



Improve understanding of risks to source water and headwater supplies.



Develop holistic approaches to managing water supplies.



Understand the impact of increased economic activity and population on water resources.



Improve understanding of the impact of climate change on water supplies.

Characterize groundwater resources and its role in sustainable water supply.

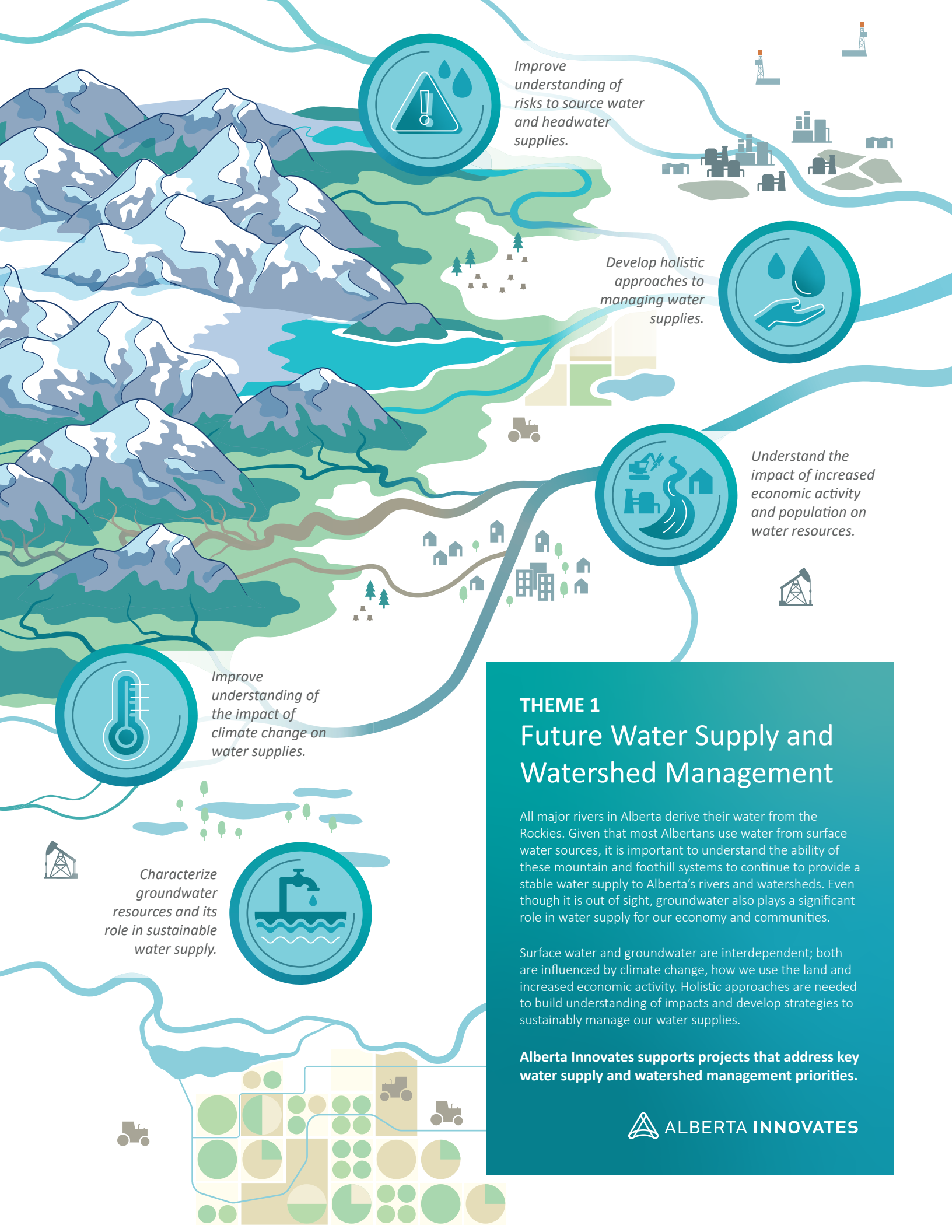


**THEME 1**  
**Future Water Supply and Watershed Management**

All major rivers in Alberta derive their water from the Rockies. Given that most Albertans use water from surface water sources, it is important to understand the ability of these mountain and foothill systems to continue to provide a stable water supply to Alberta's rivers and watersheds. Even though it is out of sight, groundwater also plays a significant role in water supply for our economy and communities.

Surface water and groundwater are interdependent; both are influenced by climate change, how we use the land and increased economic activity. Holistic approaches are needed to build understanding of impacts and develop strategies to sustainably manage our water supplies.

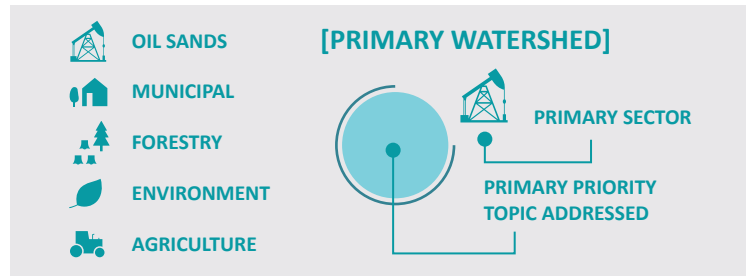
**Alberta Innovates supports projects that address key water supply and watershed management priorities.**



# THEME 1

## Projects by Watershed

Projects supported by Alberta Innovates are informing watershed management across Alberta's major river basins.



### SOUTH SASKATCHEWAN RIVER BASIN

- University of Calgary**  
*Reducing uncertainty in groundwater availability and sensitivity to land-use and climate variability*
- University of Lethbridge**  
*Cumulative effects of climate, landcover & snowpack trends on Alberta's Eastern Slopes*
- University of Calgary**  
*Assessing water connectivity in rural and urban watersheds for improved management*
- University of Waterloo**  
*Ecological controls on hydrologic response to climate change & extreme events in the Rockies*
- Alberta Water Council**  
*Improving resilience to drought in Alberta through a simulation*
- University of Alberta**  
*Best source-to-tap practices for source water protection in the Eastern Slopes*

### ATHABASCA RIVER BASIN

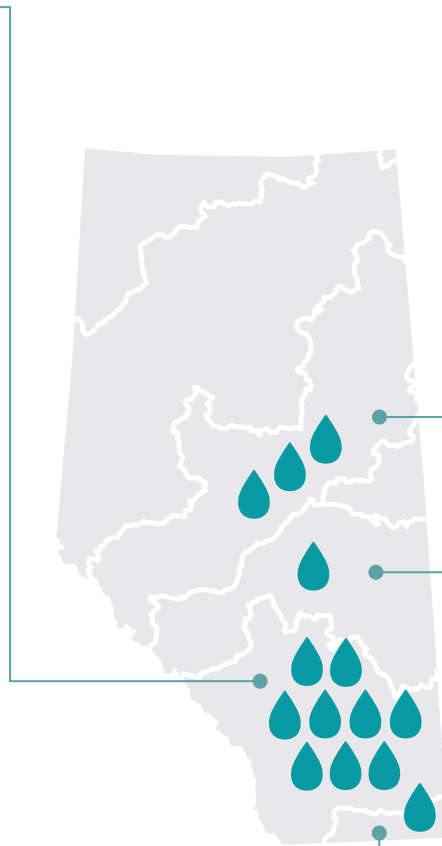
- WaterSMART**  
*Sustainable water management in the Athabasca River Basin Initiative—Phase 2*
- WaterSMART**  
*Sustainable water management in the Athabasca River Basin Initiative—Phase 3*
- University of New Brunswick**  
*Development of the next generation of wet areas mapping model for Northeastern Alberta*

### NORTH SASKATCHEWAN RIVER BASIN

- University of Alberta**  
*Groundwater contributions to the North Saskatchewan River and Edmonton region water resources*

### MILK RIVER BASIN

- University of Calgary**  
*Evaluating the sustainable use of groundwater in Alberta: The Milk River aquifer*



### PROVINCE WIDE

- University of Calgary**  
*Geochemical resource characterization of Alberta groundwater*
- Alberta WaterPortal**  
*The future of water: engaging Albertans in the water energy food nexus*
- University of Alberta**  
*Adapting to changing water in Alberta*