United Nations Academic Impact

SUSTAINABLE DEVELOPMENT GOALS

6 CLEAN WATER AND SANITATION

The University of Manitoba campuses and research spaces are located on original lands of Anishinaabeg, Ininiwak, Anisininewuk, Dakota Oyate, Dene and Inuit, and on the National Homeland of the Red River Métis.

We recognize that the Treaties signed on these lands are a lifelong, enduring relationship, and we are dedicated to upholding their spirit and intent. We acknowledge the harms and mistakes of the past and the present and we commit to supporting Indigenous rights holders. Our collaboration with Indigenous communities is grounded in respect and reciprocity and this guides how we move forward as an institution.

Co-chairs

Claire Herbert

Head, Digital Strategy

Program Manager, Manitoba Great Lakes Program

6 CLEAN WATER AND SANITATION

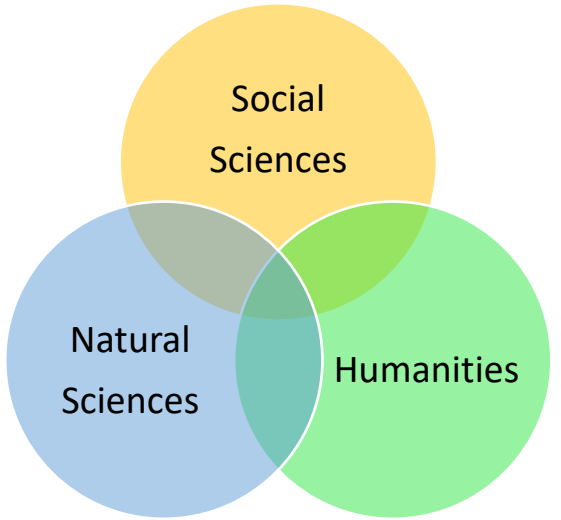
Dr. Nicole Wilson

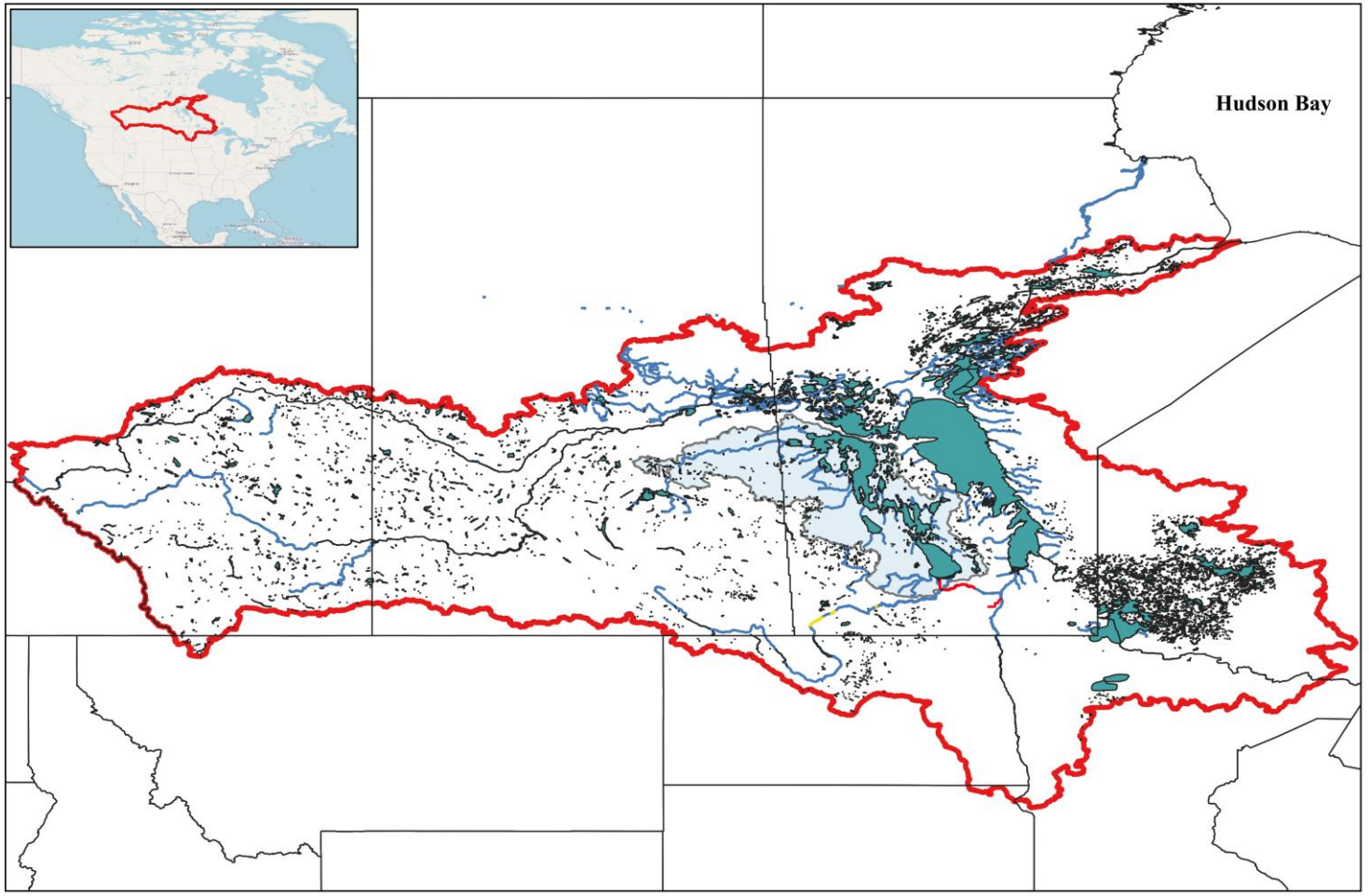
CRC in Arctic Environmental Change and Governance

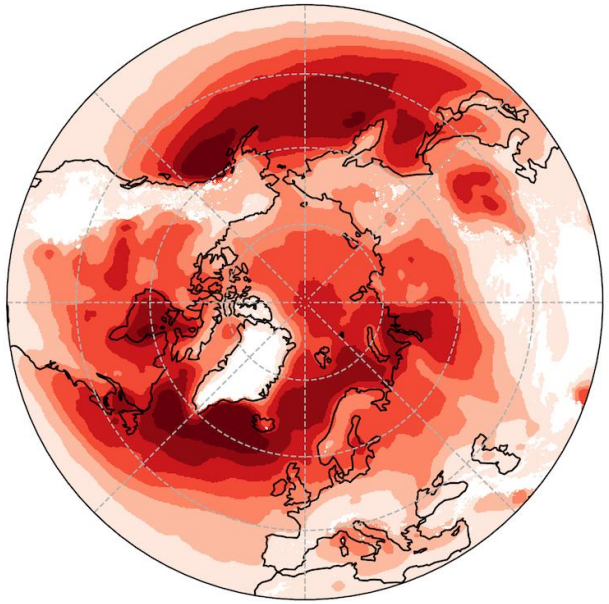
Assistant Professor

UNAI SDG 6 Working Group

- Clayton H. Riddell Faculty of Environment, Earth and Resources
- Faculty of Agricultural and Food Sciences
- Faculty of Arts
- Faculty of Science
- Faculty of Architecture
- **Collaborators:** The Office of Sustainability



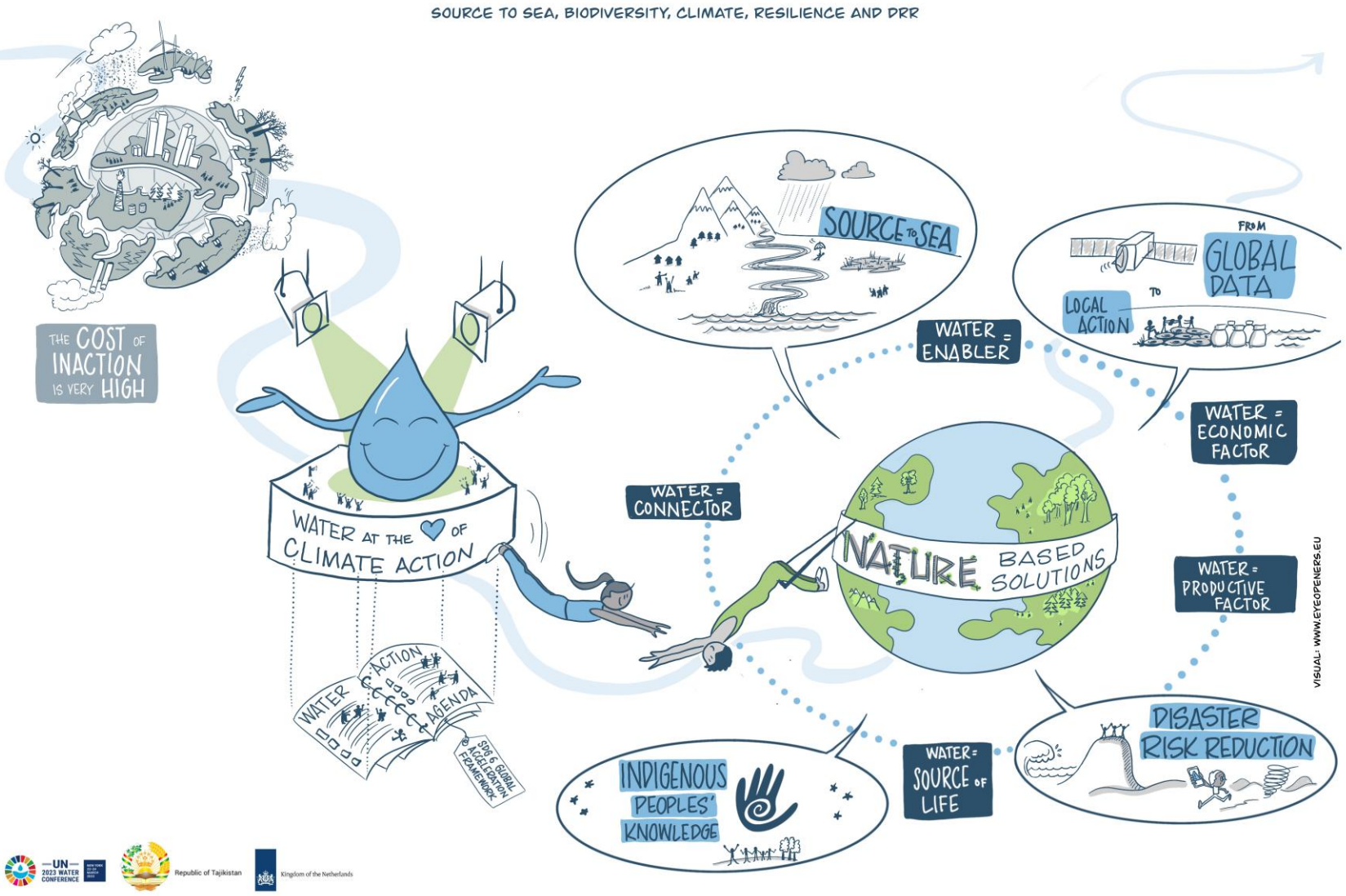

Hudson Bay
0 100 200 300 400 500 600 700 800 900 km
Projection WGS 84 (EPSG:4326)
Scale: 1:4900000
Sources: Standard Drainage Area Classification (SDAC) 2003, Government of Canada



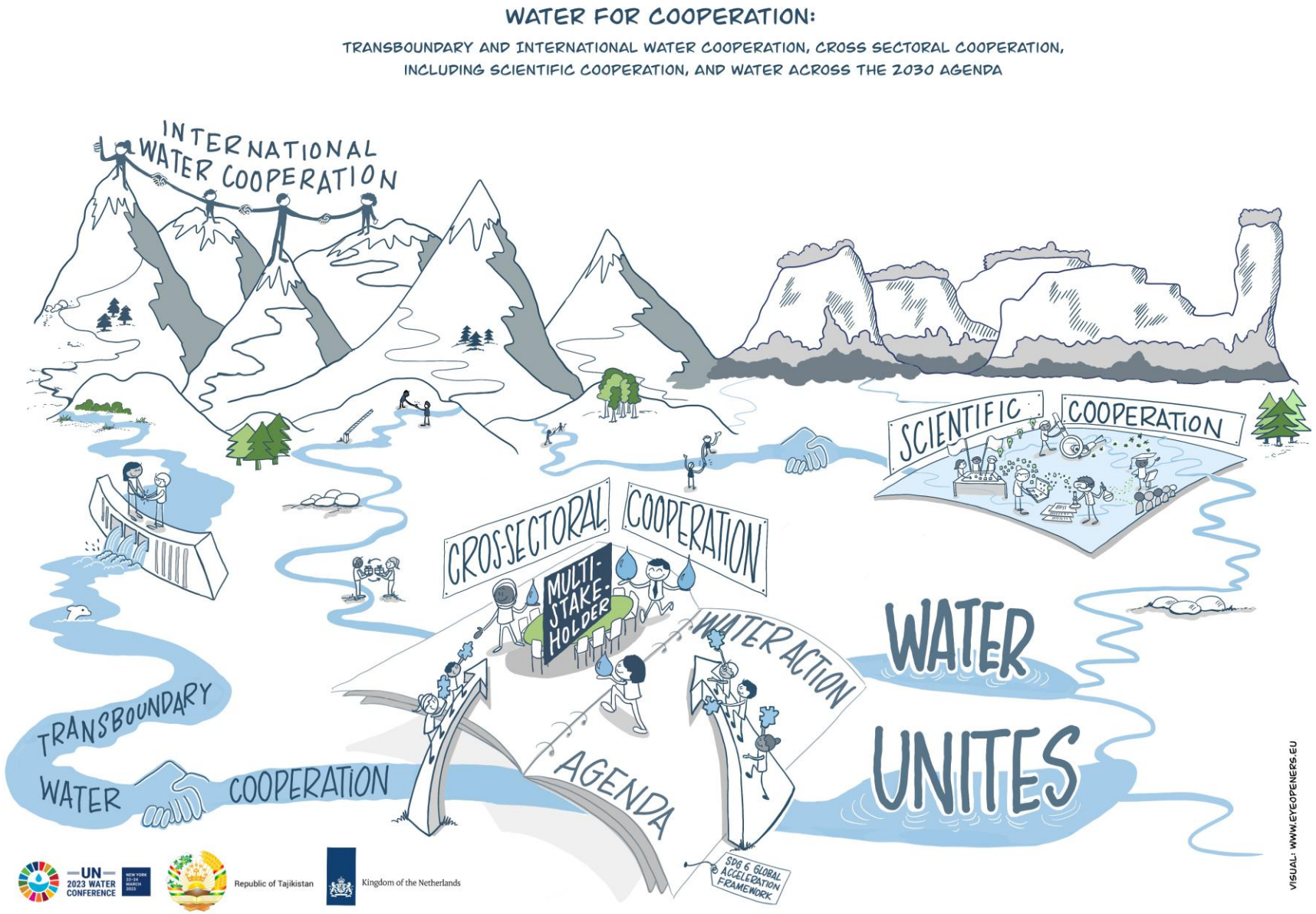
- Contaminated soil and groundwater
- Water management & conservation – agriculture
- Food security - Wild rice restoration
- Antimicrobial resistance in drinking water, wastewater and drinking water sources

Eelgrass and Geese – Coastal waters and food security

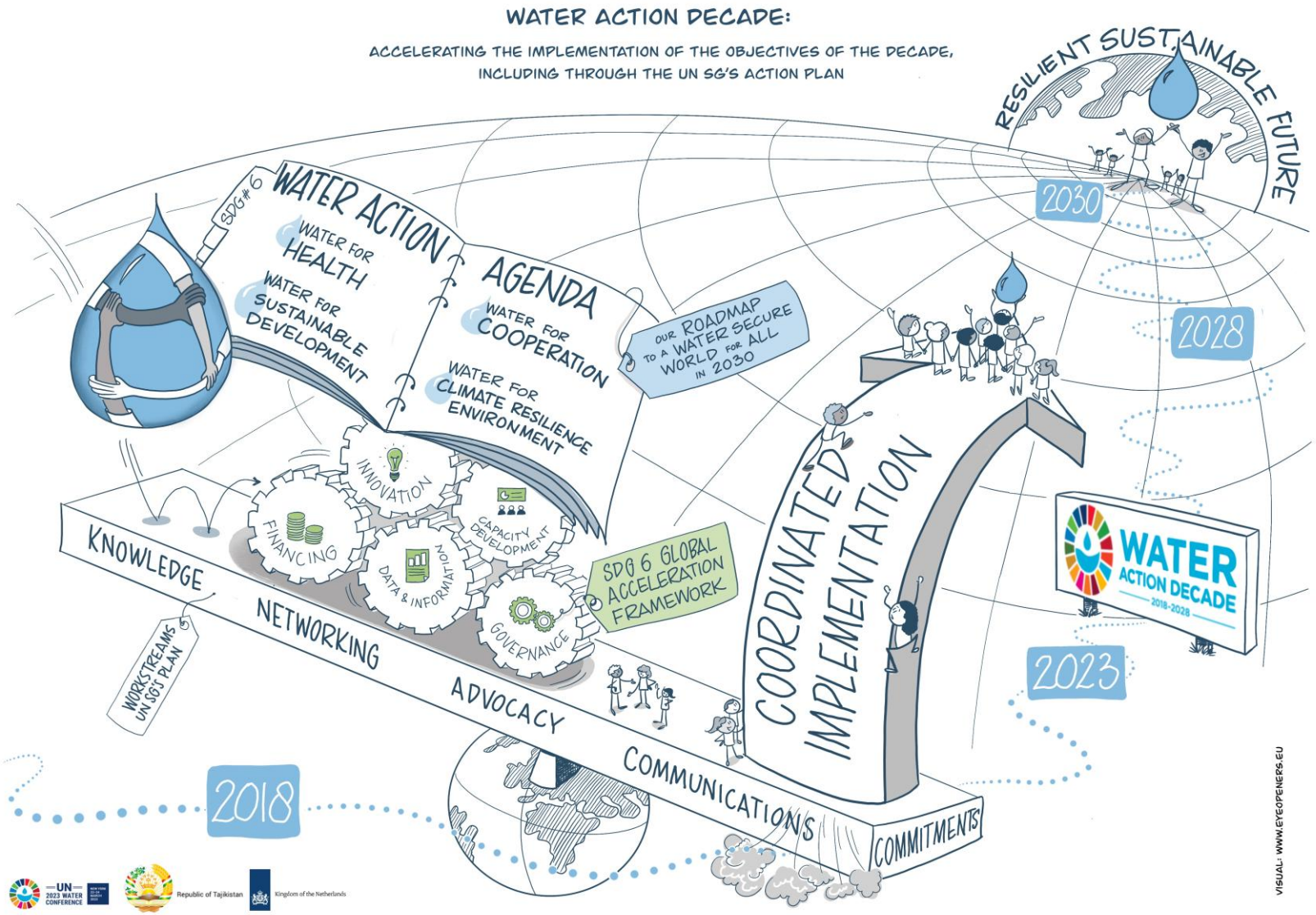
Vertical aeroponics



- Community based monitoring – fish, water quality, wildlife
- Indigenous self-determination
- Indigenous data sovereignty
- CanWIN data center



- International Joint Commission
- World Data Systems
- Industry, Governments (Federal, Provincial, Municipal)


WATER ACTION DECADE:
ACCELERATING THE IMPLEMENTATION OF THE OBJECTIVES OF THE DECADE, INCLUDING THROUGH THE UN SG'S ACTION PLAN
RESILIENT SUSTAINABLE FUTURE
2030
2028
2023
2018
SDG#6
WATER ACTION AGENDA
WATER FOR HEALTH
WATER FOR SUSTAINABLE DEVELOPMENT
WATER FOR COOPERATION
WATER FOR CLIMATE RESILIENCE ENVIRONMENT
OUR ROADMAP TO A WATER SECURE WORLD FOR ALL IN 2030
INNOVATION
FINANCING
CAPACITY DEVELOPMENT
DATA & INFORMATION
GOVERNANCE
SDG 6 GLOBAL ACCELERATION FRAMEWORK
KNOWLEDGE
NETWORKING
ADVOCACY
COMMUNICATIONS
COMMITMENTS
WORKSTREAMS UN SG'S PLAN
COORDINATED IMPLEMENTATION
WATER ACTION DECADE 2018-2028
UN 2023 WATER CONFERENCE
Republic of Tajikistan
Kingdom of the Netherlands
VISUAL: WWW.EYEOPENERS.EU

The Canadian Watershed Information Network (CanWIN)

Turning Today's Data into Tomorrow's Insights

Data

Raw data collected by researchers

Information

Analyzed data converted to scientific information

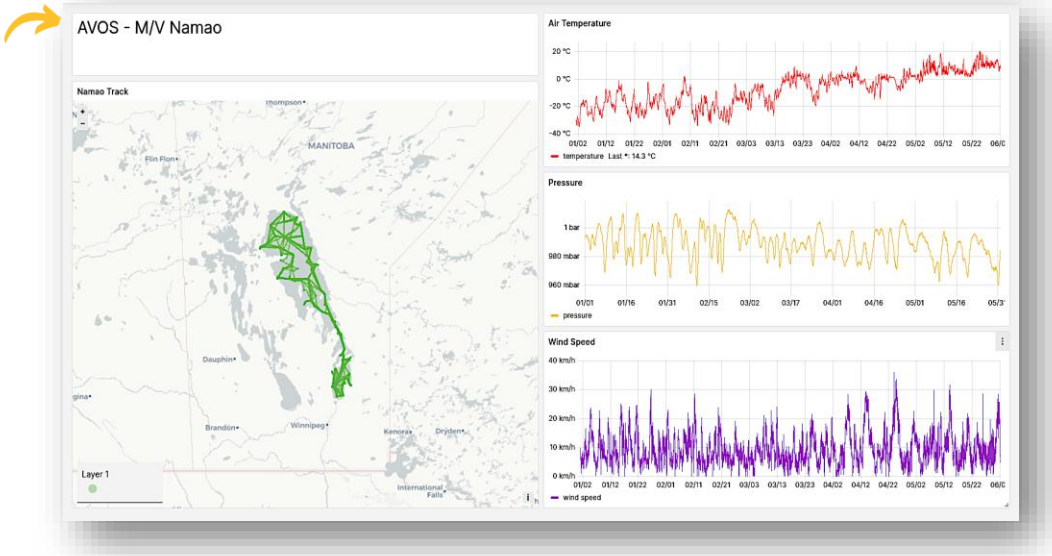
Knowledge

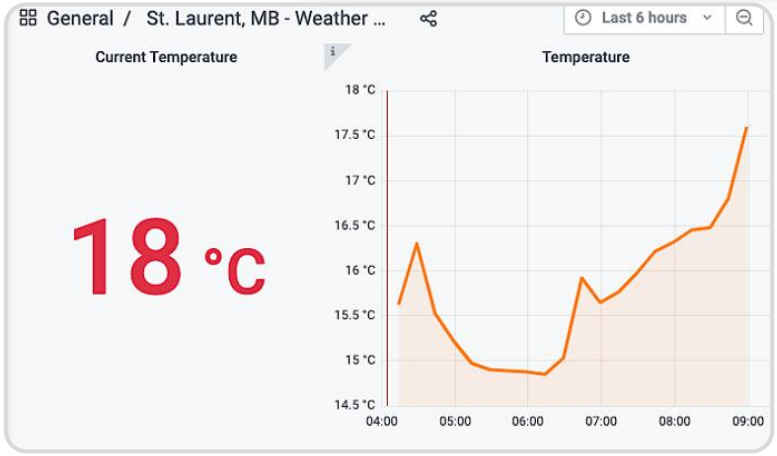
Information converted to knowledge that everyone can understand

Action

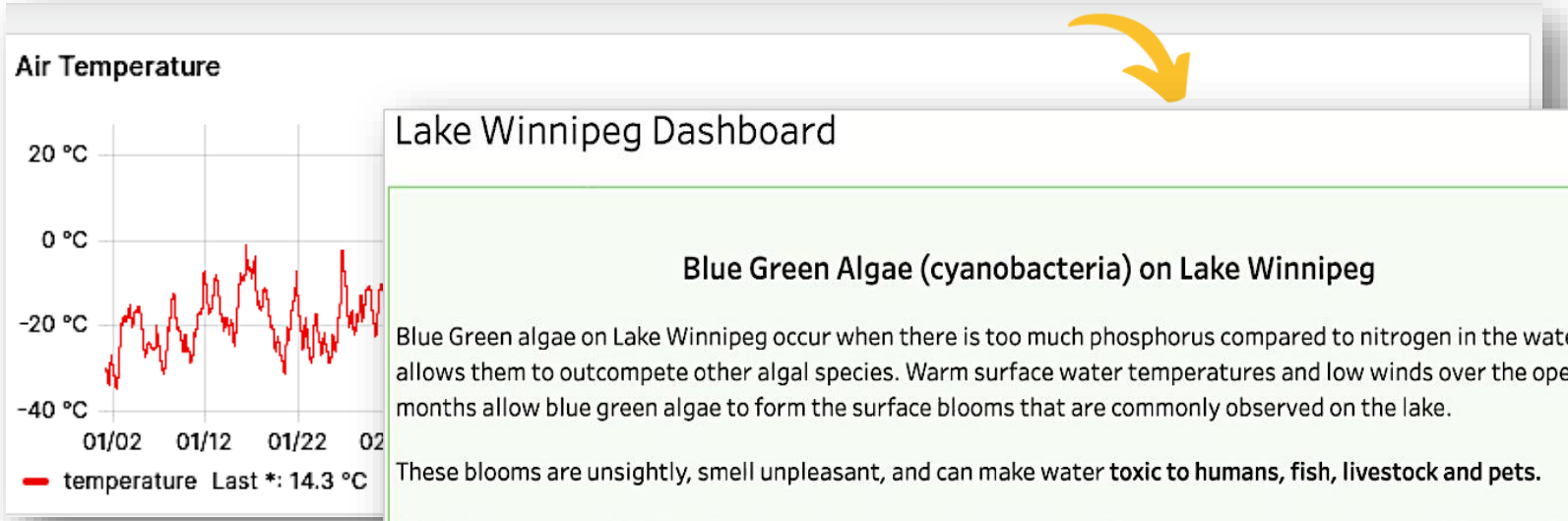
Knowledge drives policy and action

Data Sharing – Data to Information





Data Sharing – Information to Knowledge



Lake Winnipeg Dashboard

Blue Green Algae (cyanobacteria) on Lake Winnipeg

Blue Green algae on Lake Winnipeg occur when there is too much phosphorus compared to nitrogen in the water. This allows them to outcompete other algal species. Warm surface water temperatures and low winds over the open water months allow blue green algae to form the surface blooms that are commonly observed on the lake.

These blooms are unsightly, smell unpleasant, and can make water **toxic to humans, fish, livestock and pets.**

Algal blooms over Lake Winnnipeg have been increasing in size and frequency over the past several decades. The satellite image on the right shows the green streaks of algae covering the lake, October 2023.

Photo from the Winnipeg Free Press

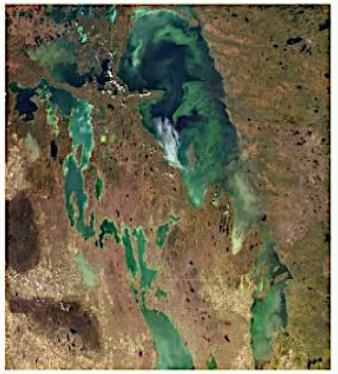
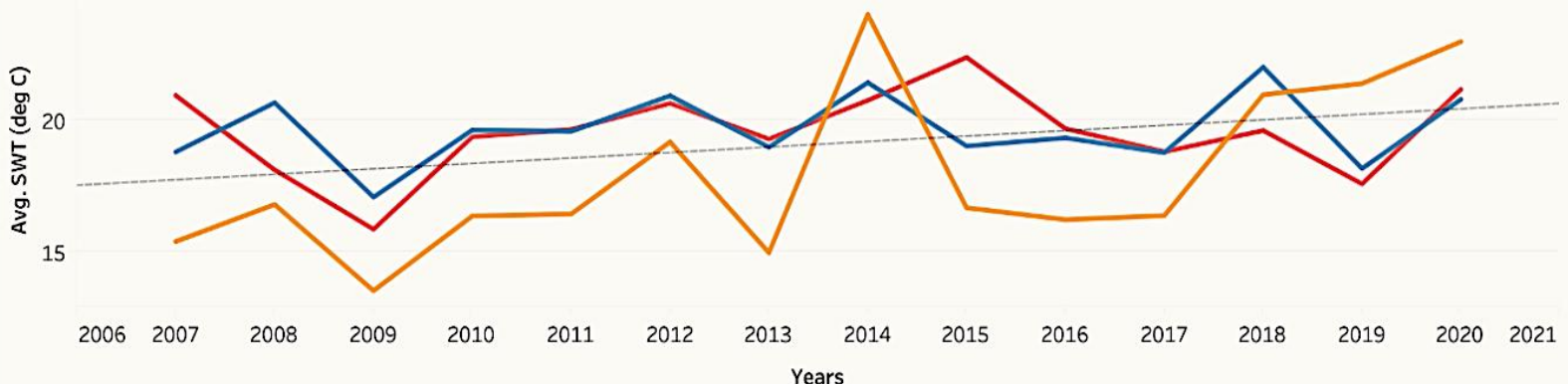


Photo from the Lake Winnipeg Research Consortium Satellite Image Library

Surface water temperatures (SWT) from Environment and Climate Change Canada (ECCC) buoys over the summer months 2007 to 2020



Since 1970, the region surrounding Lake Winnipeg has been warming at twice the rate per decade for the globe.

Buoys

- Lake Winnipeg North Basin
- Lake Winnipeg Narrows
- Lake Winnipeg South Basin

Years

2007 — 2020

Stories

Weather Keeper Program

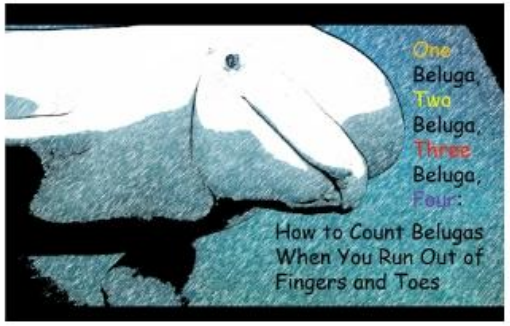
The Weather Keeper Program is a collaboration between the Manitoba Métis Federation...

L'Prâgramme dju Gardjiein d'la Mitiô

L'Prâgramme dju Gardjiein d'la Mitiô li ein partnariâ ant la Fidirassion di Métis dju Manitoba...

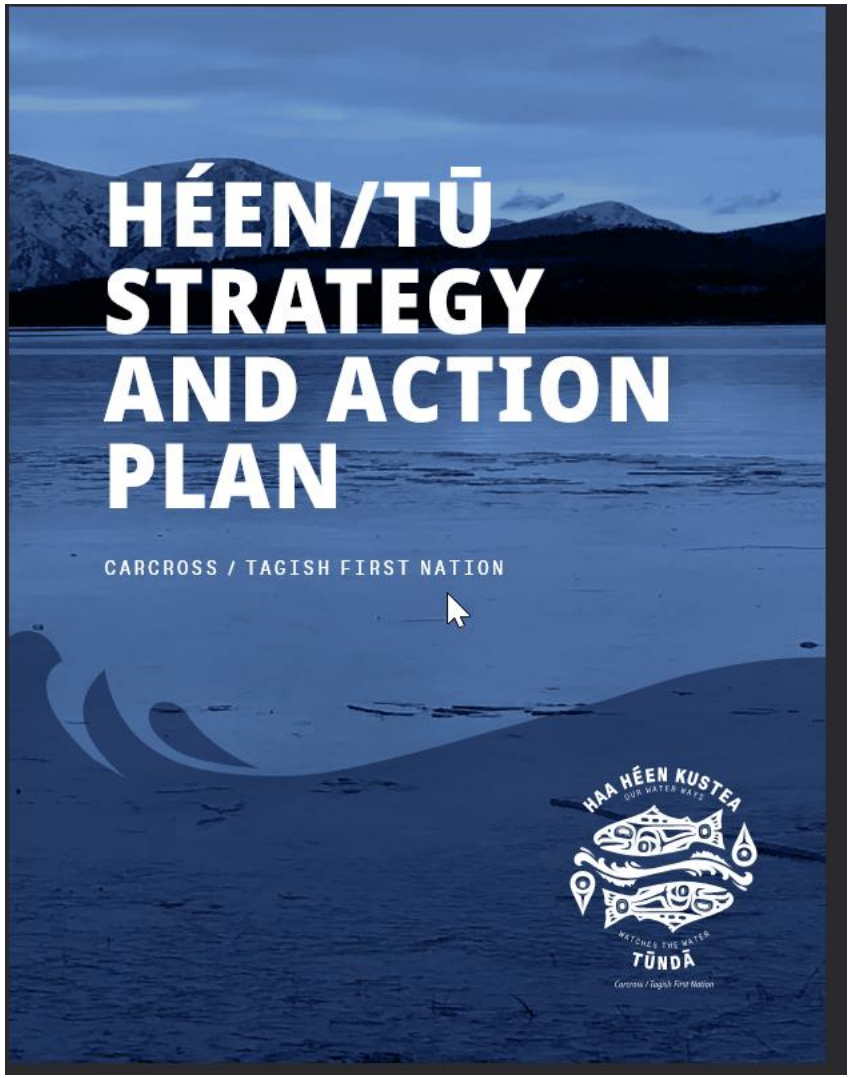
Programme de surveillance des conditions météorologiques

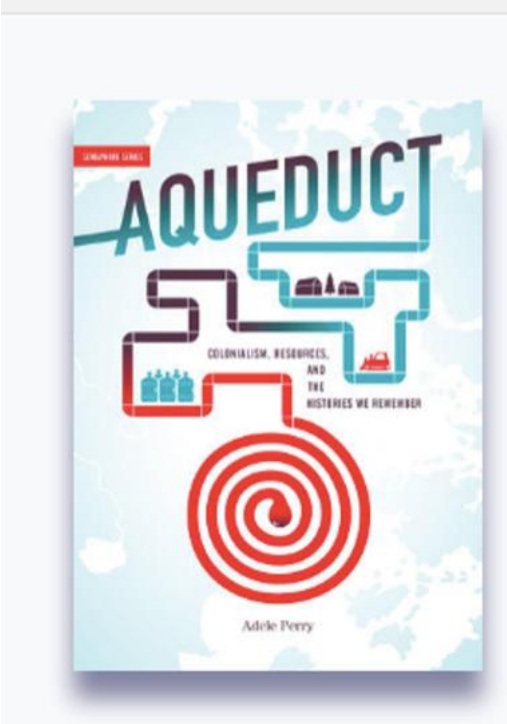
Le programme de surveillance des conditions météologiques est une collaboration entre la Manitoba Métis Federation...

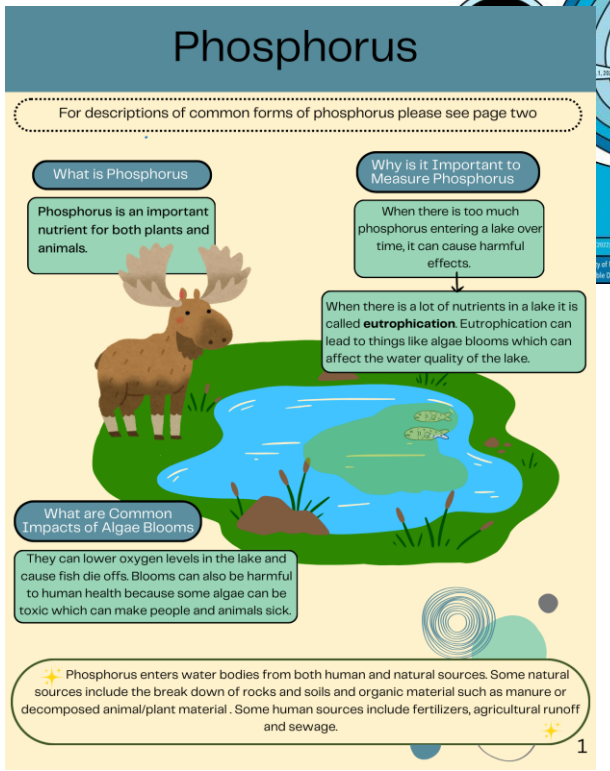


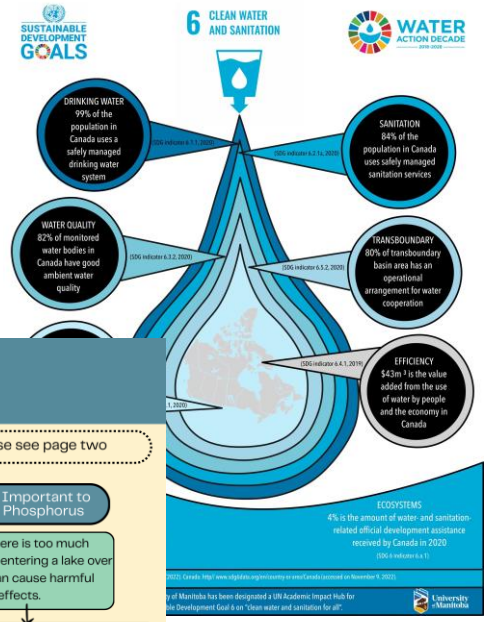
Data Stories

Communication & Outreach









Just Waters: Thinking with Hydro-Social Relations for a More Just and Sustainable World

Nadya Crossman-Serb

LEARN MORE

Projects

The Last Drop Water Researchers Speaker Series

Research Team : Dr. Nicole J. Wilson, Claire Herbert

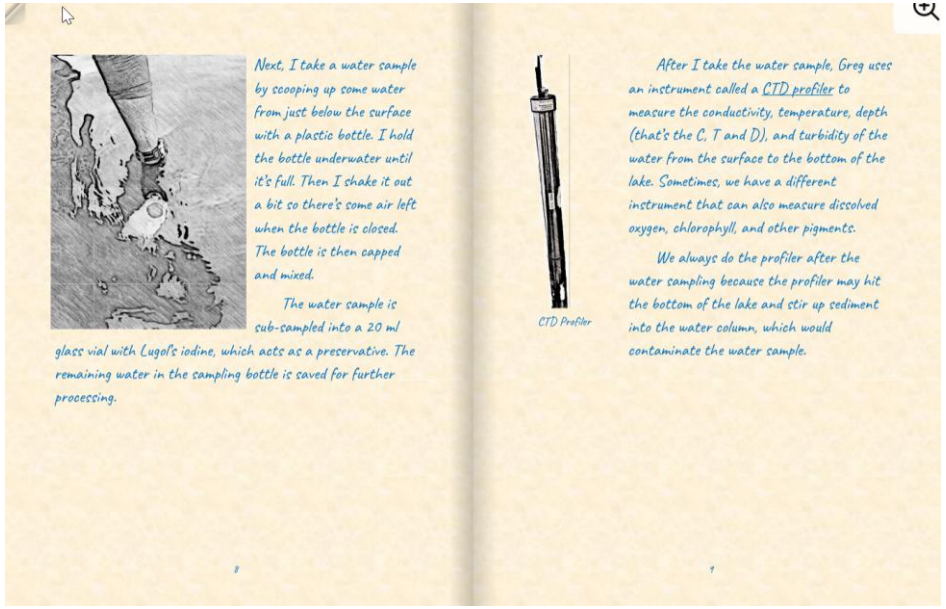
Photo by Parinaz Shariat Zadeh

Projects

Open Education Resource

Research Team : Dr. Adele Perry, Dr. Jocelyn Thorpe, Dr. Shirley Thompson

Photo by Sarah Deckert



Creating Knowledge that matters

- Supports the creation of Information and knowledge products from siloed or multiple types of research data
- Cross-sectoral linkages between SDG goals
- Supports funding applications

Empowering learners

- Cross institutional youth learning programs
- Deliverables showcased within the classroom helping us inspire the researchers of tomorrow

Reimaging engagement

- Relate local,regional issues to national, global ones
- Tool for Researchers to do community outreach

QR Codes

CanWIN Home page

UNAI SDG 6 Page

Data Tools

Bloom Beneath

Beluga whale GN


Thank you!