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January 01, 0001

## Notification of Multi-Year Research

I would like to inform you that Scientific Research Licence No. 15958 has been issued to:

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to conduct the following study:

**Tracking Change... Local and Traditional Knowledge in Watershed Governance (Application No. 3499)**

This is year 1 of a 5 year project.

Please contact the researcher if you would like more information.

### SUMMARY OF RESEARCH

This licence has been issued for the scientific research application No.3499.

The broad goal of the project is to create opportunities to collaboratively document and share local and traditional knowledge (LTK) about social-ecological change in the Mackenzie River Basin, Lower Mekong, and Lower Amazon Basins and determine its' role in watershed governance. In 2016-17, the project will fund 8-10 community-based and collaborative research activities in the Mackenzie River Basin that deal with all or some of following themes and priorities:

- 1) 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);
- 2) 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);
- 3) sustainability of fishing livelihoods (e.g., harvesting levels and practices, diet, health, access issues, perceptions of change in the health of valued fish species); and
- 4) implications of change for governance (e.g., how to maintain healthy relationships to the aquatic ecosystem, maintaining respectful and spiritual relationships, respecting treaty rights).

These priorities were recommended in a workshop with the NWT Water Stewardship Strategy Aboriginal Steering Committee and the Mackenzie River Basin Board (MRRB) Traditional Knowledge and Strengthening Partnerships Committee (TKSPC), Feb. 10, 2016. Additional input was asked of the partners and other members of the Project Team.

This project was developed in collaboration with the Traditional Knowledge Committee of the Mackenzie River Basin Board project 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 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, hydro-electric development as well as climate change. How can local and traditional knowledge generated over many generations help ensure the continued health and sustainability of the Mackenzie River Basin?

The Aboriginal organizations, government and co-management boards involved in the project have each submitted research proposals to "Tracking Change..." that address the following:

What are the patterns of variability and change in fishing livelihoods being documented and experienced in the Mackenzie-Mekong-Amazon? What kinds of variability and change are being observed in the health, location, diversity, distribution of fish species valued for subsistence in each? What kind of social networks exist for sharing knowledge related to the condition of the fisheries? How have/are fishing practices and outcomes changing in response to these ecological shifts (e.g., changes in practices, harvest, food sharing patterns, food security)? How are/can communities work together (upstream/downstream) to deal with these social- ecological changes in ways that ensure the continued sustainability fishing livelihoods? How are fishing livelihoods interconnected at different scales (local, regional, global)? How are fishing livelihoods sustainable in the face of emergent stresses of resource development and climate change?

The Aboriginal organizations are collectively leading research activities in their own communities and regions with support from academic team members. They will use a combination of semi-structured interviews and participatory mapping to answer these broad thematic questions on change in water quality, water levels, flow, fish population dynamics, diversity and condition as well as implication of such ecological change on the livelihood of communities. The outcomes of the research activities will be shared and synthesized at the end of the study respecting their choices on consent forms (i.e., some don't want their names used in reports etc.). Community and regional government consent is assumed to be given by virtue of their submission of their individual proposals. Only knowledge shared by the Aboriginal organizations through a reporting process will be used by academic team members in publications, graduate student theses etc.

The project is a collaboration of multiple Aboriginal organizations, governments and co-management boards who are guiding the project under the governance of the Mackenzie River Basin Board Traditional Knowledge Steering Committee. The collaboration will create opportunities for funding small community-based research projects that involve youth, elders and active harvesters as participants and community researchers. The ultimate aim is to building capacity among the Aboriginal organizations in all of the regions of the Mackenzie River Basin to document their own knowledge regarding the sustainability of the aquatic ecosystem (water, fish) and share that knowledge with others upstream and downstream so as to gain a more holistic understanding of social and ecological changes occurring in this important freshwater ecosystem.

The Aboriginal organizations, governments and co-management boards, leading the community projects will develop their own reports with the support of graduate students who are participating upon invitation of these organizations. These reports will be made public unless otherwise indicated by the Aboriginal organizations.

The fieldwork for this study will be conducted from September 8, 2016 to December 31, 2016.

Sincerely,

**\* original signed \***

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Jonathon Michel,  
Manager, Scientific Services

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