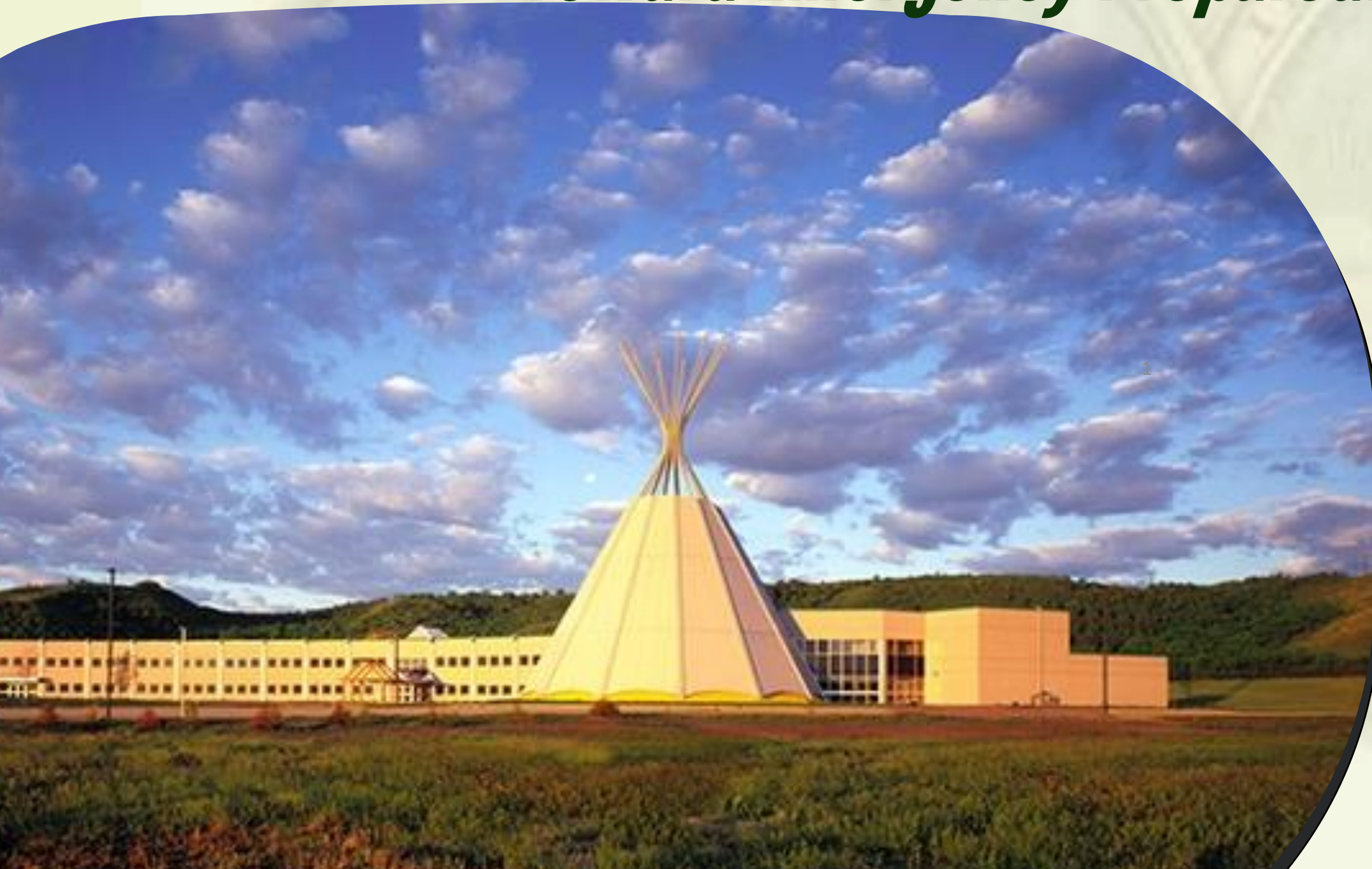




FHQTC Youth Advisory Council

Climate Adaptation In Action Initiatives:

Toward Emergency Preparedness



**Saskatchewan First Nations Emergency
Management Forum**



October 27, 2025

File Hills Qu'Appelle Tribal Council
Lands, Resources, Environment & Stewardship Department



File Hills Qu'Appelle Tribal Council (FHQTC)

The File Hills Qu'Appelle Tribal Council (FHQTC) represents 11 Member First Nations and over 30,000 Citizens of distinct and diverse multilingual cultural identities of the Saulteaux (Anishnaabe), Lakota, Dakota, Nakoda, and Cree (Nehiyaw) within Treaty Four.



Carry the Kettle
Little Black Bear
Muskowpetung
Nekaneet
Okanese
Pasqua
Piapot
Peepekisis
Standing Buffalo
Star Blanket
Wood Mountain

Treaty 4 Territory Reserve Lands

File Hills Qu'Appelle Tribal Council Member Nations

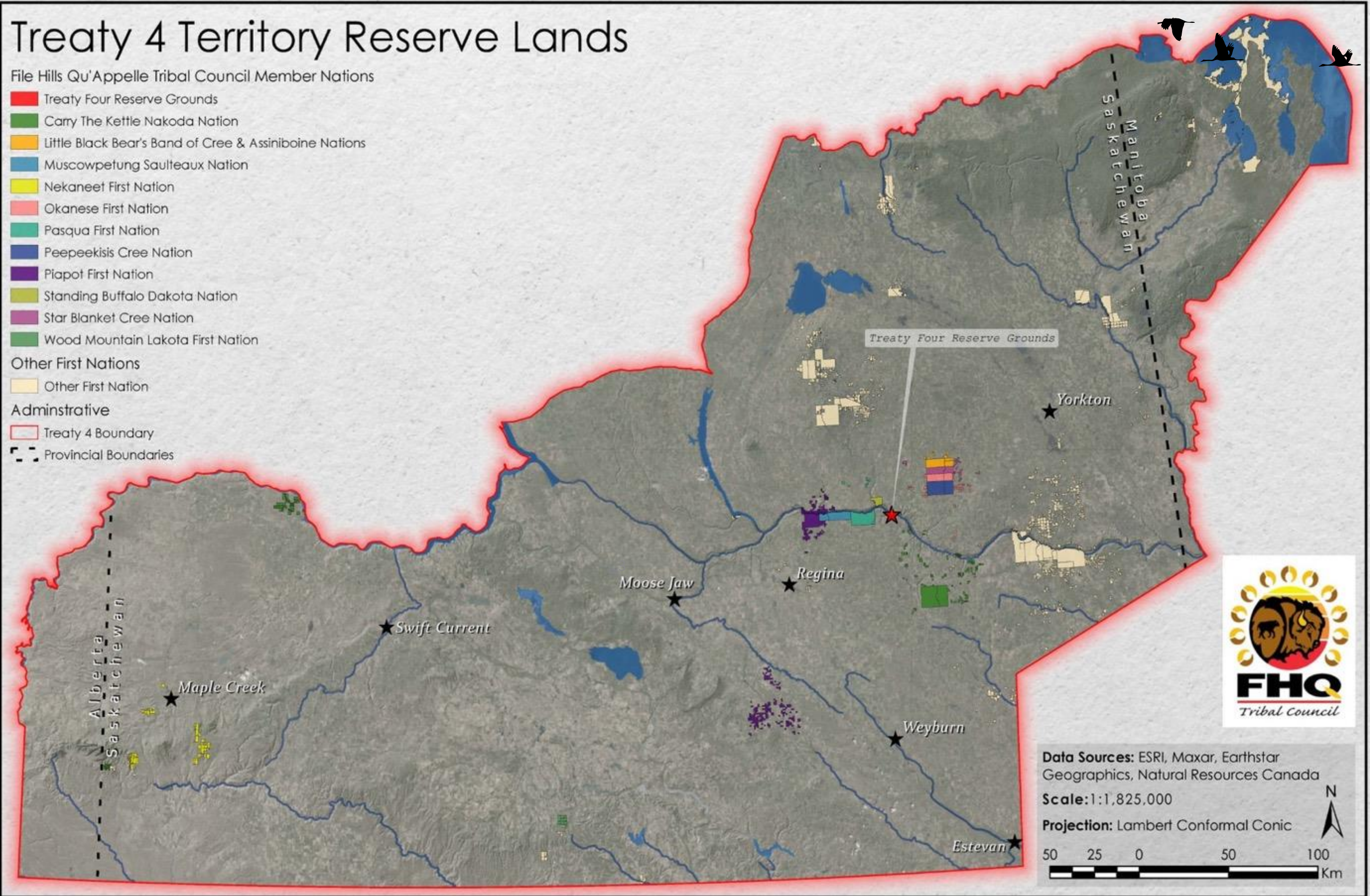
- Treaty Four Reserve Grounds
- Carry The Kettle Nakoda Nation
- Little Black Bear's Band of Cree & Assiniboine Nations
- Muscowpetung Saulteaux Nation
- Nekaneet First Nation
- Okanese First Nation
- Pasqua First Nation
- Peepeekisis Cree Nation
- Piapot First Nation
- Standing Buffalo Dakota Nation
- Star Blanket Cree Nation
- Wood Mountain Lakota First Nation

Other First Nations

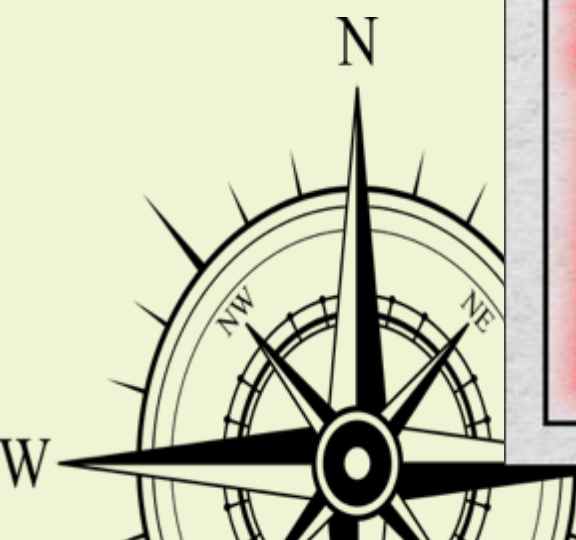
- Other First Nation

Administrative

- Treaty 4 Boundary
- Provincial Boundaries



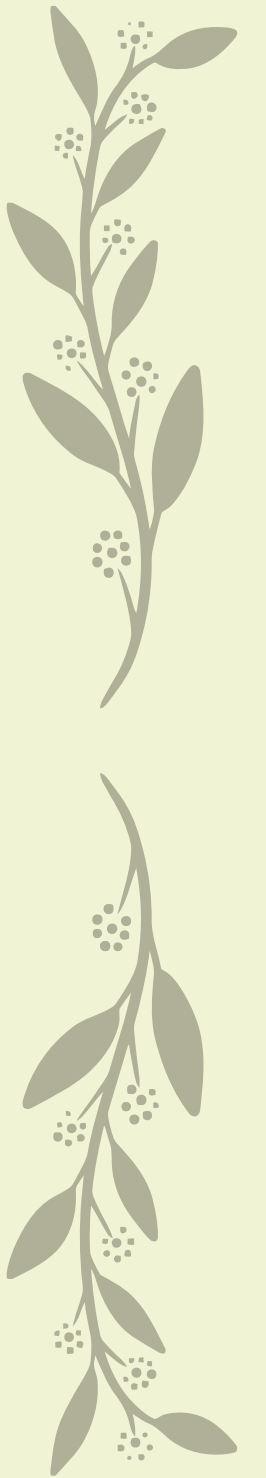
Data Sources: ESRI, Maxar, Earthstar Geographics, Natural Resources Canada
Scale: 1:1,825,000
Projection: Lambert Conformal Conic



LRES Youth Advisory Council

Under the direction of the FHQTC-Lands and Resources Chiefs Committee, the FHQTC Lands, Resources, Environment, & Stewardship Youth Advisory Council was created.

Working alongside FHQTC Nations Language Keepers, we monitor and analyze the effects of climate change on our lands, waters, species and the environment. Our goal is to identify the challenges and adaption opportunities that our Nations face and to bring attention to climate change and its impact on our inherent and Treaty Rights, physical, spiritual & mental health. Our approaches also enhance our emergency preparedness.



Language Keepers

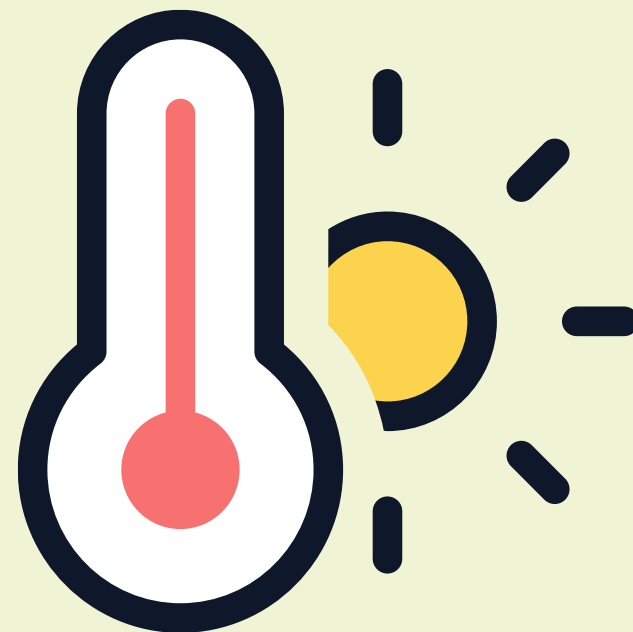
While gaining perspective on our First Nation identity, the FHQTC LRES Youth Advisory Council engage with Language Keepers to connect, and honour ancestral knowledge through a language, and story-telling based approach by mapping oral history from the land, culture, and environmental resources.

5



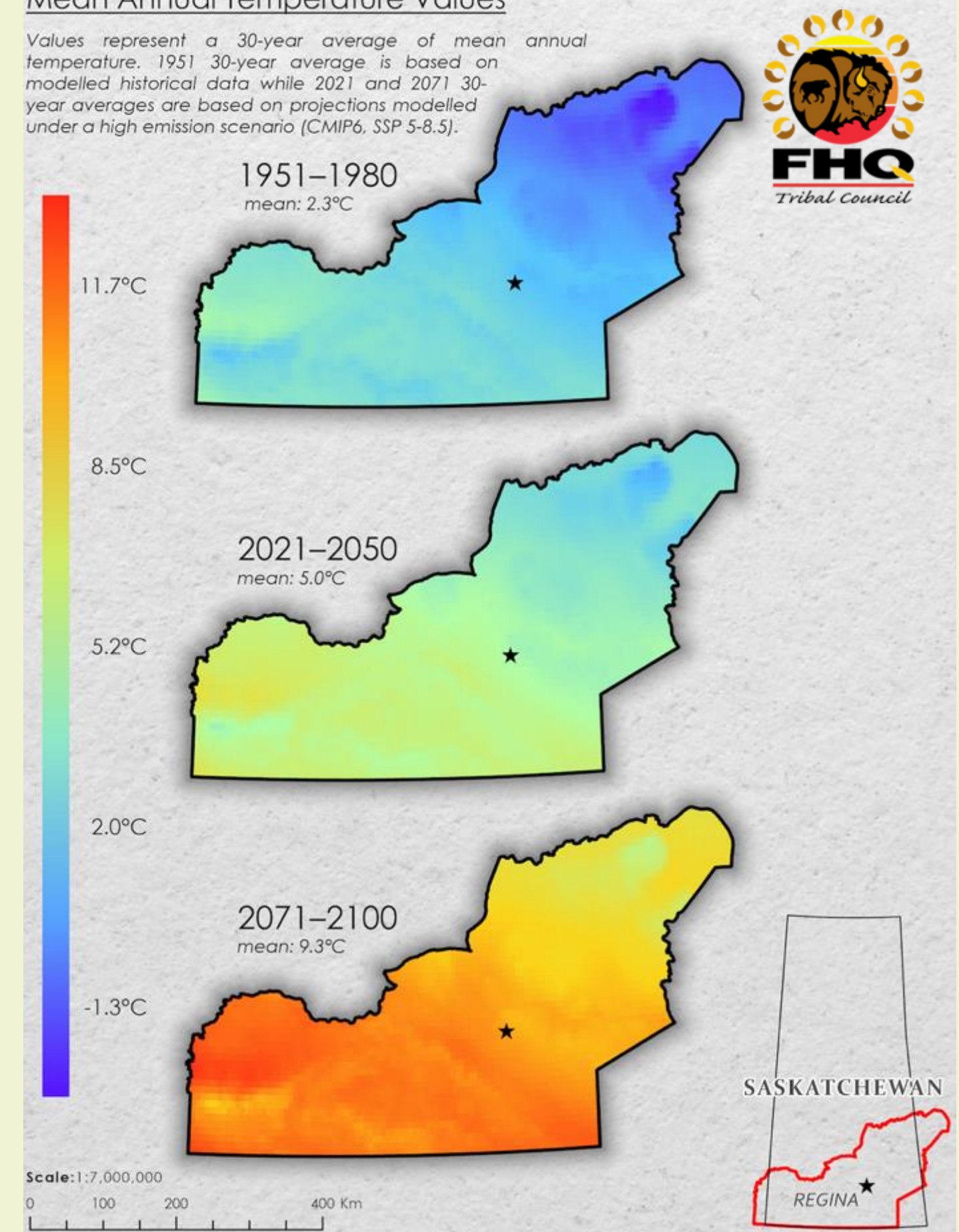
Climate Change within Treaty Four

- Before 2050 we will experience an increase of average annual temperature of approximately 2.5 °c
- Before 2085 we will experience an increase of average annual temperature of approximately 7.5 °c
- Climate change has significant detrimental impacts on our Inherent and Treaty Rights



Mean Annual Temperature Values

Values represent a 30-year average of mean annual temperature. 1951 30-year average is based on modelled historical data while 2021 and 2071 30-year averages are based on projections modelled under a high emission scenario (CMIP6, SSP 5-8.5).

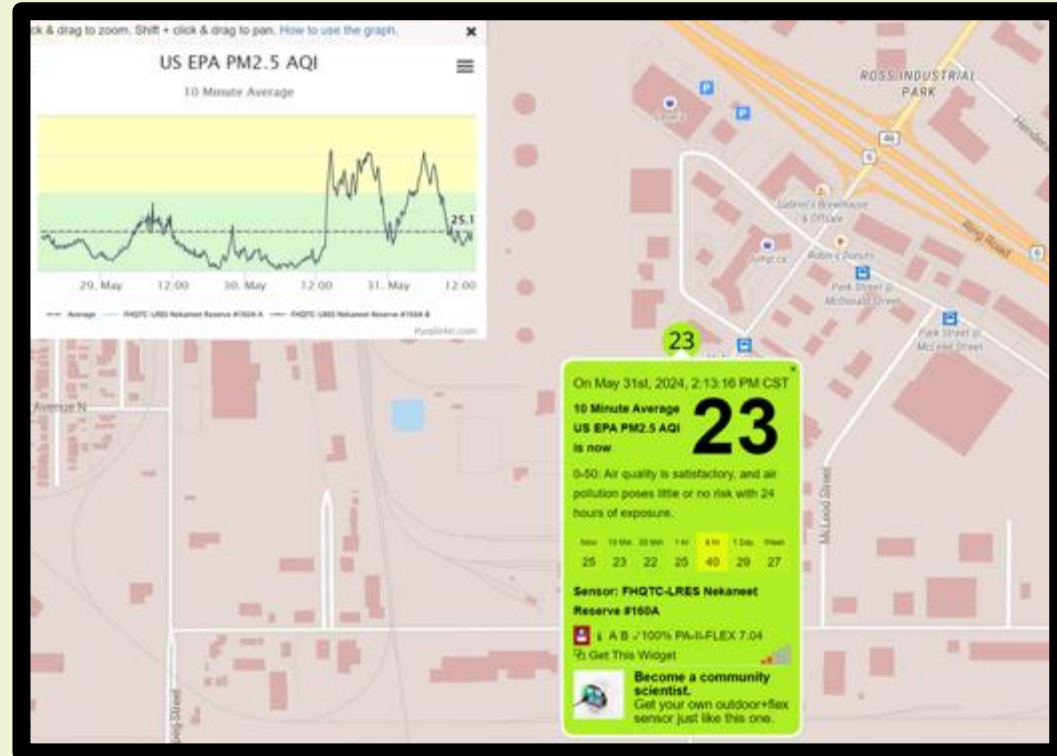


OUR CLIMATE ACTIONS INITIATIVES.



Air Quality Monitoring

Reducing Health Risk



We have set up two real time air quality monitors that can be viewed on a live map for our Nations citizens to see daily air quality data. This data uses the Air Quality Index (AQI).

Information regarding air quality risks is shared with our Nations Citizens.



Weather Station

The FHQTC LRES Weather Station records precipitation, temperature, pressure and wind direction and speed.

This data is collected for a basis of analysis that is provided for the Nations of FHQTC.

Our objective is to monitor climate risks for FHQTC Member Nations Citizens.



HOBOLink®

QU'APPELLE LAKES WATER MONITORING

We are collaborating with Dr. Peter Leavitt at the University of Regina to monitor the Qu'Appelle Chain of Lakes as part of one of the longest projects dedicated to monitoring water quality.

10

This ongoing 30-year project aims to analyze the nutrient influx, ecosystem variability, and water temperatures.



100 Lakes Survey with the University of Regina



FHQTC-YAC participated in a Treaty Four lake water quality survey with Dr. Peter Leavitt's team from the University of Regina. We contributed to water and sediment sampling of over 100 Lakes, helping to understand long-term changes in water quality.

A similar survey was done 30 and 15 years ago. This year will include lake of specific interest for FHQTC Member First Nations.



Mercury in fish

In summer we worked with Dr. Britt Hall at the University of Regina to conduct a thorough examination of mercury levels in fish in the Qu'Appelle Chain of Lakes. We are gathering samples from various fish species to analyze the bioaccumulation of mercury and are analyzing risks for consumption.



SPECIES AT RISK

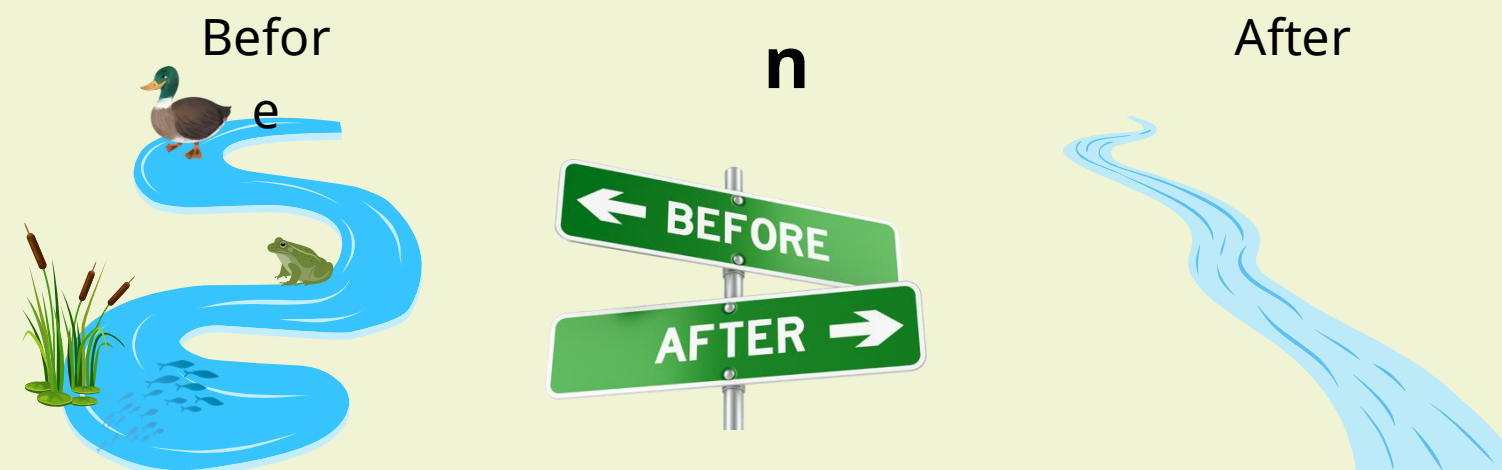
We are working on the conservation of the endangered Bigmouth Buffalo species in the Qu'Appelle River chain of lakes. This species is at risk due to the loss of spawning habitat caused by changes in water levels and channelization*.

The LRES team use nets to capture Bigmouth Buffalo and equip them with acoustic tracking tags to gather information about their behavior, population, and movement patterns.

BIGMOUTH BUFFALO



*Channelization





eDNA



eDNA sampling for species at Risk

In months of June and July, we have collected water samples from critical spawning habitats for the bigmouth buffalo a species at risk. Those samples are analyzed by our collaborator Dr. Andrew Cameron to assess the presence of DNA of the culturally significant species.

Over 10 marshes have been sampled in the lower Qu'Appelle River watershed.

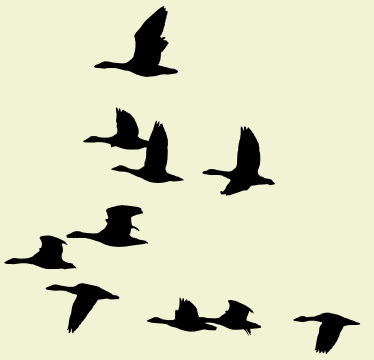


Harvesting Tipi Poles

The LRES youth visited Cypress Hills, a significant area for our Nations where we have gathered and participated in ceremonies for generations. During their visit, the youth learned traditional practices of harvesting tipi poles. This will allow us to practice our traditional ceremonies and reconnect with our way of life.



TIPI MAKING WITH BERNIE SHEPHERD



Following the harvest of tipi poles our team went to White Bear First Nation to be trained by Bernard Shepherd along with Sheila Musqua and others. During the three days we worked on crafting tipis which came with cultural teachings and trial and errors. We learned the basics of tipi making and hope to make more in the future.

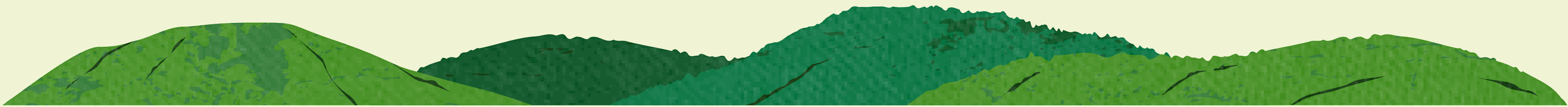
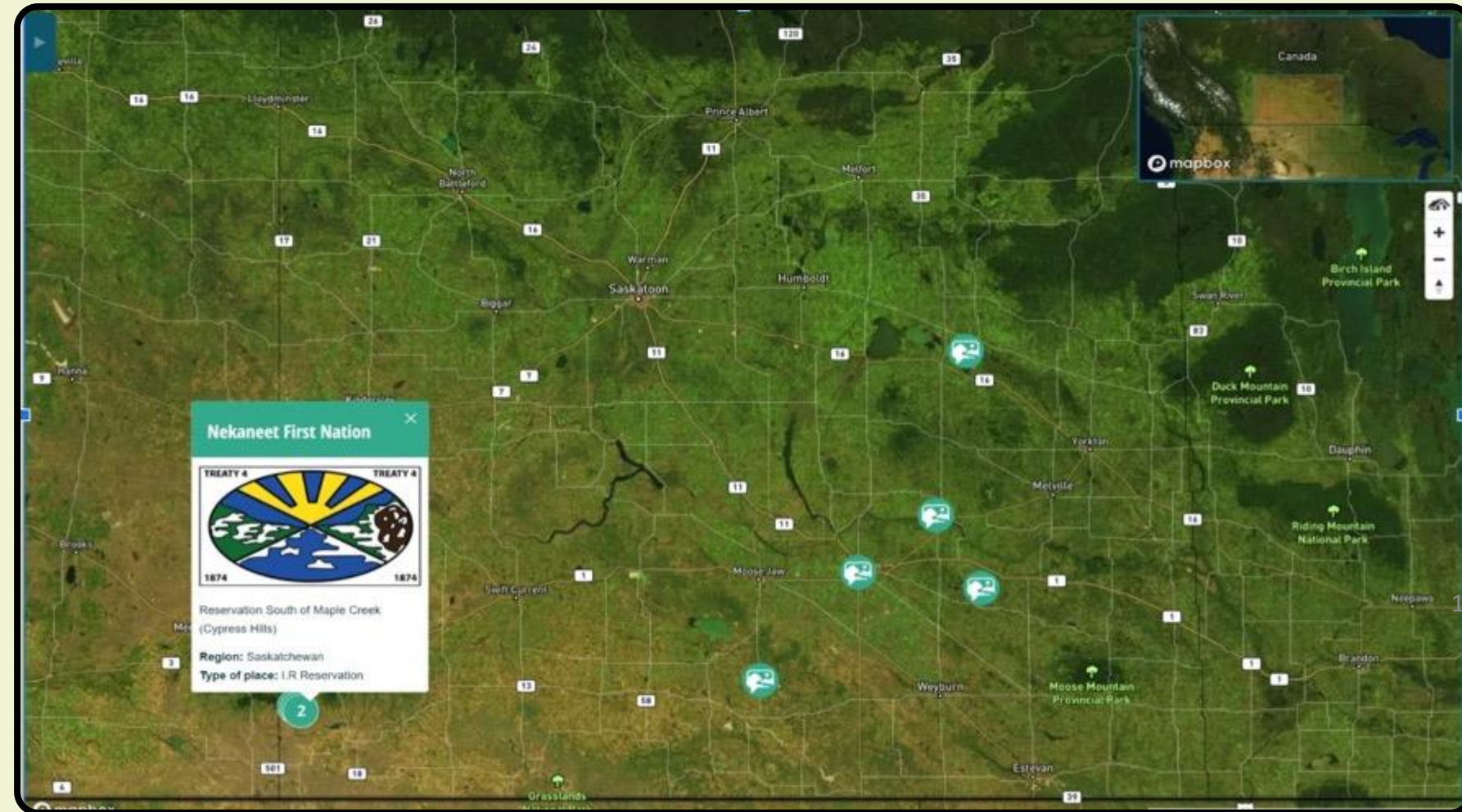
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TERRASTORIES

TerraStories is an online-based tool that takes geographical locations and implements them onto a map with a story that can be based around First Nations, sacred sites, hunting grounds, historical events, etc. You can pin a spot on a map and put the information you want about your Nation with voice memos, descriptions, and pictures.



TerraStories

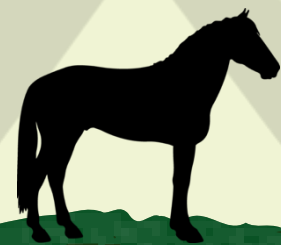
Education

Capturing details (Location, Speaker, theme of story) allow to use oral histories as an educational tool for all Member Nations Citizens, enhancing their understanding of our traditional territories.

Oral History Preservation

- Occupation and Land Use
- Preservation of Language
- Intergenerational Dialogue
- Retain and pass down culture
- Documenting land use change

The screenshot displays the TerraStories application interface. On the left, a sidebar contains filters for 'Filter stories' (category and option) and 'Sort stories' (Most recent). Below this is a story player for 'Water Story' by Kathy Leader, with a video player showing 0:00 / 5:51 and the language 'Nakoda/Assinaboine'. The main area features a map of Saskatchewan with several location markers. A story card for 'Cegakin (Carry the Kettle) First nation' is highlighted, showing a circular logo with a teapot and the text 'CARRY THE KETTLE FIRST NATION'. The card also lists the location as 'Nakoda Reserve south of #1 Highway', the region as 'Saskatchewan', and the type of place as 'I.R. Reservation'. A larger, detailed version of the logo is shown on the right side of the interface.



ENGAGEMENT ON THE WATER FOR THE INHERENT & TREATY RIGHT TO FISH



In winter on the lake ice, Youth, Language Keepers and Citizens from FHQ Member Nations exercised harvesting fish, sediment sampling, skidoo practice and drone practice. In one day, Youth and FHQ Citizens were able to practice their Inherent & Treaty Rights as guardians of our waters & fishing station provisions.



LAKE SEDIMENT CORING



We Got Mud!

We obtained 2.4-meter-long sediment cores from Pasqua, Echo, Mission and Katepwa Lakes in February and March 2025. These sediment cores will be studied for pigments, diatoms, and elemental composition (XRF).

These analyses will provide valuable information on the past of these lakes, from thousands of years ago to the present, including on water quality, temperature, and changes in river discharge over time.



Advanced UAV Drone Operators



Youth Advisory Council & Land Users achieved Advanced UAV Drone Operators Certificates to provide support services for Nations such as land surveying, emergency preparedness, mapping and lidar scanning. Recently the LRES²¹ department got a DJI M350 RTK L2 Lidar Drone for Mapping and collecting data and making 3D models of the land.

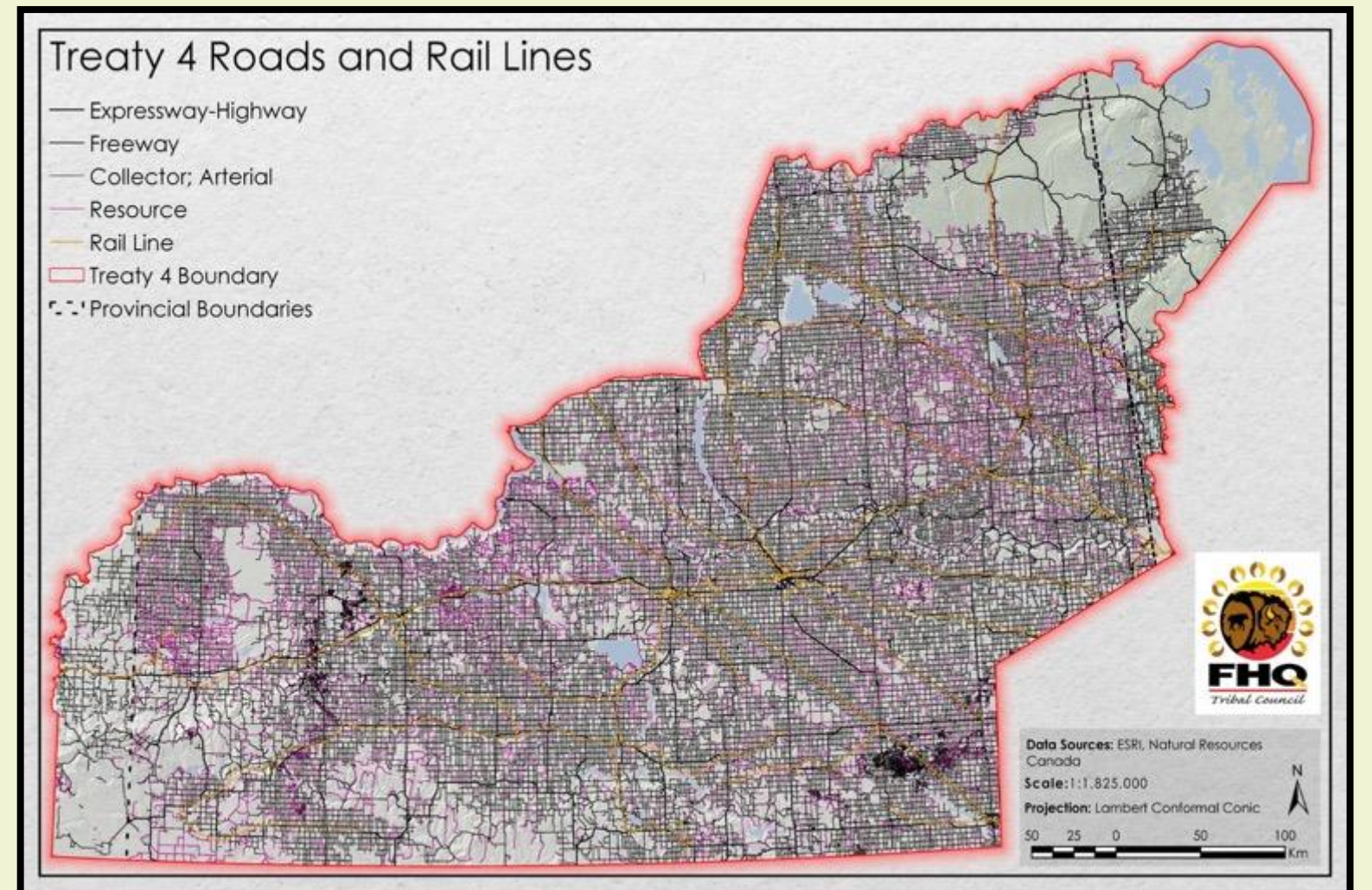


Mapping Training

Youth received GIS and mapping training module 1 with our GIS specialist Patrick Eaton. During this module we learned how to use google earth to make maps using custom made layers. It allows us to map our territory, lands and waters.



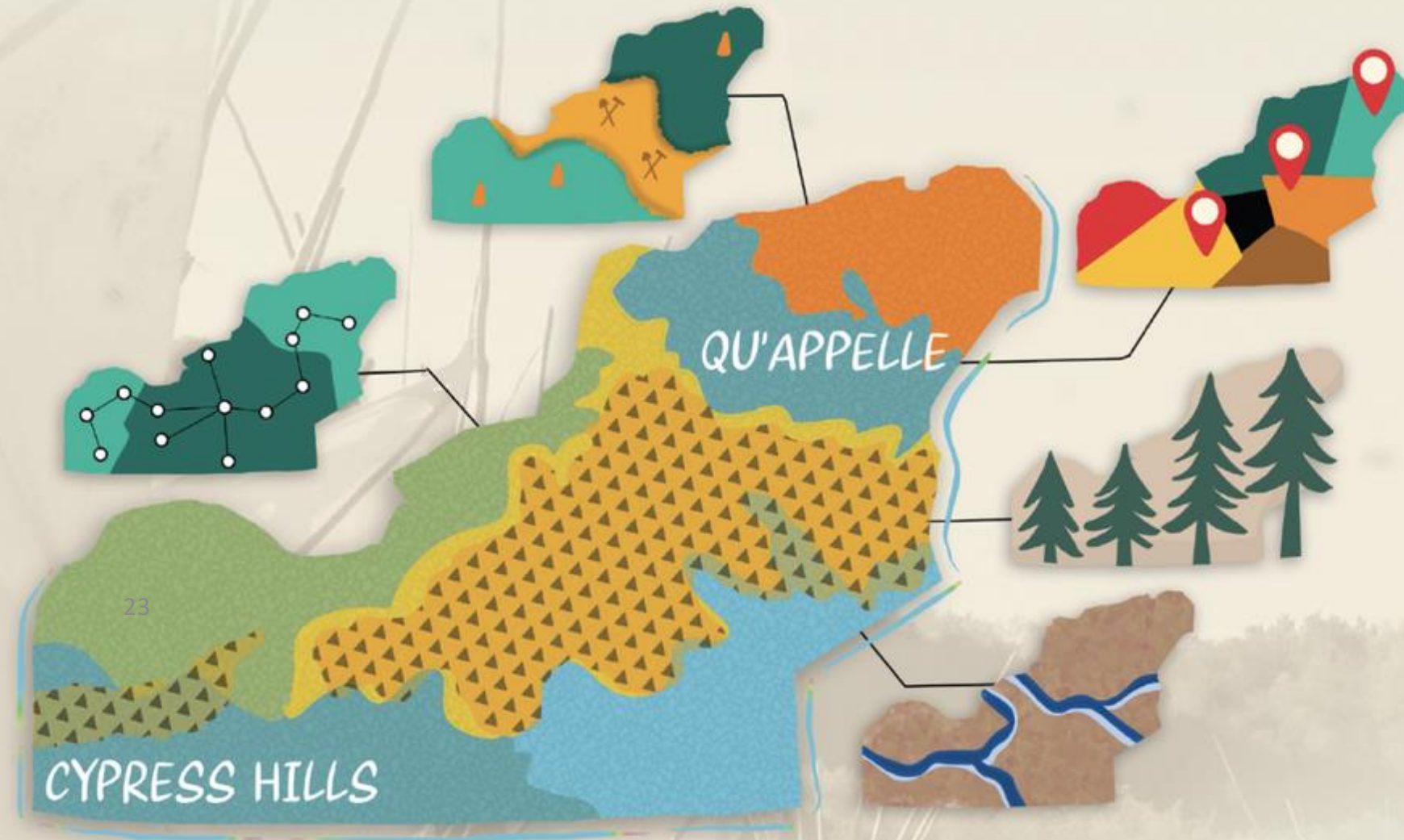
22



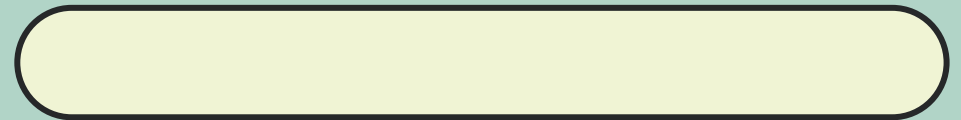
Our research, analysis and work on traditional knowledge is integrated into the FHQTC Cumulative Effects Atlas of Treaty 4 Territory.

The atlas is updated annually shared with our Member nations Leadership and Citizens.

Cumulative Effects Atlas, Treaty Four Territory

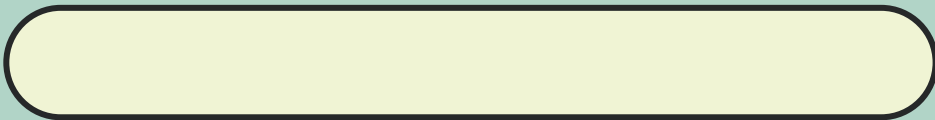


File Hills Qu'Appelle Tribal Council, Lands, Resources, Environment & Stewardship Department




Treaty 4 Youth Voices In Climate Action Forum 2024 & 2025





Calgary

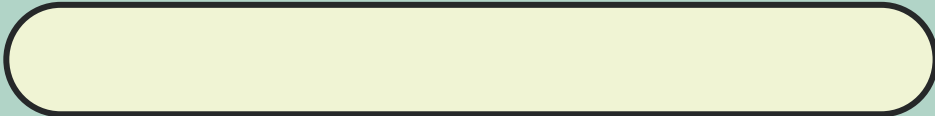


Assembly of First Nations

**3rd National Climate Gathering
October 7-10, 2024**

The FHQTC LRES Youth Advisory Council presented as panelists at our 3rd AFN Climate Gathering in Calgary, Alberta. The Youth and Language Keepers presented their projects and climate initiatives.

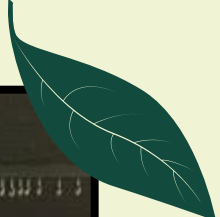
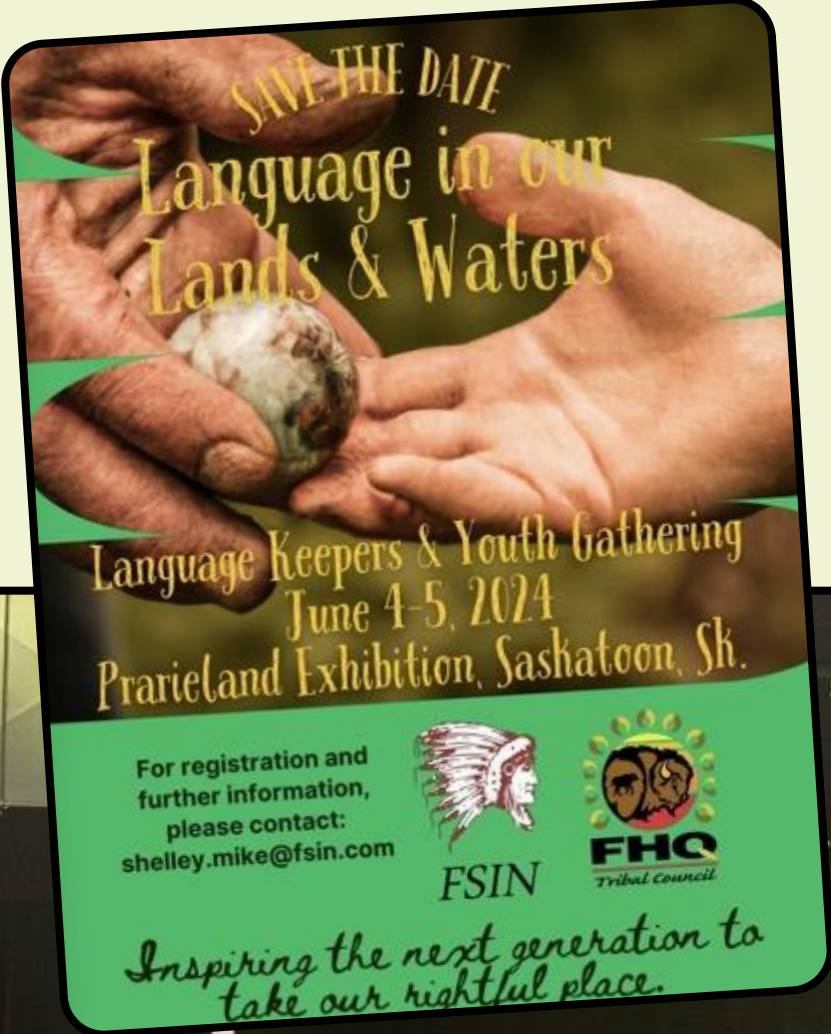




LANGUAGES IN OUR LANDS & WATERS

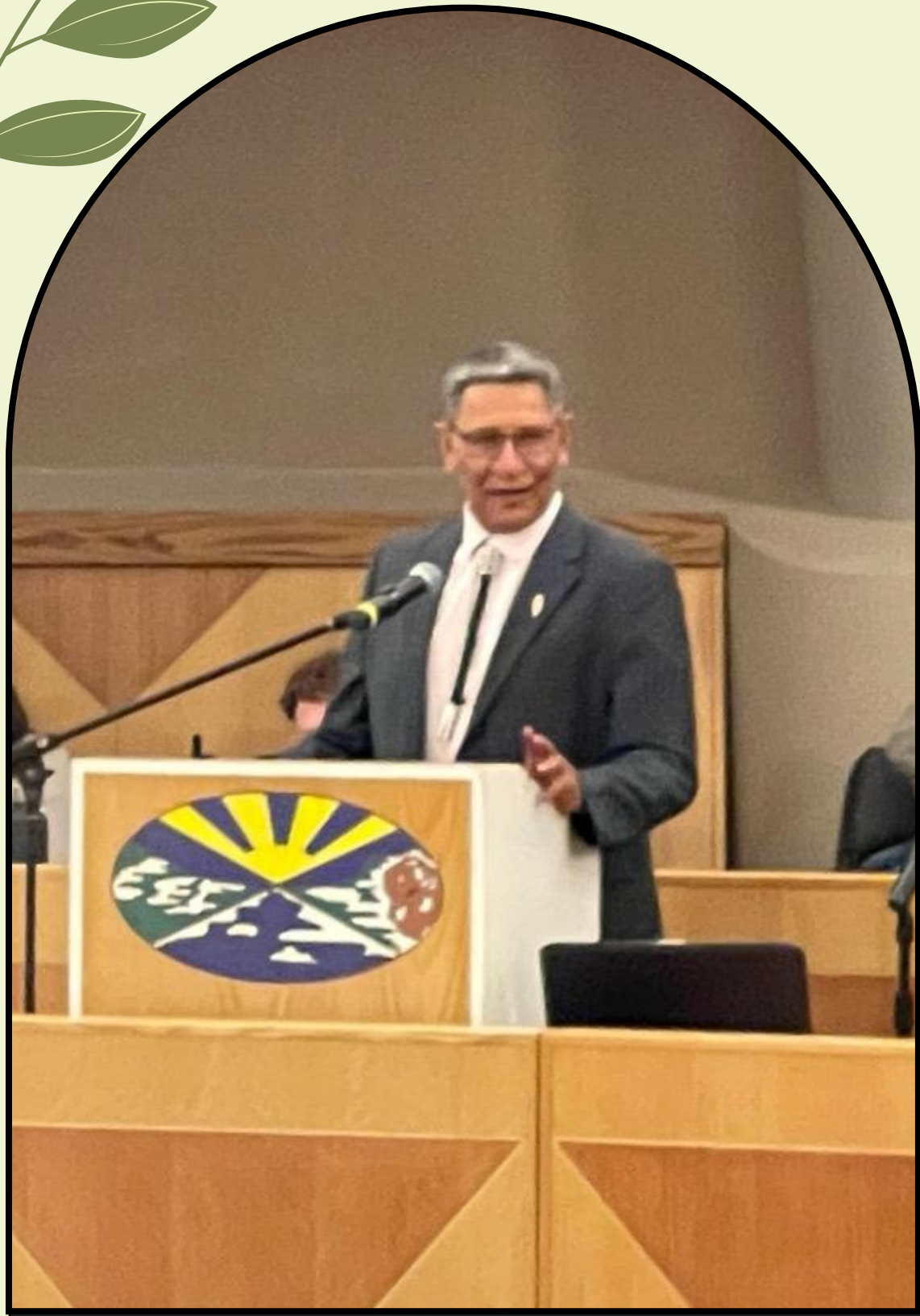
LANGUAGE KEEPERS AND YOUTH GATHERING

During this two day gathering that we co-organized & hosted with the FSIN we delved into our relationships with our lands, water and languages. We learned from the past engaging with our Language Keepers.




Indigenous Science Conference

FHQTC co-organized the Turtle Island Indigenous Science Conference which took place at the First Nation's University of Canada, the University of Regina, and the Treaty Four Governance Centre. We attended sessions with our language keepers about youth in STEM (Science, Technology, Engineering, and Mathematics), and about Indigenous engagement with Land, Water, & Environment.



2025 Adaptation Futures Conference Panelists: Youth Advisory Council & Language Keepers

FHQTC Youth Advisory Council & Language Keepers were approved to be panelists to this international conference October 2025 where we shared our work & gained meaningful connections to the Maori Nation & its Citizens for future Indigenous collaborations regarding climate adaptation in action.



TE PAE CHRISTCHURCH CONVENTION CENTRE
13-16 OCTOBER 2025
ŌTAUTAHI CHRISTCHURCH NEW ZEALAND

REF ID: 1176
Ms Shannon Thomson
File Hills Qu'Appelle Tribal Council

Tēnā koe and Warm Pacific greetings Shannon Thomson

Thank you for taking the time to submit a proposal for the **Adaptation Futures Conference 2025**, to be held in person and online at Te Pae Christchurch Convention Centre, Ōtautahi Christchurch, New Zealand on 13-16 October 2025.

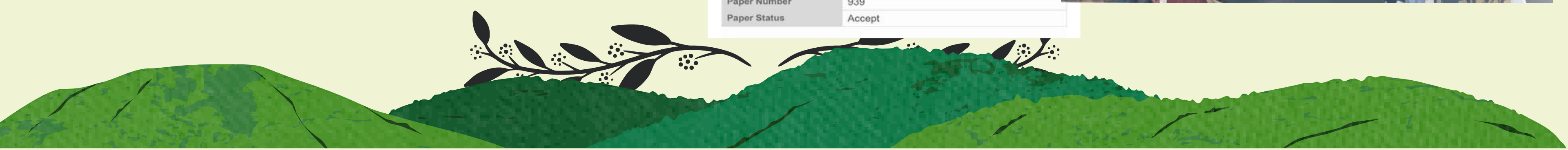
After vigorous review and selection process, we are pleased to include your proposal in the Conference programme.

Please note, this notification has only been sent to you as the coordinator of the proposal. It is your responsibility to notify any other participants of the outcome of your proposal and ensure they meet all requirements.

This notification refers to the below named proposal(s) only. If you submitted other proposals, you will receive separate notifications for each.

Accepted Proposal(s)

Title	A First Nation Youth and Language Keepers perspective on climate adaptation through a cumulative effects analysis lens
Paper Number	939
Paper Status	Accept



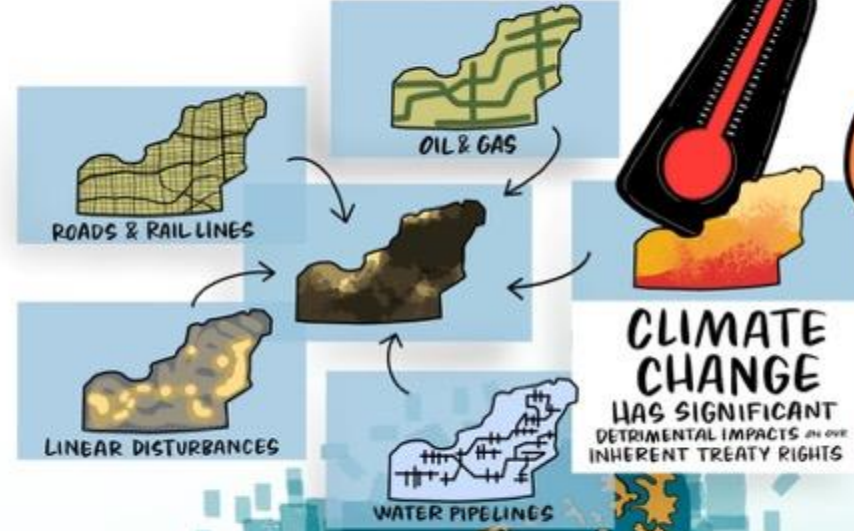


FHQTC Emergency Management Training

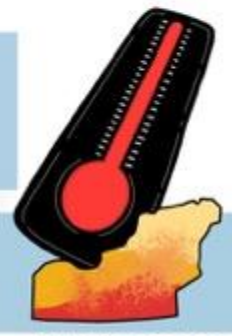
In 2024 FHQTC trained Youth & Land Users in Medical First Responders Training course & First Responder Sonar Training Course to support capacity with our Nations.



IMPACTS



↑ 7.5°C BY 2050



CLIMATE CHANGE
HAS SIGNIFICANT
DETRIMENTAL IMPACTS ON OUR
INHERENT TREATY RIGHTS



CUMULATIVE EFFECTS ATLAS, TREATY FOUR TERRITORY

PESTICIDES



ACTIONS

AIR QUALITY MONITORING



DRONE MAPPING



WEATHER STATION



DATA MANAGEMENT & DATA SOVEREIGNTY

WATER QUALITY & QUANTITY



FISH



SPECIES-AT-RISK
(eg BIG MOUTH BUFFALO)

HABITAT

Hg
MERCURY

Pilamaya

Miigwech

PIDAMAYA

PINAMAYA

KINANASKOMITIN

Thank you
anpétu wašté yuhá
(have a good day)

EVIDENCE-BASED ACTIONS

LANGUAGES & PROTOCOLS

TRADITIONAL KNOWLEDGE ACTIONS

FIRST NATION YOUTH AND LANGUAGE KEEPERS PERSPECTIVES ON CLIMATE CHANGE

SERVING OUR NATIONS BY:

INFORMATION SHARING

CAPACITY BUILDING

INFORMING FIRST NATIONS LAWS

SHAPING FEDERAL POLICIES and LEGISLATION



LANDS, RESOURCES, ENVIRONMENT & STEWARDSHIP DEPARTMENT

FILE HILLS QU'APPELLE TRIBAL COUNCIL

11 MEMBER NATIONS

5 LANGUAGE GROUPS

34 FIRST NATIONS

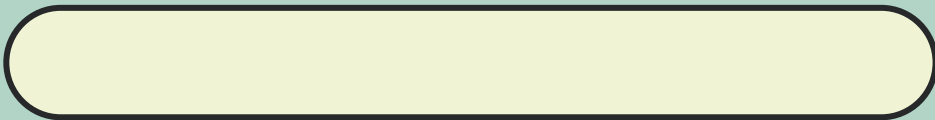
TREATY 4

CANADA

SASKATCHEWAN

31





pidamaya-pilamaya-pinamaya-kinanâskomitin-miigwech

32

Thank You
Merci

