

## **Freshwater and resilience: transformation and change in Alaska's human-hydrological system**

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Human society is predicated upon the availability of adequate freshwater resources. In northern latitudes where both social and hydrologic changes are occurring at an unprecedented rate an improved understanding of the relationships between northern people and the biophysical processes governing water availability and change in the landscape is needed, i.e., a better understanding of the human-hydrological system. The human-hydrological system is defined by the interactions of people, communities, and society with all aspects of the water cycle. This coupled social-ecological system includes the physical processes governing water in all of its states (in Alaska permafrost and glacial processes are of importance in addition to surface and groundwater), direct and indirect ecosystem services that water provides to people, and the values, perceptions, and attitudes toward water that affect management of, and responses to changes in, water resources. This theme focuses on the complex dynamics between water and people in the North.

Invited abstract for Panel session: Resilience and Transformations in a Rapidly Changing North