



# Barriers and opportunities for riparian rehabilitation via collaborative co-management

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## Farm Adaptation Innovator Program Research Factsheet



### Geographic Applicability

Results of this study apply to Alderson Creek and likely to other small watersheds with similar socio-geographic characteristics in BC.

### Commodity Relevance

Methods and results are applicable to collaborative riparian restoration projects initiated by small groups of landowners with farms or ranches.

### Timeline

2015 - 2018

## Purpose

Ecosystem-based adaptation encourages sustainable management and restoration of natural ecosystems as a proactive mechanism for mitigating future impacts of climate change. A riparian restoration project in the Alderson Creek watershed near Armstrong, BC was implemented by a group of landowners via the Group Environmental Farm Plan (GEFP) program and the associated Beneficial Management Practices (BMP) program. The restoration was undertaken to address ongoing creek-related issues while also enhancing the health and resilience of the system. The purpose of this study was to identify and examine the barriers and opportunities to collaborative environmental decision-making and collaborative action by small groups of agricultural landowners.

## Study Objectives

- to understand what motivated landowners in Alderson Creek to work together on a GEFP
- to observe how knowledge and attitudes changed, and how their relationship with each other evolved as a consequence of the project
- to understand the impact of external controls (e.g., regulations) on the successful implementation of the project

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## Key Findings

- Land-owners are likely to engage in ecological restoration if there is a direct or perceived benefit to each land-holding from the restoration effort – benefits can vary in size and nature
- Potential for involvement and collaboration is greater if the process is facilitated by local (independent) restoration practitioners who are fully engaged and knowledgeable
- Provision of environmental benefits alone may or may not trigger participation in a restoration effort. However, provision of environmental co-benefits is often required by funding agencies
- Shared natural resources (such as streams running through several adjacent farms) tend to connect people due to the interdependence of people and their environment
- Regulatory controls can be essential for triggering action but successful outcomes depend on good will, adequate resourcing, and enforcement
- Institutional barriers can frustrate efforts and prevent projects from being completed in a timely fashion. Issues resulting from lack of inter-agency coordination, recent changes in regulatory environments, and communication gaps are perceived as impediments by landowners wishing to implement BMPs
- Landowners are usually interested in pragmatic solutions to immediate issues (e.g., poor drainage, adequate water supply) rather than long-term environmental planning
- Focused education efforts can help raise awareness about climate change and the role of ecosystem-based adaptation. Education sessions should provide opportunities for sharing experiences from similar collaborative projects to improve the chances for success

## Methods

- Two groups of land-owners were involved in the study: (1) six land-owners in Alderson Creek sub-basin, i.e. land-owners participating in GEFP, and (2) five land-owners in Kendry Creek, i.e. non-participating land-owners in the neighbouring sub-basin
- Paper surveys were used to gather and compare (1) knowledge about climate change and local impacts; (2) knowledge about ecosystems services and their role in climate regulation; and (3) environmental attitudes
- Open-ended interviews with land-owners and restoration practitioners were conducted



## Climate Adaptation Implications

- Adaptation is not necessarily triggered by local climate change observations. Adaptation takes place in response to emerging and prominent issues (social, regulatory and ecological) which adapting individuals do not necessarily relate to climate change;
- Lack of awareness might be a potential obstacle to implementing ecosystem-based adaptation approaches unless damage on private lands can be resolved by restoring natural ecosystems. Land-owners need to be convinced that restoring natural ecosystems can help resolve problems on their land

## Limitations

The conclusions of this study are based on the results from interviews with the landowners and restoration practitioners involved in the Alderson Creek project. Implementing a similar study with landowners in other sub-basins could broaden the perspectives and enhance the understanding of opportunities and potential barriers.

## Next steps

As a part of a knowledge sharing initiative, implement focus group discussions with study participants, restoration practitioners and representatives from local governments. A study involving respective government agencies and restoration practitioners needs to be conducted to examine potentials for smoothing out the administrative burden.

## For more information:

Information regarding agricultural adaption in BC may be found at:

<http://www.bcagclimateaction.ca/>

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**Funding and support for this project was provided in part by:**



Climate Action Initiative  
BC AGRICULTURE & FOOD

