



June 15, 2022

CPAWS Yukon
101-301 Hawkins Street
Whitehorse Yukon, Y1A 1X5

To: Yukon Water Board
Suite 106-419 Range Road
Whitehorse, Yukon, Y1A 3V1

Re: Comments on the *Draft Wetland Information Guidelines for Placer Applications*

The Yukon Chapter of the Canadian Parks and Wilderness Society (CPAWS Yukon) advocates for the territory's most valuable and priceless resource: our abundant wilderness. Our mission is to conserve the land, water and wildlife of the Yukon for current and future generations. As a conservation organization, we carry a responsibility to ground our actions within a commitment to reconciliation, and we recognize that the lands and waters we advocate for are also the Traditional Territories of Yukon First Nations, the Inuvialuit, and transboundary First Nations in British Columbia, the Northwest Territories, and Alaska.

Thank you for the meeting on May 17, 2022 to discuss the *Draft Wetland Information Guidelines for Placer Applications* and for the opportunity to provide comments on the proposed guidelines. Our comments are organized according to the headings in the guidelines document.

In general, we feel the requested information is appropriate and will better support the assessment of projects that will impact wetlands. At the same time, and as explained in more detail below, we are concerned that applicants will lack the expertise required to provide accurate information. Wetlands are likely to be under-mapped, making it impossible for the Board to fully account for impacts to water quality and water flows. For this reason, we recommend that applicants be required to engage with a qualified professional to provide wetland information. Recognizing that the Board may not require applicants to engage with a qualified professional, we have also tried to identify likely inconsistencies and inaccuracies and provided thoughts on how they could be reduced or partly mitigated.

1 WETLANDS IN THE PROJECT AREA

1.1 Wetland Classification

Mapping and classifying wetlands is a critical step but a difficult task, and each wetland class offers different challenges. For example:

- Water levels of marshes can dramatically fluctuate, and these wetlands go “through cycles of drawdown and regeneration, degeneration and open water stages over the course of a few years”¹. Marshes may be under-mapped if field classification is done in a dry year, without the aid of multi-year air photos or multi-year site visits. Natural marshes are relatively uncommon in some placer mining areas, including the Indian River, and there is a risk they could be misclassified as upland environments and allowed to be impacted.
- Bogs have two soil layers: a top aerobic layer that can be dry, supporting dwarf shrubs and lichens, and a deeper layer that is wet and anaerobic. Fens can also be dry, supporting tree habitat “as much as 20 cm above the water table”². There is a risk these wetlands will be mistakenly classified as upland environments.
- It can be difficult to distinguish between certain types of wetlands, such as treed fens, treed bogs, and conifer swamps.³ This introduces the risk that a rarer, off-limits wetland will be misclassified as a more common type of wetland and allowed to be impacted.

Requiring that wetland mapping and classification be done by qualified professionals would greatly reduce the occurrence of misclassification and under-mapped wetlands. Wetland experts are trained to identify wetlands based on reliable identification characteristics, including the presence of wetland plant communities and soil types. The Northern Manual for Wetland Evaluation in Ontario stresses that “It is important that evaluators be able distinguish wetland from upland plant species” (pg. 17). Wetland experts are also better equipped to consistently classify more complex wetland environments, such as those interspersed with upland habitat, mixed wetlands, and wetlands that grade into other habitats. Without expert involvement, CPAWS Yukon expects that the classification and delineation of complex wetlands will differ greatly from project to project.

If the Yukon Water Board decides not to require that information be provided by a qualified professional, CPAWS Yukon recommends that the Board develop a document to support proponents in accurate classification and mapping. We recognize that the draft information guidelines specify that information provided to the Board is to be collected in accordance with the *Canadian Wetland Classification System* (National Wetlands Working Group, 1997). While we agree with this methodology, we are concerned that applicants may not follow the classification system as intended, due to the length of the document, its complexity, and the expertise required to accurately implement it. A short supporting guide could note anticipated common errors, such as those we have identified above, and provide information tailored to improve the accuracy of identification and delineation.

¹ Page 45 in National Wetlands Working Group. (1997). *The Canadian Wetland Classification System: Second Edition*. https://www.gret-perg.ulaval.ca/fileadmin/fichiers/fichiersGRET/pdf/Doc_generale/Wetlands.pdf

² Page 27 in National Wetlands Working Group.(1997).

³ Page 53 in Ontario Ministry of Natural Resources. (2014). *Ontario Wetland Evaluation System: Northern Manual, 1st Edition, Version 1.3*. <https://files.ontario.ca/environment-and-energy/parks-and-protected-areas/ontario-wetland-evaluation-system-northern-manual-2014.pdf>

We also suggest that the information guidelines provide greater detail on expected accuracy and appropriate methods for data collection. For example, accuracy would be greatly improved if information provided was based on both air photos/satellite imagery and field transects, as opposed to just air photos/satellite imagery. The timing of field visits can also greatly impact wetland mapping, with mapping conducted at peak water levels resulting in better delineation of the maximum extent of wetlands. Greater detail on appropriate methods would also result in greater consistency on information accuracy between projects, ultimately resulting in greater fairness for applicants (e.g. more methodical applicants would not be 'penalized' for delineating wetlands with greater accuracy). The Board could also consider auditing applicant-led mapping and identification to determine how accurate non-expert mapping tends to be. If accuracy consistently falls below accuracy standards, the Board could then consider requiring that mapping be conducted by qualified professionals, or it could take a very precautionary approach (e.g. apply larger buffers to wetland boundaries).

CPAWS Yukon also recommends that the information guidelines provide greater clarity on the extent of adjacent and downstream wetlands that applicants are to provide information on. We recognize that the appropriate extent will likely vary depending on factors such as project impacts and hydrological connectivity, but some guidance would be helpful. We do appreciate that wetlands outside of project boundaries are included in the information requirements, as they can be impacted by placer mining activities.

The information guidelines do not specify if shapefiles must be provided to the Board. CPAWS Yukon recommends that shapefiles be required in order to better record change, enable adaptive management, and to aid mining inspectors in the field as they determine compliance with licence conditions. Alternatively, provided maps could be digitized and the Board could create shapefiles.

1.2 Water Flows and Water Quality

CPAWS Yukon agrees that baseline information on water quality and water flows is critical to both evaluate projects and, if they go ahead, the effectiveness of project-specific and upstream mitigation measures. We feel this section would benefit from specifying required information versus optional information, as well as appropriate methodologies and reporting formats.

In addition, identifying water flows and quality requires expertise and would be best conducted by a qualified professional. Untrained applicants may find it particularly difficult to map water flows for fens and bogs, where water flows occur beneath the surficial soil layer.

2 IMPACTS TO WETLANDS

2.1 and 2.2 Within and Outside the Project Area

CPAWS Yukon agrees that applicants should consider direct and indirect impacts to wetlands within and outside the project area in order to better design their project. At the same time, non-

experts will have a more difficult time than a qualified professional in predicting impacts, particularly those that are indirect and to wetlands outside the project area. This is another reason CPAWS Yukon supports information gathering by qualified professionals.

Given that impacts are difficult to predict, we also recommend that the Yukon Water Board or Yukon Government develop a monitoring program to measure wetland impacts, leading to better mitigation measures.

4 PROJECT CLOSURE

Comparing predicted wetland reclamation outcomes to real world outcomes will be a rich source of information in the evaluation of mitigation and reclamation activities. While this is perhaps already planned, we suggest that the Yukon Water Board consider how to best store this information in a database so that it can be readily analyzed in the future and used for adaptive management.

Thank you for the opportunity to provide comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Randi Newton".

Randi Newton
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