



Principle Researcher(s) & Affiliations

- **Adrian Leslie (Researcher, RDI)**
- **Lauren Rethoret (Researcher/Coordinator, RDI)**
- **Terri MacDonald (Regional Innovation Chair, RDI)**
- **Suzanne Ector (Research Assistant, SGRC)**
- **Research Interns (SGRC)**

Research Field

- **Environment**
- **State of the Basin**

Student Involvement

5 SGRC co-op students contributed to the project at various stages

Partners & Collaborators

The RDI received input from a multi-stakeholder advisory committee throughout the project. Several additional technical advisors also contributed data and guidance on indicator development.

Funding Sources



Project Period

From: **January, 2013**

To: **May, 2014**

Funder Contribution: **\$50,000**

RDI Contribution: **\$240,000**

Partner In-Kind: **\$10,000**

Total **\$300,000**

State of the Environment Project

Date: July 2014

The now complete State of the Environment project was developed with the goal of improving the quality and accessibility of environmental research in the Columbia Basin-Boundary region. Using the RDI's State of the Basin initiative as a platform, State of the Environment research achieved four project objectives:

1. explore the landscape of environmental research and planning in the region,
2. expand existing State of the Basin environmental indicators,
3. develop (in partnership with the Selkirk Geospatial Research Centre) a web-based geospatial portal to provide easy access to information that supports informed decision-making and collaboration, and
4. build the research capacity of environmental stakeholders in order to improve data collection, support use of the web-based portal, and link research to environmental decision-making.

Key project results include:

- development of 14 reports, videos and training documents, including a literature review on environmental indicators, a series of trends analyses, and training materials related to the Digital Basin,
- addition of over 50 regional environmental research documents to the RDI's online research repository,
- development of 16 new environmental State of the Basin indicators,
- development of the Digital Basin, including the addition of 28 environmental data layers,
- delivery of 13 presentations to regional audiences, and
- engagement of over 100 Basin-Boundary environmental stakeholders.

The RDI is grateful to the many representatives of government agencies, non-profit organizations, community initiatives, and consultancies that contributed their time, data, and guidance throughout the various stages of this project.

STRUCTURED ABSTRACT

Introduction: Rural regions suffer from a relative deficiency of reliable research on which to base planning decisions. Compounding problems around insufficient data collection resources are challenges with assembling research from various distinct sources, and making that research available to a geographically disperse audience. Through the State of the Environment project, the RDI sought to improve the quality and accessibility of environmental research in the rural Columbia Basin-Boundary region of British Columbia, and to build the capacity of stakeholders to make use of this research.

Methods: Using the State of the Basin initiative as a platform for information sharing, the State of the Environment project involved researching and developing 16 new indicators of regional environmental well-being. Development of these indicators was informed by a literature review and through input from an advisory committee and several additional technical advisors. While some indicator research was shared through a traditional reporting format, significant efforts were made to make detailed information and source data available digitally for public access and use. Development of the Digital Basin, an online portal providing maps, graphs, reports, and data tables, fulfilled this objective. The RDI used various knowledge mobilization methods (including workshops, user guides, videos and presentations) to build the capacity of regional environmental stakeholders to make use of the Digital Basin and the information it provides access to. Throughout all stages of the project, existing reports and tools relating to the Columbia Basin-Boundary environment were assembled and uploaded to the RDI's online Resources Database, further improving the accessibility of regional environmental research.

Results: Basin-Boundary environmental stakeholders expressed strong support for the RDI's efforts to improve data collection and sharing activities in the region, evidenced by the willingness of local researchers, non-profit organizations, and governments at local and provincial scales to contribute to the project. Initial response to the Digital Basin as a decision-making tool has been very positive.

Practical Applications: State of the Environment research was shared in many forms, with the intent of satisfying the needs of a broad audience. Residents will gain a greater appreciation for the state of well-being in their community through the brief and graphic Snapshot Report, local government representatives will appreciate the in-depth discussion of indicators provided through the Long Report, and planners will appreciate the detailed data and maps made available through the Digital Basin. As one of the most comprehensive and interactive web-mapping applications ever attempted in Western Canada, the Digital Basin represents a significant improvement to the regional research setting.

PUBLICATIONS/PRESENTATIONS/REPORTS

Select publications and presentations (for a full list, contact the RDI):

- Environmental Indicators Literature Review: Developing the Columbia Basin Rural Development Institute's Environmental Research Pillar (Spring 2013)
- State of the Basin Snapshot Report (Fall 2013)
- State of the Basin Long Report (Fall 2013)
- State of the Basin Perceptions of Well-Being Report (Fall 2013)
- Growing Season Trends Analysis (Winter 2014)
- Stream Health Trends Analysis (Winter 2014)
- Community Watersheds Trends Analysis (Winter 2014)
- Using Digital Technologies in the Field Video (Summer 2013)
- Digital Basin Quick Start Guide Video (Winter 2014)
- State of the Environment Presentation to the Columbia Mountains Institute of Applied Ecology (Spring 2013)
- State of the Basin Presentation to the Columbia Basin Trust Symposium (Fall 2013)
- Protected Areas Presentation to the BC Protected Areas Research Forum (Winter 2014)
- Digital Basin Presentation to the Columbia Basin Watershed Network (Spring 2014)
- Digital Basin Workshop Series (6 sessions, Spring 2014)
- Digital Basin Booth at the Columbia Basin Environmental Educators Expo (Spring 2014)