific recommendations for individual LMU's below in Part 2).

- (f) The Draft Plan states that effective restoration of wetlands is impossible. This is inconsistent with results from a number of successful wetland restoration projects across Canada (see point 9g, below). It also contrasts with the surface disturbance recovery objectives and may discourage Operators from implementing costly best management restoration practices.
- (g) The Federal Policy on Wetland Conservation (Government of Canada, 1991) describes no net loss of socioeconomic or ecological wetland function. Restoration of wetland function has been exemplified globally on various projects in various biogeoclimatic ecozones. Though this is a relatively new area of focus in the Yukon specifically, there is no reason to believe that the restoration of functional wetlands, which provide both habitat and important hydrologic functions, cannot also be achieved in the study area (see point 11a, below).
- (h) Recommend the development of agreed upon wetlands restoration guidelines that could allow for uniform best management practices in these important ecological habitats. The Yukon Water Board has recommended Yukon work with First Nation Governments, industry and other key stakeholders to establish a Technical Advisory Committee for the Protection, Use and Reclamation of Yukon Wetlands

10. Economic Plan

- (a) Plans to maintain the economic health of the region are not discussed in detail. Management intent is unclear throughout the document and certain proposals could have far reaching negative economic impacts on the region.
- (b) §'s 4.1.9 and 4.3.3 on Traditional Economy recommends buffers and avoiding or reducing the level of land-use activities in areas identified as having cultural value. Map 5 (Appendix A) shows virtually the entire area as having traditional-use value. It is unclear what exactly this would mean for stakeholder-use in the entire planning area.
- (c) Sustaining a healthy placer mining industry is key for the economic security of the Planning Region as the single largest non-government economic sector. While this natural resource has been developed in the region for over a century, many placer deposits have been depleted in the heavily developed areas. While there are opportunities to reclaim and restore these historically disturbed areas, the industry will continue to move into adjacent unmined but prospective areas that share the same geologic settings. This movement into adjacent areas needs to be accommodated to allow for a healthy placer mining industry and regional economy. For instance, in LMU 12 the natural progression will be to move further eastward to the Upper Indian River (LMU 19), which has same geological setting, and is demonstrating comparable economic placer values. LMU 19 specifically is one of the most significant growth areas supporting the economic future for the Klondike Goldfields. This area alone has over 1,100 mining claims under 34 different operators.
- (d) Though the focus in LMU's such as 12 and 19 have mostly been on placer mining, these placer mining areas are also highly prospective for future hard rock developments - as the source of the alluvial gold. Accommodation should be made for such future potential in these types of areas with extensive placer and hard rock exploration and development to allow for sustainable economic activity in this important sector of the planning region's

economy. Many mining districts across North America begin as placer mining locations, where metals such as gold accumulate at the surface, however over time as the sources of these surface deposits are discovered and developed it is not unusual to see economic value in the corresponding hard rock deposits that may include other metals than gold that is many times larger than the original placer value and that can support a long term sustainable mineral development industry. To ensure the regional economic health for future generations, these areas must remain open to responsible economic development.

- (e) The Mining industry generates significant economic benefits for communities that are often not well understood. A substantiated figure used in the mineral industry shows that typically every dollar spent in mining generates \$5 in the local economy including indirect supporting industries & local-work force (hotels, restaurants, equipment sales and maintenance, supplies, fuel, *etc.*). A similar multiplier value relates to jobs supported by indirect and induced economic activity. A recent study of mining related jobs in British Columbia indicates that for each (1) mining related job, 4.6 indirect, or induced, jobs are created. The DLUP Resource Assessment Report does not accurately reflect economic contributions from these types of economic activity (refer to PWC 2012, Mining Industry Economic Impact Report). Maintaining a healthy mineral resource economy is key to ensuring long-term socioeconomic health of the Planning Region.

11. Restoration Practises and Closure

- (a) The Draft Plan states that wetlands cannot be effectively reclaimed following disturbance. However, the Federal Policy on wetland conservation outlines the desired outcome as restoring wetland function. Globally, numerous projects have outlined the ability to restore wetland function³ which aligns with the spirit of the Federal Policy on wetland conservation. Refer to Wetland Restoration Practises: the inclusion of Federal Policy on Wetland Conservation (Government of Canada, 1991), guide recommendations for restoration.
- (b) Policies concerning wetland restoration should be consistent regardless of LUD (refer to Point 9 a-d).
- (c) There is currently no accepted wetland restoration or reclamation policy for the Yukon. YG and the Klondike Placer Miners Association (KPMA), have both outlined recommended practices to restore the functionality of a wetland, which aligns with the spirit of Federal Policy. However, to date, YG has not approved a Reclamation Plan in the Planning Region. Creation of policies outlining acceptable practises needs to be completed in the immediate future to provide a clear path for economic development in regions within and proximal to wetlands (*i.e.*, placer mining, road management).
- (d) Current regulatory processes (such as Class III or IV quartz mining land use permits) not only incentivize progressive habitat restoration of modern disturbance, but also historic disturbances. Additionally, these processes ensure that land-users abide by specific conditions that reflect habitat preservation of ecological sensitivities. How does the currently proposed Plan ensure that YG policies will reflect a Territorially recognized land-use Plan?

³ Example: Sandhill Fen Watershed; Syncrude, 2020.

- (e) Road Closure is discussed briefly and does not outline practises for closure of all road-types (industry, forestry *etc.*). Fully funded decommissioning plans should be included through permitting and road closure plans should be completed on non-gazetted roads of all-types at the expense of the user (and not be enforced just to industry).

12. Regulatory Policy & Implementation

- (a) **There is currently no implemented monitoring of disturbance or impact assessment in the Dawson Planning Region. How can cumulative disturbance threshold indicator values be defined without a current understanding of the levels of disturbance? Without this key information, it will be impossible to discern if the Land Use Plan will be effective in meeting the outlined objectives.**
- (b) It is imperative that the Plan reflects the current, effective, in-place regulatory regime for permitting. As mentioned above, this process incentivizes concurrent restoration efforts and includes permitting conditions that guide land-users to mitigate potential impacts whenever possible.
- (c) **How does the Commission foresee regulatory implementation and mitigation concerning the draft plan to avoid unintended consequences (and potentially more disturbance) in high protection areas? One scenario could be a possible “disturbance rush” if parties believe there will be no remaining disturbance capacity in a particular area; this could be particularly true in areas that have significant mining and other development activities currently but that are being proposed as low or no disturbance areas.**
- (d) The Senior Liaison Committee should encourage YG to use more consistent policy towards both Placer and Quartz operations. Pre- and Post-Season reporting should be conditions of Mining Land Use Permits (MLUPs). Presently, quartz operations are given thresholds of allowable disturbance within their projects. This incentivizes operators to progressively reclaim. Implementation of appropriate thresholds for placer operations with permitting conditions outlining reasonable allowable open disturbances, would allow for tracking disturbance and avoid LMU's from reaching critical thresholds of cumulative disturbance.
- (e) Implementation groups are outlined to include Yukon Government (YG), Yukon Environmental Socio-economic Assessment Board (YESAB), Yukon Land Use Planning Council (YLUPC), and other Umbrella Final Agreement (UFA) groups. How these bodies will need to increase capacity in order to implement monitoring of such numerous land use designations with narrow thresholds, is not made clear.
- (f) Understanding the current level of disturbance in the LMU's is critical to avoid potential for ceased operations and operators having large areas of open disturbance and no incentive to reclaim.
- (g) Creation of wetland restoration policies outlining acceptable industry practises are required to provide a clear path for economic development in regions within, and proximal to wetlands (*i.e.*, placer mining, road management). Polices concerning wetland restoration

should be consistent regardless of LUD and should be standardized for consistent stewardship in the Planning Region and follow sound scientifically based criteria.

- (h) The view that restoration of functional wetland habitat is effectively impossible is not backed by science and negates the incentive for land-users to implement best possible management practices in reclamation efforts. It is imperative for maintaining function of these ecosystems that wetland restoration policy encourages incentivized restoration efforts. Historic disturbances in wetlands would see little industry investment if the messaging presented is discouraging towards restoration of wetland function and if that restoration is not counted towards a reduction in the disturbance accounting. Although it is recognized that some wetlands classes may take long periods of time to fully re-establish, there is no scientific basis that effective wetland function and habitat value cannot be restored in disturbed areas.
- (i) Current regulatory processes within the hard-rock industry, should be extended to placer mining, to incentivize habitat restoration of modern disturbance, but also historic disturbances. Additionally, these processes ensure that land-users abide by specific conditions that reflect habitat preservation of ecological sensitivities. Implementing restoration procedures through permitting conditions across the industry, as a whole, is key to successful execution of the Plan ecological goals and integrated stewardship practises.

13. Implementation

- (a) The mineral industry is the largest single non-government economic driver in the region, a complete freeze during Plan approval and implementation would have serious economic consequences. Responsible continued economic development should be able to continue during this time.
- (b) Approval of Mining Land Use plans should be able to continue with monitoring and tracking of current cumulative threshold levels under the existing permitting process.
- (c) § 6.2 includes Recommended Action: “The Parties should jointly establish Implementation Committee and develop an Implementation Plan within one (1) year of Plan approval.” If the timeline for finalizing implementation responsibilities extends, it is imperative that economic activities may continue as per usual.

Summary of recommendations

The above summary of Key Issues discussed in points 1 through 13 outline numerous remaining areas requiring work to properly scope and implement the DRLUP. Our review identified many of these gaps in defining the plan framework. Below is a summary of recommendations and suggestions for potential tradeoffs and neutralizing mitigations. We feel these suggested changes align with the vision of the Plan and meet the key objectives outlined by the various stakeholders in the region to include:

- Sustainable Development:
 - Our recommendations increase the fully protected areas (SMA 1’s) from 3.81% to 26.9%;
 - Decrease high-development areas from 17.76% to 17.13% while mitigating potential conflict with stakeholders invested in the Planning Region;

- Reduction in land use conflicts; and
- Simplify the regulatory processes for successful implementation at current capacity whilst providing a clear path for sustainable, responsible, economic development.
- Community Stewardship
 - Providing clear examples of how integrated Stewardship Practices could take place to support connectivity of stakeholders and land-users;
 - Provide examples for potential research opportunities to educate stakeholders with little knowledge about other value-systems; and
 - Provide policies to educate and implement sub-regional plans.
- And most importantly, ensuring a bright future the Region and its inhabitant through the fulfilment of the §11 (Land Use Planning) of the Umbrella Final Agreement for Tr'ondëk Hwëch'in First Nation.

Our Response Report is divided into two parts. Part 1 provides a detailed review of the Draft Plan by Draft Report Sections. Part 2 outlines detailed recommendations pertaining to proposed Land Management Units.

We thank the DRLUP Commission, Committee Members, Staff and most importantly, Tr'ondëk Hwëch'in First Nation for the opportunity to review and provide feedback on the Draft Plan.

PART ONE – DETAILED REVIEW OF DRAFT PLAN BY DRAFT REPORT SECTIONS

1 Land Use Designations

The Dawson Regional Planning Commission Draft Plan states “the purpose of a Land Use Designation (LUD) System is to describe the management intent of each identified Landscape Management Unit (LMU) [...] Based on identified values and sensitivity to disturbance” resulting in different areas in the Dawson region requiring different land management. This has resulted in seven LUD sub-categories (refer to *Table 1.*, below).

Table 1. Currently Laid Out Land Use Designations (LUD)⁴

| Land Use Category | Sub-category | Management Intent | Area km ² | Area % |
|-----------------------------------|--------------|---|------------------------|--------|
| Special Management Area (SMA) | 1 | No New Disturbance | 1,517 km ² | 3.80% |
| | 2 | Disturbance only in connection to existing surface and sub-surface rights | 14,154 km ² | 35.50% |
| Integrated Stewardship Area (ISA) | 1 | Lowest development | 5,307 km ² | 13.30% |
| | 2 | Low development | 3,600 km ² | 9.00% |
| | 3 | Moderate development | 5,813 km ² | 14.60% |
| | 4 | Highest development | 7,079 km ² | 17.80% |
| Future Planning Areas | | | 2,380 km ² | 6.0% |
| Tombstone Park | | | | |

The methodology described in §1.6.2.5 (Priority Criteria for Candidate Conservation Areas) do not match Draft Land Management Units currently proposed Land Use Designations. Based on the methodology described in the Draft Plan, LMU’s should be defined by high-density and overlap of high-value features (listed below), and thus result in a more restrictive LUD’s.

- (a) Ecological: Fish & Wildlife Habitat, Water resources, Wetlands, Ecosystem Representation and Landscape Connectivity;
- (b) Heritage, Social & Cultural Values, Heritage Resources & Sites, and Harvesting Rights & Activities; and
- (c) Economic Renewable (Timber, Agriculture, Tourism) and Non-Renewable Resource (Hard Rock Exploration, Placer Mining) Use and potential; should increase Land Use Designation to a high-protection land management unit. However, it is evident many LMU’s do not align with density or overlap of identified high-value features.

Key Point #1: Land Use Designations do not appear to be based on habitat integrity or value systems outlined in the maps provided (Ex: according to DRLUP maps, LMU19 has relatively low ecological habitat, only 10% wetlands, and lower concentration of heritage; yet it was designated as SMA2).

It is imperative that the Plan reflects the current, effective, in-place regulatory regime for permitting. This process incentivizes concurrent restoration efforts and includes permitting conditions that guide

⁴ Information directly quoted from Draft Plan for DLUPC Public Release dated June 9th 2021.

land-users to mitigate potential impacts whenever possible. For ease of regulatory implementation, it is vital that there are a manageable number of Land Use Categories. Otherwise, YG-capacity will need to increase in order to implement monitoring of such numerous land use designations with narrow thresholds. Fewer categories would allow for easier regulatory implementation whilst providing a clear path forward for stakeholders. Decreasing Integrated Stewardship Areas (ISA's) to three categories (low, moderate, and high development) and a singular Special Management Area zoning delineating full protection (SMA 1) could help mitigate potential difficulties in implementation.

More importantly, these changes ensure that broad areas that are consistently designated (or allow for gradual changes from LUDs) would decrease the effects of fragmentation within the Planning Region. Fish and wildlife species do not recognize human-made boundaries in adaptive land management.

TPX proposes these changes in connection with recommended changes to the drafted Land Use Designations (LUD's) in §3 of this document. The proposed changes would not only allow for simpler implementation, reduce the effects of habitat fragmentation, create clearer land use designations and assurance for stakeholders who are invested in the Planning Region, but also **increase fully protected areas (SMA 1's) from 3.81% to 26.9%**⁵ (refer to **Table 2.**, below; and **Figure 1.**, page 10)⁶.

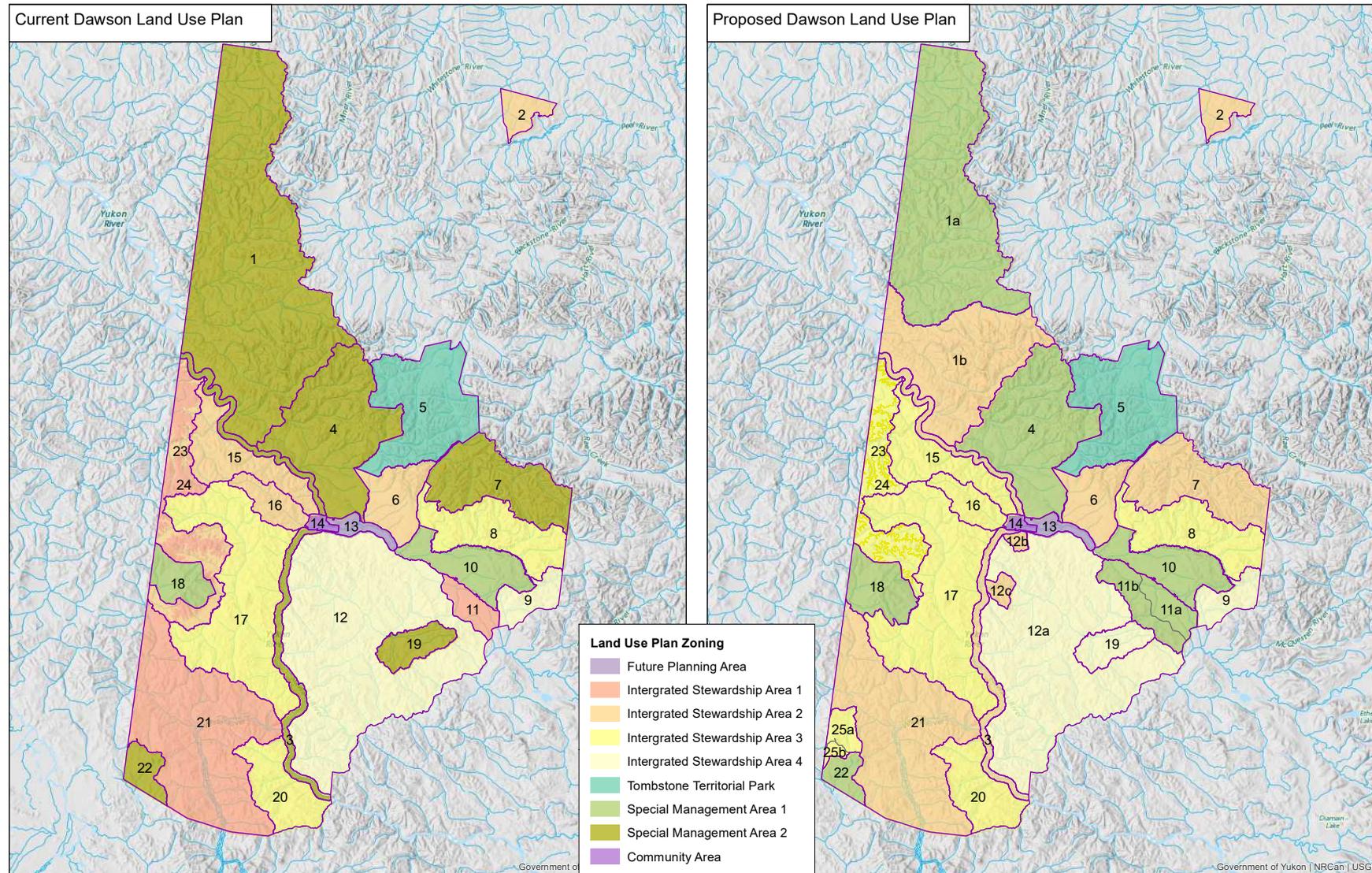
Table 2. Recommended Changes to Currently Proposed Land Use Designations (LUDs)

| Land Use Category | Sub-category | Management Intent | Area km ² | Area % | Proposed Area km ² | Proposed Area % | Rationale & Outcome |
|-----------------------------------|--------------|--|----------------------------------|-------------------|-------------------------------|-----------------|---|
| Special Management Area (SMA) | 1 | No New Disturbance | 1,517 km ² | 3.81% | 10,714 km ² | 26.88% | Increase fully protected lands by 700% |
| | 2 | Disturbance only in connection to existing surface and sub-surface rights | 14,154 km² | 35.50% | 0 km ² | 0.00% | Simplify Regulatory process by removal, add to SMA1 and ISA's |
| Integrated Stewardship Area (ISA) | 1 | Lowest development | 5,307 km² | 13.30% | 0 km ² | 0.00% | |
| | 2 | Low development | 3,601 km ² | 9.04% | 7,858 km ² | 19.72% | |
| | 3 | Moderate development | 5,813 km ² | 14.60% | 12,075 km ² | 30.30% | |
| | 4 | Highest development | 7,079 km ² | 17.80% | 6,825 km ² | 17.13% | Decreases total area of Highest Development |

⁵ This value includes currently designated SMA1 LMU's but does not include Tombstone Territorial Park (TTP) which is 5.27% of the Planning Region. Including TTP the total protected area as Drafted would total 9.08% and with proposed LUD's would total 32.15% (almost 1/3 of the Planning Region).

⁶ No changes are recommended for total areas of Future Planning Areas or the Tombstone Park.

Figure 1. Proposed reduced LUD and associated changes to LMU's



1.1 Future Planning Areas

Strategies and proposals for future Planning areas (LMU 3: Yukon River – Chu Kon Dëk; LMU 13: Klondike Valley; and LMU 14: Dawson City), which at present include subregional plans (Dempster Highway⁷), should all be clearly defined prior to finalizing and implementing the DLUP. During the August workshops these areas were discussed; resulting concerns were addressed which resulted in outlining conflicting concepts defining the current rationale of this draft plan. Further discussion on each LMU's is included in §8.2 of this document.

1.2 Integrated Stewardship Areas

The concept of Integrated Stewardship Areas (ISA's) is an excellent path forward for a wholistic approach to the shared land use in the Dawson Planning Region and could carve a new direction forward for various stakeholders to work together for the best possible overall attempts at heritage-preservation, ecological- and economic-health of the region. The concepts for how this could occur in practise are endless. However, no concrete examples or techniques for connecting various land-users from seemingly different usage backgrounds, is provided.

Many opportunities could arise if this component of the Plan outlines clear strategies for how stewardship implementation is to progress; including how to best bridge the gap between conservation efforts and economic development through time. Below is an example of how this could be achieved:

How will integrated Stewardship LMU's implement streamlined collective processes for active stakeholders invested in the region?

Example 1:

John the Placer Miner has completed his mine plan on Creek X and is about to implement the Reclamation Plan outlined in his land-use permit. John is connected with a research team who is going to complete a study to monitor the health of native plant revegetation on the upper portion of his claims. Meanwhile, on the lower portion of his claims is connected with Yukon Highways & Public Works who will utilize his clean (gravel) fill for road works close to Dawson City versus obtaining gravels from the Dempster Highway. Implementation of this form of Stewardship:

- *Reduces the cost of YG obtaining (gravel) fill;*
- *Whilst lowering the risk for inadvertently transporting seeds of invasive species up the Dempster Highway; and*
- *Mitigates further growth of YG's Gravel quarries which are outlined as producing high levels of surface disturbance.*

Example 2: *Junior hard-rock mineral explorer 123456 Yukon Inc. is working on their project and is about to clear an area outlined in their Class IV Mining land-use permit. 123456 Yukon Inc. is connected with a local timber harvester working in the area. As they strip the area, they assist the local timber harvester by setting aside sizeable trees for harvest. Implementation of this form of Stewardship:*

- *Reduces the timber harvesters need to clear an additional area;*
- *Allows Company 123456 Yukon Inc. to aids in progressive timber harvest management whilst decrease carbon output through decomposition of biomass; and*
- *Allows both land-users to get a glimpse into the other individuals livelihood.*

⁷ The Sub-regional plan for the Dempster Highway is currently proposed as an SMA2 LUD but does not have an LMU number.

1.3 Special Management Areas

The Plan defines Special Management Areas (SMAs) as conservation areas identified requiring high levels of conservation. However, despite all of the ecological and heritage values described, the Plan currently only fully protects 3.8% of the Planning Region. This could be an opportunity to ensure the long-term protection ecological and heritage value of the Region.

By reducing to a singular Special Management Area, the Plan directives would be clear to stakeholders, easier to implement and could result in a larger fully protected areas. The SMA2 designation currently outlines “disturbance only in connection to existing surface and sub-surface rights” however, disturbance thresholds align with ISA I or II depending on the LMU. It is important however that a precedent of effective removal highly prospective areas, not be established. It is recommended that the Draft Plan is simplified by removal of SMA 2, and areas currently designated as SMA2 with significant defined economic potential be placed in ISA classifications. Similarly, areas with SMA 2 designations which overlap key value features and have seen little disturbance, should be placed into SMA 1. Proposed designations for currently proposed ISA 1 and SMA 2 designated LMU’s are provided in Part Two (§8) of this report.

2 Cumulative Effects Management

§3.5 (Cumulative Effects Management) defines Cumulative effects as “the net changes to values in the environment and/or society that result from a land-use activity in combination with other past, present, and future activities”. It goes on to say, “cumulative effects (or their indicators) need to be tracked and evaluated to determine if goals and objectives are being met”. However, there is no currently implemented monitoring. On October 12th 2021, the DRPC released 'Analysis of "Current" Disturbance Levels'. The outdated 2014 dataset provided, was claimed to be the result of a lack of information.

Question 1: If current thresholds are not defined, how can thresholds be proposed for each land management unit (LMU)?

§3.5.1 (Cumulative Effects Indicators) specifies that surface disturbance does not include areas deemed as recovered. This could be interpreted to align with in-place regulatory practises which incentivize restoration efforts in economically developed areas. However, it is unclear whether this means industry could operate in net-zero land disturbance if areas are progressively recovered, thus lowering the LMU’s active disturbance threshold. In other words, are recovered areas that were previously disturbed taken into account when setting cumulative effects indicators?

For ease of tracking and implementation, it is agreed that a unitized approach relative to defined LMU thresholds would inform tracking disturbance indicators. However, how the Commission foresees regulatory implementation and mitigation concerning the draft plan to avoid unintended consequences (and potentially more disturbance) in high protection areas, is not made clear. One scenario could be a possible “disturbance rush” if parties believe there will be no remaining disturbance capacity in a particular area; this could be particularly true in areas that have significant mining and other development activities currently but that are being proposed as low or no disturbance areas.

Tracking and implementation of these thresholds for each LMU could be monitored through the current land use permit system and utilization of post-season industry reporting, which works to balance

development and need for concurrent reclamation practices. This process incentivizes concurrent restoration efforts and includes permitting conditions that guide land-users to mitigate potential impacts whenever possible and could inform a unitized approach indicator-levels whilst mitigating potential for a “disturbance rush”.

Mitigation #1: This process allows for integrated stewardship practices that are easier to manage and regulate and that give industry clear understanding of the disturbance thresholds and reclamation requirements for their permit area within an individual LMU. The current land use permit system works to balance development and need for concurrent reclamation practices through annual disturbance and reclamation reporting. It allows for integrated stewardship practices that are easier to manage and regulate and that give industry clear understanding of the disturbance thresholds and reclamation requirements for their permit area within an individual LMU.

2.1 Cumulative Effects Thresholds

Thresholds have been defined by the DLUPC as precautionary, cautionary, and critical⁸ to provide guidance on the acceptable limits of human-caused disturbance in each Land Management Unit (LMU). Alberta and British Columbia have more recently developed key cumulative impact case studies to better understand how past, present, and foreseeable future activities impact our environment. Naturally, comparing a low-population density sub-arctic region to a more densely populated boreal region, presents difficulties. But these management practises are meant to be dynamically approached and constantly improving with information obtained through habitat health monitoring.

We recognize in the Dawson Region threshold calculations should be more conservative, but it is unclear if the Cumulative Disturbance Thresholds are based off of ecological derived habitat needs and predictive ecosystem modelling, or management directives. In §5.5.2.1 of the DRPC Resource Assessment Report (2020), predictive ecosystem mapping is stated to be based on the bioclimate zones, slope, aspect, geology, and land cover (obtained from satellite imagery). However, proposed LUD do not appear to be based on habitat integrity or value systems through this predictive ecosystem mapping as outlined in the maps provided. In addition, there is no explanation of input data, analysis techniques or model parameters. As a result, it is unclear what is the reasonable threshold for active, modern-day disturbance, or what threshold value results in impact on plant and animal species in the region.

2.2 Disturbance Categories

How Disturbance Classes (Industry, Forestry, Agriculture, Road-development including aggregate resource extraction) are categorized and monitored is not described in the Draft Plan. Would future disturbance totals include all categories? The draft document states that only mining related disturbances were utilized in the development of thresholds.

§4.1.7 (Forestry) specifies that timber-harvesting is considered part of the disturbance thresholds (Table 3-2); however, no information is provided on how this will be evaluated or what the current forest-harvest disturbance levels are. Need to clarify that replanting and restoration of these areas after harvest would then add them back to the disturbance allowance accounting.

⁸ Table 3-2, Dawson Regional Planning Commission Draft Plan – June 2021.

2.3 Modern-Day vs. Historic Disturbances

Since 1896, placer gold has been extracted from the region using numerous forms of equipment, including dredges, which have left an impression on the landscape. Since gold was discovered in the Klondike Goldfields, Sixty-mile District, and Clear Creek areas, a significant mineral wealth has been extracted from the Region. Active economic development in the district primarily occurs within these historically disturbed areas. As such, it is imperative modern-day activities continue to remain incentivized to reclaim these areas through the existing regulatory regime which enforces progressive reclamation.

Key Point #2: Part of the Dawson Region Plan should identify all remaining heritage mining sites that are to be preserved. If heritage mining sites are to be preserved, should they come out of current disturbance thresholds? Perhaps adopt a policy that encourages reclamation of historic mining sites that are not outlined as having heritage value.

3 Predictive Ecosystem Mapping & Modelling

It is unclear in the Draft Plan how exactly land-use is being modelled to anticipate impact on key species and sensitive ecological environments. In §5.5.2.1 of the DRPC Resource Assessment Report (2020), predictive ecosystem mapping is stated to be based on the bioclimate zones, slope, aspect, geology, and land cover (obtained from satellite imagery). However, proposed LUD do not appear to be based on habitat integrity or value systems through this predictive ecosystem mapping as outlined in the maps provided. There is no explanation of input data, analysis techniques, or model parameters.

In addition, current available land use planning software, uses predictive ecosystem mapping to outline the potential effects of development; however, currently, there is no implemented monitoring described in the Draft Plan. As a result, it is unclear how various forms of land-use are predicted to impact key species and high-value habitats.

Publicly released datasets which outline potential outcomes (from various forms of land-use and natural processes), is key to educating land-users on how to best implement stewardship practises.

4 Ecological Integrity & Conservation

The Draft Plan summarizes its ecological, conservation and stewardship intent as to: *“Establish a network of protected areas within the region, with special consideration for river and stream corridors that contain spawning and rearing habitat, and corridors used by wildlife for calving, overwintering and summer feeding grounds linked with uninterrupted migratory routes (avoid habitat fragmentation)”*. However, interestingly, the current layout of LMU land designations is highly fragmented and does not gradually change from ‘border’ to ‘border’. For instance, LMU10 (Upper Klondike) is currently SMA 1-designated yet borders ISA’s 1-4. Although managing consistent gradual changes from LMU to LMU is a very difficult process, this could be simplified through creation of increase SMA 1-designated Land Management Units where possible.

In addition, having a 481 km² SMA2-designated LMU (LMU 19), which has current development, wholly surrounded by and ISA 4-designated LMU, does not align with the intent summarized above.

Limited information was released to outline key wildlife habitat migratory routes and corridors. Localized, area specific information pertaining to these key wildlife features should be included in Mining Land Use Permits (MLUP) through special permitting conditions with associated maps to inform best management practises. Currently, conditions included in MLUP approvals are very vague and do not inform the applicant on how to mitigate to ensure these specific areas are avoided seasonally.

4.1 Key Species

A survey response quoted §4.2.1 of the Draft Plan as summarizing the importance of key species, states: *“To protect fish and wildlife, large tracks of land must be set aside for conservation. Particularly land that provides food and shelter for fish and wildlife. Northern land is not high-yielding, so each species requires a large area of diverse habitat”.*

However, at present only 3.81% of the Planning Region⁹ is SMA 1-designated. In addition, the northern-half of LMU 1 (North), which at present comprises approximately 20% of the Planning Region, encompasses high-value ecological areas, including all of the listed ecologically important features as well as a significant length of Tr’ondëk Hwëch’in Traditional trails and Settlement Lands (<100 ha and > 100 ha). Dividing this LMU into two would provide an excellent opportunity to increase protection in a large area where all of the listed ecologically important features occur.

§4.2.1 outlines management for maintaining key species habitat and includes widespread restrictions that are unclear and are already mitigated through the current YG-implemented regulatory regime permitting conditions. This includes:

- (a) Species at Risk: Special Management Areas (SMAs) are recommended where species at risk occur. However, SAR typically are found in small-scale habitats occupying small regions within portions of LMUs.
- (b) Avian: land-users are advised to avoid activities in key migratory bird areas, at elevations greater than 1,000m and during key migratory periods (spring and fall). This advisory guidance is currently implemented in YG-issued permits and land-users have demonstrated through responsible management.
- (c) Sheep: considerations that well-managed industry practises and permitting conditions outline how land-users can co-exist with sheep. Minimal industrial work occurs within habitats favourable to sheep short of aerial transportation. Industry-supported aviation companies do employ Guidelines for Flying in Sheep Country (MERG Report, 2002-6).
- (d) Caribou: users are to avoid activities (including road and trail development) in significant caribou habitat during important biological periods. This advisory guidance is currently implemented in YG-issued permits and land-users have demonstrated through responsible management that caribou and industry can co-exist. It is clear that conservation efforts have been successful with the return of the Fortymile caribou-herd which in 2020 was estimated

⁹ This value includes currently designated SMA1 LMU’s but does not include Tombstone Territorial Park (TTP) which is 5.27% of the Planning Region. Including TTP the total protected area as Drafted would total 9.08% and **with proposed LUD’s, the total protected area would total 32.15% (almost 1/3 of the Planning Region).**

to be 84,000-strong (CBC News, 2020). This suggests that the current regulatory-regime, which includes permitting conditions, are sufficiently managing responsible industry-practises.

In addition, information on the importance of micro-scale seasonal habitats for ungulates is currently not available.

- (e) Moose: users are to avoid activities in seasonal use areas and movement corridors with particular emphasis on known calving areas and areas of post-rut aggregation. However, neither Map 4 nor YG (GeoYukon) outline these smaller-scale habitats (only widespread regions are outlined by the latter).
- (g) Caribou: users are to avoid activities in significant caribou habitat during important biological periods, such as: seasonal migration corridors, migration pinch-points, calving areas, rutting areas *etc.* However, neither Map 4 nor YG (GeoYukon) outline these smaller-scale habitats (only widespread regions are outlined by the latter).

Lastly, factors influencing conservation-efforts could be modelled in predictive land use planning software (predictive ecosystem mapping) to help establish what particular parameters have the greatest impact on conservation efforts of SAR and key species. Currently, no dataset or modelling is provided to establish how various forms of land-use, and levels thereof, will impact key species. Current research provides key insight into what impacts two species listed in the Draft Plan as key:

- (a) Sheep: Yukon-based research has clearly defined that the biggest impacts on sheep populations are largely created by climate-change (a global issue) and over-harvesting (Environment Yukon, 2019).
- (b) Caribou: the drivers for population decline do not appear to be implemented in predictive modelling in the Draft Plan. Identifying priorities for management actions must include data-driven modelling. Economic development is not the sole factor influencing caribou populations. Understanding factors that have significant implications for caribou population dynamics¹⁰, such as climate change, harvesting, predation and natural disturbances (fires *etc.*), is key in implementing practical conservation efforts.

4.2 Wetlands

The Plan states that effective restoration of wetlands is impossible (§5.19, page 161). This contrasts with the surface disturbance recovery objectives (§3.5.1.1, page 38). The Federal Policy on Wetland Conservation (Government of Canada, 1991) describes no net loss of socioeconomic or ecological wetland function. Restoration of wetland function has been exemplified globally on various projects in various biogeoclimatic ecozones. Though this is a relatively new area of focus in the Yukon specifically, there is no reason to believe that the restoration of functional wetlands that provide both habitat and important hydrologic functions cannot also be achieved in the study area.

The view that restoration of functional wetland habitat is effectively impossible is not backed by science and negates the incentive for land-users to implement best possible management practices in reclamation efforts. It is imperative for maintaining function of these ecosystems that wetland

¹⁰ See Boulanger, J., *et. al.*, 2011. A Data-driven Demographic Model to Explore the Decline of the Bathurst Caribou Herd. *Journal of Wildlife Management* vol. 75 (4): 883-896.

restoration policy encourages incentivized restoration efforts. Historic disturbances in wetlands would see little industry investment if the messaging presented is discouraging towards restoration of wetland function.

The outlined thresholds could have serious economic development consequences (particularly to placer mining which occurs in wetland areas) but methodology describing how thresholds for activities in wetlands were obtained, is not included. What are the factors included in the scientific basis considered with allowing development of 25-75% of fens in each applicable LMU?

Why is there no development allowed in undisturbed bogs and marshes throughout the region within only specified SMAs and ISAs? Why is there inconsistent policy towards specified habitats? The use of arbitrary thresholds introduces a high degree of uncertainty and low confidence that the results of cumulative effects on wetlands would be meaningful and result in effective management and land-use decisions.

5 Economic Plan & Management Intent

§2.5 (Economy) states that “the Region boasts a diverse economy that includes mining, tourism, agriculture, and forestry alongside a traditional economy”, however, plans to maintain the economic health of the region relative to each of these economies, is not discussed in detail. The economic management intent of these unique economies is unclear throughout the document.

5.1 Traditional Economy & Renewable Resources

Traditional economy, although difficult to place a monetary value on, is priceless. Local THFN citizens and residents-alike use the natural environment, not only for renewable resource uses (outfitting, trapping, firewood, meat-sources, berry harvesting *etc.*), but as a source of spiritual & cultural inspiration and well-being. As a result, we are all inherently stewards towards maintaining a strong Traditional Economy.

In order to encourage responsible stewardship, these features must be clearly relayed to the public. Map 5 (First Nations Land Use and Heritage & Cultural Resources) uses purple colour-gradients for identified Traditional-use features, however, numerous inconsistencies were noted on the map. For instance, numerous heritage features are included on the map in LMU1 and yet it is marked as having no identified features; whereas north of the Kit Range/Cache Creek¹¹, no features are identifiable on the map, and its colour gradient denotes many identified features. The desire not to publicly share specific high-heritage value locations, is understandable. However, wherever possible, micro-scale features need to be clearly identified to prevent land users from having a high-level of uncertainty regarding considerations towards traditional use areas.

§’s 4.1.9 and 4.3.3 recommends buffers and avoiding or reducing the level of land-use activities in areas identified as having cultural value. However, Map 5 (Appendix A) shows virtually the entire area as having traditional-use value. It is unclear what exactly this would mean for stakeholder-use in the entire planning area.

¹¹ This area is outside of the Planning Region.

The Planning Region boasts 42 trapping concessions and 4 big game outfitting concessions – yet maps outlining value-systems relative to these economies is not provided.

5.2 Market Economy

For over a century, Yukon economic development has been closely linked to its mineral deposits [and] there is a positive outlook for the long-term health of the mining industry in the Yukon (Dawson Regional Planning Commission, 2020a).

The Mining industry generates significant economic benefits for communities that are often not well understood. §4.3.2 of the Resource Assessment Report tabulates ~9.7% of the Dawson population is employed via the mineral resource economy (placer mining, quartz exploration). This value is misleading towards the actual value brought forth to the local economy via these industries. A substantiated figure used in the mineral industry shows that typically every dollar spent in mining generates \$5 in the local economy including indirect supporting industries & local-work force (hotels, restaurants, equipment sales and maintenance, supplies, fuel, etc.). A similar multiplier value relates to jobs supported by indirect and induced economic activity. A recent study of mining related jobs in British Columbia indicates that for each (1) mining related job, 4.6 indirect, or induced, jobs are created. The DLUP Resource Assessment Report does not accurately reflect economic contributions from these types of economic activity (refer to PWC 2012, Mining Industry Economic Impact Report). Maintaining a healthy mineral resource economy is key to ensuring long-term socioeconomic health of the Planning Region.

5.2.1 Hard Rock Mineral Exploration

A summary on the economic impacts for hard rock mineral exploration from the Resource Assessment Report is provided in italics, resulting economic impact follows where not explicitly defined:

- *“Hard rock mineral exploration is a significant economic activity within the planning region. In 2018, exploration expenditures in the region reached a record high of \$147 million”. This equates to roughly \$735 million of socioeconomic benefit to the Planning Region and the Yukon in 2018.*
- *“As of July 2019, there are 14 active mineral exploration projects in the planning region being undertaken by nine companies (or individuals). These projects employ over 400 workers (both full-time and temporary) of which 13% are First Nations people and 11% live in the Dawson area”; and*
- *“The Coffee Gold Project is a proposed open-pit gold mine that is expected to be in operation for 8-10 years with potential for extension. The mine is expected to contribute \$251.1 million to the Yukon economy annually during production and contribute \$427.5 million to government revenues, in the form of taxes and royalties, over its lifetime”.*

The hard rock industry cycle is largely tied to global economic conditions. Placer mining has remained a steadfast economy in the Territory; more specifically the Planning Region boasts the most productive placer mining district in the territory.

5.2.2 Placer Mining

As of July 2019, there are 18,867 active and pending placer claims in the planning region covering an area of 1,434 km² or 3.6% of the region. Claims are primarily located within the watersheds of the Klondike, Indian, West Yukon (Fortymile, Sixtymile and Moosehorn Range rivers) and Lower Stewart Rivers (Dawson Regional Planning Commission, 2020a).

From 1978 to 2014, the total value of [reported] extracted placer gold in the region is around \$1.3 billion and on an annual basis placer mining contributes approximately \$90 million to the Yukon economy (Government of Yukon, 2016 and 2019). Utilizing these figures, approximately \$450 million dollars has been contributed to the Yukon's economy directly and indirectly via placer gold from within the Placer Industry from 1978 to 2014.

Sustaining a healthy placer mining industry is key for the economic security of the Planning Region as the single largest economic sector. While this natural resource has been developed in the region for over a century, many placer deposits have been depleted in the heavily developed areas. While there are opportunities to reclaim and restore these historically disturbed areas, the industry will continue to move into adjacent prospective areas that share the same geologic settings. This movement into adjacent areas needs to be accommodated to allow for a healthy placer mining industry and regional economy. For instance, in LMU 12 the natural progression will be to move further eastward to the Upper Indian River (LMU 19), which has same geological setting, and is demonstrating comparable economic placer values. LMU 19 specifically is one of the most significant growth areas supporting the economic future for the Klondike Goldfields. This area alone has over 1,100 mining claims under 34 different operators.

The Indian River watershed has been identified as "the most important placer gold producing watershed in the Yukon" and more than 50% of the Yukon's placer gold is derived from the watershed every year (DRPC Draft Plan, 2021). However, much of the central Indian River and its tributaries are mostly mined out from haven been mined multiple times (*i.e.*, the lower reaches of Eureka Creek have been largely mined out). As such, the natural progression is to move further eastward to the Upper Indian River (LMU19) which has a similar geological setting (equivocal economic placer values¹²). Currently, there are 1,196 placer claims owned by 34 operators on the Upper Indian River.

The Main Indian River Drainage is approximately 26 miles and produced about \$650M between 1978 and 2014 (post coarse-gold historic dredge extraction). Modern-day operations on the first 5-miles of Australia Creek drainage have demonstrated comparable grades as on the main Indian River (Lonesome Dove Placers - pers. comm., 2021). This demonstrates the potential for a sustainable placer mining industry for decades to come via multiple operators. Development within this LMU would foreseeably result in a >\$5M/year benefit to the local economy. The level of long-term economic loss if this wholly ISA 4-surrounded area will be massive.

Though the focus in LMU's such as 12 and 19 have mostly been on placer mining, these placer mining areas are also highly prospective for future hard rock developments - as the source of the alluvial gold. Accommodation should be made for such future potential in these types of areas with extensive placer and hard rock exploration and development to allow for sustainable economic activity in this important sector of the planning region's economy. Many mining districts across North America begin as placer

¹² The Upper Indian River has seen less historic mining as it was the main source of hydro for operators in the region (historic ditch).

mining locations, where metals such as gold accumulate at the surface, however over time as the sources of these surface deposits are discovered and developed it is not unusual to see economic value in the corresponding hard rock deposits that may include other metals than gold that is many times larger than the original placer value and that can support a long term sustainable mineral development industry. To ensure the regional economic health for future generations, these areas must remain open to responsible economic development.

6 Restoration Practises & Closure

The rigid view that wetland habitat restoration is effectively impossible, negates the incentive for land-users to implement costly, best possible management practices in reclamation efforts. It is imperative for the ecological health of these ecosystems that wetland restoration policy encourages incentivized restoration efforts. Historic disturbances in wetlands would see little industry investment if the messaging presented is discouraging towards restoration of wetland function.

Federal Policy on Wetland Conservation (Government of Canada, 1991), outline responsible industry practices through recommendations for wetland restoration. This policy outlines the desired outcome as restoring wetland function. Globally, numerous projects have outlined the ability to restore wetland function¹³ which aligns with the spirit of the Federal Policy on wetland conservation.

Question 2: How does the currently proposed Plan ensure that YG policies will reflect a Territorially recognized land-use Plan?

There is currently no accepted Wetland restoration or reclamation Policy. YG and the Klondike Placer Miners Association (KPMA), have both outlined recommended practices to restore the functionality of a wetland, which aligns with the spirit of Federal Policy. However, to date, YG has not accepted a Reclamation Plan in the Planning Region.

Creation of wetland restoration policies outlining acceptable industry practises are required to provide a clear path for economic development in regions within and proximal to wetlands (*i.e.*, placer mining, road management). Polices concerning wetland restoration should be consistent regardless of LUD and should be standardized for consistent stewardship in the Planning Region.

Current regulatory processes within the hard-rock industry not only incentivize habitat restoration of modern disturbance, but also historic disturbances. Additionally, these processes ensure that land-users abide by specific conditions that reflect habitat preservation of ecological sensitivities. Implementing restoration procedures through permitting conditions across the industry, as a whole, is key to successful execution of the Plan ecological goals and integrated stewardship practises.

In §4.2.1.2, ‘seasonal’ road closure is discussed briefly. However, recommendations are not included and does not outline approved practises for fully decommissioning closure of all road-types (industry, forestry *etc.*). Fully funded decommissioning plans should be included through permitting and road closure plans should be completed on non-gazetted roads of all-types at the expense of the user (and not be enforced just to industry).

¹³ Example: Sandhill Fen Watershed; Syncrude, 2020.

7 Regulatory Policy & Implementation

Under the current Draft, it is not clear how the Commission foresees regulatory implementation and mitigation concerning the draft plan to avoid unintended consequences and potentially more disturbance in high protection areas with no currently implemented monitoring. Understanding the current level of disturbance in the LMU's is critical to avoid potential for ceased operations and operators having large areas of open disturbance and no incentive to reclaim.

In addition, it is not clear how much Implementation groups capacities will need to increase in order to implement monitoring of such numerous land use designations with narrow thresholds. While tabulation and monitoring of current levels of cumulative disturbance is established, and the Draft Plan is refined into a Final Plan for implementation, its imperative continued responsible economic development (including reviewing Mining Land Use plans) continues to maintain a stable local economy.

It is imperative that the Plan reflects the current, effective, in-place regulatory regime for permitting. This process incentivizes concurrent restoration efforts and includes permitting conditions that guide land-users to mitigate potential impacts whenever possible. Current regulatory processes within the hard-rock industry, should be extended to placer mining, to incentivize habitat restoration of modern disturbance, but also historic disturbances. Additionally, these processes ensure that land-users abide by specific conditions that reflect habitat preservation of ecological sensitivities. Implementing restoration procedures through permitting conditions across the industry, as a whole, is key to successful execution of the Plan ecological goals and integrated stewardship practises.

The Senior Liaison Committee should encourage YG to use consistent policy should be employed towards both Placer and Quartz operations. Pre- and Post-Season reporting should be conditions of Mining Land Use Permits (MLUPs). Presently, quartz operations are given thresholds of allowable disturbance within their projects. This incentivizes operators to progressively reclaim. Implementation of appropriate thresholds for placer operations with permitting conditions outlining reasonable allowable open-disturbances, would avoid LMU's from reaching critical thresholds of cumulative disturbance. This avoids potential for a disturbance rush upon implementing the Regional Land Use Plan whilst avoiding potential for ceased operations and operators having large areas of open disturbance.

PART TWO – DETAILED RECOMMENDATIONS BY LMU

8 Recommended Changes to Currently Proposed Land Management Units

Striking the right balance in Land Use Designations is a seemingly impossible task. However, it also provides the opportunity for the Commission to use long-term foresight in the future of the region and its inhabitants. TPX recognizes the value in the currently proposed LUD, though a few small changes could allow for a timely implementation of the LUP as well as balancing land usage for a bright long-term future.

The current Land Management Units have clearly undergone an extensive review process for clarifying rationale in their proposed designations. This is a tremendous amount of work and clearly reflects THFN

values. However, as pointed out in the Summary, the Methodology described in §1.6.2.5 (Priority Criteria for Candidate Conservation Areas) do not match Draft Land Management Units currently proposed Land Use Designations.

As such the recommended changes to current Land Management Unit designations are the result of the following considerations:

- 1) Density and overlap of high-value features, namely:
 - Ecological: Fish & Wildlife Habitat, Water resources, Wetlands, Ecosystem Representation and Landscape Connectivity;
 - Heritage, Social & Cultural Values, Heritage Resources & Sites, and Harvesting Rights & Activities; and
 - Renewable (Timber, Agriculture, Tourism) and Non-Renewable Resource (Hard Rock Exploration, Placer Mining) Use and potential.
- 2) Ease of implementation and enforcement to reflect capacity of YTG and THFN.
- 3) A higher-percentage of fully protected areas (refer to **Tables 3 and 4.**, following pages) whilst balancing currently known resources would allow for timely and efficient implementation – which would service all parties and future generations¹⁴; and
- 4) Grandfathering known economic development areas for continued work to allow for progressive restoration and closure under the currently implemented regulatory regime.

8.1 Recommended Changes to Proposed LUDs

Refer to **Tables 3 and 4** (following pages), and **Figure 2** (page 41) for recommended changes to proposed land use designations and details pertaining to specific LMUs. For convenience, **Figure 1.**, is re-inserted on page 33.

¹⁴ Please refer to following pages for detailed rationale to these recommended changes for currently drafted Land Management Units.

Table 3. Recommended Changes to Currently Proposed Landscape Management Units (LMUs)¹⁵

| Draft Plan LMU# | DP Name | THFN Name | Draft Land Use Plan | | | | TPX Proposed Changes | | | |
|-----------------|------------------------------------|----------------------|---------------------|--------|-------------------------|----------|----------------------|---------|-------------------------|----------|
| | | | LUD | CETier | Area (km ²) | Region % | LMU New | LUD | Area (km ²) | Region % |
| 1 | Tatonduk River | Tthetãwndëk | SMA 2 | ISA 1 | 7,950.4 | 19.95% | 1a | SMA 1 | 5,021.3 | 12.60% |
| | 1b | | | | | | ISA 2 | 2,929.1 | 7.35% | |
| 2 | Eagle Plains | Ch'èzhàn wèchèl | ISA 2 | ISA 2 | 328.9 | 0.83% | 2 | ISA 2 | 328.9 | 0.83% |
| 3 | Yukon River Corridor | Chu kon' dëk | SMA 2 | ISA 2 | 925.7 | 2.32% | 3 | ISA 2 | 925.7 | 2.32% |
| 4 | Fifteen - Chandindu | Tsey dëk - Tthen dëk | SMA 2 | ISA 1 | 2,760.6 | 6.93% | 4 | SMA 1 | 2,760.6 | 6.93% |
| 5 | Tombstone | Ddhäl ch'ël | TTP | NA | 2,100.6 | 5.27% | 5 | TTP | 2,100.6 | 5.27% |
| 6 | Klondike | Tr'ondëk | ISA 2 | ISA 2 | 831.0 | 2.09% | 6 | ISA 2 | 831.0 | 2.09% |
| 7 | Upper Brewery/Hamilton | | SMA 2 | ISA 1 | 1,681.3 | 4.22% | 7 | ISA 2 | 1,681.3 | 4.22% |
| 8 | Lower Brewery - Hamilton | | ISA 3 | ISA 3 | 1,410.6 | 3.54% | 8 | ISA 3 | 1,410.6 | 3.54% |
| 9 | Clear Creek | | ISA 4 | ISA 4 | 472.9 | 1.19% | 9 | ISA 4 | 472.9 | 1.19% |
| 10 | Upper Klondike | | SMA 1 | NA | 983.9 | 2.47% | 10 | SMA 1 | 983.9 | 2.47% |
| 11 | Flat Creek Wetlands | | ISA 1 | ISA 1 | 367.8 | 0.92% | 11a | SMA 1 | 367.8 | 0.92% |
| 12 | Flat Creek Wetlands | Nächo dëk | ISA 4 | ISA 4 | 6,606.1 | 16.58% | 11b | SMA 1 | 520.7 | 1.31% |
| | East | | | | | | 12a | ISA 4 | 5,871.4 | 14.73% |
| | Bonanza Creek Confluence | | | | | | 12b | ISA 2 | 75.1 | 0.19% |
| | Indian River Confluence | | | | | | 12c | ISA 2 | 138.9 | 0.35% |
| 13 | Klondike Valley | | FPA | NA | 198.4 | 0.50% | 13 | FPA | 198.4 | 0.50% |
| 14 | Dawson City | | CA | NA | 81.4 | 0.20% | 14 | CA | 81.4 | 0.20% |
| 15 | Forty Mile River | Ch'èdähdëk | ISA 2 | ISA 2 | 1,118.0 | 2.81% | 15 | ISA 3 | 1,118.0 | 2.81% |
| 16 | Swede Creek | | ISA 2 | ISA 2 | 472.5 | 1.19% | 16 | ISA 3 | 472.5 | 1.19% |
| 17 | Sixtymile | Khel dëk | ISA 3 | ISA 3 | 3,403.1 | 8.54% | 17 | ISA 3 | 3,468.6 | 8.70% |
| 18 | Matson Uplands | | SMA 1 | NA | 533.2 | 1.34% | 18 | SMA 1 | 773.4 | 1.94% |
| 19 | Upper Indian River Wetlands | | SMA 2 | ISA 2 | 481.0 | 1.21% | 19 | ISA 4 | 481.0 | 1.21% |
| 20 | Coffee | Tthatryän | ISA 3 | ISA 3 | 999.9 | 2.51% | 20 | ISA 3 | 999.9 | 2.51% |
| 21 | White | Tädzan dëk | ISA 1 | ISA 1 | 4,124.3 | 10.35% | 21 | ISA 2 | 3,877.6 | 9.73% |
| | | | | | | | 25a | ISA 3 | 246.7 | 0.62% |
| 22 | Scottie Creek Core | | SMA 2 | ISA 2 | 355.1 | 0.89% | 25b | ISA 3 | 68.8 | 0.17% |
| | | | | | | | 22 | SMA 1 | 286.3 | 0.72% |
| 23 | Forty Mile Caribou Corridor - Low | | ISA 2 | ISA 2 | 850.5 | 2.13% | 23 | ISA 3 | 614.4 | 1.54% |
| 24 | Forty Mile Caribou Corridor - High | | ISA 1 | ISA 1 | 815.6 | 2.05% | 24 | ISA 3 | 746.0 | 1.87% |

¹⁵ Spatial Data sources are listed in Appendix I.

Figure 1. Proposed reduced LUD and associated changes to LMU's

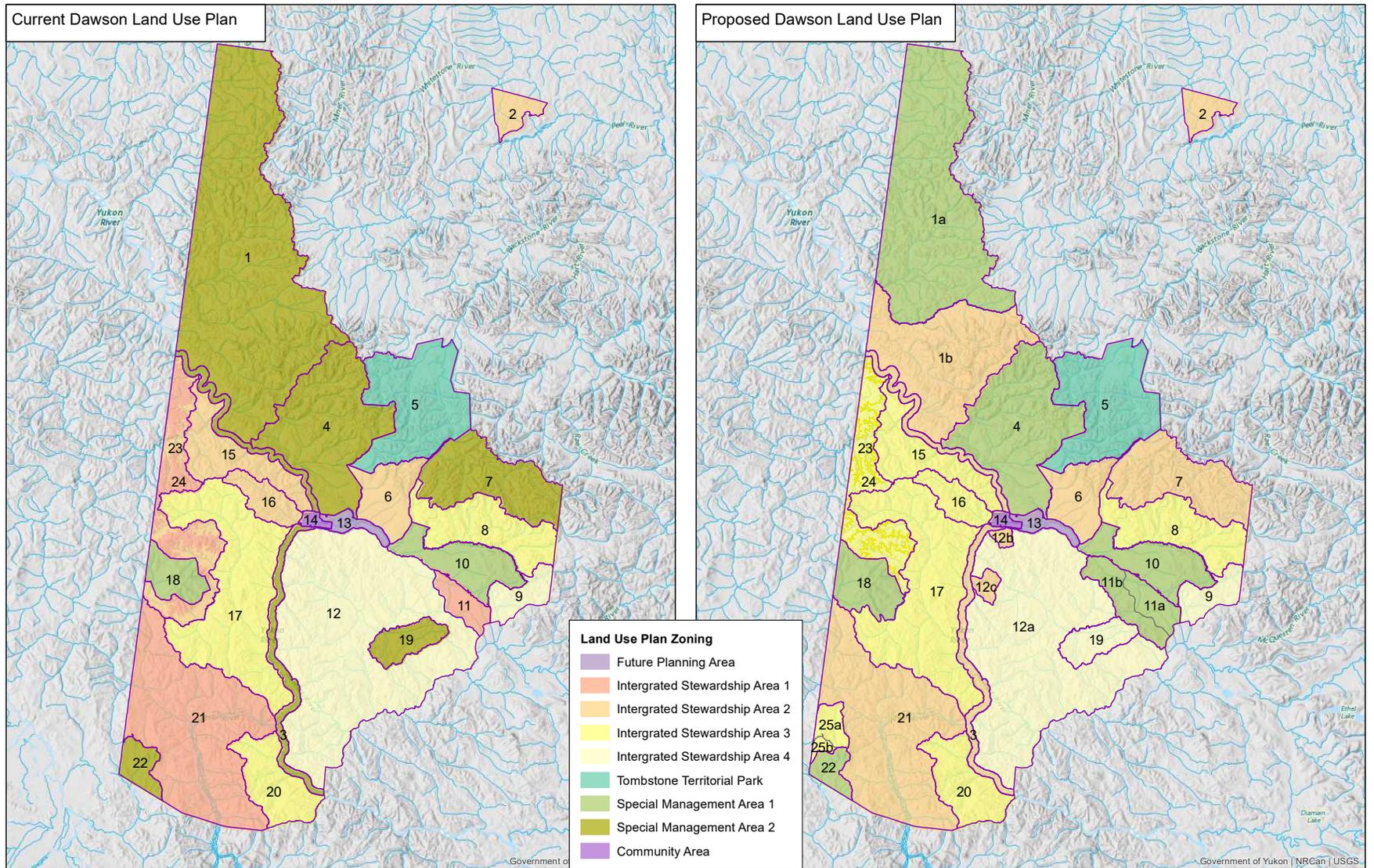


Table 4. Resulting Changes to LMU Areas (km²) and Area (%) of Planning Region

| LUD | Draft Land Use Plan | | | | TPX Proposed Changes | | | | Outcome |
|-------|-------------------------|----------|--|---|--|----------|--|---|---|
| | Area (km ²) | Region % | Area if Critical Disturbance (km ²) of LUD | Area If Critical Disturbance (%) of LUD | Area (km ²) | Region % | Area if Critical Disturbance (km ²) of LUD | Area If Critical Disturbance (%) of LUD | |
| SMA 1 | 1,517.1 | 3.81% | 0.00 | 0.00% | 10,714.1 | 26.88% | 0.00 | 0.00% | A 700% increase in SMA1 (fully protected area) |
| SMA 2 | 14,154.1 | 35.52% | Classified Under ISA1&2 | | Removal of SMA 2 Designation - placement into SMA 1 and ISA Catagories | | | | Simpler regulatory process and mitigation of increased capacity requirements for implementation |
| ISA 1 | 5,307.7 | 13.32% | 44.20 | 0.11% | Removal of ISA 1 Designation - placement into SMA 1 and ISA Catagories | | | | |
| ISA 2 | 3,600.9 | 9.04% | 53.63 | 0.13% | 10,787.5 | 19.72% | 78.58 | 0.20% | Three classes of Integrated Stewardship allowing for development of existing (known) economic resources whilst reducing the total area of high development |
| ISA 3 | 5,813.6 | 14.59% | 145.34 | 0.36% | 9,145.5 | 30.30% | 301.86 | 0.76% | |
| ISA 4 | 7,079.1 | 17.76% | 353.95 | 0.89% | 6,825.3 | 17.13% | 341.27 | 0.86% | |
| FPA | 198.4 | 0.50% | N/A | | 198.4 | 0.50% | N/A | | Unchanged |
| CA | 81.4 | 0.20% | | | 81.4 | 0.20% | | | |
| TTP | 2,100.6 | 5.27% | | | 2,100.6 | 5.27% | | | |

Refer to §1 detailing rationale in defining the proposed changes to LMU designations.

LMU #1 – North Tthetäwndëk

This land management unit is a large one, comprising approximately 20% of the DLUP area¹⁶. As such a large area, the region has areas of higher concentrated ecological value that have seen very little human impact. In particular, the northern half of this polygon is noted for both rare/important ecosystems and high-value fish & wildlife regions. Due to limited accessibility to the northern portion of this LMU, implementing restrictive land management would require limited person-power.

This northern portion of LMU#1 encompasses high-value ecological areas, including vast areas of all listed ecologically important criteria: unglaciated limestone/dolostone (735.85 km²), intact forests >140 years old (251.89 km²), high-unglaciated terrain, concentrated wetlands, movement of Chinook salmon (bordering), rare plant and animal species, sharp-tailed grouse key area, key waterfowl areas, and key raptor areas (825.26 km²; Tintina Trench Fly-way - 340.17 km²).

In fact, by evaluated LMU, it boasts the largest unglaciated limestone area, intact forests, and the second largest area for Tintina Trench Flyway and key raptor sites. The northern half of LMU #1 also includes a significant length of Tr’ondëk Hwëch’in Traditional trails and Settlement Lands (<100 ha and > 100 ha).

It is recommended that this polygon be divided into two smaller Land Management Units – a northern half (5,021.3 km², 12.6%) with an SMA 1 designation, and a southern half (2,929.1 km², 7.3%) with and ISA 2 designation to reflect varying levels of ecological importance, current land use and ease of implementation. This is a wonderful trade-off to allow for a higher-level of full protection of a large intact area with high-habitat value, whilst mitigating issues with existing stakeholder use where there is pre-existing activity.

Increasing the designation of the northern half of LMU #1 from a SMA 2 to a SMA 1 would, in itself, increase the currently proposed fully protected Special management area from 3.8% (to 16.4%).

Adjusting the southern half of LMU #1 from a SMA 2 to an ISA 3 would allow for current activities to continue whilst having a greater level or protection on the LMU as a whole, see **Table 5.**, following page.

¹⁶ As laid out in the Draft Plan, LMU #1 totals 7,950 km² of 39,852.9 km².

Table 5. LMU 1 – Summary of Values and Proposed Changes¹⁷

| LMU #1 | | Current Designation in Draft Plan | SMA 2 | | |
|--|------------------------------|---|------------------------------|------------------------------|--------|
| Label - North | | TH Name | Tthetāwndëk | | |
| Values Identified | | | Value Feature Present | Number Identified or Present | |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | ✓ | 735.85 | |
| | | In-tact Forest (km ²) | ✓ | 251.89 | |
| | | Wetlands (km ²) | ✓ | 0.57 | |
| | | Tintina Trench Fly-way (km ²) | ✓ | 340.18 | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | | |
| | | Chinook Spawning Habitat (km ²) | | ✓ | 27.92 |
| | | Migratory Bird - High Concern | | ✓ | 120.21 |
| | | Sharp tailed Grouse - Key Area | | ✓ | 11.21 |
| | | Waterfowl - Key Area | | | |
| | | Raptors - Key Area (km ²) | | ✓ | 825.26 |
| Heritage | THFN Settlement Lands | <100 Ha | ✓ | 3 | |
| | | >100 Ha - Category A (km ²) | ✓ | 89.27 | |
| | | >100 Ha - Category B (km ²) | ✓ | 20.04 | |
| | Sites & Trails | TH Traditional Trails | | ✓ | 3 |
| | | Land Use Sites | | | |
| | | Important Community Sites | | | |
| | | Recorded Historic Resouce | | ✓ | 2 |
| | | Archaeological Site | | ✓ | 1 |
| Paleontological Site | | | | | |
| Economic | Quarz Claims | Claims | ✓ | 804 cl. | |
| | | Number of Stakeholders | ✓ | 5 | |
| <p>Recommended Changes: Divide large LMU into Northern (Tatonduk River - 1a) and Southern (Yukon River North - 1b) Domains to reflect overlap of high-ecological and heritage features in the North. All pre-existing development occurs in the Southern Domain incl. historical mining and 804 quartz claims. There are no placer claims in proposed LMU 1b - so very little disturbance would occur in areas defined as wetlands.</p> | | | | | |
| Recommended Designation: Divide into 2 Domains | | | Area (km²) | Region % | |
| Northern (Tatonduk River - 1a) = SMA 1 | | | 5,021.3 | 12.60% | |
| Southern (Yukon River North - 1b) - ISA 2 | | | 2,929.1 | 7.35% | |

¹⁷ No spatial data extraction could be completed on high-unglaciaded, rare plant & animal species for all of the LMU's reviewed in the following pages.

LMU #4 – FIFTEEN/CHANDINDU – TSEY DĒK/TTHEN DĒK

This LMU has very high ecological habitats and a high proportion of First Nation Settlement Lands. In addition, it shares a border with Tombstone - Ddäl Ch’ël Park¹⁸. In addition, it encompasses the largest Tintina Trench Flyway (472.21 km²), >100 Ha - Category A (381.49 km²) and >100 Ha - Category B (299.87 km²) THFN Settlement Lands. With very few non-renewable resources highlighted, this is an excellent opportunity for a sizable high-preservation area. It is proposed the Commission considers increasing its designation to SMA 1 (see **Table 6.**, below).

Table 6. LMU 4 – Summary of Values and Proposed Changes

| LMU #4 | | Current Designation in Draft Plan | SMA 2 | | |
|--|------------------------------|---|------------------------------|------------------------------|--|
| Label - 15 - Chandindu | | TH Name | Tsey dĕk - Tthen dĕk | | |
| Values Identified | | | Value Feature Present | Number Identified or Present | |
| Ecological | Rare or Important Ecosystems | Unglaciated Limestone or Dolostone (km ²) | | | |
| | | In-tact Forest (km ²) | ✓ | 30.14 | |
| | | Wetlands (km ²) | ✓ | 0.33 | |
| | | Tintina Trench Fly-way (km ²) | ✓ | 472.21 | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | | |
| | | Chinook Spawning Habitat (km ²) | ✓ | 82.87 | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 56.29 | |
| | | Sharp tailed Grouse - Key Area | | | |
| | | Waterfowl - Key Area | | | |
| | | Raptors - Key Area (km ²) | ✓ | 64.45 | |
| Heritage | THFN Settlement Lands | <100 Ha | ✓ | 4 | |
| | | >100 Ha - Category A (km ²) | ✓ | 381.49 | |
| | | >100 Ha - Category B (km ²) | ✓ | 299.87 | |
| | Sites & Trails | TH Traditional Trails | ✓ | 6 | |
| | | Land Use Sites | | | |
| | | Important Community Sites | | | |
| | | Recorded Historic Resource | ✓ | 10 | |
| | | Archaeological Site | ✓ | 16 | |
| Paleontological Site | | | | | |
| Economic | Placer & Quarz Claims | Claims | ✓ | 10 Quartz cl. | |
| | | Number of Stakeholders | ✓ | 3 | |
| Recommended Changes: This LMU has very high ecological habitats and a high proportion of First Nation Settlement Lands. In addition, it shares a border with Tombstone Territorial Park . With very few non-renewable resources highlighted, this is an excellent opportunity for a sizable high-preservation area. | | | | | |
| Recommended Designation: Unchanged Size | | | Area (km²) | Region % | |
| 15 - Chandindu | | SMA 1 | 2,760.6 | 6.93% | |

¹⁸ Although no changes are recommended to the LUD for LMU #5 (Tombstone - Ddäl Ch’ël Territorial Park); it is recommended that the direction and future of the Territorial Park be evaluated to ensure it reflects THFN’s vision and not YTG’s plans.

LMU #7 – UPPER BREWERY/HAMILTON

Although the Upper Brewery/Hamilton LMU does not include appreciable quantitative ecological or heritage values, it does have considerable non-quantifiable caribou, sheep, and moose habitat. The Hart River caribou is currently listed as a species of special concern under SARA. As such, this LMU requires high protection. In addition, this LMU covers a vast portion of valuable Tourism view-scape from the Dempster Highway. However, the LMU features significant mineral potential and existing mineral dispositions. As such, under the proposed changes to LUDs, it is suggested that this LMU has the highest ISA-designation (refer to **Table 7.**, below).

Table 7. LMU 7 – Summary of Values and Proposed Changes

| LMU #7 | | Current Designation in Draft Plan | SMA 2 | |
|---|------------------------------|---|------------------------------|------------------------------|
| Label - Upper Brewery/Hamilton | | | | |
| Values Identified | | | Value Feature Present | Number Identified or Present |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | | |
| | | In-tact Forest (km ²) | ✓ | 7.78 |
| | | Wetlands (km ²) | ✓ | 0.04 |
| | | Tintina Trench Fly-way (km ²) | | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | |
| | | Chinook Spawning Habitat (km ²) | | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 17.09 |
| | | Sharp tailed Grouse - Key Area | | |
| | | Raptors - Key Area (km ²) | ✓ | 62.07 |
| | Heritage | THFN Settlement Lands | <100 Ha | ✓ |
| >100 Ha - Category A (km ²) | | | | |
| >100 Ha - Category B (km ²) | | | ✓ | 1.10 |
| Sites & Trails | | TH Traditional Trails | | |
| | | Land Use Sites | ✓ | 1 |
| | | Important Community Sites | ✓ | 2 |
| | | Recorded Historic Resouce | ✓ | 2 |
| | | Archaeological Site | ✓ | 6 |
| Economic | Placer & Quarz Claims | Claims | ✓ | 1,468 cl. |
| | | Number of Stakeholders | ✓ | 10 |
| Recommended Changes: Considerable sheep, moose, and caribou habitat. The Hart River caribou is a species of special concern under SARA. Covers a vast portion of valuable Tourism view-scape from the Dempster Highway. However, the LMU features significant mineral potential and existing mineral dispositions. As such, under the proposed changes to LUDs, it is suggested that this LMU has the highest ISA-designation. | | | | |
| Recommended Designation: Unchanged Size | | | Area (km²) | Region % |
| 7 - U. Brewery | | ISA 2 | 1,681.3 | 4.22% |

LMU #11 – FLAT CREEK WETLANDS

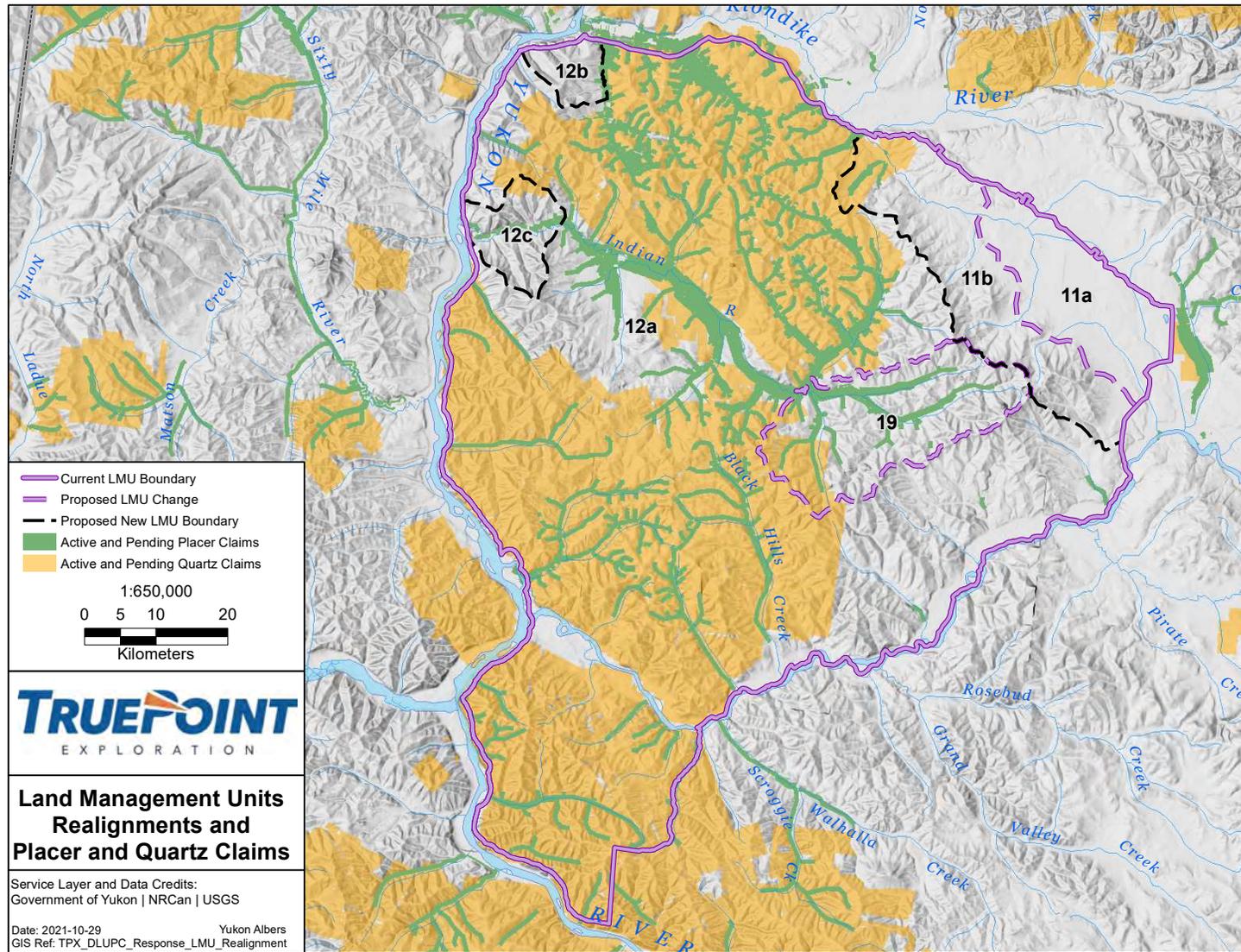
The Flat Creek Wetlands LMU, is currently proposed as a relatively small LMU at 367.77 km². This wetland borders SMA 1-designated LMU 10 (Upper Klondike), is 84%-covered by Tintina Trench Flyway and is the 2nd highest waterfowl habitat of the LMU's reviewed. In addition, it contains a high percentage for modelled high concern habitat for migratory birds.

Significant placer-mineral potential has been identified on tributaries of Flat Creek to the northwest. However, currently, this wetland is relatively pristine and undisturbed. It is proposed that the designation be increased to SMA 1 and the LMU area be expanded by 520.7km² (or 1.31%) to include the undisturbed upper Indian River watershed and to allow a wider buffer for migratory bird habitat and wetland protection (see **Table 8.**, following page, **Figure 2**, page 41). This would also compensate for a modified designation of LMU 19 (refer to pages 48-50).

Table 8. LMU 11 – Summary of Values and Proposed Changes

| LMU #11 | | Current Designation in Draft Plan | ISA 1 | |
|---|------------------------------|---|------------------------------|--------|
| Label - Flat Creek Wetlands | | | | |
| Values Identified | | Value Feature Present | Number Identified or Present | |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | | |
| | | In-tact Forest (km ²) | ✓ | 2.65 |
| | | Wetlands (km ²) | ✓ | 17.58 |
| | | Tintina Trench Fly-way (km ²) | ✓ | 307.46 |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | |
| | | Chinook Spawning Habitat (km ²) | | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 126.88 |
| | | Sharp tailed Grouse - Key Area (km ²) | ✓ | 105.96 |
| | | Waterfowl - Key Area | ✓ | 8.04 |
| | | Raptors - Key Area (km ²) | | |
| Heritage | THFN Settlement Lands | <100 Ha | ✓ | 2 |
| | | >100 Ha - Category A (km ²) | | |
| | | >100 Ha - Category B (km ²) | ✓ | 0.0002 |
| | Sites & Trails | TH Traditional Trails | | |
| | | Land Use Sites | ✓ | 2 |
| | | Important Community Sites | | |
| | | Recorded Historic Resource | ✓ | 1 |
| | | Archaeological Site | ✓ | 4 |
| Paleontological Site | ✓ | 1 | | |
| Economic | Placer & Quarz Claims | Claims | | None |
| | | Number of Stakeholders | | None |
| <p>Recommended Changes: This LMU is 84%-covered by Tintina Trench Fly-way and is the 2nd highest waterfowl habitat of the LMU's reviewed. In addition, it contains a high percentage for modelled high concern habitat for migratory birds and is contiguous with the Upper Klondike LMU (SMA1). Despite its placer potential, there are is active, non-renewable resource development. This LMU could expand to more then double it's current size to include increased wetland value.</p> | | | | |
| Recommended Designation: INCREASE size by 520.7km² (1.31%) | | Area (km²) | Region % | |
| 11a -Flat Ck Wet. | SMA 1 | 367.8 | 0.92% | |
| 11b -Flat Ck Wet. | SMA 1 | 520.7 | 1.31% | |

Figure 2. Proposed Adjustments to LMUs 11, 12 and 19



LMU #12 – EAST - NÄCHO DĚK

Of all the LMUs in the Planning Area, this one is known for its world-class gold mineral potential. The LMU should remain open for continued exploration and development in order to sustain a healthy socio-economic environment for generations to come.

However, it is important to note that it has the (exponentially) highest recorded historic resource, Archaeological and Paleontological Sites. It also covers significant ecological and heritage features including: the largest proportion of Sharp Tailed Grouse (944.97 km²), wetlands (although significantly historically disturbed), and the highest Chinook Spawning (122.71 km²).

To accommodate for conservation of these key values, it is recommended that the Yukon River confluences of the Bonanza Creek (12b) and Indian River (12c), be removed from LMU 12 and given ISA-designation (refer to **Figure 2.**, previous page and **Table 9.**, following page). Additionally, an SMA 1 designation with the expansion of the Flat Creek LMU (LMU 11b), would further protect key values currently within LMU 12.

As this LMU covers the highest development in an area¹⁹ comprised of wetlands and the highest salmon spawning grounds, it presents a unique integrated stewardship and research opportunities. It is recommended that ISA designated Bonanza Creek (12b) and Indian River (12c) be utilized for water quality monitoring and fish-studies. These two locations would be ideal for ecological research given they are downstream from high-development areas.

Lastly, the expansion of the bordering Flat Creek Wetlands (11b), removal of Bonanza Creek (12b) and Indian River (12c) confluences, would allow for the wholly ISA 4-enclosed LMU 19 to change to ISA 4. This would allow for continued established economic development and protect the future economy of the Planning Region.

¹⁹ Not including Future Planning and Community Areas.

Table 9. LMU 12 – Summary of Values and Proposed Changes

| LMU #12 | | Current Designation in Draft Plan | ISA 4 | |
|--|-----------------------------|---|------------------------------|------------------------------|
| Label - East | | TH Name | Nächo děk | |
| Values Identified | | | Value Feature Present | Number Identified or Present |
| Ecological | Rare or Important Ecoystems | Unglaciaded Limestone or Dolostone (km ²) | | |
| | | In-tact Forest (km ²) | ✓ | 46.25 |
| | | Wetlands (km ²) | ✓ | 89.66 |
| | | Tintina Trench Fly-way (km ²) | ✓ | 57.18 |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | |
| | | Chinook Spawning Habitat (km ²) | ✓ | 121.45 |
| | | Migratory Bird - High Concern (km ²) | ✓ | 122.71 |
| | | Sharp tailed Grouse - Key Area (km ²) | ✓ | 944.97 |
| | | Waterfowl - Key Area | | |
| | | Raptors - Key Area (km ²) | ✓ | 520.46 |
| Heritage | THFN Settlement Lands | <100 Ha | ✓ | 4 |
| | | >100 Ha - Category A (km ²) | ✓ | 122.15 |
| | | >100 Ha - Category B (km ²) | ✓ | 55.02 |
| | Sites & Trails | TH Traditional Trails | ✓ | 1 |
| | | Land Use Sites | ✓ | 2 |
| | | Important Community Sites | | |
| | | Recorded Historic Resouce | ✓ | 156 |
| | | Archaeological Site | ✓ | 73 |
| | Paleontological Site | ✓ | 101 | |
| Economic | Placer & Quarz Claims | Claims | ✓ | 32,633 cl. |
| | | Number of Stakeholders | ✓ | 455 |
| <p>Recommended Changes: Opportunity to increase larger wetland areas in undeveloped region (LMU11). Removal of two smaller LMUs (Bonanza Creek and Indian River) which confluence with the Yukon River, could provide ideal water quality monitoring sites for unique Integrated Stewardship scencarious. Salmon will not travel up these creeks to populate inland areas, if the confluences themselves are not protected and fair water quality is observed.</p> | | | | |
| Recommended Designation: REDUCE Size with removal of 2 LMUs | | | Area (km²) | Region % |
| 12a - East | | ISA 4 | 5,871.4 | 14.73% |
| 12b - Bonanza Confl. | | ISA 2 | 75.1 | 0.19% |
| 12c - Indian Riv. Confl. | | ISA 2 | 138.9 | 0.35% |

LMU #15 – FORTYMILE RIVER - CHĒDÄHDĒK

The Fortymile River LMU encompasses an area of tremendous overlapping land-use values including historic mining, placer mining, trapping, forestry, recreation and harvesting pursuits along the Fortymile River. To support potential for increased Chinook spawning, other important considerations and recommended (seasonal) mining land-use permitting conditions, should be made. Additionally, this presents a unique scenario to educate the community and tourists on the potential impacts of motorized watercraft transportation. To mitigate the multi-use value of the region and for regulatory simplification over a widespread region, it is recommended the area be given and ISA 3-designation and integrated stewardship opportunities be developed in the imminent future (see **Table 10.**, below).

Table 10. LMU 15 – Summary of Values and Proposed Changes

| LMU #15 | | Current Designation in Draft Plan | ISA 2 | |
|--|------------------------------|---|------------------------------|------------------------------|
| Label - 40 Mile River | | TH Name | Chĕdähdĕk | |
| Values Identified | | | Value Feature Present | Number Identified or Present |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | | |
| | | In-tact Forest (km ²) | ✓ | 5.47 |
| | | Wetlands (km ²) | | |
| | | Tintina Trench Fly-way (km ²) | | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | |
| | | Chinook Spawning Habitat (km ²) | | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 13.10 |
| | | Sharp tailed Grouse - Key Area (km ²) | ✓ | 74.44 |
| | | Waterfowl - Key Area | | |
| | | Raptors - Key Area (km ²) | ✓ | 162.95 |
| Heritage | THFN Settlement Lands | <100 Ha | ✓ | 3 |
| | | >100 Ha - Category A (km ²) | ✓ | 12.64 |
| | | >100 Ha - Category B (km ²) | | |
| | Sites & Trails | TH Traditional Trails | ✓ | 2 |
| | | Land Use Sites | | |
| | | Important Community Sites | | |
| | | Recorded Historic Resource | ✓ | 1 |
| | | Archaeological Site | ✓ | 2 |
| Paleontological Site | | | | |
| Economic | Placer & Quarz Claims | Claims | ✓ | 933 cl. |
| | | Number of Stakeholders | ✓ | 29 |
| Recommended Changes: Tremendous overlapping land-use values including historic mining, placer mining, trapping, forestry, recreation and harvesting pursuits along the Fortymile River. LUP should look to implement ISA-practises to educate community/tourists and encourage YG to regulate via (seasonal) mining land-use permitting conditions, to support potential for increase Chinook spawning habitat. | | | | |
| Recommended Designation: Unchanged Size | | | Area (km²) | Region % |
| 15 - 40 Mile | | ISA 3 | 1,118.0 | 2.81% |

LMU #16 – SWEDE CREEK

This LMU borders developments along Sunnysdale which include various agricultural and residential properties. There are 11 operators, 9 placer operations and 2 hard-rock projects working in this area. Swede Creek is utilized by these land users for a local (potable) water source. It is key this LMU utilizes integrated stewardship opportunities and industrial activities minimize impacts to water quality. Both ISA 2 or ISA 3 designation of this LMU are logical to ensure shared responsible land-use (refer to **Table 11.**, below). For ease of implementation and monitoring, it is suggested that this LMU have a consistent designation with LMU 15. It is also recommended that water quality monitoring be implemented to ensure the safety of the potable water source.

Table 11. LMU 16 – Summary of Values and Proposed Changes

| LMU #16 | | Current Designation in Draft Plan | ISA 2 | |
|--|------------------------------|---|------------------------------|------------------------------|
| Label - Swede Ck. | | | | |
| Values Identified | | | Value Feature Present | Number Identified or Present |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | | |
| | | In-tact Forest (km ²) | ✓ | 3.09 |
| | | Wetlands (km ²) | | |
| | | Tintina Trench Fly-way (km ²) | | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | |
| | | Chinook Spawning Habitat (km ²) | | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 3.15 |
| | | Sharp tailed Grouse - Key Area (km ²) | | |
| | | Waterfowl - Key Area | | |
| | | Raptors - Key Area (km ²) | ✓ | 0.40 |
| Heritage | THFN Settlement Lands | <100 Ha | ✓ | 2 |
| | | >100 Ha - Category A (km ²) | | |
| | | >100 Ha - Category B (km ²) | | |
| | Sites & Trails | TH Traditional Trails | ✓ | 1 |
| | | Land Use Sites | | |
| | | Important Community Sites | | |
| | | Recorded Historic Resouce | | |
| | Archaeological Site | ✓ | 1 | |
| | Paleontological Site | | | |
| Economic | Placer & Quarz Claims | Claims | ✓ | 388 cl. |
| | | Number of Stakeholders | ✓ | 11 |
| Recommended Changes: This LMU borders developments along Sunnysdale which include various agricultural and residential properties. Swede Creek is utilized by these properties for a local water source. As such, it is key this LMU utilizes integrated stewardship opportunities and industrial activities minimize impacts to water quality. Both ISA 2 or ISA 3 designation of this LMU are logical to ensure shared responsible land-use | | | | |
| Recommended Designation: Unchanged Size | | | Area (km²) | Region % |
| 16 - Swede Ck. | | ISA 3 | 472.5 | 1.19% |

LMU #18 – MATSON UPLANDS

Numerically layering ecological and heritage values of this LMU do not effectively demonstrate its importance as key habitat for the Fortymile and Nelchina caribou herds. Although this LMU has potential for future mineral development, it has seen little disturbance to date and provides the Commission with an opportunity to protect the integrity of this unique upland habitat.

The Draft Plan encourages land-users are to avoid activities in significant caribou habitat during important biological periods, such as: seasonal migration corridors, migration pinch-points, calving areas, rutting areas etc. However, land-users are given no information outlining these smaller-scale habitats. A lack of knowledge by land-users could inadvertently negatively impact the local caribou population.

Additionally, understanding factors that have significant implications for caribou population dynamics, such as climate change, harvesting, predation and natural disturbances (fires etc.), is key in implementing practical conservation efforts. It is recommended research be completed to assist in modelling the potential drivers for caribou population decline.

It is proposed that this LMU increase in size by 240.2km² (or 0.6%) to ensure there is an adequate buffer in place to protect the ecological habitat integrity for the caribou (refer to **Table 12.**, following page).

Disturbance activities in upland topography often revegetate with woody plants (willows, dwarf birch etc.). This natural revegetative process can present linear vegetative fences that impact predation on barren land caribou. The Matson Uplands have seen little disturbance activities. Research opportunities on caribou predation with proximal comparable disturbed habitats, could offer key baseline data informing THFN and YG about the effectiveness of the Land Management Plan in these ecosystems.

Table 12. LMU 18 – Summary of Values and Proposed Changes

| LMU #18 | | Current Designation in Draft Plan | SMA 1 | |
|---|------------------------------|---|------------------------------|------------------------------|
| Label - Matson Uplands | | | | |
| Values Identified | | | Value Feature Present | Number Identified or Present |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | | |
| | | In-tact Forest (km ²) | ✓ | 3.09 |
| | | Wetlands (km ²) | | |
| | | Tintina Trench Fly-way (km ²) | | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | |
| | | Chinook Spawning Habitat (km ²) | | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 5.51 |
| | | Sharp tailed Grouse - Key Area (km ²) | | |
| | | Waterfowl - Key Area | | |
| | | Raptors - Key Area (km ²) | ✓ | 0.40 |
| Heritage | THFN Settlement Lands | <100 Ha | ✓ | 2 |
| | | >100 Ha - Category A (km ²) | | |
| | | >100 Ha - Category B (km ²) | | |
| | Sites & Trails | TH Traditional Trails | ✓ | 1 |
| | | Land Use Sites | | |
| | | Important Community Sites | | |
| | | Recorded Historic Resouce | | |
| | | Archaeological Site | ✓ | 1 |
| Paleontological Site | | | | |
| Economic | Placer Claims | Claims | ✓ | 1 |
| | | Number of Stakeholders | ✓ | 1 |
| <p>Recommended Changes: The Matson Uplands are key habitat for the Fortymile and Nelchina caribou herds. Although this LMU has potential for future mineral development, it has seen little disturbance to date and provides the Commission with an opportunity to protect the integrity of this unique upland habitat and thus the population/health of these herds. It is recommended this LMU increase in size.</p> | | | | |
| Recommended Designation: INCREASE size by 240.2km² (0.6%) | | | Area (km²) | Region % |
| 18 - Matson Upl. | | SMA 1 | 773.4 | 1.94% |

LMU #19 – UPPER INDIAN RIVER WETLANDS

The Upper Indian River LMU may be the most contested by industry in the Draft Plan. It is unclear how this LMU was designated as an SMA 2 as very few key value features are noted. The Draft Plan refers to this LMU as Indian River Wetlands, however, it is comprised of 10% wetlands, which is the same value of wetlands in the Planning Region as a whole. Special Management Directions in SMA2's allow for restricted land use within existing mineral tenure. However, no development is allowed in marshes, fens, and bogs. These two Special Management Directions do not align as placer activity occurs in these environments.

The datasets released demonstrate that this LMU has relatively low ecological habitat and heritage value. Additionally, this LMU is wholly surrounded by LMU 12 which is designated as having the highest levels of development. Undisturbed watershed areas (within LMU 12) could be removed and granted an ISA-designation to monitor the water quality and aquatic health at the Bonanza Creek and Indian River confluences with Yukon River. In addition, a similar sized undisturbed area around the Flat Creek Watershed could be added (LMU 11b) and given an SMA 1-designation (refer to **Table 3.**, page 32; **Table 8.**, page 39; and **Figure 2.**, page 41). This would allow for increased conservation of an undisturbed watershed as opposed to conservation of a disturbed area containing 10% wetlands where the current levels of disturbance in these wetland areas is not known.

Much development in the LMU has occurred since 2014 and it is plausible that LMU 19 likely already exceeds its cautionary threshold, leaving little room for future development. Currently, there are 1,196 active placer claims owned by 34 operators on the Upper Indian River. The Plan is unclear in describing how these operators, who have heavily invested in the area, would be able to continue developing the areas economic potential.

Sustaining a healthy placer mining industry is key for the economic security of the Planning Region as the single largest non-government economic sector. While this natural resource has been developed in the region for over a century, many placer deposits have been depleted in the heavily developed areas. The Indian River watershed has been identified as "the most important placer gold producing watershed in the Yukon" and more than 50% of the Yukon's placer gold is derived from the watershed every year (DRPC Draft Plan, 2021). However, much of the central Indian River and its tributaries are mostly mined out from having been mined multiple times (*i.e.*, the lower reaches of Eureka Creek have been largely mined out). Whilst there are opportunities to reclaim and restore these historically disturbed areas, the industry will continue to move into adjacent unmined but prospective areas that share the same geologic settings.

This movement into adjacent areas needs to be accommodated to allow for a healthy placer mining industry and regional economy. The natural progression will be to move further eastward to the Upper Indian River (LMU 19), which has same geological setting and is demonstrating comparable economic placer values to the Goldfields (LMU 12). LMU 19 is one of the most significant growth areas supporting the economic future for the Klondike Goldfields. This area alone has over 1,100 mining claims under 34 different operators.

The Main Indian River Drainage is roughly 26 miles in length and produced approximately \$650M between 1978 and 2014 (post coarse-gold historic dredge extraction). Modern-day operations on the first 5-miles of the Australia Creek drainage have demonstrated comparable grades as on the main

Indian River (Lonesome Dove Placers - pers. comm., 2021). This demonstrates the potential for a sustainable placer mining industry for decades to come via multiple operators.

A substantiated figure used in the mineral industry shows that typically every dollar spent in mining generates \$5 in the local economy including indirect supporting industries & local-work force (hotels, restaurants, equipment sales and maintenance, supplies, fuel, etc.). A similar multiplier value relates to jobs supported by indirect and induced economic activity. A recent study of mining related jobs in British Columbia indicates that for each (1) mining related job, 4.6 indirect, or induced, jobs are created. The DLUP Resource Assessment Report does not accurately reflect economic contributions from these types of economic activity (refer to PwC 2012, Mining Industry Economic Impact Report).

It is advised that this LMU be designated as an ISA 4 to reflect the high economic value and intent to sustain a continued healthy mineral industry (refer to **Table 13.**, following page). An SMA2-designation, which results in no disturbance to marshes, fens, and bog (where alluvial activities occur), could result in substantial long-term economic loss for the Planning Region and the Territory as well as potential for significant economic compensation to mineral rights holders that have been actively exploring and mining in this LMU.

Balancing conservation efforts with preserving a strong economic future for the Planning Region could be accomplished through removing two undisturbed watershed areas within LMU 12 to allow for water quality and aquatic health monitoring at confluences with the Yukon River. The undisturbed Flat Creek Watershed could be increased in size by 520.7 km², an area of equal size to LMU 19, and given an SMA 1-designation for full future protection.

These changes would allow for increased conservation of undisturbed wetlands whilst allowing for continued economic development within LMU 19 which has unknown levels of disturbance within wetland areas and an established strong economic future. An SMA2 designation of LMU 19 could result in land use conflicts, impact the socioeconomic conditions for future generations, and push Industry into undeveloped LMUs with high concentrations of key value features.

Table 13. LMU 19 – Summary of Values and Proposed Changes

| LMU #19 | | Current Designation in Draft Plan | SMA 2 | |
|--|------------------------------|---|------------------------------|------------------------------|
| Label - Upper Indian River | | | | |
| Values Identified | | | Value Feature Present | Number Identified or Present |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | | |
| | | In-tact Forest (km ²) | ✓ | 5.21 |
| | | Wetlands (km ²) | ✓ | 41.78 |
| | | Tintina Trench Fly-way (km ²) | | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | |
| | | Chinook Spawning Habitat (km ²) | | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 14.40 |
| | | Sharp tailed Grouse - Key Area (km ²) | | |
| | | Waterfowl - Key Area | | |
| | | Raptors - Key Area (km ²) | | |
| Heritage | THFN Settlement Lands | <100 Ha | | |
| | | >100 Ha - Category A (km ²) | | |
| | | >100 Ha - Category B (km ²) | | |
| | Sites & Trails | TH Traditional Trails | | |
| | | Land Use Sites | | |
| | | Important Community Sites | | |
| | | Recorded Historic Resouce | | |
| | | Archaeological Site | ✓ | 4 |
| Paleontological Site | | | | |
| Economic | Placer & Quarz Claims | Claims | ✓ | 1,196 cl. |
| | | Number of Stakeholders | ✓ | 34 |
| <p>Recommended Changes: LMU has relatively low ecological habitat and heritage value. Wholly surrounded by LMU 12 which is designated as having the highest levels of development. Similar geological setting and mineral potential to the Indian River. Modern-day operations on the Australia Creek drainage have demonstrated comparable grades which demonstrates the potential for a sustainable placer mining industry for decades to come via multiple operators. LMU may have already exceeded its cautionary threshold. An SMA2-designation could result in massive long-term economic loss.</p> | | | | |
| Recommended Designation: Unchanged Size | | | Area (km²) | Region % |
| 19 -Up. Indian Riv. | | ISA 4 | 481.0 | 1.21% |

LMU #21 WHITE

The Management Intent of LMU 21 is to “focus on maintaining key values [including wetlands, caribou, sheep and migratory birds], while allowing for continued sustainable development”.

Although the area is relatively inaccessible, it includes 2,617 claims held by 21 operators. Notably, the southwest portion of the LMU borders LMU 22 (Scottie Creek Wetlands), overlapping significant placer and hard rock development. The current Draft Plan splits this highly developed area up, into ISA 1- and SMA 1-designated LMUs. If left unchanged, it would set precedence for effective removal of a highly developed area in a regional land use plan and could result in difficult regulatory implementation and land use conflict.

These areas should be recognized for the current and future economic value and placed into more appropriate LMU designations. Potential conflict could be mitigated through removing this area from LMU's 21 and 22, and that LMU 21 be given an ISA 2 designation (refer to **Table 14.**, following page).

Table 14. LMU 21 – Summary of Values and Proposed Changes

| LMU #21 | | Current Designation in Draft Plan | ISA 1 | |
|--|------------------------------|---|------------------------------|----------|
| Label - White | | TH Name | Tädzan dëk | |
| Values Identified | | Value Feature Present | Number Identified or Present | |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | | |
| | | In-tact Forest (km ²) | ✓ | 5.21 |
| | | Wetlands (km ²) | ✓ | 41.78 |
| | | Tintina Trench Fly-way (km ²) | | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | |
| | | Chinook Spawning Habitat (km ²) | | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 143.90 |
| | | Sharp tailed Grouse - Key Area (km ²) | | |
| | | Waterfowl - Key Area | | |
| | | Raptors - Key Area (km ²) | | |
| Heritage | THFN Settlement Lands | <100 Ha | | |
| | | >100 Ha - Category A (km ²) | | |
| | | >100 Ha - Category B (km ²) | | |
| | Sites & Trails | TH Traditional Trails | | |
| | | Land Use Sites | | |
| | | Important Community Sites | | |
| | | Recorded Historic Resource | | |
| | | Archaeological Site | ✓ | 4 |
| | | Paleontological Site | | |
| Economic | Placer & Quarz Claims | Claims | ✓ | 2,617 cl |
| | | Number of Stakeholders | ✓ | 21 |
| <p>Recommended Changes: Although the area is relatively inaccessible, it includes 2,617 claims held by 21 operators. Southwest portion of the LMU borders LMU 22, overlapping significant placer and hard rock development. Current Draft Plan splits this highly developed area up, into ISA 1- and SMA1-designated LMUs. Potential conflict could be mitigated through separating this area out of LMU 21 and 22.</p> | | | | |
| Recommended Designation: Reduce Size by 256.7km² (0.62%) | | Area (km²) | Region % | |
| 21 - White | | ISA 2 | 3,877.6 | 9.73% |

LMU #22 – SCOTTIE CREEK WETLANDS

Although a small LMU at the margin on the Planning Region, the Scottie Creek Wetlands do encompass important wetland habitat and the most important key waterfowl area of the LMUs evaluated. The Draft Plan characterizes the LMU as having “low perspective for mineral potential” and “minimal existing mineral tenure in complex with low prospects” when in fact the northern portion of this LMU contains highly developed overlapping placer and quartz claims.

With publicly available data, this existing economic development does not appear to overlap with wetland habitat and associated key waterfowl habitat. For this reason, it is recommended that the northern portion of the LMU be removed and be given an ISA 3 designation, whilst the Scottie Creek Wetland increase in designation to SMA 1 (refer to **Table 15.**, following page).

Table 15. LMU 22 – Summary of Values and Proposed Changes

| LMU #22 | | Current Designation in Draft Plan | SMA 2 | |
|---|---------------------------------------|---|------------------------------|------------------------------|
| Label - Scottie Creek | | | | |
| Values Identified | | | Value Feature Present | Number Identified or Present |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | | |
| | | In-tact Forest (km ²) | | |
| | | Wetlands (km ²) | ✓ | 13.84 |
| | | Tintina Trench Fly-way (km ²) | | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | |
| | | Chinook Spawning Habitat (km ²) | | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 29.98 |
| | | Sharp tailed Grouse - Key Area (km ²) | | |
| | | Waterfowl - Key Area | ✓ | 16.21 |
| | Raptors - Key Area (km ²) | | | |
| Heritage | THFN Settlement Lands | <100 Ha | ✓ | 1 |
| | | >100 Ha - Category A (km ²) | | |
| | | >100 Ha - Category B (km ²) | | |
| | Sites & Trails | TH Traditional Trails | | |
| | | Land Use Sites | | |
| | | Important Community Sites | | |
| | | Recorded Historic Resouce | | |
| | | Archaeological Site | | |
| Paleontological Site | | | | |
| Economic | Placer & Quarz Claims | Claims | ✓ | 435 cl. |
| | | Number of Stakeholders | ✓ | 8 |
| <p>Recommended Changes: The Draft Plan characterizes the LMU as having “low perspectivity for mineral potential” when in fact the northern portion of this LMU contains highly developed overlapping placer and quartz claims. Existing economic development does not overlap with wetland habitat and associated key waterfowl habitat. Recommended that the northern portion of the LMU be removed and be given an ISA 3 designation, whilst the Scottie Creek Wetland increase in designation to SMA 1.</p> | | | | |
| Recommended Designation: Removal of Northern 68.8km² | | | Area (km²) | Region % |
| 22 - Scottie Ck | SMA 1 | | 286.3 | 0.72% |
| 22a - North | ISA 3 | | 68.8 | 0.17% |

LMU #23 & 24 – FORTY MILE CARIBOU CORRIDOR (LOW & HIGH ELEVATIONS)

These two LMUs which effectively form one area of varied landscape would currently present the highest level of difficulty upon implementation of regulatory management. Currently, the LUDs follow elevation to reflect the Fortymile Caribou herds activities. The Draft Plan proposes LUD changes along elevation (an indistinct landscape feature).

Based on Publicly available information, most of the high-value habitat occurs in the southern portion of the LMU bordering the Matson Uplands. It is recommended that 240.2 km² of the southern portion of this LMU be removed and added on to the Matson Uplands to allow for increased buffers for the Fortymile (and Nelchina) Caribou herds summer grounds and seasonal corridors.

It is important to note that the Draft Plan proposes large changes to the current levels of economic development in the areas through special management directives, however, economic development is not the sole factor influencing caribou populations. Understanding factors that have significant implications for caribou population dynamics, such as climate change, harvesting, predation and natural disturbances (fires etc.), is key in implementing practical conservation efforts.

Encouragingly, conservation efforts have been successful with the return of the Fortymile caribou-herd which in 2020 was estimated to be 84,000-strong (CBC News, 2020). This suggests that the current regulatory-regime, which includes permitting conditions, are sufficiently managing responsible industry-practises. Therefore, for ease of implementation, this LMU could be given an ISA 3 designation with the proper in place regulatory conditions and best management practises which could be outlined in MLUP approvals (refer to **Table 16.**, following page). If industry is informed with spatial information outlining smaller-scale habitats (seasonal migration corridors, migration pinch-points, calving areas, rutting areas etc.) they can ensure these key habitat areas are undisturbed during seasonal usage times.

Research Recommendation: Identifying priorities for management actions informed by data-driven predictive ecosystem modelling. This would inform THFN, YG and land users alike as to what the drivers for population decline are, and how best to mitigate potential impacts.

Table 16. LMUs 23 & 24 – Summary of Values and Proposed Changes

| LMU #23 & 24 | | Current Designation in Draft Plan | ISA 1 and ISA 2 | | |
|---|--|---|-----------------------|----------------------------------|-----------------|
| Label - Forty-Mile Caribou (low & high elevation) | | | | | |
| Values Identified | | | Value Feature Present | Number Identified or Present | |
| Ecological | Rare or Important Ecosystems | Unglaciaded Limestone or Dolostone (km ²) | | | |
| | | In-tact Forest (km ²) | ✓ | 6.11 | |
| | | Wetlands (km ²) | | | |
| | | Tintina Trench Fly-way (km ²) | | | |
| | Fish & Wildlife | Movement of Adult Chinook Salmon | | | |
| | | Chinook Spawning Habitat (km ²) | | | |
| | | Migratory Bird - High Concern (km ²) | ✓ | 30.97 | |
| | | Sharp tailed Grouse - Key Area (km ²) | ✓ | 17.97 | |
| | | Waterfowl - Key Area | | | |
| | | Raptors - Key Area (km ²) | ✓ | 8.95 | |
| Heritage | THFN Settlement Lands | <100 Ha | ✓ | 1 | |
| | | >100 Ha - Category A (km ²) | | | |
| | | >100 Ha - Category B (km ²) | | | |
| | Sites & Trails | TH Traditional Trails | ✓ | 1 | |
| | | Land Use Sites | | | |
| | | Important Community Sites | | | |
| | | Recorded Historic Resource | | | |
| | | Archaeological Site | ✓ | 5 | |
| Paleontological Site | | | | | |
| Economic | Placer & Quarz Claims | Claims | ✓ | 2,506 (LMU 23) 1,960 (LMU 24) | |
| | | Number of Stakeholders | ✓ | 48 (LMU 23) 37 (LMU 24) | |
| | <p>Recommended Changes: Implementation of regulatory management along indistinct landscape features would be very difficult. Encouragingly, conservation efforts have been successful with the return of the Fortymile caribou-herd which suggests that the current regulatory-regime (including permitting conditions) is sufficiently managing responsible industry-practises. For ease of implementation, an ISA 3 designation is recommended.</p> | | | | |
| | Rec. Designation: Removal of S. portion for higher protection | | | Area (km²) | Region % |
| 23/24 - 40 Mile Car. | | ISA 3 | 1,360.4 | 3.4% | |

8.2 Recommendations to Sub-Regional & Future Planning Areas

Sub-regional and future planning areas were discussed during the August workshops in Dawson which were attended by multiple TruePoint staff. Numerous key points were discussed during this session, and some highlights are listed below.

LMU #3 – YUKON RIVER - CHU KON DĚK

This Land Management Unit, in some ways, may be the most important to manage correctly due to the Yukon Rivers' continuation outside the Dawson Planning Region into other Traditional First Nation Territories. It encompasses areas of high importance for both ecology and heritage. Getting this designation right and succeeding in implementation is key to leading future planning commissions within the Territory.

The Yukon River deserves a high-level of protection to reflect endemic species, wetlands, heritage value, wildlife usage and accessibility to experience the region. Within this LMU, there are 1,045 placer and quartz claims held by 32 different Operators. As such, concepts around integrated stewardship will be highly important in executing the sub-regional plan.

Though the currently proposed SMA2 designation does allow for a high-level of protection, it may not reflect the chance to utilize the area for endless stewardship and research leadership opportunities. The Yukon River would serve as a great location for water quality and aquatic health monitoring stations to evaluate the effectiveness of the management plan directives. In addition, due to the high concentration of endemic species along the river corridor, it is recommended flora mapping be completed and monitored.

For ease of implementation and to reflect changes caused by climate change, it is advised that the Commission use a consistent width (~1-2 kilometers on each side), rather than the high-level watermark. This management directive will clearly inform land users and leaves little room for interpretation.

Questions pertaining tourism usage, recreational use, barge use and how the Coffee Gold project proposed road will be approached, were all topics of concern discussed in the August workshop.

LMU #13 – KLONDIKE VALLEY

The Klondike Valley covers a small area with high variability in land use including agricultural and residential developments, the airport and industrial development. How this valley will be developed sustainably and leave adequate potential for population growth, will greatly impact the Community. Additionally, the area covers large key areas of moose habitat.

LMU #14 – DAWSON CITY

The municipality of Dawson City has immensely evolved over the last 125-years. Naturally, this future planning area has a wide range of usage similar to LMU 13, but additionally is the home to numerous helicopter company bases, the Dawson City (Quigley) Landfill and Dawson City Water Treatment Facility - which are situated near the banks of the Klondike River. All these forms of land use within the townsite are associated with widespread surface disturbances, potential for environment liability and noise

disturbance. Condensing human-activities is key to reducing disturbance areas, however, situating these activities along watersheds directly draining into the Yukon Corridor does not align with the key values discussed consistently throughout the Draft Plan.

Potential to move these sites to the Klondike Valley and LMU 12 (East) would mitigate the potential impacts, disturbances and allow for local integrated stewardship opportunities within the townsite whilst creating room for residential, agricultural and research opportunities that protect the landscape. This location would also serve as a great location to test implementation of best restoration practices in the creation of guidelines for local industry.

DEMPSTER HIGHWAY (No LMU currently)

The Dempster Highway not only serves as access to Tombstone Territorial Park, but also our neighbours in the Northwest Territories. During the August workshop on Future and Subregional Planning, discussions around potential SMA 2 designation or incorporation into existing LUDs was discussed. Future usage along this corridor requires particular foresight. For instance, installation of a fibre optic line, under and SMA 2 designation would effectively push the LMU past a critical threshold of disturbance and leave no room for additional land use activities.

Additionally, highways developments and traffic along the corridor are associated with widespread disturbances and the introduction of numerous invasive plant species. These species are slowly entering the Territorial Park. These issues could be mitigated through the opportunities presented with integrated stewardship and utilizing existing (mined) clean gravel deposits within the the Klondike Valley and the Goldfields and would alleviate further highway and public works gravel quarry requirements.

Applying a consistent (2 km?) LMU corridor width could allow for easier regulatory implementation and monitoring.

9 Recommendations – Summary

Implementation is key to the success of the Regional Land Use Plan. As numerous parties are responsible for implementation, roles and responsibilities must be clarified. To facilitate streamlining the process and ensure plan conformity, it is recommended the policies and special management directives align with the current regulatory regime.

We recommend the following revisions to ensure conservation and economic health is maintained through adjustments to landscape management designations and associated cumulative disturbance thresholds:

- I. Increase total area under protection from 3.8% to 26.88% while maintaining the future integrity of a healthy mineral resource economy to ensure long-term ecological and socioeconomic health of the Planning Region:
 - Increase areas under SMA 1 Land Use Designation with high value heritage & habitat resources from 3.8% to 26.88%;
 - Re-assign ISA designations to specific LMUs in areas with significant existing development (mining, industrial) that are outlined as having lower heritage and habitat resource values.
- II. Simplification of the number of Land Use Designation classes to allow for clearer regulatory implementation:
 - Removal of ISA 1 Land Use Designation resulting in three (low, moderate, and high) ISA classes
 - Removal of SMA 2 Land Use Designation for clearer policies regarding high levels of protection
- III. Assess the current levels of cumulative disturbance, implement monitoring, and utilize predictive ecosystem mapping to establish science-based ecological habitat disturbance thresholds for the regional planning area. Does progressive reclamation get factored back into the cumulative disturbance threshold accounting? With the approach that has been taken in the study with tracking the levels of disturbance it is critical that restoration in wetland and non-wetland areas be credited back towards the disturbance accounting to ensure a long-term sustainable mineral industry. A near-net zero disturbance accounting should be the goal of the plan in economically developed areas.
- IV. It is recommended that within the current DLUP working groups that at least two (2) experienced individuals be nominated by the placer and hard rock industry to assist with the refinement of the next phase of the Plan.
- V. Lastly, it is critical that while the plan is being refined and implemented that the stability of the economy may continue and that the existing permitting processes for active projects in mining, forestry and agriculture be allowed to progress in ISA designations utilizing the existing land use permit system. A freeze in the permitting process in these LMU's could unnecessarily shut down new economic investment in the region.

9.1 Policy Recommendation

- I. The Senior Liaison Committee should encourage YG to use consistent policy towards both Placer and Quartz operations. Pre- and Post-Season reporting should be conditions of Mining Land Use Permits (MLUPs). Presently, quartz operations are given thresholds of allowable disturbance within their projects. This incentivizes operators to progressively reclaim. Implementation of appropriate thresholds for placer operations with permitting conditions outlining reasonable allowable open disturbances, would avoid LMU's from reaching critical thresholds of cumulative disturbance. This avoids potential for a disturbance rush upon implementing the Regional Land Use Plan whilst avoiding potential for ceased operations and operators having large areas of open disturbance.
- II. Implementation of monitoring of disturbance (or impact assessment) in the Dawson Planning Region. This should occur alongside predictive ecosystem modelling should be employed to evaluate the effectiveness of the management directives.
- III. Agreed upon best management practises of wetland restoration should inform policy in alignment with the Federal Policy on Wetland Conservation to preserve ecological wetland function.

Details of restoration of wetland function and development reclamation should be addressed through iterative process in immediate future – this will provide a clear path for industry and set a goal for stewardship practices.

- IV. Data pertaining to localized prime seasonal wildlife corridors should be included in economic development mining land use permits to inform effective reclamation practises in non-riparian areas.

9.2 Research Recommendations

The fulfillment of the regional land use plan present endless opportunities for local research which could aid in plan revisions if required. Some examples include:

- I. Predictive ecosystem modelling using numerous ecological parameters (including snowpack, fire activity, tourism, etc.) to inform baselines for habitat-based ecological thresholds.
- II. Population and associated reproduction rate monitoring of caribou in protected (Matson Creek Uplands) versus integrated stewardship areas (Fortymile) to inform modelling parameters and baselines for predictive ecosystem modelling.
- III. Installation of water quality monitoring stations (Swede Creek - LMU 16, Indian river confluence, Bonanza Creek confluence, Yukon River).
- IV. Endemic plant species mapping along the Yukon River.
- V. Utilization of ISA designated LMUs close to town for studies on the effectiveness of proposed wetland restoration practises to inform potential changes in policy and best management practises

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APPENDIX I. SPATIAL DATA SOURCES

1. Ecological Spatial Data

Rare or Important Ecosystems:

- Unglaciaded Limestone or Dolostone: Selection of bedrock geology polygons with limestone and/ or dolostone. Data downloaded from GeoYukon.
- In-tact Forest: Selection of Forested polygons over 140 years from Vegetation Inventory 40k downloaded from GeoYukon
- Wetlands: A combination of data used from Wetlands 10k, downloaded from GeoYukon and Wetlands 50k from CanVec. There where the 2 datasets intersect only the 10k data has been used.
- Tintina Trench Fly-way: Selection of the 250k Physiographic Regions downloaded from GeoYukon

Fish & Wildlife:

- Movement of Adult Chinook Salmon: Data received from Sam Skinner (Yukon Land Use Planning Council).
- Chinook Spawning Habitat: Data received from Sam Skinner (Yukon Land Use Planning Council).
- Migratory Bird – High Concern: Data received from Sam Skinner (Yukon Land Use Planning Council).
- Sharp tailed Grouse – Key Area: Polygons in Wildlife Key Areas 250k turned out to be an older version. After some discussion it was decided it would be appropriate to digitizing the polygons from Bird Habitats map as published in the Draft Dawson Land Use Plan (June 2021).
- Waterfowl – Key Area: Data extracted from Wildlife Key Areas 250k as published on GeoYukon
- Raptors – Key Area: Data extracted from Wildlife Key Areas 250k as published on GeoYukon

2. Heritage

THFN Settlement Lands: Data downloaded GeoYukon as First Nation Settlement Lands 250k.

- < 100 Ha: Point featureclass created from selection of polygons < 100 ha.
- > 100 Ha – Category A: Selection of Category A polygons larger than 100 ha
- > 100 Ha – Category B: Selection of Category B polygons larger than 100 ha

Sites and Trails:

- TH Traditional Trails: Data downloaded from GeoYukon turned out incomplete. The additional trails have been digitized from the Paleontological, Archaeological and Historic Localities map as published in the Draft Dawson Land Use Plan (June 2021).
- Land Use Sites: Data digitized from First Nation Land Use map as published in the Draft Dawson Land Use Plan (June 2021)
- Important Community Sites Data digitized from First Nation Land Use map as published in the Draft Dawson Land Use Plan (June 2021)
- Recorded Historic Resource: Number count by overlaying draft Plan Land Management Units over the Paleontological, Archaeological and Historic Localities map as published in the Draft Dawson Land Use Plan (June 2021)
- Archaeological Site: Number count by overlaying draft Plan Land Management Units over the Paleontological, Archaeological and Historic Localities map as published in the Draft Dawson Land Use Plan (June 2021)

- Paleontological Site: Number count by overlaying draft Plan Land Management Units over the Paleontological, Archaeological and Historic Localities map as published in the Draft Dawson Land Use Plan (June 2021)
3. Economic
- **Placer and Quartz Claims:** Data download from GeoYukon
 - Claims: Intersect of claims with Dawson Land Management Units
Number of Stakeholders

To the Dawson Regional Land Use Plan Commission

Thank you for the opportunity to comment on the *Draft* Dawson Regional Land Use Plan and for the countless hours commission and planning team members have given to this important work. We appreciate that the commission and planning team are taking the time to listen to the voices of the people and the more than human values that cannot speak for themselves.

It is with great privilege that we live in the traditional territory of Tr'ondëk Hwëch'in. We arrived in the north 20 years ago with our three kids in tow like many for the adventure and were immediately struck by a unique way of life that was intricately tied to the land and its many values. Our family was welcomed by the Tr'ondëk Hwëch'in First Nation, warmly invited to participate in cultural activities integral to their existence for the past 15,000 years and which continue to this day in spite of the crush of the infamous Klondike Goldrush.

Equally intriguing to us was the history of this gold rush and the fact that one could still make a viable living as a gold miner. We wondered how such strong historical and cultural ties to the land could thrive side by side with gold mining. After twenty years of observing, living and being in the area, we have come to the conclusion that much work lies ahead to ensure the two can co-exist into the future. We are therefore grateful of the land stewardship planning process.

The plan appears to be intending to strike a balance between the various interests in the region, be they socio-economic, cultural or ecological. However, we feel that the draft plan is far too vague and needs to be strengthened. It does not go far enough to ensure the protection of the environment, wildlife and cultural values.

We understand that mining is an important sector of Yukon's economy. However the health of lands, waters, wildlife and people needs to be prioritized in these places too. Limits on development in some areas are too high and allow development to be concentrated within sensitive habitats like river valleys, wetlands and critical habitat. We urge the Commission to use traditional knowledge and conservation science to set limits which ecosystems can tolerate.

The vision for the draft plan states that "sustaining lands and waters, living things and natural processes is the fundamental priority. If the integrity of ecosystems is lost, societies and economies cannot be sustained." This is a bold and visionary statement. We feel, however, that the draft plan doesn't do enough to meet this

vision. While 39% of the land is being proposed as Special Management Areas, the intent being to foster a high level of protection, there remains no legal means for most of this designation, to ensure protection for our children's children, meaning that the whims of the government of the day may interpret and dictate what exactly 'protection' means. We note that the draft plan proposes 3.8 % of the land within the region to be designated Type 1 Special Management Area - that is only 3.8% that will be given full legal protection.

We therefore press the Commission to upgrade conservation areas with weak SMA protection to 'Type I' Special Management Areas. This would provide lasting protection for conservation areas, and provide the means for Tr'ondëk Hwëch'in to co-manage their traditional lands. Integral to this is increased protection for lands that are critical for wildlife and subsistence, like river corridors, migration pathways, wetland ecosystems and the ranges of the caribou herds.

The Tr'ondëk Hwëch'in Final Agreement speaks about needing to "protect a way of life that is based on an economic and spiritual relationship between Tr'ondëk Hwëch'in and the land." The Commission has expressed a similar desire to safeguard the ecological and cultural values of the Dawson Region, and we fully support this.

In closing, we appreciate the work that has been done to date and the opportunity to comment. We urge the commission to go further and reach higher - to create a plan that brings their vision statement to reality. We support the conservation priorities Tr'ondëk Hwëch'in presented to the planning commission and hope they will be fully reflected in the final plan. A strong vision with a strong conservation plan will offer lasting protection and shape the region for future generations.

Yours truly,

Cathie and Alex Findlay-Brook

2021 Dawson Draft Plan Engagement Submission

Type: email ref 067

From: Francis Bouffard
bouffard95@gmail.com

Date: Nov 1 2021

To whom it may concern,

I am a 26 year old Yukoner and I have spent the majority of my life in Dawson City. Growing up, I was lucky enough to be immersed in the culture of the Tr'ondëk Hwech'in. Over the years I have learned to care for the land and animals that we live with. I truly believe that there is a way in which we can thrive with nature while also having an industrial economy. The area which we are lucky enough to live in is so rich in many ways, as we all know. I have recently heard the following statement: when we try to allow industry to work alongside nature, the industry almost always wins. For this reason, I believe that areas of high importance to wildlife and of delicate ecosystems need to be fully protected, no exceptions. I will share something that was told to me by a former employee I worked with. He worked in the oil patch in Alberta where caribou are active. He told me that one morning they had their site tailgate meeting and the foreman said that they are not allowed to work if the caribou are around, which they were because they had them all around the site. So the foreman asked the workers if they saw any caribou, and they all said no so that they would be able to continue working. That is a prime example of why you can not have it both ways. As much as there certainly is industry workers who do respect wildlife and the land, we can not take the chance to allow these situations to happen here. If the land is important it must be fully protected. What happens if there is a wildfire and a large portion of the protected caribou habitat is wiped out?? There needs to be a large amount of land protected for these animals to have a good fighting chance at survival. I do not think placer mining is all negative, I do agree that it is important to our economy. That said, we do not need to be disturbing and destroying any more wetlands, river corridors, caribou habitat and important ecosystems than we already have. Those miners who are granted permission to go forward must be held accountable to do proper reclamation. If they can not afford to do proper reclamation then they do not deserve the opportunity to mine the land. I'm disgusted in the people who come up here from down south to "strike it rich", make a huge mess, and walk away from it all the while losing their money. There is a visible difference between good and bad miners. This is the traditional land of the Tr'ondëk Hwech'in. They have asked for 60% of the land to be fully protected and the commission has replied with 3.8%... when will this atrocity end? They have given up so much for what has already been taken. Let's not let money steer us away from what is important in life. The commission's vision statement says "sustaining lands and waters, living things and natural processes is the fundamental priority. If the integrity of ecosystems is lost, societies and economies cannot be sustained." As we are seeing, this does not seem to be the case. For too long we have given favour to industry and pushed aside the health of the land. Now is our chance to right our wrongs. Industry is always able to adapt, and nature can not afford to take anymore hits. We do not want our world to turn out like The Lorax film. What I have noticed in this draft plan is that wether an area is of high importance ecologically speaking it seems to not matter when it is put up against placer interest. Areas of high interest for mining has low protection and areas of low interest for mining

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has high protection. I would like to see an upgrade of all SMA2's to SMA1's. I would also like to see Fens protected at 75% or more. The Tr'ondëk Hwech'in have presented their vision for the land, and I strongly encourage the commission to follow the requirements needed to meet that vision.

Thank you for asking for and hearing our voices. This is it. I believe that I can speak on the behalf of many of the younger generation when I say land conservation over industry. This is our chance to take a step in the right direction.

Sincerely,
Francis Bouffard

2021 Dawson Draft Plan Engagement Submission

Type: email ref 067

From: Francis Bouffard
[REDACTED]

Date: Nov 1 2021

To whom it may concern,

I am a 26 year old Yukoner and I have spent the majority of my life in Dawson City. Growing up, I was lucky enough to be immersed in the culture of the Tr'ondëk Hwech'in. Over the years I have learned to care for the land and animals that we live with. I truly believe that there is a way in which we can thrive with nature while also having an industrial economy. The area which we are lucky enough to live in is so rich in many ways, as we all know. I have recently heard the following statement: when we try to allow industry to work alongside nature, the industry almost always wins. For this reason, I believe that areas of high importance to wildlife and of delicate ecosystems need to be fully protected, no exceptions. I will share something that was told to me by a former employee I worked with. He worked in the oil patch in Alberta where caribou are active. He told me that one morning they had their site tailgate meeting and the foreman said that they are not allowed to work if the caribou are around, which they were because they had them all around the site. So the foreman asked the workers if they saw any caribou, and they all said no so that they would be able to continue working. That is a prime example of why you can not have it both ways. As much as there certainly is industry workers who do respect wildlife and the land, we can not take the chance to allow these situations to happen here. If the land is important it must be fully protected. What happens if there is a wildfire and a large portion of the protected caribou habitat is wiped out?? There needs to be a large amount of land protected for these animals to have a good fighting chance at survival. I do not think placer mining is all negative, I do agree that it is important to our economy. That said, we do not need to be disturbing and destroying any more wetlands, river corridors, caribou habitat and important ecosystems than we already have. Those miners who are granted permission to go forward must be held accountable to do proper reclamation. If they can not afford to do proper reclamation then they do not deserve the opportunity to mine the land. I'm disgusted in the people who come up here from down south to "strike it rich", make a huge mess, and walk away from it all the while losing their money. There is a visible difference between good and bad miners. This is the traditional land of the Tr'ondëk Hwech'in. They have asked for 60% of the land to be fully protected and the commission has replied with 3.8%... when will this atrocity end? They have given up so much for what has already been taken. Let's not let money steer us away from what is important in life. The commission's vision statement says "sustaining lands and waters, living things and natural processes is the fundamental priority. If the integrity of ecosystems is lost, societies and economies cannot be sustained." As we are seeing, this does not seem to be the case. For too long we have given favour to industry and pushed aside the health of the land. Now is our chance to right our wrongs. Industry is always able to adapt, and nature can not afford to take anymore hits. We do not want our world to turn out like The Lorax film. What I have noticed in this draft plan is that wether an area is of high importance ecologically speaking it seems to not matter when it is put up against placer interest. Areas of high interest for mining has low protection and areas of low interest for mining

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Thank you for asking for and hearing our voices. This is it. I believe that I can speak on the behalf of many of the younger generation when I say land conservation over industry. This is our chance to take a step in the right direction.

Sincerely,
Francis Bouffard



Suite 201, 307 Jarvis St.
Whitehorse, Yukon
Phone: 867-667-7397
Fax: 867-667-4624

Dear Planning Commission,

RE: Dawson Regional Planning – Commission Draft Plan

Please accept this letter as a formal commentary on the Dawson Regional Planning Commissions (DRPC) Draft Land Use Plan (June 2021) and supporting documents. We appreciate the challenges associated with the DRPC's mandate, the scope and the many years of work that have culminated in the 2021 DRLU Draft Plan. As this plan is part of fulfilment of the §11 (Land Use Planning) of the Umbrella Final Agreement (dated July 16, 1998) we are grateful to be part of the discussions for planning the future and the stewardship of land management and resources of the Dawson Region in Tr'ondëk Hwëch'in (THFN) Traditional Territory.

Recognizing that the documents are first drafts, the intention is nonetheless to utilize these documents as the basis for refining, developing, and finalizing a more balanced and defensible Regional Land Use Plan. A high-level summary of process and technical issues identified through reviewing the Draft Plan are provided below:

1. Publicly available information and timeframe provided for comment

- i. The Draft Plan was released June 2021 with November 1st comment closure. Industry is most active during the snow-free months. As a result, the allotted timeframe provided for comment left little time to provide adequate review and constructive input.
- ii. Limited information was released to outline the basis for many of the current Draft Plan proposals, including important maps for wildlife habitat and migration corridors, heritage areas, wetland mapping, watershed boundaries, as well as datasets and scientific studies that support the basis for the proposed disturbance thresholds.
- iii. **More time and information are required to properly assess and comment on this important Regional Planning framework.**

2. Land Use Designations Methodology

- i. The methodology described in §1.6.2.5 (Priority Criteria for Candidate Conservation Areas) do not appear to match Draft Land Management Units (LMU's) and currently proposed Land Use Designations (LUD's). Based on the methodology described in the Draft Plan, high-protection LMU's should be defined by high-density overlap of high-value features, such as habitat and heritage, and thus result in a more restrictive LUD's. High potential economic areas with low heritage and habitat values should be classified as less restrictive LUD's.
- ii. Simplifying the number of LUD's Integrated Stewardship Areas (ISA's) to three categories (low, moderate, and high development) and a singular Special Management Area zoning delineating full protection (SMA 1) should reduce potential management challenges in implementation and the need for increased capacity within YG and THFN.
- iii. Transitions from higher-protection LMU's to higher-development ones should be more gradational. Higher protection LMU's should logically cover areas with high habitat and/or high cultural values. Areas with high economic potential and lower habitat and cultural heritage

- values should allow for future economic development with corresponding higher disturbance thresholds, with such thresholds based on sound scientific studies for species and habitats.
- iv. Implementation of Integrated Stewardship Practises could provide excellent holistic, opportunities for the Planning Region. However, no concrete examples or techniques for connecting various land-users from seemingly different usage backgrounds, is provided.
 - v. Some high protection LMU's partly or wholly enclose areas of high historic and current placer and hard rock mining activity (LMU's 19, 21 and 22). These areas have significant potential future economic value, have extensive mining claims within them and have already seen substantial disturbance. **Designating these active mining and exploration areas as high protection LMU's will result in land use conflict and the potential need for economic compensation to mineral rights holders. These areas should be recognized for the current and future economic value and placed into more appropriate LMU designations.**

3. Cumulative Disturbance Thresholds Methodology

- i. It is unclear in the Draft Plan if the Cumulative Disturbance Thresholds are based off of Ecological derived habitat needs or are more arbitrary Management thresholds.
- ii. The Draft Plan does not appear to draw from the referenced Land Use Planning Conservation Thresholds (Environmental Law Institute, 2003). **Threshold values presented are very low compared to other land use plans in comparable sub-arctic, low-density populated areas and particularly relative to ecologic thresholds from scientific studies which generally indicate threshold preservation of >60% of habitat or perhaps 80% for rare species.** This compares with preservation of 95%, 97.5% and 99% of habitat for the high, medium and low development LUD's that are proposed.
- iii. §3.5.1 (Cumulative Effects Indicators) specifies that surface disturbance does not include areas deemed as recovered. This could be interpreted to align with in-place regulatory practises which incentivize restoration efforts in economically developed areas. However, it is unclear whether this means industry could operate in net-zero land disturbance if areas are progressively recovered, thus lowering the LMU's active disturbance threshold.
- iv. On October 12th 2021, the DRPC released 'Analysis of "Current" Disturbance Levels'. The outdated 2014 dataset provided was indicated to be the result of a lack of information, however figures from the document show recent satellite images mapping disturbance. If current disturbance levels are not defined, how can thresholds be proposed for each land management unit, especially if the thresholds are arbitrary management levels and not based on habitat needs or species criteria?
- v. How Disturbance Classes (Industry, Forestry, Agriculture, Road-development including aggregate resource extraction) are categorized and monitored is not described in the Draft Plan. Would future disturbance totals include all categories? The draft document states that only mining related disturbances were utilized in the development of thresholds.
- vi. In ISA areas that are open for development the thresholds need to allow for future economic activity; it is unclear based on "current" disturbance whether that would be the case for the 5%, 2.5% and 1% disturbance thresholds that are proposed in the Draft Plan.
- vii. The Draft Plan states that existing mineral rights will be honored in the LMU's but unless these areas are removed from the calculation of disturbance in the LMU's this may not be achievable. Likewise, the Draft Plan states that there would be no new disturbance of some classes of wetlands. If those wetlands cover existing mineral rights, then either the mineral rights have been lost, or no net loss would only apply outside of the existing mineral rights. The Draft Plan is unclear on both of those points.
- viii. **Recommend the establishment of science-based ecological habitat disturbance thresholds for the regional planning area. This could be achieved with the formation of an objective special technical working group who can advise on suitable disturbance thresholds to ensure the**

integrity of key values (ecological habitat and heritage) whilst allowing for sustainable economic development.

4. Wetlands

- i. Outlined thresholds could have serious economic development consequences (in particular to placer mining which occurs in wetland areas) but are unclear in the Draft Plan.
- ii. The Federal Policy on Wetland Conservation (Government of Canada, 1991) describes no net loss of socioeconomic or ecological wetland function. Restoration of wetland function has been demonstrated globally on various projects in various biogeoclimatic ecozones. Therefore, it is recommended that criteria be developed for habitat and functional wetland restoration.
- iii. Why is there no development allowed in undisturbed bogs and marshes throughout the region within only specified SMAs and ISAs? Why is there inconsistent policy towards specified habitats? Placer mining often occurs in marshes, fens and bogs, as may hard rock exploration and development. **A blanket restriction on disturbance rather than providing criteria for functional restoration would effectively shut down economic activity in these areas.**
- iv. What are the factors included in the scientific basis considered with allowing development of an arbitrary 25-75% range for fens in each applicable LMU?
- v. The Draft Plan states that effective restoration of wetlands is impossible. This is inconsistent with results from a number of successful wetland restoration projects in Canada. It also contrasts with the surface disturbance recovery objectives and may discourage Operators from implementing costly best management restoration practices.
- vi. **Recommend the development of agreed upon wetlands restoration guidelines that could allow for uniform best management practices in these important ecological habitats.**

5. Economic Plan

- i. Plans to maintain the economic health of the region are not discussed in detail. Management intent is unclear throughout the document and certain proposals could have far reaching negative economic impacts on the region.
- ii. §'s 4.1.9 and 4.3.3 on Traditional Economy recommends buffers and avoiding or reducing the level of land-use activities in areas identified as having cultural value. Map 5 (Appendix A) shows virtually the entire area as having traditional-use value. It is unclear what exactly this would mean for stakeholder-use in the entire planning area.
- iii. Sustaining a healthy placer mining industry is key for the economic security of the Planning Region as the single largest economic sector. While this natural resource has been developed in the region for over a century, many placer deposits have been depleted in the heavily developed areas. While there are opportunities to reclaim and restore these historically disturbed areas, the industry will continue to move into adjacent prospective areas that share the same geologic settings. This movement into adjacent areas needs to be accommodated to allow for a healthy placer mining industry and regional economy. For instance, in LMU 12 the natural progression is to move further eastward to the Upper Indian River (LMU 19), which has same geological setting, and is demonstrating comparable economic placer values. This area is the economic future for the Klondike Goldfields.
- iv. Though the focus in LMU's such as 12 and 19 have mostly been on placer mining, these placer mining areas are also highly prospective for future hard rock developments - as the source of the alluvial gold. **Accommodation should be made for such future potential in these types of areas with extensive placer and hard rock exploration and development to allow for sustainable economic activity in this important sector of the planning region's economy.**
- v. The Mining industry generates significant economic benefits for communities that are often not well understood. A substantiated figure used in the mineral industry shows that typically every dollar spent in mining generates \$5 in the local economy including indirect supporting industries & local-work force (hotels, restaurants, equipment sales and maintenance, supplies, fuel, etc.). A

similar multiplier value relates to jobs supported by indirect and induced economic activity. A recent study of mining related jobs in British Columbia indicates that for each (1) mining related job, 4.6 jobs indirect, or induced, jobs are created. The DLUP Resource Assessment Report does not accurately reflect economic contributions from these types of economic activity (refer to PWC 2012, Mining Industry Economic Impact Report). **Maintaining a healthy mineral resource economy is key to ensuring long-term socioeconomic health of the Planning Region.**

6. Regulatory Policy and Implementation

- i. There is currently no implemented monitoring of disturbance or impact assessment in the Dawson Planning Region.
- ii. **It is imperative that the Plan reflects the current, effective, in-place regulatory regime for permitting. This process incentivizes concurrent restoration efforts and includes permitting conditions that guide land-users to mitigate potential impacts whenever possible.**
- iii. The Senior Liaison Committee should encourage YG to use more consistent policy towards both Placer and Quartz operations. Pre- and Post-Season reporting should be conditions of Mining Land Use Permits (MLUPs). Presently, quartz operations are given thresholds of allowable disturbance within their projects. This incentivizes operators to progressively reclaim. Implementation of appropriate thresholds for placer operations with permitting conditions outlining reasonable allowable open disturbances, would allow for tracking disturbance and avoid LMU's from reaching critical thresholds of cumulative disturbance.
- iv. Understanding the current level of disturbance in the LMU's is critical to avoid potential for ceased operations and operators having large areas of open disturbance and no incentive to reclaim.
- v. Creation of wetland restoration policies outlining acceptable industry practises are required to provide a clear path for economic development in regions within, and proximal to wetlands (*i.e.*, placer mining, road management). Policies concerning wetland restoration should be consistent regardless of LUD and should be standardized for consistent stewardship in the Planning Region and follow sound scientifically based criteria.
- vi. The view that restoration of functional wetland habitat is effectively impossible is not backed by science and negates the incentive for land-users to implement best possible management practices in reclamation efforts. It is imperative for maintaining function of these ecosystems that wetland restoration policy encourages incentivized restoration efforts. Historic disturbances in wetlands would see little industry investment if the messaging presented is discouraging towards restoration of wetland function. Although a bog cannot be restored to be a bog, there is no scientific basis that effective wetland functions cannot be restored in disturbed areas.
- vii. **Current regulatory processes within the hard-rock industry, should be extended to placer mining, to incentivize habitat restoration of modern disturbance, but also historic disturbances. Additionally, these processes ensure that land-users abide by specific conditions that reflect habitat preservation of ecological sensitivities. Implementing restoration procedures through permitting conditions across the industry, as a whole, is key to successful execution of the Plan ecological goals and integrated stewardship practises.**

It is our belief that a balanced final plan would set the tone for future land use planning. Land use planning should more strongly consider the economic benefits that are possible through a sustainable mining and exploration industry that is world class. A healthy placer and hardrock industry from exploration to production is essential for Yukon businesses such as ours.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lebedoff', written in a cursive style.

Alan Lebedoff

President

ALX Exploration & Mining Supplies

Phone: [867-668-6096](tel:867-668-6096)

Cell: [867-335-2150](tel:867-335-2150)

33 Levich Drive

Whitehorse, YT

Y1A 0A8

2021 Dawson Draft Plan Engagement Submission

Type: email ref 070

From: Sara Nielson

Date: Nov 1 2021

Thank you for including these last-minute comments.

Wetlands description: ALL wetlands should be protected, not just "rare and sensitive" types, especially since they are "regionally scarc." At minimum, replace "development limits" to "no development" for the "rare and sensitive types."

The east side of the Yukon river corridor buffer is too small. Why not equal in eighth to the west side?

No similar buffer for the White River, Chandindu, Indian, etc is shown. Please plan for protecting intact habitats and corridors for wildlife communities, and the experience value for recreation and tourism, including sight, sound and wildlife and landscape appreciation.

More protection north of Tintina Trench please.

ISA1 - why not make a protected area? The existing description seems to lead that way.

SMA 2 shown should be SMA1s, in my belief.

In 'other' in table, list also national historic site and communities, as mentioned in intro.

I would like to see stronger protections for the Fortymile caribou, and not just for summer habitat as listed.

Confusing! Too many designation types.

Thanks and good luck on the next steps!

Sara Nielsen
Whitehorse

2021 Dawson Draft Plan Engagement Submission

Type: Email ref # 235

From: Donald Penner

Date: November 8 2021

Thanks Nicole:

I just wanted to add a comment to say that land use in the Yukon has become increasingly polarized between the environmental lobby and miners. It seems the whole world is becoming less tolerant of a multitude of issues. There has to be flexibility on both sides, because if all mining and exploration simply stopped, how would the Yukon survive without being supported. And we would definitely be going backwards if there were no regulations to keep the miners in check. Unfortunately, minerals are where we find them and we can't choose where to mine. There is risk and there will be some environmental damage, but this can be mitigated by proper regulation that is fair and applied equitably so that it's not too costly and onerous to explore.

I often think of the 'mess' of dredge tailings left by the gold miners in Dawson and how this went from being a 'mess' to somehow being a tourist attraction. I sincerely hope that the new land use regulations that are being proposed will be fair with clear unambiguous guidelines.

Thank you,

Best regards,

Donald Penner