

## Downloading Climate Data from Environment Canada

**Introduction:** The following help guide outlines the procedure for downloading climate data from the Environment Canada website. Although there are various ways to retrieve data from this website, the following outlines the most user friendly process.

### Part 1: Search by Proximity

A 'Search by Proximity' retrieves monthly, daily, and hourly data depending on the station. These instructions use a 'location coordinates' within the 'Search by Proximity' tab, as this has proven most successful. Therefore, a latitude and longitude of your location in 'degrees-minutes-seconds' must be determined (a good source is Google Earth).

1. Go to the **Environment Canada** Climate homepage.
2. Select the 'Data' tab and under 'Advanced Search' click 'Search by Proximity'.
3. Specify the distance away from your desired location that is acceptable for your search by using the drop down 'kilometres away from:' menu.
4. Select the 'location coordinates' option and input your location coordinates into the boxes provided (Ex: 43°7'3.36"N, 79°14'51.69"W are the coordinates for Brock University).
5. Select 'with data available between' and input a date range that is appropriate for your project's purpose (HINT: this function can be unpredictable, therefore it is best to select a 10-20 year date range, and perform multiple searches if a larger date range is preferred).

The screenshot shows the 'Search by Proximity' form with the following fields and options:

- Search by Province | Search by Station Name | Search by Proximity
- How to Use - Search by Proximity
- 25 kilometres away from:
- Radio buttons for:
  - a city, (Select City dropdown)
  - a National Park, (Select Park dropdown)
  - location coordinates: (selected)
- Coordinates:
  - latitude: 43° 0' 34.0" North
  - longitude: 79° 4' 31.3" West
- Radio buttons for:
  - with data available between: 2005 to 2015 (selected)
  - with data on: 2015 February 9
- Display 25 results per page.
- Search (circled in red) | Reset

6. Once you have filled in the form with your specifications, click 'Search'.
7. The results will be displayed in an interactive table, where you can further specify the 'Data Interval', 'Day', 'Month', & 'Year' for each station of interest (see image below). (Note that the interval and years of data available differ with each station.)
8. Once you have made the final selections per station, click 'Go'. The data will download in a .CSV format. The file can be opened and manipulated in Microsoft Excel.

**Station Results - Advanced Search**

14 stations found within a search radius of 25 kilometres of (43° 00' 34" N, 79° 04' 31" W). Confirm the [Data Interval](#) and Date for one of the locations listed and click GO to display the data.

Station	Province	Proximity (km)	Data Interval	Year	Month	Day	Go
NIAGARA FALLS NPCSH	ON	13.9	Daily	2011	Jun	1	Go
WELLAND	ON	14.26	Daily	2014	Aug	9	Go (circled in red)
PA WELLAND FLATWATER	ON	14.54	Hourly	2015	Jan	6	Go
FORT ERBIE	ON	16.36	Hourly	2002	Jan	6	Go

NOTE: another useful way to search climate data from this webpage is 'Search by Province'. This is best if you know the name(s) of the specific climate station(s) of interest. This follows a similar procedure as what is outlined above.

## Part 2: Downloading Monthly Climate Summaries

The Monthly Climate Summaries are useful for creating a spatial model, such as an interpolated surface using ArcMap. The type of data included in the Monthly Summaries include: total precipitation, mean temperature, max/min temperature, snowfall, bright sunshine, degree days, etc. The following instructions are for downloading the data table. For further instructions on how to interpolate climate data in ArcMap [CLICK HERE](#).

1. Go to the [Environment Canada](#) Climate homepage. Select the 'Data' tab and click 'Monthly Climate Summaries'.
2. Select the appropriate year and the month for your analysis, as well as the province or territory of interest.
3. Be sure to select to download the data in a .CSV format. Click "Download Data". The .CSV file type must be utilized if you are looking to format the data table to be used in ArcMap 10.x.

The screenshot shows a web form with four steps for downloading climate data. Step 1: 'Select Year and Month' with dropdown menus for 'Year' (2014) and 'Month' (January). Step 2: 'Select Province/Territory' with a dropdown menu for 'Province' (Ontario). Step 3: 'Select data format' with radio buttons for 'CSV' (selected) and 'XML'. Step 4: 'Get the data by selecting the button below' with a 'Download Data' button.

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