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The Honourable Diane Lebouthillier, MP
Minister of Fisheries, Oceans and the Canadian Coast Guard
Fisheries and Oceans Canada

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RE: WPC Response to the draft Policy for Applying Measures to Offset Harmful Impacts to Fish and Fish Habitat

Dear Minister Lebouthillier,

WaterPower Canada (WPC) is the national trade association that represents hydroelectricity producers and their suppliers of goods and services. Accelerated investment in the development, construction and operation of hydropower generation stations and powerlines is essential for Canada's economic competitiveness, energy security, and to achieve our national greenhouse gas emissions reductions targets.

Canada has established aggressive GHG reduction targets – economy-wide reductions of 40 per cent from 2005 levels by 2030, a net-zero electricity sector by 2035, and a net zero economy by 2050. Achieving these targets will require rapid electrification of the economy and rapid growth of Canada's non- and low-emitting electricity. While much of the energy can come from variable renewables like wind and solar power, we will require large additions of firm resources that are available on demand to ensure grid reliability when variable renewables are not available.

Hydropower is an ideal solution because it is both firm and renewable, and Canada has tens of thousands of megawatts of hydropower potential.

Many hydro generation facilities, including greenfield and expansion projects as well as some ancillary facilities will thus need to get authorized under the *Fisheries Act* in the coming years. During its long history, the hydropower industry has developed a series of design approaches, good practices and mitigation methods that will be used to minimize the impacts of these projects. However, it will not be possible to avoid all residual impacts on fish and fish habitat and the availability of offsets and a timely authorization approval process will be critical to allow these projects to proceed smoothly.

In this context, it is essential that the DFO Policy for Applying Measures to Offset Harmful Impacts to Fish and Fish Habitat have realistic goals while still ensuring the integrity of the system and consistency and predictability in its application. In this regard, we believe that the draft Policy can be improved, and we hope that our attached comments will help.

Thank you again for this opportunity to contribute. We look forward to continued engagement with your department in the implementation of the Fisheries Act.

Sincerely,

A handwritten signature in blue ink, appearing to read "G. Bennett", is written over a horizontal line.

Gilbert Bennett

President

cc. André Bernier, Director General, Electricity Resources Branch, NRCan
Kate Ladell, Director General, Ecosystems Management, Fisheries and Oceans Canada
Francis Bradley, President, Electricity Canada
Paul Norris, President, Ontario WaterPower Association

WPC Response to the draft Policy for Applying Measures to Offset Harmful Impacts to Fish and Fish Habitat (“the draft Policy”)

November 20, 2023

Summary

- The draft Policy is a good basis to initiate the discussion on offsets, but it is too constraining to permit proponents of hydropower projects to find the best offsetting strategy for their specific requirements. It sets unrealistic conditions on what is an acceptable offset. We believe that a less rigid approach would benefit both industry and fisheries.
- More focus needs to be put on ensuring that offset plans’ requirements consider the factors outlined in Section 34.1 (1) of the *Fisheries Act*, including maintaining fisheries productivity, healthy fish populations, or Fisheries Management objectives where they exist. A risk-based approach should be used to prioritize focus on situations with larger scale impacts, rather than small scale local impacts on fish or fish habitat that do not threaten the health of fisheries.
- DFO should consult with provincial governments regarding fishery productivity and management objectives when reviewing offsetting plans prepared by proponents. The draft Policy should also provide for coordination and substitution of offsetting measures with provincial authorities where there is concurrent jurisdiction on such matters.
- For projects that create new or enlarged water bodies, such as hydropower reservoirs, the productivity of the additional fish habitat must be considered in the determination of mitigation and offsetting.
- The objective of the draft Policy should be to achieve “no net loss” in fisheries productivity with a reasonable margin of safety and not a “net gain.”
- Proponents should not be required to account for uncertainties linked to future changes in the environment (climate, fish populations, etc.) on which they have no control and for which they are not responsible.
- While self-sustainability of offsets is desirable, it should not be a condition because it is not always feasible.
- Offsets can be required to last as long as the predicted impacts of the project, plus a reasonable margin of safety and compensation for any time lag but should not be required to last longer.
- The draft Policy should allow broader use of complementary measures to accommodate specific circumstances.
- Allowing third-party banking and credit trading is essential to ensuring the availability of offsets. The upcoming parliamentary review of the Fisheries Act offers an opportunity to make the legislative changes needed to enable third-party banking. DFO should work to prepare these changes.
- Specific guidance for the application of the draft Policy to existing hydropower facilities should be developed.

Detailed Comments

1.0 Fisheries Productivity and Fisheries Management Objectives (Part 1 and Section 4.3.4 of the draft Policy)

Under sections 34.1(1) (a) and (b) of the Fisheries Act, the first two factors that the Minister must consider when approving an authorization, including any offset plan required as a condition, are the impacts on the productivity of the relevant fisheries and fisheries management objectives (FMOs). These two factors should thus be considered in the determination of the amount of offsetting required. Our members have observed this is not always the case in practice. For example, offsets are frequently demanded to compensate for fish mortality that is unlikely to affect fish productivity at existing hydro facilities where fish populations are healthy.

Fisheries productivity and fisheries management objectives are mentioned in the draft Policy, including in section 4.2 on the development of an offsetting plan, but these factors are not given sufficient importance.

We suggest that:

- a) Impacts on fisheries productivity and fisheries management objectives be included in section 1.1 on the legal context, where they are currently omitted, and
- b) A framework for taking these factors into account in the determination of the offsetting required be added to section 4.3.4. on the determination of the amount of offsetting required.

A risk-based approach taking these factors into consideration in the determination of the amount of offsetting would be aligned with the statement made in the *2019 Fish and Fish Habitat Protection Policy Statement*, page 9: “When applying these provisions (of the Fisheries Act), the Department will employ 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 objective of an offsetting plan should be to ensure that productivity is maintained, FMOs are met, and that species at risk are afforded the protection required by SARA. It should not necessarily compensate like for like the loss of each square meter of habitat disrupted or number of fish killed. We do not believe that a like for like compensation requirement is a reasonable offset standard.

Department and industry should not waste resources and time on activities that have minimal impact on valued species and populations.

2.0 Consultation with Provinces

Provincial authorities often have information on fisheries, fish populations, users of the resource, and other stakeholders that DFO does not possess. **Consultation with the provinces is therefore highly desirable** in many aspects of the implementation of the Fisheries Act, including in the development of offsetting plans. This is particularly relevant given the provinces' authority over inland waters.

The draft Policy should provide for coordination and substitution of offsetting measures and priorities with provincial authorities where Canada and provinces have concurrent jurisdiction on such matters.

3.0 Treatment of Projects Having both Positive and Negative Impacts on Fish Habitat and Productivity

Some projects create new bodies of water that have positive impacts on fish productivity. The determination of the amount of offsetting required for such projects should be based on their net residual impacts (impacts after mitigation minus gains in productivity) and the result of the risk assessment and priority setting as outlined in Comment 1 above.

The definition of fish habitat in the *Fisheries Act* makes it clear that artificial or transformed water bodies constitute fish habitat if they are frequented by fish. Hydropower reservoirs and many other artificial or transformed water bodies are productive and support fisheries. The first of the factors that the Minister must consider when deciding on an authorization is “the contribution to the productivity of relevant fisheries by the fish or fish habitat that is likely to be affected¹.”

Thus, any assessment of the impacts of a hydropower project (or any other project that creates a new waterbody which is frequented by fish) must consider the productivity of the new water body.

The fish species assemblages that develop in reservoirs may be different from those that existed before and this may have an influence on the respective values of the fisheries before and after the impoundment. Similarly, the biomass and productivity in reservoirs are generally higher than before impoundment. These differences should be considered in the determination of the amount and nature of the offsetting that may be required for a new project.

For existing facilities, the current fish assemblage should be considered as baseline, and any requirement for a *Fisheries Act* authorization and associated offset plan should consider existing conditions as the baseline state.

¹ The use of the verb « to affect» instead of the words “alter”, “disrupt” or “destroy” as in the prohibition of section 35 (1) of the Fisheries Act shows a desire to take all changes, positive or negative, into account.

4.0 Counterbalancing Projects Impacts (Section 2.1.3: Principle 3 of the Policy)

The August 2019 Policy Statement on Fish and Fish Habitat Protection states that “Any residual harmful impacts should then be addressed by offsetting; offsetting measures typically counterbalance this loss through positive contributions to the aquatic ecosystem.”

According to the Merriam-Webster dictionary, the meaning of ‘counterbalancing’ is “to oppose or balance with an equal weight or force.”

Principle 3 (Section 2.1.3) of the draft Policy states:

*“The benefits from offsetting measures must counterbalance the harmful impacts, including time lags and uncertainties, **and should aim to provide an overall improvement.**”*

In the same section, page 11 “counterbalancing” is defined as follows:

“Counterbalancing harmful impacts should be interpreted as generating positive net benefits to fish and fish habitat from the implementation of measures to address pressures and to improve the conservation and protection of fish and fish habitat.”

It is thus clear that the goal of the draft Policy is to produce net gains from each project that will be authorized by requiring offsets greater than the harmful impacts of the project. This is not acceptable. **The objective of an offsetting plan should be to achieve no net loss in fish productivity and not a net gain** as proposed in the draft Policy. The amount of offsetting required could include a reasonable margin to cover uncertainties in determination and time lags, but we can find no basis in the *Fisheries Act* providing authority for requiring improvements that go beyond offsetting harmful effects.

This is particularly important in a context where the approach to the establishment of offset plans is already very conservative: the amount of offsetting must cover uncertainties, time lags; they are asked to be long-term and self sustaining; offsetting plans include follow-up in the field and corrective measures if necessary. There is a financial guarantee. In addition, the powers given to the Minister by the *Fisheries Act* allow them to impose corrective measures onto a proponent that fails in implementing a plan or even to amend or cancel the project authorization.

Consequently, the following adjustments need to be made to the draft Policy:

Section 2.1.3 Principle 3: *The benefits from offsetting measures must counterbalance the harmful impacts, including time lags and uncertainties.,~~and should aim to provide an overall improvement.~~*

Section 2.1.3, first paragraph: *The benefits from measures to offset should counterbalance the harmful impacts resulting from the proposed work, undertaking or activity by compensating for the loss itself, the associated uncertainty of success, and the time required for offsetting measures to be fully functional in supporting the life processes of fish.
~~Counterbalancing harmful impacts should be interpreted as generating positive net benefits to fish and fish habitat from the implementation of measures to address pressures and to improve the conservation and protection of fish and fish habitat.~~*

5.0 Accounting for Uncertainties in Establishing the Offset Plan (Principle 3 and Section 4.3.4.1)

The draft Policy requires the proponent to account for all uncertainties when determining the amount of offsetting required, including “uncertainty that may arise from the natural variability of fish populations and ecosystem dynamics, a changing climate, and invasive species.”

Placing the onus on proponents to account for external factors that they cannot control like evolving aquatic species (invasive or not), impacts of climate change, etc., is inappropriate. Proponents should not be responsible for effects they did not cause. Proponents should only be required to account for uncertainty of the science and data behind their quantification of offsets in relation to the harmful effects of their activities.

6.0 Section 2.1.4, Principle 4: Measures to Offset are in Addition to What Would Have Otherwise Occurred

When a regulatory measure requires a proponent, owner or operator or a project to take an action intended to compensate directly or indirectly for the negative impacts of the project, additionality means that the offsetting action must not be already required under another provision of the same piece of legislation or of another regulation in the same field, must not be financed by a government program with a similar goal and is not something that would be done in a business as usual scenario.

Unfortunately, the interpretation of the additionality principle presented in section 2.1.4 is confusing and does not make a clear distinction between project components, mitigation, and offsetting measures.

The example of the application of the principle to hydro reservoirs is wrong. When a new hydropower project is built, the reservoir is an essential project component. It is not a conservation project and thus cannot be considered as an offset, but it constitutes new fish habitat, the productivity of which must be considered in the calculation of the amount of offsetting required, as we discussed in Section 3.0 above.

Similarly, in the case of the relocation of a watercourse to protect a road, the new channel will constitute new fish habitat. Depending on its characteristics, its productivity may vary, but unless it is a canal made of bare rock or concrete, or an underground conduit, it will not be negligible and should be considered. The habitat features that may be added would better be seen as project optimization or mitigation than as “incorporated offsets.” The amount of offsetting required should then be evaluated based on the net loss in productivity plus any amount necessary to compensate for the time lag and uncertainties.

Where fish habitat was degraded by a third party, restoration of the site should be eligible to offsetting the harmful effects of another project unless:

- a) it is likely that the restoration will be carried out by the responsible party. This is the case only if the third party has as a clear legal obligation to restore and has the financial means to undertake and complete the restoration, or

- b) the restoration is already planned and financed through a government program. The fact that a third party is “expected” to undertake restoration is not sufficient in itself to exclude the restoration project from eligibility to be used as an offset.

7.0 Section 2.1.6 Principle 6: Measures to Offset Should Generate Self-sustaining Benefits that Last Over the Long Term.

Section 2.1.6 of the draft Policy states:

“Measures to offset should aim to generate self-sustaining long-term benefits to fish and fish habitat. The benefits must last beyond the harmful impacts of the works.”

Further down, the same section reads:

“An offset that requires perpetual ongoing maintenance in order for the system to continue providing necessary ecosystem services and prevent it from degrading permanently should not be considered.”

The draft Policy also requires that offsets behave and function similarly to a natural system, with a comparable level of natural variability and a similar recovery capacity.

These objectives, some of which are stated in the form of categorical conditions, may be desirable in theory, but in practice, designing self-sustaining offsets that behave like natural ecosystem that have had thousands of years to reach an equilibrium may not be achievable, especially in the context of accelerated climate change. Moreover, the draft Policy makes no distinction between offsets for temporary impacts and offsets for long-term effects and could be understood as requiring long-term self-sustaining offsets to compensate for any impact, including short-term temporary impacts.

To address these issues, Section 2.1.6 of the draft Policy should be revised to clarify the following points:

- The expected duration of value of an offset should be equivalent to the duration of impacts plus a reasonable margin to address uncertainties in the plan.
- Given the authority granted to the Minister to require additional measures beyond those provided for in the initial approval, the draft Policy should incorporate the principle of adaptive management rather than trying to predict all outcomes and results from the initial plan.
- Self-sustaining long-term offsets should be required only to compensate for long-term negative impacts on fisheries productivity or fish populations. They will not be required to last longer than the expected negative impacts of the project plus a reasonable margin of safety. Self-sustainability will be recommended but will not be a binding condition.

Given the long useful lives of hydroelectric projects, requiring stability without maintenance in the long-term when even natural ecosystems may not be stable in a changing climate and under other anthropogenic pressures on which the proponent has no influence is asking for the impossible.

8.0 Complementary Measures (section 3.1.6)

Limiting complementary measures to 10% of offset value is arbitrary and may be counter productive. It may restrict long term adaptive management approaches where long-term data collection is of critical importance to the sound management of fisheries and where continued incorporation of traditional knowledge may influence offset opportunity. It may force proponents to find offsets in remote pristine systems even though a higher percentage of funds could be directed locally in collaboration with Indigenous communities on higher-priority initiatives.

We recommend that the draft Policy allows broader use of complementary measures where such measures have the potential to offer more benefits than traditional offsets.

9.0 Interpretation of the Precautionary Principle (Section 4.1)

The draft Policy refers to the precautionary principle. While it is not defined in the *Fisheries Act*, Environment and Climate Change Canada discusses it in their *Guide to Understanding the Canadian Environmental Protection Act*:

“The government's actions to protect the environment and health are guided by the precautionary principle, which states that ‘where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.’”²

This approach exists to address the fact that science and information does not need to be perfect to allow for a decision to be made, including a decision to issue an authorization, especially when it relates to a project which has social or environmental benefits that would be deferred if the project is not allowed to proceed in a timely manner, as would be the case for a clean power project.

WPC members frequently encounter requests for more information and greater certainty from Fisheries and Oceans staff, and we believe this stance by staff is contrary to the Precautionary Principle. In such cases, demands for further detail and study serves to delay decision making, and ultimately the benefits associated with the project.

We recommend that guidance for DFO staff on the appropriate use of the precautionary principle be developed and that the department prioritize timely decision making with follow up and adaptive management as required.

The draft Policy also does not consider the cost and effort associated with offset plans compared to the benefits to fish and fish populations. While this would be required if the policy were established in Regulations, the potential cost of offset plans and delays associated with slow decision making are substantial and result in direct costs to hydroelectric operators and their customers.

Consequently, the cost of offset efforts should be commensurate with the benefits achieved.

² [Guide to understanding the Canadian Environmental Protection Act: chapter 3 - Canada.ca](#)

10.0 Third Party Banking and Credit Trading

The first statutory review of the Act by Parliament which is due to start in 2024 offers the government an opportunity to amend the Fisheries Act and other pieces of legislation to make third party banking possible. Allowing habitat banking involving third parties and a market for credits is highly desirable because it can increase the availability of offsets and thus facilitate the development of projects while protecting fish and fisheries.

Credit trading would make the possibility of offsetting more accessible to smaller companies. The current complexity of offset plans and 'proponent only' offset banking make access to the program prohibitive for smaller organizations. Enabling third-party banking would also open an avenue for greater co-operation with Indigenous groups, who may have offset priorities other than those on a proponent's footprint.

In summary, allowing third party banking and credit trading is essential to ensure sufficient availability of offsets. The upcoming parliamentary review of the Fisheries Act offers an opportunity to make the legislative changes needed to enable third party banking. DFO should work to prepare these changes.

11.0 Specific guidance for existing hydropower facilities should be developed.

For facilities that continue to operate without change, offsets should be required only to compensate for any maintenance or repair activities that cause residual impacts on fish or fish habitat after mitigation steps have been taken. Offsetting mortality resulting from impingement and entrainment should be required only if mortality is impacting fisheries and/or fisheries management objectives. Since assessment of mortality can be difficult and expensive, other indicators such as the health of fish populations should be used to assess the situation and to establish priorities.

At facilities that undergo significant changes (refurbishment including civil works, expansion, or redevelopment), the baseline for assessing impacts and determining what mitigation and offsetting is required should be the situation just before the changes are implemented.

12.0 Making the Draft Policy Less Restrictive and More Responsive to Priorities.

The draft Policy is a good basis to initiate the discussion on offsets, but it is too constraining to allow proponents of hydropower projects, provincial authorities, Indigenous groups, and communities the flexibility required to find the optimum offsetting strategy to meet priorities. It sets unrealistic conditions on what is an acceptable offset.

We believe that a less prescriptive approach would allow proponents to develop offsetting strategies better adapted to local conditions while still protecting fisheries.