May 28, 2013

Fisheries & Oceans Canada

FPR-RPP@dfo-mpo.gc.ca

Re: Conservation Ontario's Comments on "Science Advice to Support Development of a Fisheries Protection Policy for Canada"

Thank you for the opportunity to provide comments regarding the Science Advisory Report (SAR) produced by Fisheries and Oceans Canada (DFO) entitled "Science Advice to Support Development of a Fisheries Protection Policy for Canada." This report is intended to provide advice to policy and management staff primarily regarding scientifically significant terms in the amended *Fisheries Act* (2012). Conservation Ontario (CO) is the network of Ontario's 36 Conservation Authorities (CAs) who are partners with DFO through Fish Habitat Management Agreements. These agreements describe work sharing arrangements for initial review determinations, mitigation requirements and compensation planning for the purposes of Section 35 of the *Fisheries Act*.

Due to the limited time provided, a comprehensive review of the SAR was not possible. For this reason CO respectfully requests that DFO consider extending the deadline for comments on this report and the associated Discussion Paper so that implementation of the Fisheries Protection Policy can be supported adequately.

Based on a preliminary review, CO offers the following comments for consideration. The comments mainly focus on highlighting the specific areas where further science advice will be necessary to implement the Fisheries Protection Policy. Overall, the SAR clearly demonstrates that there is a need for further research to allow for the implementation of the Fisheries Protection Policy Framework. Given that the scope of this SAR does not provide science advice on interpreting "part of a Commercial, Recreational, Aboriginal (CRA) fishery", "relevant fish", "harm", and "serious harm to fish" and that the SAR points out several other areas of science advice which need to be addressed, it is evident that there is a large volume of work still to be done to develop clear implementation guidance. Therefore, **CO strongly encourages DFO to consider extending the July 1st implementation deadline for the amended *Fisheries Act* to the Fall. A Fall implementation date would allow time for DFO to collaborate with CO, CAs and other partners on implementation guidance that would clarify for proponents their responsibilities and streamline implementation.**

General Comments:

The content provided in the SAR and supporting science papers is sound and provides very detailed requirements for appropriately assessing fish productivity. The effort to develop frameworks for determining levels of harm using productivity thresholds and relationship curves is worthwhile. However the science papers continually state that the empirical and specific species/ecosystem data needed to evaluate with confidence likely does not exist, or is insufficient and the effort to collect the needed data is very high making it difficult to justify in all but the largest scale undertakings, works or activities (u/w/a).

The description of 'small scale projects" should be more detailed in order to establish consistent evaluation methods across jurisdictions. The SAR appears to suggest that small scale projects would include small-scale in-fills, exclusions and u/w/a that affect the flow and sediment regimes. These types of works reflect many, if not the majority, of works that occur in CA jurisdictions. Evaluating the impacts of these "small" scale projects "by assessing changes in fish production and fisheries productivity as directly as possible" is not promoted in the SAR. The practical approaches of using surrogates, proxies, expert opinion and extrapolation to implement the FPP framework for small scale works are recognized as more reasonable methods to determine harm. Such approaches for lake and coastal ecosystems are available (e.g. HAAT and HEAT models) but the existence of similar approaches appropriate for assessing stream ecosystems is less certain. Therefore, in future, greater discussion and evaluation of potential surrogate assessments of productivity in streams should be provided.

Specific Comments:

Section 2: Fish that Support a CRA Fishery
The discussion around Fish that Support a CRA Fishery did not address the issue of Aquatic Invasive Species (AIS). This is relevant because AIS can significantly displace native fish species that would support a CRA fishery (i.e. as a food source). If so the discussion seems to suggest that AIS could be protected (e.g. Roby Goby appear to have become a major dietary source for Yellow Perch). This issue should be addressed in additional science advice and in implementation guidelines.

Section 3.2: Contribution of the Relevant Fish Science: Considerations for Management
Figure 2 provides a useful starting point to develop a framework to determine the relationships between potential cumulative change to the affected species or habitats and the consequent potential impact to the ongoing productivity of CRA fisheries. It is recognized that some of the research needed to provide full scientific support for implementation of the framework will be ongoing. However, to facilitate implementation in the interim, science advice is needed to determine ecosystem components most vulnerable to a pressure; particularly in the absence of science. Further science advice will also be needed to clarify the scale at which different classes of ecosystems will be determined. CO agrees with the SAR's assertion that the notion of 'permanence' needs to be measured in time scales compatible with the biology of the species being affected (e.g. generation times) however further science guidance and evaluative measures will need to be identified to allow for determinations to be made around whether permanent alteration has occurred.

Section 3.3 Contribution of the Relevant Fish: Implementation Needs
The science advice paper acknowledges the need to identify methods and metrics for cumulative impact assessment in order to avoid impacts to ongoing productivity. The science advice paper also indicates that the scale at which the impact on productivity is assessed needs to be the functional ecosystem scale

in order to take into account cumulative impacts. CO strongly agrees that cumulative changes within an ecosystem need to be considered. However, currently cumulative changes are rarely assessed as they usually are deemed too resource intensive or difficult to quantify. The SAR refers to ways of considering cumulative impacts but further discussion and description of these tools will be needed to facilitate evaluation of the feasibility of this option.

Given a proposed w/u/a, the proposed Fisheries Protection Policy framework would require five pieces of information : a)"how productivity depends on habitat quantity and quality";b)"the current state of the affected species of habitats, taking into account any targets that may have been set for habitat status";c)"the resilience of fish productivity to further habitat perturbations";d)"the expected way that the proposed w/u/a may alter the state of affected species or habitats and" e)"uncertainties"

In many areas the science around the state of individual species or specific habitats is not sufficient to make determination about the pieces of information listed above. Thus most of them would default into the uncertainty category. This should be avoided by providing very specific technical/scientific requirements for proponents to develop the above listed pieces of information.

The SAR states that there is substantial research and expert knowledge that can inform the development of default forms for "the functional relations between measures of productivity and measure of the state of affected species or habitats" and the provision of "general guidance on the current state of affected species or habitats on moderate to large spatial scales." There is concern that this type of default form will not take into account smaller scale considerations. The importance of scale in the development of general guidance cannot be understated, and the development of functional relations between measures of productivity and the state of affected species or habitats can be very context or location specific. It is important that Conservation Authorities are specifically consulted in the process of this knowledge development to ensure that associated implementation guidelines are relevant at the local level.

The SAR also states that it is feasible to use existing knowledge to tabulate the species and habitat characteristics which will be impacted by various types of w/u/a; measures of state of species or habitats to best link productivity and changes caused by various types of w/u/a; productivity variation with the state of species or habitats and the current state of the affected species or habitats." These relationships and tabulations would be prepared under the aegis of DFO, using mixes of experts from within and, as appropriate, outside the Department, and updated periodically as knowledge increases." CAs should be consulted about the development, formation, interpretation and use of these relationships and tabulations.

Section 4: Scale Considerations

More scientific guidance will need to be provided on what is meant, or what needs to be specifically examined in order to determine whether the S1 threshold (threshold beyond which impacts to the productivity of the fishery species increase more quickly) has been exceeded.

Once again, thank you for the opportunity to provide comments on the Science Advisory Report (SAR). Overall CO supports the need for further research to support implementation of the Fisheries Protection Policy Framework. As significant partners, CAs look forward to being engaged in the process of developing further science advice to guide implementation. In the interim, it is respectfully requested that implementation be delayed from a July 1st start to the fall to enable the development of clear implementation guidelines. Should you have any questions about this letter, please contact myself at extension 223 or Samantha Dupre at extension 228.

Sincerely,

Bonnie Fox
Manager, Policy and Planning

c.c.: K. Gavine, General Manager, Conservation Ontario
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