KPMA's Wetland Classification Handbook to Improve Confidence in Impact Assessment

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1. INTRODUCTION

The Klondike Placer Miners' Association (KPMA) has developed a Wetland Classification Handbook (the Handbook), supported by an online educational video application as part of its efforts to bring together industry, government, and independent experts to improve placer miners' confidence in wetland identification. This is a first step working toward broader government and public confidence in proponent-led impact assessment and building greater certainty in impact assessment (IA) processes and decisions on placer operations in the Yukon.

2. REGULATORY LANDSCAPE AND PLACER MINING

Geologically, placer gold is loose nugget or flake gold that has eroded from its hard rock lode source. Over time, the gold is washed away along with gravel and sand, until it rests in an alluvial deposit. Placer mining is the act of using water, gravity and motion to wash away lighter material and recover heavier gold from alluvial gravels. No chemicals are used in the placer mining process.

Since the Klondike Gold Rush of 1898, the catalyst for the placer industry in the Yukon, placer mining has evolved and improved into the small to medium size, mostly family-run mines of today. The KPMA is an industry association established by placer miners, dedicated to advancing responsible and sustainable placer mining. For example, the KPMA has collaborated to develop the Fish Habitat Management System[1] in the 1990s and developed best practices guidelines for placer mine reclamation[2].

According to KPMA's 2021 field survey of over 100 placer operations:

- 90% of Yukon placer mines are family run,
- On average, 2.5 generations live onsite,
- 80% are owned, or co-owned, by women.

[1] The Fish Habitat Management System (FHMS) is a tool that was developed by the Department of Fisheries and Oceans Canada, in collaboration with the KPMA, Yukon Government, environmental NGOs, and First Nation governments. The tool incorporates a risk-based approach to decision-making (using a "class" *Fisheries Act* authorization system) to balance the objectives of a sustainable Yukon placer mining industry with the conservation and protection of fish and fish habitat. The FHMS helped to streamline the review of projects that have predictable and common impacts, and to reduce the level regulatory efforts on the reviews of low-risk projects.

[2] Best practices and guidelines are available on KPMA website: https://www.kpma.ca/resources/

For a placer miner to obtain the necessary authorizations to mine in the Yukon, they must:

1) **Stake their Claims:** Miners submit an application to the mining recorder's office, a division of the Yukon Government's Department of Energy, Mines and Resources (EMR).

2) **Assess Impacts:** Miners prepare a project impact assessment[3] submitted to the Yukon Environmental and Socio-economic Assessment Board (YESAB) that is reviewed by assessors, affected First Nations, government departments, interested parties and the public. Considering the assessment and feedback, the YESAB makes a recommendation and the Decision Body (generally EMR in case of placer mines, if located solely on public lands. If project activities are proposed on First Nation Settlement Land, that First Nation is also a Decision Board) must decide to accept, reject, or vary YESAB's recommendations in the Decision Statement.

3) **Obtain a Water Licence & Placer Mining Land Use Permit:** Licencing is through the Yukon Water Board (YWB)[4], an independent tribunal that considers a miner's licence application, the Decision Statement, and interventions from affected First Nations, government departments, interested parties and the public to develop licence terms and conditions.

Throughout these processes, most miners have empirical knowledge of what happens in the environment around them, including of wetlands and the diversity of species that live there, and bring this empirical knowledge into their impact assessments and permit applications.

Impact assessment and permitting of placer mines happens against a backdrop of some of the most advanced and forward-thinking legislative frameworks - there are 11 self-governing First Nations in Yukon, and the Umbrella Final Agreement (the UFA) – the framework underlying self-government – was signed in 1990. The UFA provides for the creation and implementation of a natural resource management regime that involves Yukon First Nations in the management of public lands. The Impact assessment process itself, as well as regional land use planning, are key procedural aspects of the Yukon's natural resource management regime. However, only two regional land use plans have been completed in the Yukon since the UFA was signed, leaving much uncertainty in the Territory for acceptable levels of change or landscape level objectives. Yukon's placer mining practices are arguably world-leading for environmental stewardship and mitigation controls, yet there are no approved reclamation guidelines or wetland policies to support this statement and in guiding proponents through the permitting process. These gaps have led to declining trust and lack of confidence in the impact assessment and permitting processes.

[3] The majority of placer mining activities require an environmental assessment through the Yukon Environmental and Socio-economic Assessment Board.

[4] The Water Board has the delegated authority from the Yukon Government's Department of EMR to issue both the Water Licence and Land Use Permit.

3. PLACER MINING ASSESSMENT AND ISSUES RAISED

Over the past 5-10 years (since ~2013), the placer industry has seen a marked increase in public comments and concerns from members of the public, affected First Nations, and interested parties on license applications through both the impact assessment and licencing processes. One area that has garnered significant interest from these groups engaged in placer assessments is mining within wetlands. Given the nature of the assessment and processing regime, there is often duplication in the expression of comments and concerns from members of the public, affected First Nations, and interested parties, such that it places a significant burden on to proponents to respond adequately each time it is required in the process – a process repeated across different applications each year. In the case of wetlands, there is significant concern regarding the unfettered development of undisturbed wetland habitat, places of significant ecological and socio-cultural value. This concern requires ample consideration by Decision Bodies and regulators, so much so that as a result, many miners' applications have been stalled with regulators not making a decision, and for those applications that are processed, miners' have been left with recommendations, terms and conditions that are ambiguous and are difficult to implement, practically.

In October 2019, the Yukon Water Board sent a letter to the Yukon Government outlining the difficult position they were in[5].

> *"…the Water Board fulfills obligations under Chapter 14 of Yukon First Nations Final Agreements and has a dual role as regulator under the Waters Act (WA) and Chief for certain functions respecting Class 4 placer land use operations under the Placer Mining Act (PMA). In this dual role, the Board has received a number of applications for water licences and Class 4 placer operating plans in wetland areas. While processing these applications interventions were submitted in which the interveners requested, among other things, a public hearing in order to "consider whether or not wetlands can be further eroded by placer mining – that is, if mining is acceptable in undisturbed wetlands, and if so, what conditions should apply to mining in these undisturbed wetlands..."*[5]

The Yukon Water Board took unprecedented steps to respond to the issues raised in 2019 by:

1) **Slowing the issuance of water licenses to placer miners, effectively stopping the process** with interventions on wetlands.
2) **Holding a general Public Hearing** to "consider whether or not wetlands can be further eroded by placer mining – that is, <u>if mining is acceptable in undisturbed wetlands</u>…", rather than in relation to specific applications before them.

[5] October 7, 2019 Letter "Re: Wetlands Public Interest Hearing" from the Chairperson of the Yukon Water Board to Premier Silver, Yukon Government.

Due to the Covid-19 pandemic, the Public Hearing was deferred from April 2020 to October 2020 further delaying license decisions for placer operators.

3) **Implementing new *Draft Wetland Information Guidelines***[6] – without warning, notice to or consultation with governments or proponents - requiring proponents to submit additional information in their water license applications[7].

It is important to note that the Yukon Government has been developing a Territory wide policy on the stewardship of wetlands. However, this policy remains incomplete. Without an approved Wetland Policy, regulators are in a difficult position. This difficult situation for the YWB has been a boon to anti-mining groups and been an unprecedented challenge for the placer mining industry. Repeat requests from interveners, challenges faced by decision makers, and uncertainty for industry, lower confidence of all those involved in the impact assessment process. The burden of new requirements placed on proponents do not provide a solution to a socio-political problem created by the absence of Land Use Plans and an approved Wetland Policy.

4. KPMA WETLAND CLASSIFICATION HANDBOOK

With a goal to educate membership and demonstrate industry's commitment to a responsible and sustainable placer industry and address the findings of the Public Hearing, KPMA proceeded to develop the *KPMA Wetland Classification Handbook*[8] targeting the placer industry.

The goal of the Handbook is to support KPMA members in understanding the basics of wetland science and aims to create a shared baseline of knowledge between miners and adjudicators in the assessments of placer impacts on wetlands. KPMA needed to ensure the Handbook:

The October 2020 Public Hearing demonstrated that:

- The placer industry is not understood by the general public,
- That wetland types and functions are not well understood by the placer industry, and
- Waiting for government to provide accurate wetland inventories and mapping

- Relayed accurate, science-based, unbiased information acceptable to regulators;

[6] The draft Wetland Information Guidelines can be found on the YWB Public registry 'Waterline', under PM20-18, **Exhibit 1.3**: https://apps.gov.yk.ca/waterline/f?p=127:LOGIN

[7] The *draft Wetland Guidelines* largely duplicate the YESAA process, the DFO FHMS Worksheets, and other water license submittals, and lacked clearly defined objectives on what the YWB would do with the additional information collected, and how it would relate to activities on the ground. More information on KPMA's response to draft Wetland Information Guidelines can be found on the YWB Public registry 'Waterline', under PM20-18, **Exhibit 5.3**: https://apps.gov.yk.ca/waterline/f?p=127:LOGIN

[8] The KPMA Wetland Classification Handbook is now available publicly online at: https://www.kpma.ca/resources/

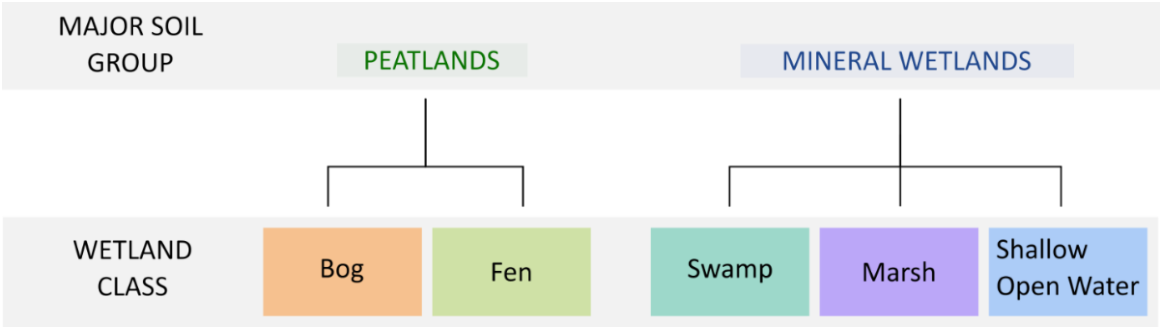
- Underwent third-party review of the technical information; and
- Was crafted using plain language, with a simple, easily accessible presentation to reach the target audience.

The KPMA retained Ecofish Research to develop the KPMA Wetland Classification Handbook, "to help users identify wetlands in the field to support mine planning and permitting in Yukon Territory".[9] Ecofish Research's certified wetland specialist to draft the Handbook. KPMA then engaged experts at Yukon Government to peer review the information contained in the Handbook.

The Handbook introduces wetlands, including what defines a wetland, why wetlands are important ecosystems, and specific information about wetlands in Yukon. It walks through the basics of wetland classification and indicators and concludes with clear steps to guide in-field observations and to help miners use their observations to identify the class of wetland they are likely observing. This knowledge helps them better plan their work to avoid, minimize, reclaim or offset wetland impacts from mining.

One basic example of how the Handbook has improved industry confidence in navigating the regulatory process is in the simple explanation of the difference between peat and mineral wetlands (Figure 1). Understanding this simple yet fundamental difference - armed with knowledge and an understanding of the different classes of wetlands - miners are better able to engage in peat-to-mineral reclamation conversations, especially when completing impact assessment reviews and license applications.

Figure 1. Wetland Classes as shown in the KPMA Wetland Classification Handbook



Source: KPMA Wetland Classification Handbook. Page 7.

To further enhance the accessibility of the Handbook to placer miners, the *KPMA Wetland Classification Handbook* content has been developed into an online education application, one module in the new KPMA101 app. The *Wetland Classification* learning module content follows the layout of the *KPMA Wetland Classification Handbook,* broken down into mini video chapters with additional imagery and a focus on key aspects of identifying wetlands in the field. As with the Handbook, the script for the

[9] *KPMA Wetland Classification Handbook*. Page 1.

wetland module video was co-created with Ecofish Research and peer reviewed by both Yukon Government and Ducks Unlimited Canada.

The Handbook and associated learning module has allowed miners to not only better understand the conversation around assessing mining in wetlands, but to engage in it confidently, from a place of learned and empirical knowledge. KPMA hopes that the tool will also improve the confidence of regulators and intervenors in proponent's assessments and applications submitted through the impact assessment and permitting processes.

5. KPMA101 ONLINE LEARNING APP

The KPMA101 program includes a series of learning modules[10], like the wetland classification module. The program is industry-driven with a focus on three main categories: earthworks and reclamation, planning and regulatory issues, as well as community and engagement. Learning modules, like the Wetland Classification Module are a video-based education tool targeted at KPMA members, most of whom are not accustomed to reading technical responses or studies. Training modules are broken down into mini videos about 20 minutes long and ending with a short quiz. The program has been built to be easily accessible to all miners and their employees. The app is available to all KPMA members and can be accessed via phone or tablet, with learning modules developed to be downloaded and accessed offline as needed in the field.

KPMA101 modules are designed to support placer mine proponents through IA, Indigenous consultation, permitting, and operational compliance. Modules marry research, regulations, and best practises with practical information to encourage industry in implementing best practices in a way regulators understand. They are reviewed by external experts, and the KPMA believes the efforts to proactively collaborate with Yukon and First Nation governments has improved relationships and trust among the groups involved. We hope through these efforts we will ultimately build confidence in the IA and permitting processes, and that these processes are built with an accurate understanding of modern placer mining.

The KPMA believe that the creation and implementation of this training program has, and will, continue to bridge communication gaps between miners, regulators and impact assessors and intervenors; and that through this work, confidence in the regulatory process, and confidence in miners will improve.

[10] The full KPMA101 program has two other core components, in addition to the online learning modules: 1) A non-enforcement industry expert, like KPMA staff or Yukon Geological Survey staff, visit miners in the field to reinforce key concepts presented through the app; and 2) an adaptive management review process takes place each fall to check in with stakeholders, to ensure current modules are relevant and useful, and to gauge what additional topics could use further development.

6. CONCLUSIONS

As of April 2022, Yukon's Wetland Policy remains a draft. Even if implemented in its current form it would not clearly address the issues being raised by Affected First Nations, members of the general public, and stakeholders. Land Use Planning, a legislated process under Chapter 11 of the Umbrella Final Agreement, has not yet been completed in areas where there is an active placer industry.

While uncertainty remains, the KPMA remain actively involved in processes to develop land use plans and a Yukon Wetland Policy. KPMA continue to design KPMA101[11] content to support placer mine proponents through IA, consultation with Affected First Nations, permitting, and operational compliance; and maintains an open-door policy, available to collaborate with interested parties on tangible ways the placer industry can improve.

The KPMA believes that a successful regulatory structure for mining must include collaboration with industry when developing policy, guidelines, and legislation. While the Yukon's regulatory structure is changing quickly, the KPMA is encouraged to see these processes are inclusive of industry.

[11] As of May 2022, KPMA101 includes modules on contouring and revegetation, violence and harassment in the workplace, special waste management, what is placer mining, how to use the app, drones for placer mining, and the KPMA is actively developing more relevant content.