

Graduate Student Opportunity

Freshwater Social-Ecological Systems: Analyzing Alaska's Institutional Capacity for Water Security and Hydrological Change

Dr. Amy L. Lovecraft is looking for a graduate student whose research interests focus on Alaska and freshwater. The student can have a natural, physical, or social science background but will be expected to work, in part, in an interdisciplinary mode.

This opportunity will fund one summer of research (either Summer 2007 or Summer 2008) as well as provide tuition and 20 hrs a week salary for Fall 2007 and Spring 2008. The Graduate Research Assistant must commit to the entirety of the project. **I need to hear from you by April 20 2007. I will notify the person selected by May 1 2007.**

Brief Project Overview

Arctic ecosystem processes are particularly vulnerable to the suite of changes caused by human activities and over the next century climate change acceleration will contribute to major “physical, ecological, social, and economic changes, many of which have already begun” (ACIA, 2004, 10). Changes of this magnitude threaten to fundamentally alter the current patterns of natural resource use in Alaska because changing climactic conditions will in part alter the biophysical properties of the freshwater ecosystems upon which humans depend. In combination with such environmental threats, recent research in the U.S. Senate reveals that Alaska has one of the United States' most undeveloped potable water distribution systems. About 16,000 of the homes scattered across over 70 rural Native villages in the state do not have access to piped water or enclosed water haul systems; in at least 55 Native villages, nearly a third of their residents are not served by sanitary water systems; and more than 60 percent of residents are not served at all in 16 of these locations (Senate Report 109-170, 2005).

Alaska is vulnerable to an uncertain ecological future where citizens, wildlife, and the ecosystems they depend upon to provide them freshwater are at risk. Such water issues also directly affect the present health and well-being of the region's population. In order to develop a better understanding of state capacity to investigate and address current freshwater concerns, as well as analyze the ability for adaptive potential to handle the effects of climate change, this grant proposes a state-wide analysis of Alaska's freshwater management.

This project is a continuation of an earlier project interviewing Alaska Water Managers to determine their capacities and needs. In this phase Alaska's freshwater will be considered from a social-ecological system standpoint. The exact direction of research can be shaped to an extent by the student's interests.

Interested?

Email me - ffall@uaf.edu - expressing your interest and we'll discuss the project!