

Forecasting the Weather: Temperature, Precipitation, Air Quality, and Mosquito Activity

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This document provides information useful for forecast the weather, ranging from monthly climate data to animated 6-hour forecasts. Links and examples are provided. They are ordered from the longest time-scale (climate), to three-month forecasts, one-month forecasts, weekly forecasts, and current (often real-time) information. Included are forecasts for temperature, precipitation, air quality and mosquito activity.

If you are using an electronic copy, you may click on any one of the eighteen links in the document. All complete link addresses (also clickable) are given as footnotes at the bottom of each page.

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On-line information about climate

Most Albertans have a fairly good idea of what weather to expect for each month of the year, but Environment Canada provides exact numbers for many locales. Alberta locales are listed on-line [here](#)¹. The one most pertinent to the Waskahagan Trail (presented in the order given by the *Waskahagan Trail Guide Book*) are: [Edmonton](#)², [Leduc](#)³, (not Wetaskiwin, unfortunately), [Camrose](#)⁴, [Tofield](#)⁵, and [Fort Saskatchewan](#)⁶. Here's part of what is displayed for Camrose on 2019-01-25. Both annual and monthly data are shown. We can see from this table, for example, that in Camrose

- July normally has the highest daytime temperature and the most rain.
- August is as warm as July but has 1/3 less rain.
- Over all non-winter months of the year, the amount of rain changes from month to month much more than the number of rainy days with rain.

CAMROSE, ALBERTA

Home > North America > Canada > Alberta
 Elevation: 732 meters Latitude: 53 01N Longitude: 112 49W

WEATHER

- Monthly - Summary
 - Nearby
 - Forecast
- Monthly - All Data
- Climate Summary
- Daily Averages
- Hourly Data

CURRENT CONDITIONS

No Current Conditions Available

Sunrise/Set
 08:23 am
 05:03 pm

Local Time
 6:13 pm MST
 25 January, 2019

MONTHLY - WEATHER AVERAGES SUMMARY [Show All Data]

[°F] **°C**

Average Temperature

Years on Record: 21

	ANNUAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
C	2.9	-13	-9.1	-4.6	4.6	10.4	14.5	16.6	15.6	10.3	3.7	-5.1	-9.1

Average High Temperature

Years on Record: 21

	ANNUAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
C	9.3	-7.4	-2.9	1.3	11.2	17.6	21.1	23.2	22.9	17.5	10.5	0.1	-3.6

Average Low Temperature

Years on Record: 21

	ANNUAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
C	-3.6	-18.7	-15.3	-10.5	-2.2	3.1	7.8	9.8	8.3	3	-3.2	-10.2	-14.5

Average Precipitation

Years on Record: 27

	ANNUAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
mm	440.7	20.7	13.5	19.4	24.8	42.8	75.1	89.8	59.3	42	20.9	18.4	14.1

Average Number of Days With Precipitation

Years on Record: 30

	ANNUAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Days	108.8	9.5	7.3	6.5	6.1	10.1	13.1	13.5	11.8	8.7	5.9	8	8.4

¹ <http://www.weatherbase.com/weather/city.php3?c=CA&s=AB&statename=Alberta-Canada>.
² <http://www.weatherbase.com/weather/weather.php3?s=32117&cityname=Edmonton-Alberta-Canada>.
³ <http://www.weatherbase.com/weather/weather.php3?s=711230&cityname=Leduc-Alberta-Canada>.
⁴ <http://www.weatherbase.com/weather/weather.php3?s=711231&cityname=Camrose-Alberta-Canada>.
⁵ <http://www.weatherbase.com/weather/weather.php3?s=991990&cityname=Tofield-North-Alberta-Canada>.
⁶ <http://www.weatherbase.com/weather/weather.php3?s=991886&cityname=Fort-Saskatchewan-Alberta-Canada>.

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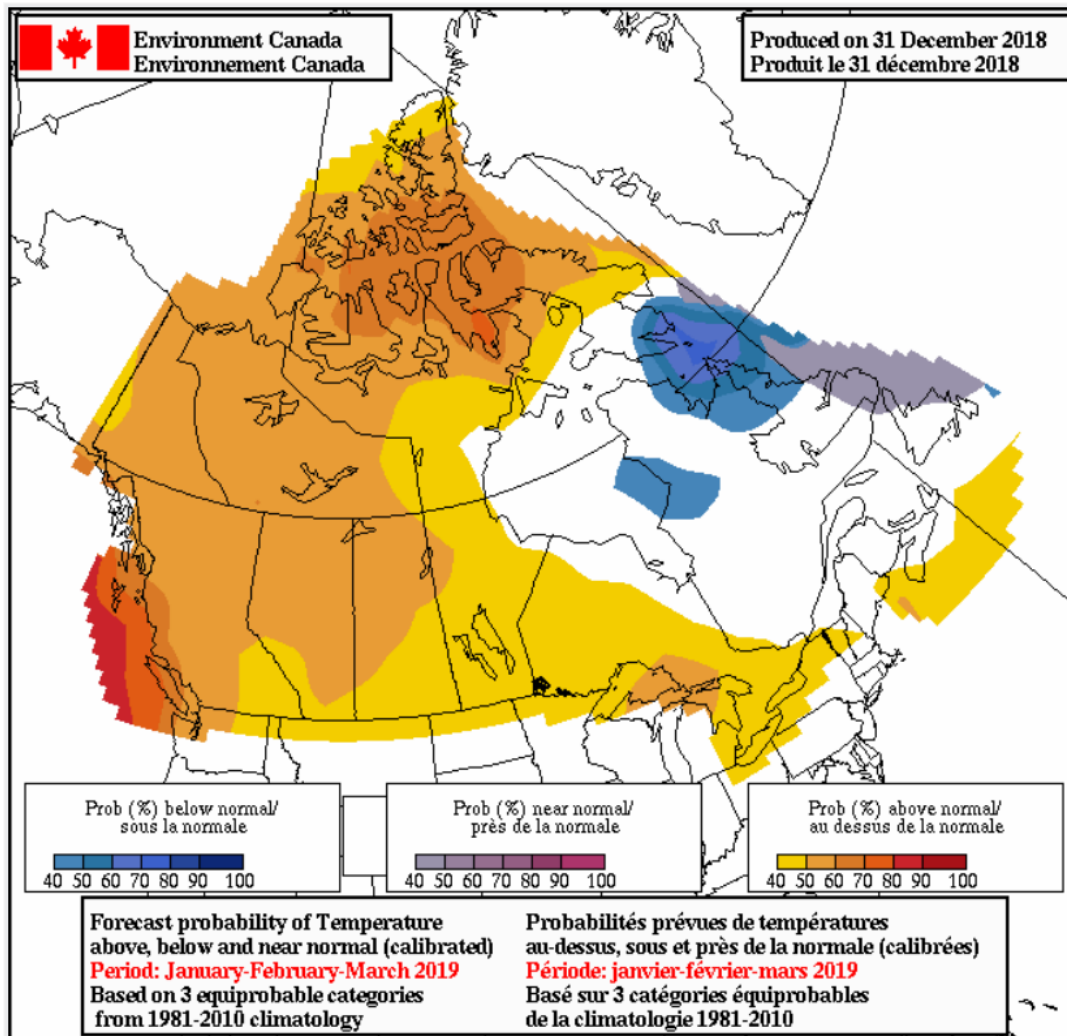
Long-range forecasts from Environment Canada

Long-range forecasts predict to what extent the coming temperature / precipitation will be above normal or below normal for the coming month or longer for every part of Canada. (What is “normal” is defined by climate. See above.) Environment Canada uses current weather and climate data, together with sophisticated forecasting models, to generate forecasts for temperature and for precipitation. These forecasts come in many different forms, but three of are special interest to us.

- Two Seasonal (three-month) forecasts predict average temperature and average. These forecasts are updated on the last day of every month.
- A Monthly forecast predicts temperature for the coming 28 days. It is updated every Thursday, giving the forecast for the four weeks beginning the following Monday.

Seasonal forecast for temperature

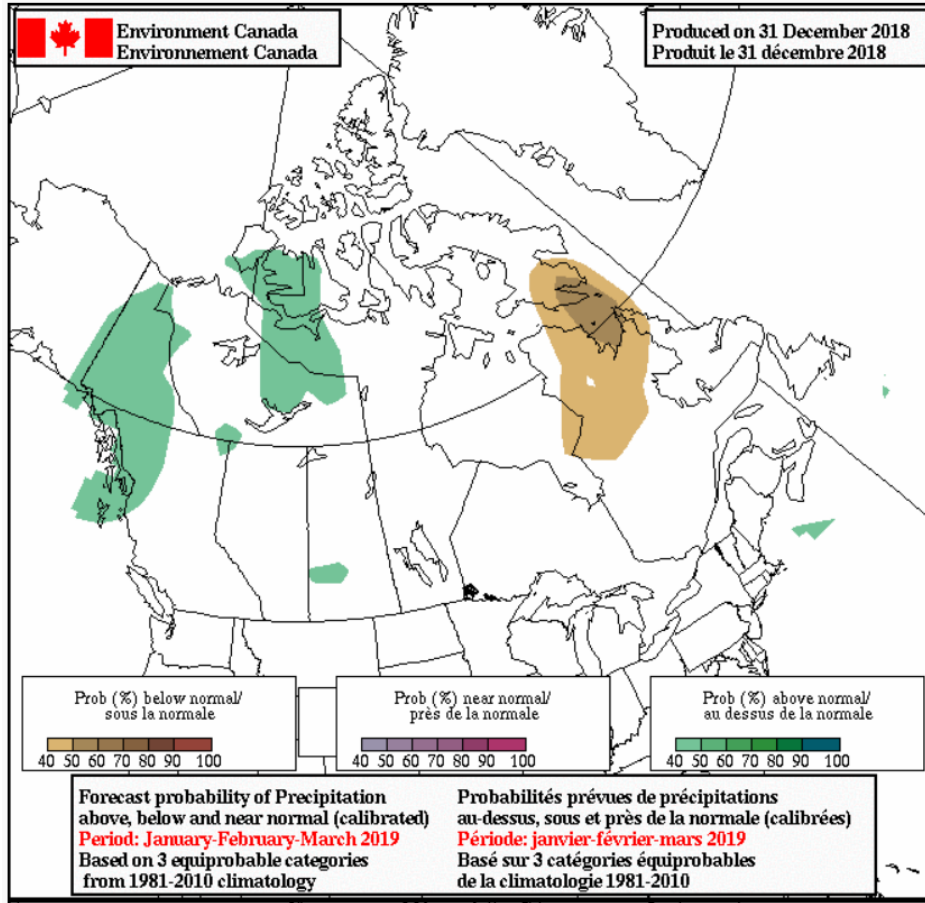
Click [here](#)⁷ for the current forecast. Below is shown the three-month temperature forecast as of 2019-01-25. (It covers January, February and March.) The closer to red, the hotter relative for normal, and the closer to blue, the colder. We see that all of Canada except the northeast is expected to be warmer than normal for this period.



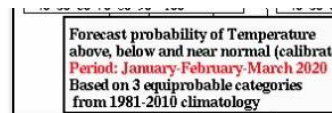
⁷ https://weather.gc.ca/saisons/prob_e.html.

Seasonal forecast for precipitation

Here's the three-month precipitation forecast as of 2019-01-25. (It covers January, February and March.) The areas in green are expected to be wetter than normal, while those in orange-red to be dryer. All of the white area is expected to be near normal.



To get this forecast, click on the link for the seasonal precipitation forecast ([here](#)⁸) and then click on the link labelled Map that appears right below the temperature map. (You may ignore all maps except the one at the top of the webpage.)



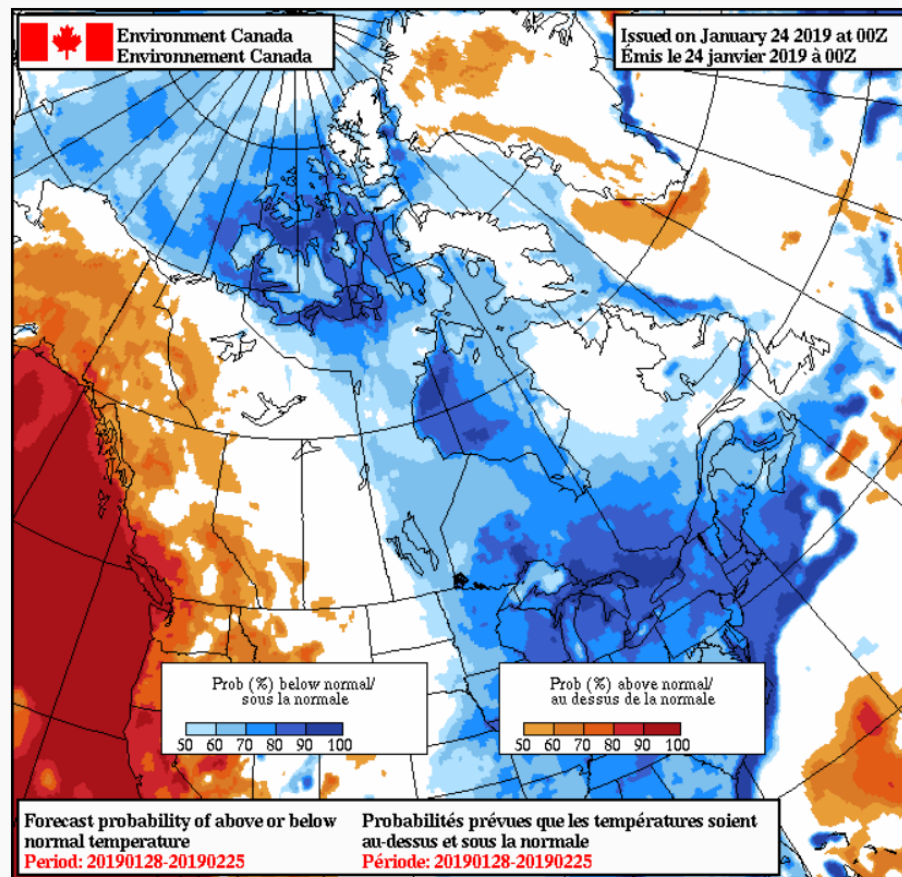
Current Temperature and Precipitation Probabilistic Forecasts

Period	1-3 month	2-4 month
Temperature	Map Reliability	Map Reliability
Precipitation	Map Reliability	Map Reliability

⁸ https://weather.gc.ca/saisons/prob_e.html.

Monthly forecast for temperature

Click [here](#)⁹ for current monthly forecast. Shown below is the monthly forecast as of 2019-01-25. We see that BC is expected to be warmer than normal, and all of Canada east of Saskatchewan is expected to be cooler. The Waskagehan Trail will be about average or perhaps a little warmer.



⁹ https://weather.gc.ca/saisons/image_e.html?img=mfe1t_s.

Five-day forecasts and weather warnings from Environment Canada

While monthly and seasonal forecasts and climate data are useful for longer-term planning, nothing takes the place of more current information (especially weather warnings). On-line forecasts for locales near the Waskahagan Trail can be obtained by clicking one of these links: [Edmonton](#)¹⁰, [Wetaskiwin](#)¹¹, [Camrose](#)¹², and [Elk Island National Park](#)¹³. (Links to all Alberta locations with their own forecasts are given [here](#)¹⁴.)

In addition, recorded forecasts (including warnings) can be **obtained by phone** for the following communities in Alberta. (This information is provided [here](#)¹⁵.) The same information is also accessible by weather radio.

City and Vicinity	Telephone Number
Banff	1-403-762-2088
Calgary	1-403-299-7878
Coronation	1-403-578-2664
Edmonton	1-780-468-4940
Edson	1-780-723-4070
Fort McMurray	1-780-334-0724
Grande Prairie	1-780-539-6631
Jasper	1-780-852-3185
Lethbridge	1-403-382-3068
Lloydminster	1-780-875-7709
Medicine Hat	1-403-526-0483
Red Deer	1-403-342-7474
Rocky Mountain House	1-403-845-3183
Slave Lake	1-780-849-3046
St Paul	1-780-645-2015

¹⁰ https://weather.gc.ca/city/pages/ab-71_metric_e.html.

¹¹ https://weather.gc.ca/city/pages/ab-9_metric_e.html.

¹² https://weather.gc.ca/city/pages/ab-18_metric_e.html.

¹³ https://weather.gc.ca/city/pages/ab-63_metric_e.html.

¹⁴ https://weather.gc.ca/forecast/canada/index_e.html?id=ab.

¹⁵ <https://www.canada.ca/en/environment-climate-change/services/weather-general-tools-resources/telephone-services/recorded-observations-forecasts.html>.

Real-time information on weather and air quality (provided by Ellen Homola)

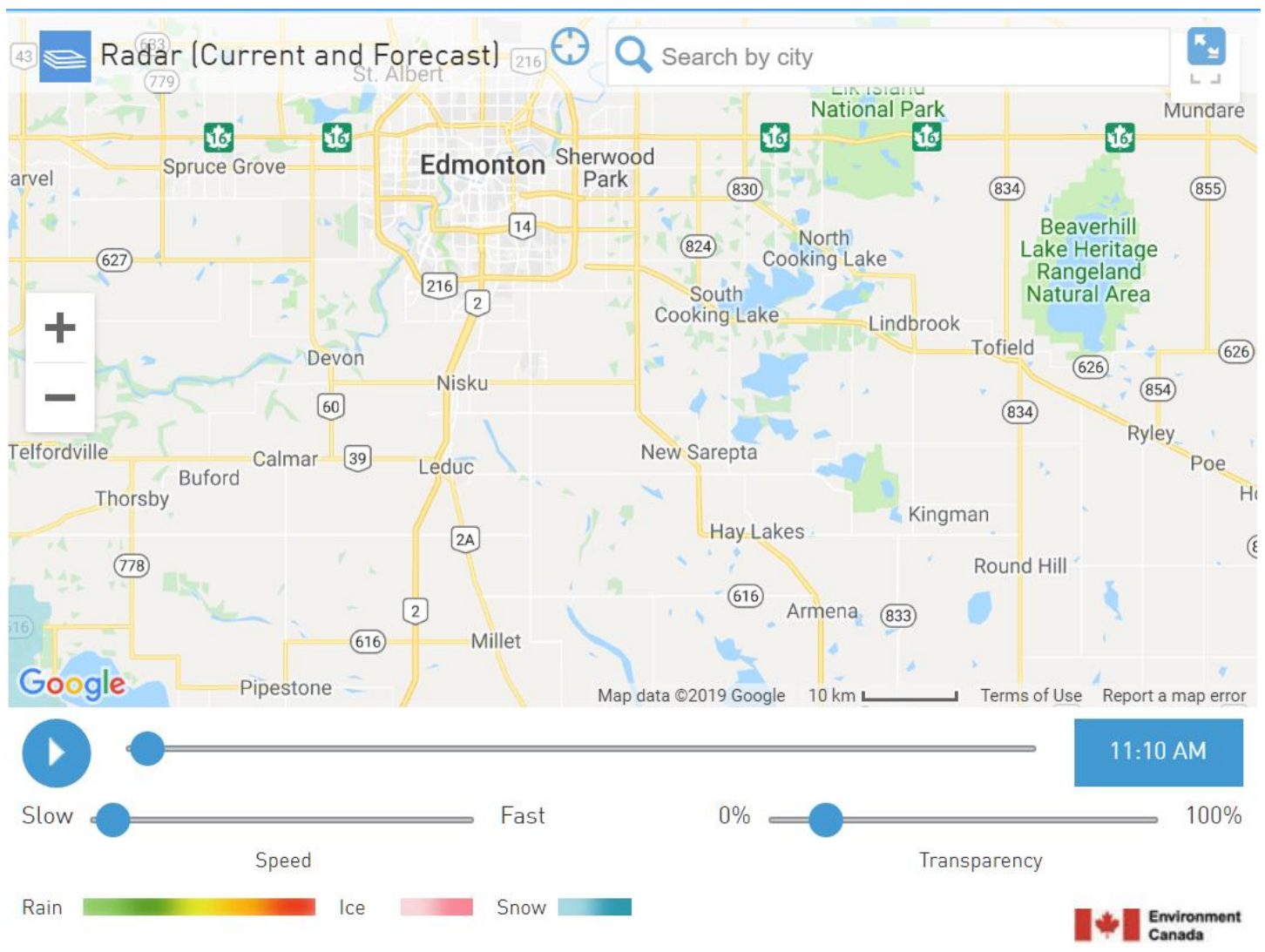
Also, see immediately above to learn how to get weather warnings.

Animated map of precipitation for the coming six hours

An animated map of precipitation expected for the coming six hours is available from the Weather Network (using information from Environment Canada). Clicking [here](#)¹⁶ shows the map centred on the Waskahegan Trail.

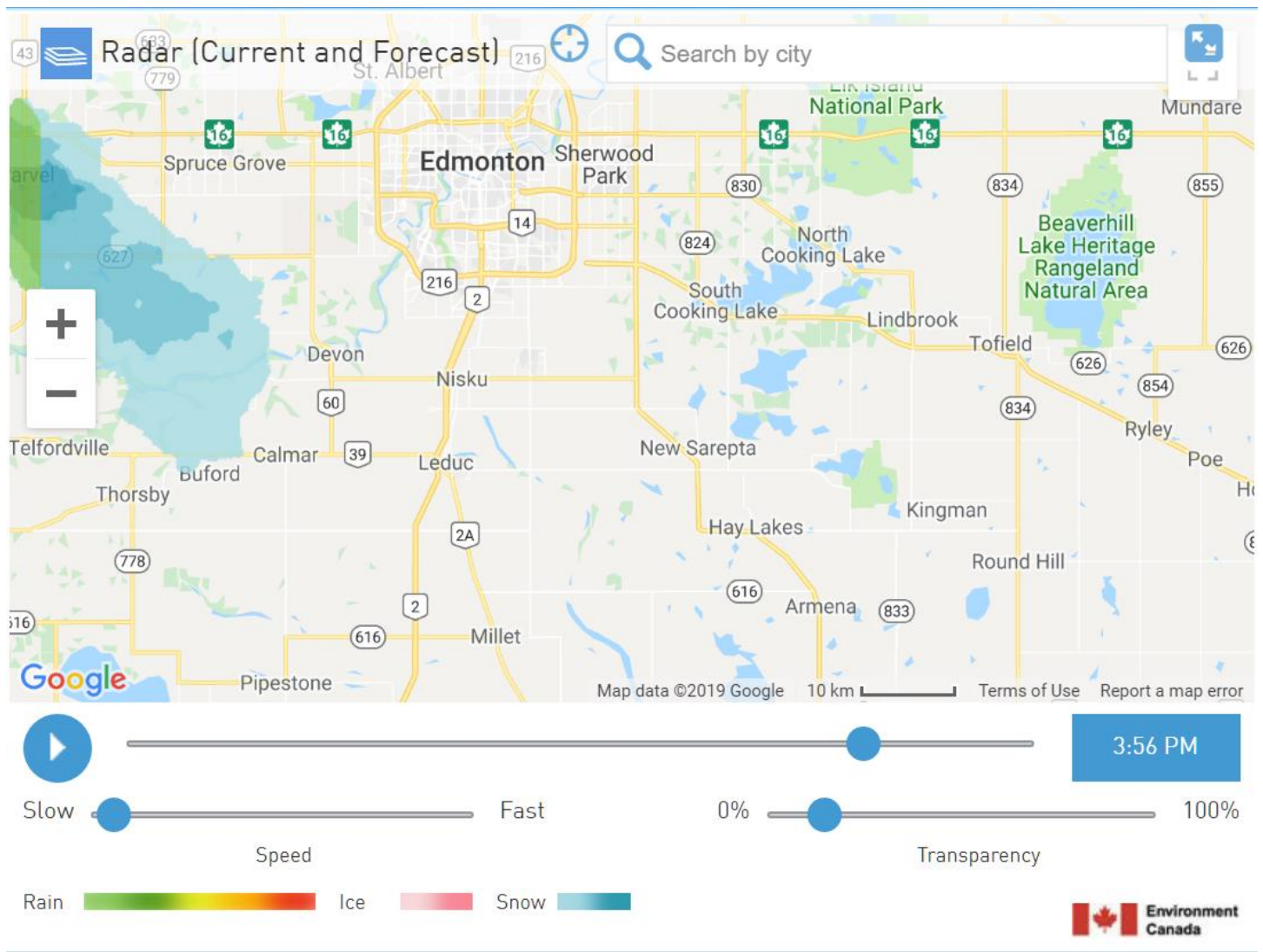
Below is an example for 2019-03-27 at 11:10 AM. It shows current conditions. Clicking on the “+” or “-” symbols that appear in the map at the left allows you to zoom the map in or out. Clicking anywhere in the map and holding the click while moving the mouse allows you to re-centre the map as you please.

Shown along the very bottom are the colours used to portray rain, ice and snow. Looking at this map shows only a tiny area with light snow — at the very bottom left corner, where you find the “G” in “Google”, and just above it.



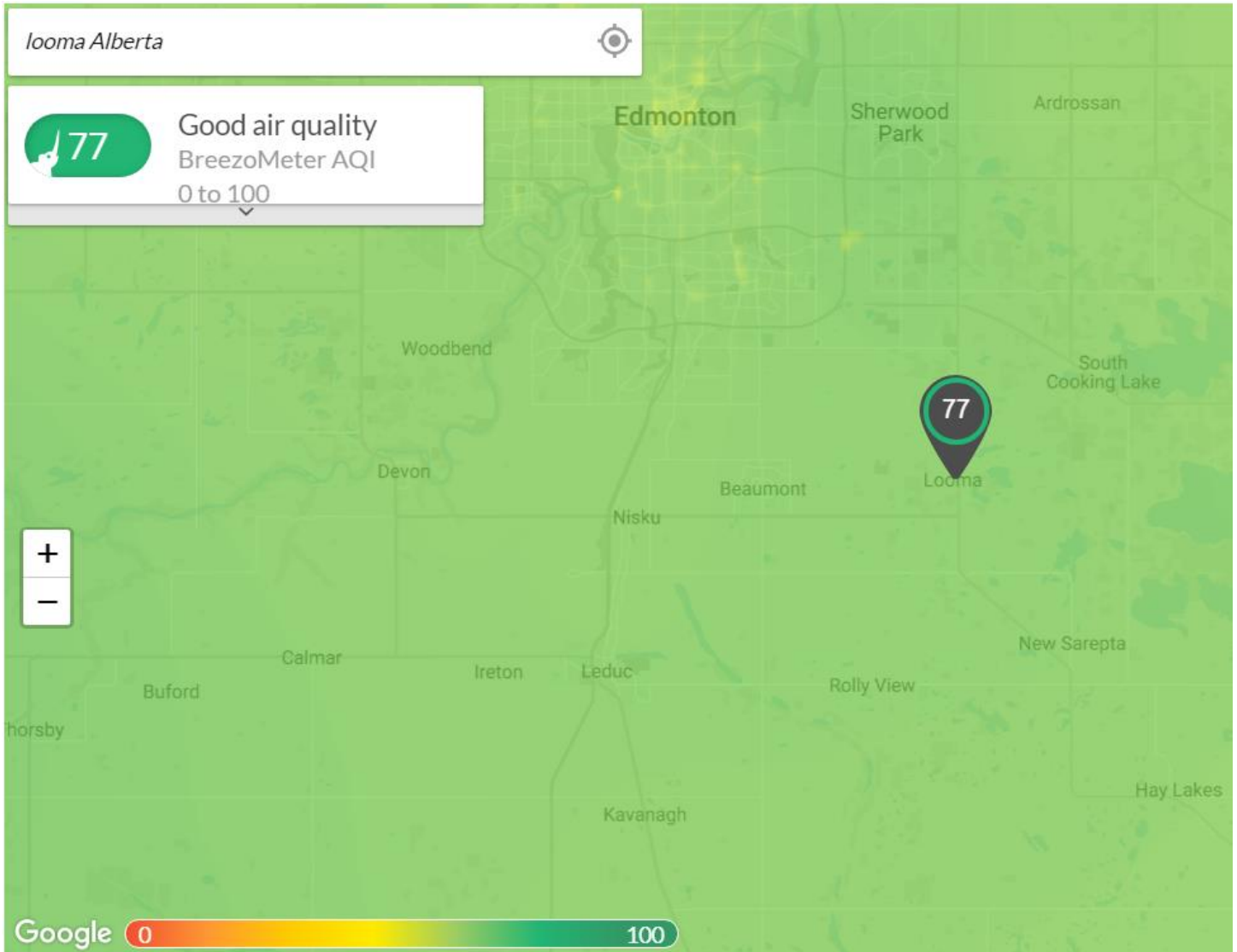
¹⁶ <https://www.theweathernetwork.com/maps/radar-current-future?lat=53.3570&lng=-113.2512>.

Clicking the blue circle with a white triangle (right below “Google”) starts an animated portrayal of the expected precipitation for the coming six hours. Here’s what the map looks like for this date about five hours later. You can see that snow is expected to move in to the area southwest of Edmonton, reaching as far southeast as Buford and Calmar.



Map of current air quality

The website Breezometer.com provides a map of air quality. Click [here](#)¹⁷ and you will see the current conditions for Paris, France. However, at the top left of the screen, in the box that says “Type street address”, you may type any destination you wish. Typing in “Looma Alberta” centres the map on the approximate centre of the Waskahegan Trail. After doing this and then twice clicking on the “-” sign to zoom out gives the following air quality conditions for our trail (on 2019-03-27 at 11:50 AM).



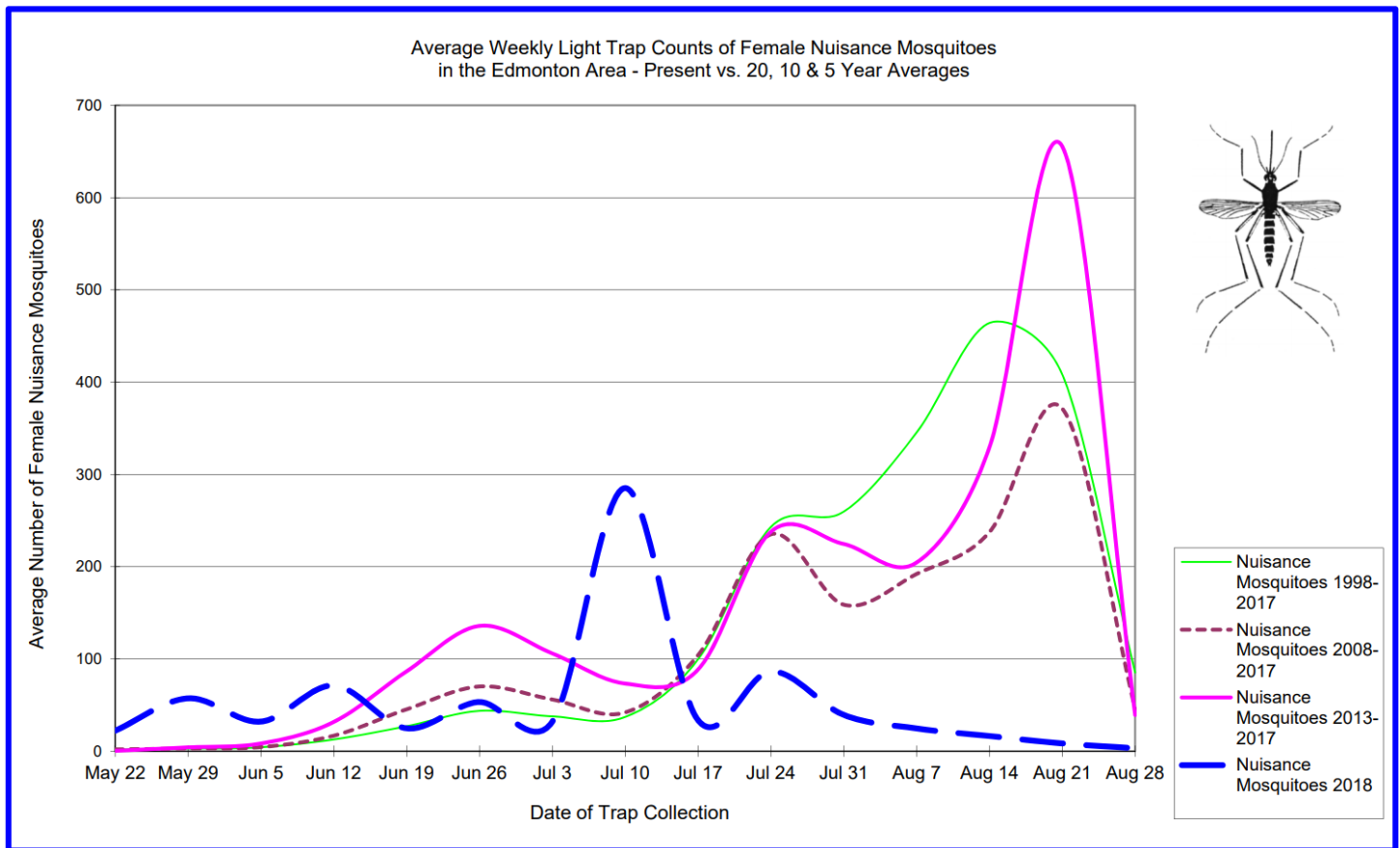
The predominant level of air quality is 77 out of 100 and most of the map is tinted with a light green. However, parts of the city of Edmonton are a greenish yellow, reflecting air quality of about 60. (It’s still much better than in Paris!)

¹⁷ <https://breezometer.com/air-quality-map/>.

Mosquito activity in Edmonton

The City of Edmonton traps “nuisance” mosquitoes in season, counts them, and *used to* report their weekly count in a graph. The graph as of the end of 2018 is shown below. The yellow-green line shows the average mosquito counts, by week, based on all data from 1998-2017. The graph also shows there is a lot of variability from year to year.

We received (on 2019-12-17) the following note from the Pest Management Lab about future plans for again making these graphs available. “We have changed how the mosquito data is shared, which was meant to be more accessible to the public, but is not turning out to be that way. All of our mosquito data is shared each week, however it's in the open data portal, which is not very user friendly. We had feedback this summer on this and are working toward a more immediate summary of recent adult levels for next year.” So hopefully these graphs, updated weekly in season, will again be available starting in 2020. This document will be updated if and when this occurs.



Unfortunately, it appears that Edmonton is the only location in Central Alberta that provides data on mosquito activity.

***May the weather be kind to Central Alberta,
to the many landowners who make the Waskahegan Trail possible,
and to you!***

To comment on this document, please contact the author (Terry Elrod) at terryelrod762@gmail.com or at 780-432-3557. And be sure to visit the website of the Waskahegan Trail Association, at <https://waskahegantrail.ca/>.