ALBERTA INNOVATES

Research and Innovation Project – Knowledge Transfer Summary

Project Title: The Future of Water Supply and Watershed Management in Alberta: Best Source-to-tap Practices for Source Water Protection in the Eastern Slopes

Project No: 2343

Project Lead: Uldis Silins, University of Alberta and Monica Emelko, University of Waterloo

Partners: Alberta Innovates, University of Alberta, Alberta Agriculture and Forestry, Alberta Environment and Parks, Canadian Forest Products Ltd., City of Calgary (Water Services), National Collaborating Centre for Environmental Health, University of Waterloo, Rothamsted Research (UK), University of Southampton (UK), Environment and Climate Change Canada, Brock University

Status: Ongoing

Project Summary:

Alberta is relient on water orginating from the forested Rocky Mountain eastern slopes region to sustain our society, economy, and ecosystem health. While source water protection (SWP) strategies have historically focused on attempts to minimize or exclude land disturbance, more recent SWP strategies in other regions of western North America (Colorado, California, Arizona, others) have focused on forest management based 'active' SWP strategies to reduce the risk of climate change associated risks to critical source waters including the growing occurance and severity of severe wildfires. However, integration of broader forest land management objectives with those of passive (protection based) and active (management based) SWP strategies requires knowledge of both efficacy of various forest management practices in mitigating climate associated risks such as wildfire, and the direct impacts of those practices on the broader suite of water resources values needed to sustain Alberta's society, economy, and aquatic ecosystems.

This project will provide key knowledge and evaluate best management practices integral to understanding and managing the longer-term impacts of forest management in Alberta's eastern slopes on water quantity, quality, and treatability relative to other watershed disturbances. This will enable better assessments of the trade-offs between management policies for SWP and drinking water treatment technology reliance for future water supply and watershed management in Alberta.

Outcomes:

None available.

Links:

Southern Rockies Watershed Project

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