



David
Suzuki
Foundation



briefing note

Issue 1: B.C. Water Act Modernization submission – April 2010

RATIONALE:

British Columbia's Water Act must protect the role of water in ecosystems, including riparian areas and wetlands. Ecosystem water flows should be regulated in all B.C. watersheds and watershed-based water use planning established across the province.

BACKGROUND:

British Columbia has a wealth of functional aquatic ecosystems that provide a range of ecosystem services of direct benefit to people. These services include: climate regulation, flood prevention, drainage and natural irrigation, transport, pollution control/detoxification, habitat functions (maintaining biodiversity and related services), maintenance of commercially and socially harvested game resources (especially fish), recreational/aesthetic values, spiritual information and education (adapted from de Groot et al. 2002).

The current Water Act does not recognize the value of these services, particularly by not ensuring the protection of ecosystem-based minimum stream flows and related groundwater resources. The success of Water Act Modernization will be predicated on the improved protection of these ecosystem services, ensuring that water, and the tremendous benefits aquatic ecosystems provide, are maintained.

This submission focuses primarily on the protection of ecosystem-based flow standards for surface water ecosystems. The Statement of Expectations by B.C. non-governmental organizations, to which the David Suzuki Foundation is a signatory, provides our positions on the other aspects of a successful new Water Act (attached to this submission).

RECOMMENDATION 1:

Establish, regulate and enforce ecosystem-based instream flow standards for all streams in all watersheds of British Columbia.

The flow of water through aquatic ecosystems, including networks of lakes, wetlands and streams, is the most fundamental component of their function and health. In many of these systems the removal of any water results in a reduction of key ecosystem services, such as habitat quantity/quality and nutrient flow. Removing water for human use, consumptive or non-consumptive, is a tradeoff between the value of this use and the maintenance of critical ecosystem functions. This is particularly important, but not limited, to low flow periods.

Although Water Use Planning and some development processes in parts of the province have begun to establish instream flow requirements for streams they are inconsistently applied and based on a set of guidelines that are applied and interpreted differently depending on the project to which they are applied. Further, these guidelines do not adequately acknowledge the impacts of water withdrawal of even limited amounts to the degradation of ecosystem function. A more comprehensive approach is required, preferably undertaken through regional integrated watershed management systems (Recommendation 3), that ensures instream flows are identified (e.g., using the complete recommendations by Lewis et al.) and protected to maintain ecosystem function across the province and that tradeoffs made between maintaining optimal ecosystem function and necessary human use, with strong efficiency standards, are made explicitly and with the support of local stakeholders.

RECOMMENDATION 2:

Transition to a priority of use water allocation system, including the withdrawal and restructuring of existing water licences to ensure minimum ecosystem flow standards are protected and priority of use can be implemented.

The current First in Right, First in Time allocation system fails to ensure that water is used efficiently and is available first to priority uses. Given the allocation of large quantities of surface water resources through existing licences it will be insufficient if a new Water Act does not include provisions to revisit, withdraw and reallocate existing water licences based on a priority use approach with regulated ecosystem flow standards protected as the highest priority (Recommendation 1).

The withdrawal and/or reallocation of water licences will require compensation mechanisms and functional regional water management systems (Recommendation 3) to identify priority water uses and to ensure effective decisions are made during periods of water use conflicts.

RECOMMENDATION 3:

Provide regional support for integrated watershed management.

The monitoring and enforcement of ecosystem flow standards, the establishment and management of priority of water use, the allocation and reallocation of water licences, and managing water use conflicts requires regional management authorities with representation and support from local communities. To support these aspects of integrated watershed management the province must help establish watershed-based water use planning, including providing logistical support and resources. Resources must also be provided to support necessary baseline studies on existing ecosystem health and instream flow requirements and for ongoing monitoring.

REFERENCES:

de Groot, R., M. Wilson, and R. Boumans. 2002. A typology for the classification, description and valuation of ecosystem functions, goods and services. *Ecological Economics* 41:393-408.