

trackingchange

Local and Traditional Knowledge in Watershed Governance



Fishers have been tracking change in the same places, in the same ways, using the same signs and signals for many generations....



NETWORK ACTIVITIES

- Basin-Wide Initiatives
- Regional (Sub-Basin) Research
- Community-Based Projects
- Youth Knowledge Fairs
- Regional Meetings
- Workshops
- Conferences
- Bi-weekly Updates
- Newsletters
- Publications
- Seminars
- Webinars
- Website
- Facebook
- Twitter

Tracking Change... is a research initiative funded by the *Social Sciences Humanities Research Council of Canada* and led by the University of Alberta, the Traditional Knowledge and Strengthening Partnerships Committee of the Mackenzie River Basin Board, the Government of the Northwest Territories, and many other valued partner organizations. Over six years (2015-2022), the project is funding local and traditional knowledge research activities in the Mackenzie River basin and sister projects in the Lower Amazon and Lower Mekong River Basins, with the long-term goal of strengthening the voices of subsistence fishers and Indigenous communities in the governance of major freshwater ecosystems.

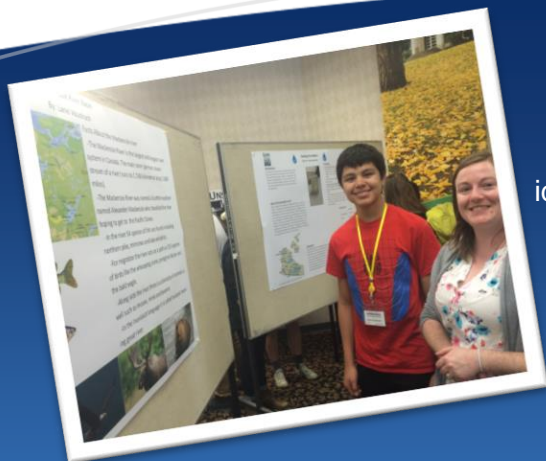
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Background

The **Tracking Change...** project is developed in recognition that river systems are important social, economic, cultural and ecological places that contribute significantly to the well-being of many communities. Many river peoples, particularly Indigenous peoples, have accumulated many generations of observations and experiences of river system change (dynamics). These observations and experiences can speak to regular and irregular patterns and extreme events. The way in which these observations and experiences of change are tracked is much like 'monitoring.' Many river users have been observing and experiencing what is going on in the same places, in the same way, using the same signs/signals for many generations. Such tracking of change has been more than a technical process; people watch, listen, learn and communicate about change because they care about the health of the land and the health of their communities. Many residents are increasingly concerned about the stresses being created by petroleum resource development, mining, hydroelectric development as well as climate change. How can local and traditional knowledge created over many generations help ensure the continued health and sustainability of the Mackenzie River Basin?

Community-Based Monitoring

Community-based monitoring is an activity that is growing in recognition globally, and a concept well-used among communities and organizations in Canada, including Aboriginal communities. It is among a variety of tools and processes that have come to be associated with community-based resource management. Like other kinds of programs, community-based monitoring is based on the recognition that ecosystems and the natural resources valued by Aboriginal peoples, are complex and dynamic. Predictive tools, such as environmental assessments, can result in rigid management approaches, and have limitations in dynamic ecosystems. Adaptive management, which includes monitoring, is a more appropriate approach because it is more flexible and responsive to ecosystem uncertainties.



Youth Engagement

Partners and collaborators involved in *Tracking Change...* identified the importance of engaging youth in all aspects of the project, including the definition of research priorities and key issues for study. Some young adults are graduate students from colleges and universities. But given that post-secondary enrollment in the north is low, finding ways to engage with youth at junior and high school levels is also a key priority.

Youth Knowledge Fair

The **Tracking Change Youth Knowledge Fair**, held in Edmonton in May 2016, brought together more than 40 students from across the Mackenzie River Basin. The initiative was created to support students with an interest in learning about their own histories, ecosystems and communities from elders, their communities, and their schools through submissions of poster projects; as well as to create networking opportunities for students to learn from one another. A second Youth Knowledge Fair is planned for Spring 2018 in Yellowknife, NT.

Local and Traditional Knowledge (TK)

Traditional Knowledge refers to the cumulative body of knowledge, practices and beliefs that have developed over many generations by local communities about ecosystems and their relationship to it. It is referred to in different ways by different cultural groups. Fishers' knowledge can refer to both local knowledge (knowledge of an observed area) of both Indigenous and non-Indigenous fishers. Traditional Knowledge is unique from local knowledge in that it is longitudinal or based on many years, if not generations, of observing, experiencing and interpreting ecosystems; whereas local knowledge is more short-term in scope. It is because of this longitudinal scope, that Traditional Knowledge is increasingly recognized as useful in monitoring by many wildlife biologists and some other scientists, resource managers and governments who see opportunities to understand long-term ecosystem change. In this context Traditional Knowledge may be able to help answer the following kinds of questions:

- What kinds of patterns of ecological variability are characteristic of different areas of the Mackenzie River Basin?
- What kinds of unusual events or patterns are visible and to what extent are these associated with the impacts of climate change and resource development?
- What is the meaning and significance of observed trends and patterns of ecosystem change?
- What are useful indicators for tracking aquatic ecosystem change in the Mackenzie River Basin?
- How should we respectfully and meaningfully track these changes over time?

Themes and Priorities for *Tracking Change*... Sub-Projects in 2016-2017

- ✓ historical and contemporary observations and perceptions of conditions and change in the health of the **aquatic environment** (e.g., water quality, quantity, flow, groundwater, permafrost conditions);
- ✓ historical and contemporary observations and perceptions of conditions and change in **fish species** (population, movements, diversity, invasive species) and other **aquatic species** (e.g., geese, beaver);
- ✓ sustainability of **fishing livelihoods** (e.g., harvesting levels and practices, diet, health, access issues, perceptions of change in the health of valued fish species);
- ✓ implications of change for **governance** (e.g., maintaining healthy relationships to the aquatic ecosystem, maintaining respectful and spiritual relationships, respecting treaty rights);

For More information visit our website:

www.trackingchange.ca

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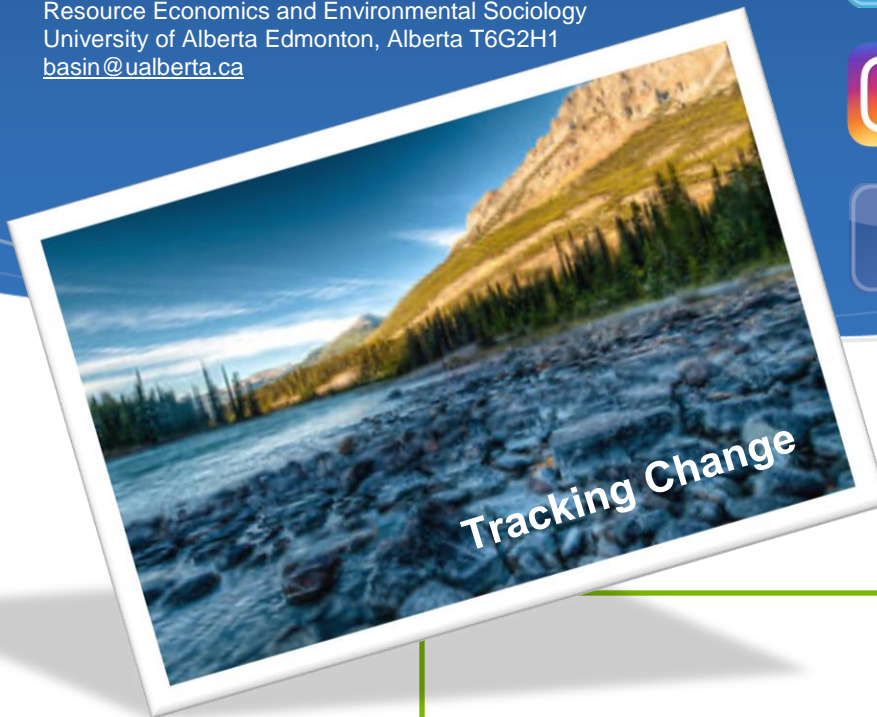
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More details and updates
about project funding,
research news and team
members are on our
website
www.trackingchange.ca

PHOTO CREDITS:

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- (2) *Getting Water Under the Ice* – Lutsel K'e Dene First Nation – www.landoftheancestors.ca (Photo by Tessa Macintosh).
- (3) *Tree R. at Aklavik. (c. 1942)* (Photo by: CWD Clarke). Repository: Thomas Fisher Rare Book Library, University of Toronto, Part of: MS. Coll. 367 Clarke, C.H.D. (Charles Henry Douglas) Papers

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*Youth Knowledge Fair, UofA, East Three School (Inuvik)
Participant and Jennifer Fresque-Baxter, GNNWT (Photo by
Brenda Parlee)*

