

CONNECTING COMMUNITY-BASED WATER MONITORING WITH ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP IN CANADA

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WHY DID WE DO THIS RESEARCH?

Community-based water monitoring involves the engagement of community volunteers and non-government organization (NGO) staff in monitoring water quality and learning about their local watersheds. When government agencies and NGOs work together to develop these programs, it can increase resources available for monitoring, connect the scientific information to governmental management of watersheds, and promote community-led environmental stewardship. Done effectively, NGOs and government agencies will be better equipped to identify risks and other issues associated with watershed health and assess the success of their restoration activities.



WHAT DID WE DO?

We looked at Canadian environmental NGOs that engaged in community-based water monitoring. We were interested in how these NGOs were connected to one another and with government agencies, how monitoring information was incorporated into governmental decision-making processes, and how community-based water monitoring can help to assess the impacts of watershed restoration.

We examined several case studies of environmental NGOs from western and eastern Canada that engaged in water quality monitoring. We conducted interviews and surveys with NGO staff, community volunteers and government representatives.

WHAT DID WE FIND?

- Collaboration between environmental NGOs and government in the design phase of monitoring programs helped to ensure that the data met scientific standards for rigour and was relevant to existing management processes. Reciprocal actions such as sharing resources helped both parties to create an atmosphere of trust as well as capacity for monitoring.
- Monitoring programs that engage volunteers, use basic indicators, and focus on educational outcomes have the potential to enhance awareness of watershed issues and increase public support for management activities and government policies that improve watershed health.
- Visual assessments and water quality monitoring showed that restoration activities are having positive impacts on surrounding ecosystems in many cases, but scientific monitoring is rarely supported in project funding structures.

WHAT ARE THE IMPLICATIONS FOR DECISION MAKERS?

Community-based water monitoring can produce valuable information that is useful for environmental managers when assessing long-term trends, identifying water quality issues, and guiding integrated management decisions. For NGOs, monitoring activities can help to assess restoration projects and produce compelling information for community engagement. These activities require long-term government in-kind and monetary support through partnerships at municipal, provincial, and federal levels and inclusion in existing grant funding structures.

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