

## Canada

# Finding and Using Climate Data for Climate Action

Ellen Pond

FNLMRC – Developing a Climate Strategy for Resilient Communities under Framework

June 8, 2022

CANADIAN CENTRE FOR CLIMATE SERVICES

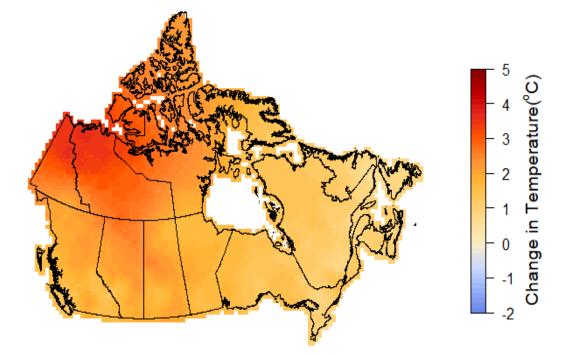
## **Guest Information – Ellen Pond**



- Lives and works in Musqueam, Squamish and Tsleil-Waututh territories, and also spends time in Ktunaxa, Sinixt and Syilx territories.
- Background includes a BA in Geography, a Red Seal Carpenter's ticket, and a Master of Landscape Architecture.
- Joined CCCS after teaching public policy and sustainability at Kwantlen Polytechnic University for several years.
- Previously worked a climate consultant with local governments in British Columbia.
- English, Scottish and Austro-Hungarian-German heritage.

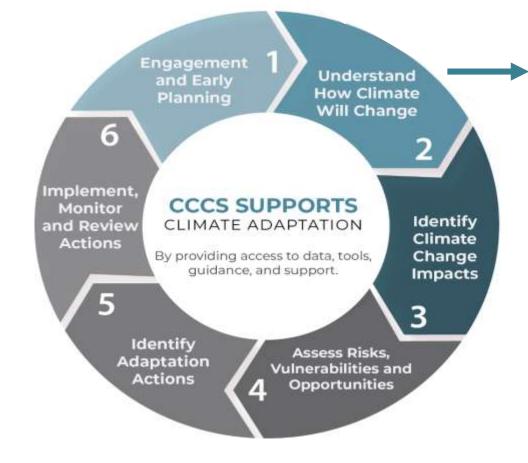
## Why use climate information?

- The climate is changing
- We need to make decisions and design for a future climate
- Historic data provides insights on climate trends experienced to date
- Future climate projections can help us prepare and adapt to changing conditions



Average temperature change in Canada, 1948-2018: **1.7°C** (CCCR, 2019)

## Using climate information for adaptation



#### CCCS supports this step: Understand how climate will change

- Access historical climate data
- Access future climate projections
- Resources and information
- Training and support

## Our services include:

- Our **Support Desk** helps to answer questions and support you in finding what you need.
- Our **website** provides access to climate data portals and introduces climate data concepts.
- Our **training team** tailors materials and processes for different audiences.
- We **co-develop** new data products with users.



#### **Canadian Centre for Climate Services - Canada.ca**





#### Library of climate resources

Datasets, tools, guidance and related resources



#### Climate information

Climate change concepts, applications, and the role of climate information in decision-making





#### Display and download climate data

View selected climate datasets on maps or download data

CANADIAN CENTRE FOR CLIMATE SERVICES

## We are part of a network that includes regional Climate Service providers

- Co-deliver climate services
- Provide locally relevant information to users across the country



## CCCS works with three main climate data portals



#### **Climate Atlas of Canada**

Start learning about climate change in Canada through mapping and storytelling



#### ClimateData.ca

Start exploring case studies and downloading location-based climate data by variable or sector



#### Power Analytics and Visualization for Climate Science (PAVICS)

Advanced tools for academia, climate scenario developers, and other expert users

## The <u>Climate Atlas</u> can be a good starting point for communities

#### **Helpful Resources**

- Climate science articles, videos
  on climate change
- Downloadable climate data reports for your location

#### **Climate Data**

- Downscaled climate model data
- Thousands of locations
- · Seasonal and annual data
- Temperature & precipitation variables, and others



## ClimateData.ca is higher resolution and customizable

#### **Climate Data & Helpful Resources**

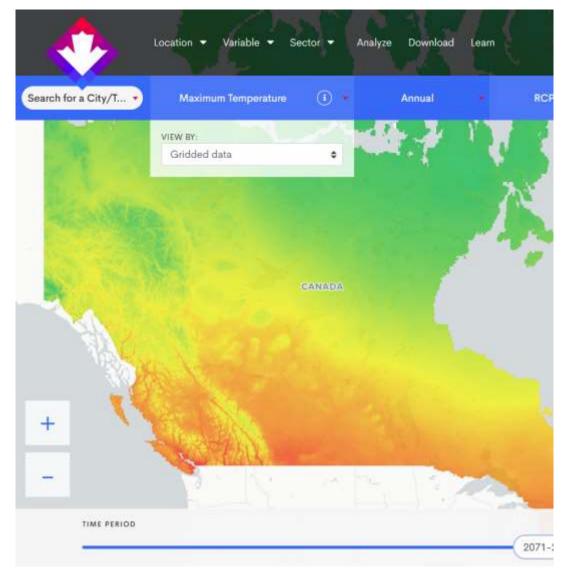
- Resolution: 6x10km grid
- Temperature and precipitation variables, other climate indicators, and future IDF curves

CENTRE CANADIEN DES SERVICES CLIMATIQUES

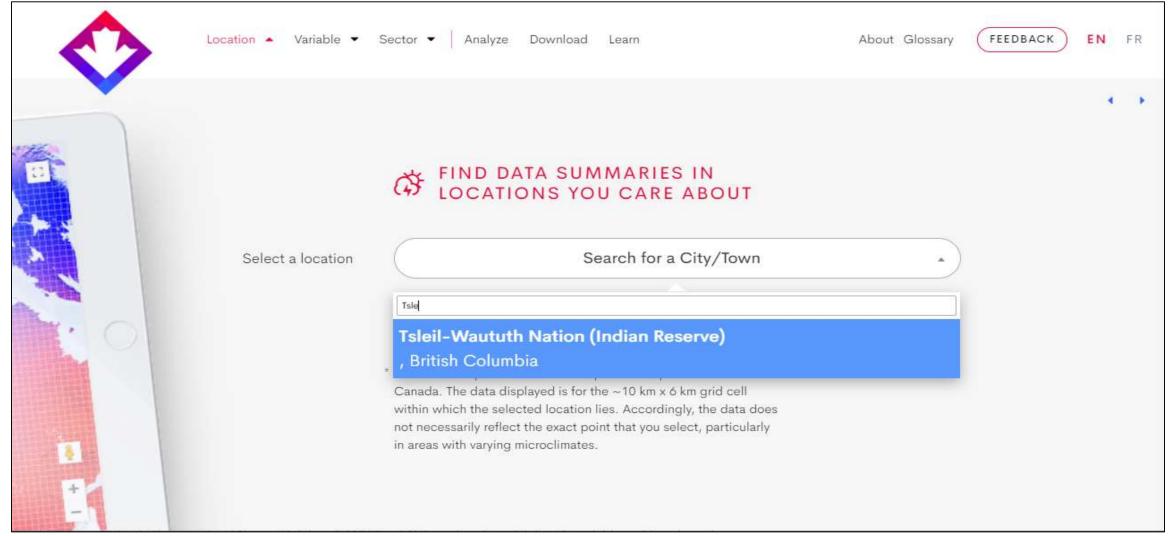
- Location-based summaries
- Sector modules, e.g. buildings

#### **Customize climate data**

- · Select a variable or indices
- Select Annual, Seasonal or Monthly
- Select emission scenario
- Download data & chart image



### **SEARCH BY LOCATION**



CANADIAN CENTRE FOR CLIMATE SERVICES

### **COMMUNITY CLIMATE SUMMARIES**

Location - Variable - Sector - Analyze Download Learn

About Glossary

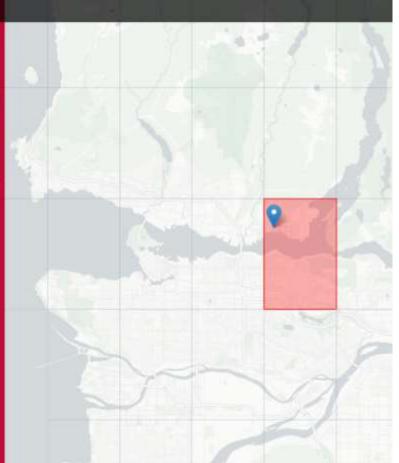
49.31097809099998°N, 122.989135369°W

## Tsleil-Waututh Nation, BC

For the 1951–1980 period, the annual average temperature was **9.6** °C; for 1981–2010 it was **10.4** °C. Under a high emissions scenario, annual average temperatures are projected to be **11.9** °C for the 2021–2050 period, **13.7** °C for the 2051–2080 period and **14.9** °C for the last 30 years of this century.

Average annual precipitation for the 1951–1980 period was **1914** mm. Under a high emissions scenario, this is projected to be **2%** higher for the 2021–2050 period, **7%** higher for the 2051–2080 period and **8%** higher for the last 30 years of this century.

\* These values reflect those of the ~10 km x 6 km grid cell that Tsleil-Waututh Nation lies within and do not necessarily reflect the exact point that you select, particularly in areas with varying microclimates.

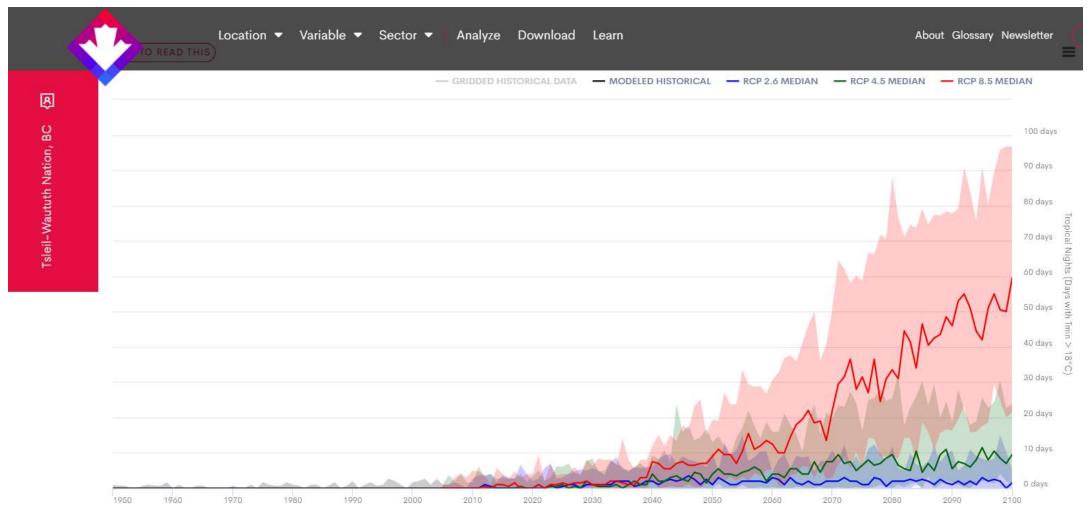


CANADIAN CENTRE FOR CLIMATE SERVICES

#### CENTRE CANADIEN DES SERVICES CLIMATIQUES

12

### **COMMUNITY CLIMATE SUMMARIES**



CANADIAN CENTRE FOR CLIMATE SERVICES

## Available climate funding

- CCCS services are free
- A summary of funding streams for climate work can now be found at <u>Indigenous</u> <u>Climate Funding - Canada.ca</u>

<u>First Nation</u> <u>Adapt Program</u>	Provides funding to First Nation communities located below the 60th parallel to assess climate change impacts and develop adaptation options, related to community infrastructure and disaster risk reduction. Funding supports projects such as risk assessments, and the development, assessment and cost-benefit analysis of adaptation options. The floodplain mapping portion of the program supports climate impacts assessments and adaptation planning efforts in communities at significant risk of flooding.
Indigenous Community- Based Climate Monitoring Program	Provides funding to support Indigenous peoples in the design, implementation, or expansion of long- term community-based climate monitoring projects. The program supports community-led projects to monitor climate and the environmental effects of climate change on communities and traditional territories.

## Building a relationship

- I'm interested in learning more about your needs, and how climate information could support Land Code First Nations
- CCCS and the regional climate service partners work together so you can connect with any one of us
- Many tools have been developed to make data, information and support easier to access – and more are coming
- Our tools, training and information can be co-developed, and we would be happy to work with you!





ellen.pond@ec.gc.ca





## Thank you / Questions

#### Website

English: canada.ca/climate-services

Français: canada.ca/services-climatiques **Climate Services Support Desk** 

• 1-833-517-0376



ccsc-cccs@ec.gc.ca

CANADIAN CENTRE FOR CLIMATE SERVICES