

## Translating Research and Monitoring Data into Actionable Information for Water Management.

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Over the past 6 years, industry, government and non-profit organizations have come together to pool their resources and collaborate on regional water focused research projects, including the Montney Water Project in British Columbia (2010-11) and the Integrated Assessment of Water Resources, West Central Alberta Project (2012-2014). These projects have built a strong foundation of knowledge regarding water resources in the major shale, and tight oil and gas basins of western Canada. These projects have considered traditional sources of water from rivers, lakes, streams and shallow bedrock or quaternary groundwater wells, along with sources of non-potable saline water from deeper geologic formations. Partnerships built along the way have led to several award winning initiatives. Perhaps more substantially, the cooperation and leadership shown by participants has moved the needle in terms of the scientific understanding of water resources in British Columbia and Alberta, and demonstrated the commitment of the industry to sustainable water management practices. These projects have led to the development of web-based information tools such as the Northeast Water Tool (NEWT) and Water Portal to translate results into accessible, actionable information.

This presentation will describe in detail the dynamics of surface water resources in the Montney and Duvernay plays of BC and Alberta. Broad scale patterns of water availability in space and time will set the stage for a deeper dive into an exploration of the durability of water sources in the region – how climate and seasonality impact water supply over the course of the year, and what conditions can lead to drought and water shortages.

The oil and gas industry has made a commitment to sourcing water from non-potable supplies where possible, to avoid conflict with other users of water. Surface water is often plentiful and abundant. In order to manage for triple-bottom line objectives, access to low cost, sustainably sourced surface water will be an important part of this mix.

### Ben Kerr

Ben Kerr is President of Foundry Spatial Ltd. With 15 years of experience in the public and private sector, Ben has demonstrated an ability to lead multi-functional teams in the development of large scale, award winning projects.