

Instream flow studies: Comprehensive framework

Research priorities

Objectives of comprehensive framework research

- Contribute to set up the rules for instream flow regime studies
 - Recommend methodologies for different instream flow studies in various situations
 - Define quality standards for these methodologies
- Contribute to set up the rules for flow management

Background considerations

- Define the scope of action vs the interpretation bulletin
- Define practical deliverables (Methodology guide? Management guide?)
- Determine if external participants are needed (universities, provincial authorities)
- Research group to become a permanent "reference" group in Canada ?
- Finance

Management questions (1)

- What aspects of management do we include in the comprehension framework: ramping, spills, min. flows, load following, base loading, storage.
- Review of legislative, jurisdictional instream flow considerations at the provincial level across Canada.
- Review of successes and failure stories

Management questions (2)

- What would be trade-off criteria between flow requirements and other mitigation measures to provide habitat;
- Administrative process to authorize existing operations or ask for flow changes;
- How to include external considerations to fisheries (water use, economics);

Quality standards questions

- When do we ask for a microhabitat modelling approach, a mesohabitat approach, a holistic approach?
- How do we combine sedimentation, temperature information with habitat modelling?
- To what extent do we include the natural flow paradigm in instream flow requirements;

Quality standards questions

- What minimum information do we need in habitat modelling instream flow studies?
 - target species selection process
 - habitats to be modelled (feeding, spawning, rearing?)
 - ratio of number of sites per reach length
 - recommended hydraulic and biological models