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Dawson Regional Planning Commission

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To Whom It May Concern :

Subject: Dawson Regional Planning Commission Draft Plan – June 2021

The Fish and Fish Habitat Protection Program (FFHPP) of Fisheries and Oceans Canada (DFO) has reviewed the Dawson Regional Planning Commission Draft Plan – June 2021. We are pleased to offer the attached information and comments related to the draft Plan.

FFHPP seeks to conserve existing fish and fish habitat resources, protect these resources against future impacts and restore fish habitat. Overall, our review found that the draft Plan aligns well with these goals. This includes the focus on community stewardship; protecting and restoring salmon habitat; supporting intact ecosystems by protecting streams as well as riparian habitat; ensuring connectivity and proximity of habitats that support critical life stages; and the inclusion of the hierarchy of measures to avoid and mitigate effects on fish and fish habitat.

The attached document offers contextual information and specific comments as they relate to fish and fish habitat, and the Fish Habitat Management System for Yukon Placer Mining.

We hope that this information is helpful and thank you for the opportunity to provide input to the draft Plan. We recognize the immense work that has gone into drafting the Plan. Please do not hesitate to contact Jeska.Gagnon@dfo-mpo.gc.ca if you require additional information or have follow up questions.

Sincerely,

Bruce Runciman
Manager, Integrated Planning
Fish and Fish Habitat Protection Program

Attach.: Fish and Fish Habitat Protection Program Input on the Dawson Regional Planning Commission Draft Plan

Canada

Fish and Fish Habitat Protection Program Input on the Dawson Regional Planning Commission Draft Plan

The Fish and Fish Habitat Protection Program

The Fish and Fish Habitat Protection Program (FFHPP) reviews development projects taking place in and around fish habitat to ensure compliance with the fish and fish habitat protection provisions of the *Fisheries Act* and the relevant provisions of the *Species At Risk Act*. In particular, the *Fisheries Act* prohibits the harmful alteration, disruption or destruction (HADD) of fish habitat or the death of fish by means other than fishing. Any works, undertakings or activities that result in a HADD or death of fish by means other than fishing can only occur if authorized by the Minister of Fisheries, Oceans and the Canadian Coast Guard.

Prior to issuing a *Fisheries Act* authorization, the Minister must consider whether there are measures and standards to avoid, mitigate, or offset any HADD. These three considerations establish a hierarchy of measures where efforts should be made to avoid impacts first. When avoidance is not possible, then efforts should be made to mitigate impacts caused by the project in question. After these actions, any residual impacts would normally require authorization and should then be addressed by offsetting. Applications for authorizations must follow the [Applications for Authorization under Paragraph 35\(2\)\(b\) of the Fisheries Act Regulations](#), and applications are processed in accordance with those regulations.

When applying the fish and fish habitat protection provisions, the Department employs a risk-based approach to determine the likelihood and severity of potential impacts to fish and fish habitat that could result from a given work, undertaking or activity. The draft plan outlines recommended management practices for a number of different project types (e.g., water course crossings, barge landings, water withdrawals, aggregate extraction, etc.) that may require a *Fisheries Act* authorization prior to being allowed to proceed. More detailed information can be found on the [projects near water](#) website and in the [Fish and Fish Habitat Protection Policy Statement](#).

The Fish Habitat Management System for Yukon Placer Mining

In Yukon, the Fish Habitat Management System (FHMS) for Yukon Placer Mining regulates placer mining under the *Fisheries Act*. The FHMS is an integrated regulatory system that was developed collaboratively by DFO, the Yukon Government and the Council of Yukon First Nations. The FHMS established 16 watershed-based *Fisheries Act* authorizations to authorize placer mining works that result in the HADD of fish habitat for streams or portions of streams in the Yukon. These works include water acquisition, sediment discharges from settling facilities, stream diversions, and other instream works (e.g., construction of dams and settling ponds). The watershed-based authorizations apply to classified streams and portions of streams, and the adjacent riparian habitat. Suitability of habitat and the degree of risk posed by the works determine if the works will be permitted by the watershed-based authorization.

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Section 3.5.1.1 – Discussion: Surface Disturbance Measurement and Recovery

Question 1 in the Discussion Section mentions that a surface disturbance can be considered recovered when vegetation growth is over 1.5 metres. With respect to riparian vegetation, we recommend that more qualifiers be included to determine when an area has recovered, for example: seral stage, vegetation type, natural regeneration of conifers, lack of invasive species, documented growth (overall height, condition/health, cover), etc.

Section 3.5.1.3 - Other Indicators

In this section, water indicators are discussed in the context of cumulative effects management. The draft Plan mentions that a *“reference condition approach”* was developed to monitor water quality of placer streams vs unmined streams. The objective of the reference condition approach in this case, was to assess and monitor aquatic health; where benthic invertebrates are used as an ecosystem indicator of aquatic health and aquatic health is a surrogate for the health of fish and fish habitat. The water quality objectives monitoring protocol is used to monitor water quality¹.

Section 3.5.3 – Cumulative Effects Framework Discussion

We suggest that the cumulative effects framework also include indicators to capture and track natural disturbances that can negatively impact ecosystems as these will affect threshold levels.

Section 4.1.2.2 - New All-Season Surface Access

We agree with the recommended management practices and would like to emphasize the importance of multi-party use of access roads or trails to limit linear disturbance. In addition, new all-season surface access should be planned to avoid sensitive fish habitat and to minimize water course crossings.

Section 4.1.2.5 - Water Access

We support the recommended management practices for water access, as described in section 4.1.2.5. In particular, we agree that stream crossings should be constructed to

¹ Fish Habitat Management System for Yukon Placer Mining: Water Quality Objectives Monitoring Protocol; Prepared by the Yukon Placer Water Quality Working Group, January 16, 2007, Revised January 11, 2016. Available at: https://emrlibrary.gov.yk.ca/placer_secretariat/fish_habitat_management_system/water_quality_objectives_monitoring_protocol_jan_2016.pdf.ca

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minimize impacts to fish and fish habitat, that a hierarchical approach to construction be applied, and that construction should not occur during sensitive time periods for fish.

Fording should be limited to locations and applications where it is absolutely necessary. Permanent or high use locations should employ a clear span bridge or embedded culvert.

We would like to note that there is a growing body of literature related to the impacts of boating on fish and fish habitat that could help inform the research recommendations in this section.

Section 4.1.7 Forestry

In general and in relation to all land use activities, maintaining riparian buffer zones around on-land activity is important for protection and function of aquatic ecosystems. The width of the riparian buffer will depend on various factors (vegetation type, fish species and life stage present, gradient, aspect, stream width, etc.). Riparian vegetation is important habitat for salmonids, providing complexity, food and nutrients, and bank stability (among other functions).

Section 4.1.8 – Aggregate Resources

The recommended management practices state that where possible, aggregate resource extraction should avoid sensitive fish habitats. This could be strengthened to “aggregate resource extraction should be planned to avoid sensitive fish habitats”.

Section 4.2.1 – Salmon

The draft Plan mentions that the Fish Habitat Management System for Yukon Placer Mining (FHMS) is implemented by the Yukon Placer Secretariat. We would like to clarify that the Yukon Placer Secretariat is no longer active. Oversight of the FHMS is provided by the Yukon Government, DFO, and the Council of Yukon First Nations through the Joint Placer Implementation Committee.

A policy recommendation is included to “implement the recommendations in the *Review and Evaluation of Adaptive Management in the Fish Habitat Management System for Yukon Placer Mining (Olson, Nelitz, Hall, 2020)*”. We agree this is a useful report but in recognition of work already underway and because the report includes recommendations related to governance, would request the Commission provide broader, longer term recommendations on the integration of the FHMS with the Dawson Regional Land Use Plan, such as the research recommendation to continue to re-evaluate the effectiveness of the FHMS.

Regarding the research recommendation in the draft plan that an aquatic habitat inventory be conducted prior to mining and other land activities in areas that have not yet been

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mined to determine whether salmon habitat is at risk, with respect to placer mining, we would note that significant baseline information and data, as well as ground-truthing of the outputs, were completed when the fish habitat suitability model and maps were developed. These maps were created using salmon as a valued ecosystem component and employ a precautionary approach to identifying important Chinook habitat. We recommend the Commission consider the information already gathered and analyzed to develop these maps and focus the research recommendation on building on or supplementing these maps to avoid duplication of efforts already undertaken. The fish habitat suitability maps are a fundamental component to the FHMS. We also note, there appears to be overlap between the first and third research recommendation in this section.

This section also includes a recommended action to support the finalization of the *Draft Fish Habitat Management System 12 year water quality review* and implement appropriate recommendations as listed. This report is in the process of being finalized and those individual sections have been reformatted. In light of this, we suggest the Commission adjust this section to focus on the recommended actions, rather than specific reports or sections therein, this will help to ensure the recommendations remain meaningful over the long term.

We are currently working with the Commission staff to organize an information session for the about the FHMS, which we hope will help to inform the recommendations in this section.

LMU 15: Fortymile River – Chëdähdëk

The Special Management Directions include that “*operation of large, high powered tourist watercraft on the Fortymile River should not result in the appreciable mortality to juvenile or adult salmon, or disruption of their habitats*”. As described earlier, the death of fish by means other than fishing is prohibited under the *Fisheries Act*, as such, an authorization may be required if this activity results in the death of fish. Activities, not just works and undertakings, must be authorized for the death of fish and alternatives and avoidance/mitigation measures (types of vessels, timing of activities, etc.) are also required or a rationale of why the alternatives cannot be implemented.

Table 6.3 – Potential regional indicators for sustainable development

We recommend that riparian vegetative cover (species diversity, health, age, cover, growth, etc.) should be included as one of the indicators for Regional aquatic habitat integrity. Riparian vegetation can buffer some of the effects of human disturbance. Ecological indicators should be scientifically based and examine multiple factors. The Pacific Salmon Explorer (PSE), while BC based, has useful information on salmon habitat status and the indicators that are considered ([Pacific Salmon Explorer](#)).