DFO’s Application of the *Fisheries Act* (and *Species at Risk Act*) to Headwater Areas

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**Fisheries Act**

 Defines **Fish Habitat** as:

“spawning grounds and nursery, rearing, food supply, migration and any other areas on which fish depend **directly or indirectly** in order to carry out their life processes”
Environmental Process Modernization Plan

1) Risk Management Framework (RMF)
2) Streamlining Referrals (Regulatory Reviews)
3) Coherent and Predictable Decision-Making
4) New Management Model for Major Projects and Environmental Assessments
5) Enhanced Partnering
6) Habitat Compliance Modernization
Steps in the RMF Process

1. Aquatic Effects Assessment (including Pathways of Effect/Mitigation Review)

2. Risk Assessment (Risk Matrix)

3. Risk Management (Determine if Low, Medium or High Risk and respond accordingly)
Key DFO Points on Headwater Areas

• RMF is DFO’s tool to determine if and/or how the *Fisheries Act* applies to headwater area developments. This approach is strongly focused on managing negative effects to Fisheries at the project level.

• DFO acknowledges that Headwaters are important aspects of aquatic ecosystems and may function in providing:
  – refuge from extreme temperatures/flow regimes, competitors, predators and introduced species
  – Provide spawning sites and rearing areas
  – sediment reservoirs
  – Nutrients for downstream fish communities

• Notwithstanding headwaters being important features of aquatic ecosystems, the relationship between indirect (non-fish bearing) fish habitat to fish production is a Science gap.
Concluding Thoughts on Headwater Areas

• There are a myriad of federal, provincial and municipal statutes, regulations and planning policies that are relevant to the management of headwater areas.

• While the *Fisheries Act* is a very strong regulatory tool, its application is limited to circumstances supported by RMF/sound science.

• DFO Science has recently recognized ecosystem-based science (both marine and aquatic) as a key priority. In Ontario, DFO Science is continuing to study the relationship of headwater alteration to fish production in intermittent systems. This research along with work being done by CA’s and others will continue to inform RMF decision-making.

• As per Ch. 3 of DFO’s Habitat Policy, DFO will use Integrated Watershed Planning Initiatives to Inform regulatory decision-making (RMF).

• Acknowledging that the *Fisheries Act* is not a planning tool, Watershed & Subwatershed Planning provide an opportunity to pro-actively protect headwater areas that may not be otherwise protected via federal, provincial or municipal regulatory instruments. These efforts also typically contemplate cumulative effects and multiple competing values (e.g. fish vs. amphibians).

• Maintaining form and function of aquatic ecosystems following headwater development is largely an engineering gap—monitoring?