

Water Quantity Management for Healthy Waterbodies Policy

Policy No: 10-02

Policy Title: Water Quantity Management for Healthy Waterbodies

Policy Statement: Conserve and Restore Clean, Freshwater

Principles Applied:

- All organisms require a reasonable supply of clean water to maintain their life cycles;
- Water quantity creates living space and also maintains and redefines habitat over time;
- All aquatic organisms require flows that maintain their physical habitat, their living space, as well as water quality of the waterbody and the ecological integrity of littoral areas, river channels and floodplains;
- Water quantity management must maintain a natural flow regime to maintain variable habitats and resources at multiple spatial and temporal scales.

Policy Rationale and Considerations:

The quality and quantity of Canada's aquatic ecosystems must be maintained or restored to a level that ensures the health of aquatic species and communities. This provides the longest term, lowest costs for society and ecosystem management.

Objectives of Policy Statement:

Water quantity should be managed in order to balance the need of human society for water while ensuring the integrity of aquatic ecosystems.

Water quantity management should ensure that sufficient volumes of water are maintained in rivers, streams and lakes to ensure living space for aquatic animals, allow them to fulfill all their life cycle requirements, maintain water quality and ensure the structural and ecological integrity of littoral areas, river channels and floodplains. This will necessitate the management of natural flow regime

characteristics including low flow characteristics, flushing flows, channel forming flows and riparian/floodplain flows.

Implications to Organization:

The protection of water quantity requires consideration of issues related to changes in water budgets, including groundwater recharge and discharge characteristics, groundwater management, surface water flow patterns, environmental flows and discharge locations. Water policies should be considered at the national and provincial levels. Freshwater Conservation Canada will assist or identify the need for development of new science and analytical tools to determine impacts of changing flow patterns on all aquatic communities, their food webs and the implications on water quality.

At local levels, implementation of this policy requires consideration of issues related to water abstraction for irrigation, bottled water, groundwater and surface water flow modifications, municipal water supplies, wastewater treatment, hydroelectric dam water management as well as small dam removal and other related issues.

Delivery:

National programs will focus on acquiring science in support of water management, groundwater management, flow management from dams, water abstraction, etc. and providing technical tools to professionals that will assist them in designing better programs that balance water supply and management with protection of environmental flows in streams. Other programs can include small dam removal initiatives, improving environmental or instream flow requirements, groundwater recharge/discharge and stream flow, etc.

Supporting Information:

More detailed information on this Core Policy can be found in Policy Brief #1 of the National Conservation Agenda.

Effective Date: December 13, 2010

Last Board Approval Date: August 14, 2017