



USASK SIGNATURE AREAS

WATER



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Equity and sustainability of our planet's freshwater resources

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Water is a vital resource for local and global health, food production, economies and quality of life, with immense social and political significance. At the University of Saskatchewan (USask) the *Water Signature Area of Research* is dedicated to advancing the equity and sustainability of the world's freshwater resources. As national and international leaders in water research, this Signature Area plays a pivotal role in mitigating water-related disasters while embracing an inclusive approach to addressing current and future water challenges and opportunities. Recognized in the Shanghai Rankings as the top water resource academic program in Canada, USask is home to the world-renowned personnel and robust partnerships that allow the *Water Signature Area of Research* to foster the research, policy and practice the world needs.

USask researchers within this Signature Area are assessing and addressing land and water management, including issues of water quality, groundwater sustainability and ecosystem health. Work in this area also involves the development of natural and built infrastructure, technology and the design and implementation of sustainable management solutions.

Important research, policy and practice exist at the intersections between water and food, and water and energy. The *Water Signature Area of Research* is exploring these resource relationships in sectors such as agriculture, oil and gas, and critical minerals, while also addressing water limitations.

Building climate- and water-resilient communities and sectors, this Signature Area advances and applies water resource prediction tools and flood and drought management solutions. This work involves the support of resilient governance and social systems at all scales.

The *Water Signature Area of Research* also recognizes and engages with the intersections of water, health and inequities. USask researchers are working to empower rural, remote and Indigenous communities through co-created tools, solutions and surveillance systems. This work aims to enhance water resilience and address environmental racism.

The *Water Signature Area of Research* is strengthened by USask-based infrastructure such as the Global Institute for Water Security, Global Institute for Food Security, Toxicology Centre and Global Water Futures Observatories. Work in this area is grounded in strong provincial, national and international collaborations and partnerships, that include several First Nations communities, the cities of Saskatoon, Prince Albert and Regina, Saskatchewan Water Security Agency, Environment and Climate Change Canada, Natural Resources Canada, World Meteorological Organization, and United Nations Educational, Scientific and Cultural Organization (UNESCO).

Notable Areas of Focus:

- Land-water management
- Building climate and water resilient communities and sectors
- Water, health and inequities
- Water and food
- Water and energy