



*Frankville Weather Station (RVCA)*



# RVCA Weather Station Network

## Weather Station Dashboard Tutorial

April 2022

## General Description & Device Compatibility

The Weather Station Dashboard is a set of tools used for reviewing real-time (hourly) and daily summarized data at select RVCA weather monitoring stations. These stations measure:

- Air Temperature [\*TA] (Degrees Celsius)
- Dew Point Temperature [\*TD] (Degrees Celsius)
- Relative Humidity [\*RH] (Percent Saturation)
- Station Air Pressure [\*PA] (kilopascals)
- Incoming Shortwave Solar Radiation [\*RW] (Watts per meter squared)
- Precipitation [\*PP] (millimeters)
- Average Wind Speed [\*WS] (kilometers per hour)

\* In some instances, short-hand annotation is used to describe parameter names and are noted above (ie. TA = Temperature, Air).

Additional calculated/summarized parameters include:

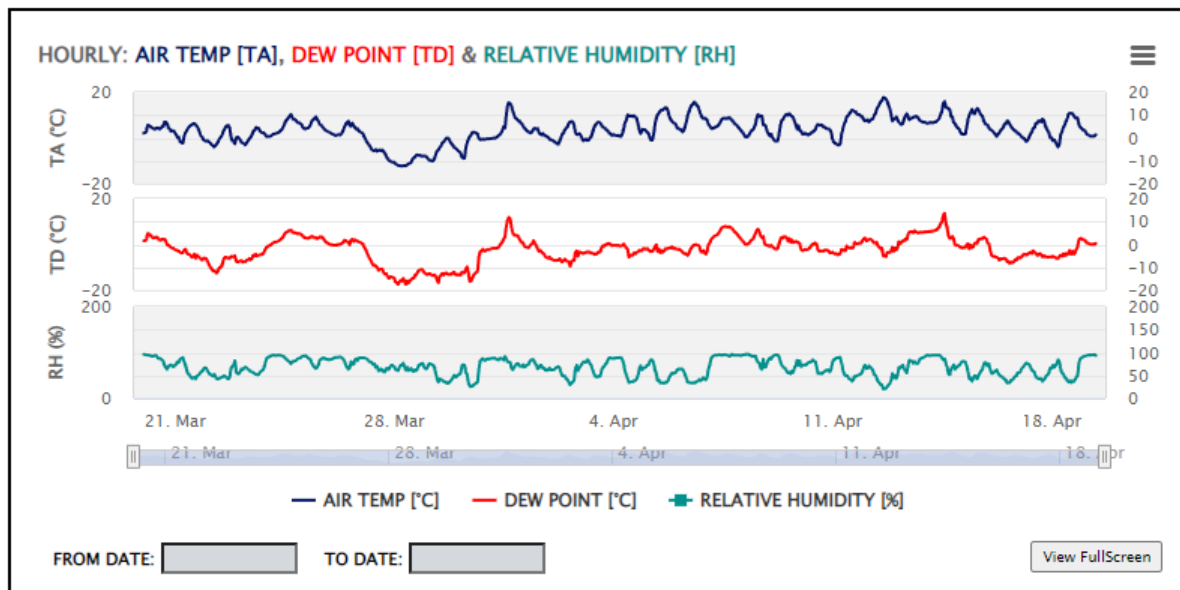
- Change in Air Pressure over the last 24 hours [ $\Delta$ 24HR PA] (+/- kilopascals)
- Moving total precipitation accumulation over the last 24 hours [24HR PP] (millimeters)
- Daily Air Temperature Max, Min and Mean (Degrees Celsius)
- Total Daily Precipitation (millimeters)
- Moving Total 30-Day and 90-Day Precipitation (millimeters)

The Dashboard is comprised of a variety of modules (charts, tables and gauges) that illustrate both the current conditions as well as weather trends over the last 30-days. All data presented from these stations are represented in local standard time (EST; GMT-5:00), and do not reflect adjustment for daylight savings.

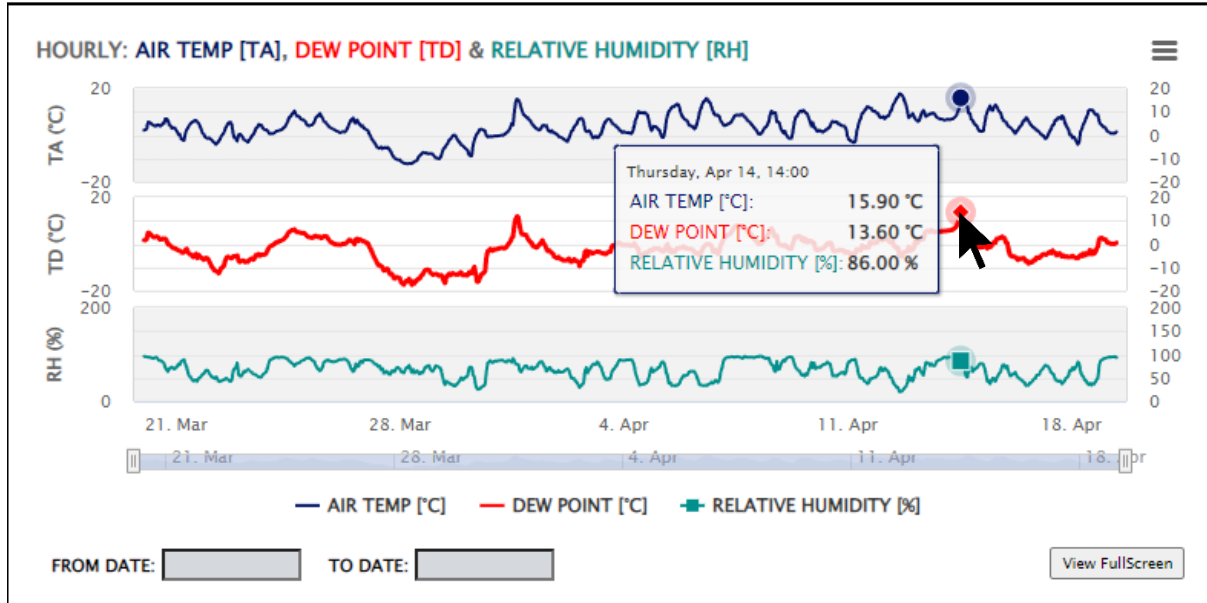
*These tools were designed primarily for desktop use and have not been optimized for mobile devices. If mobile use is desired, the modules (described below) can be loaded out independently in a more mobile friendly format.*

### 1.0 Data Modules

#### 1.1) Air Temperature, Dew Point & Relative Humidity (Interactive Chart)

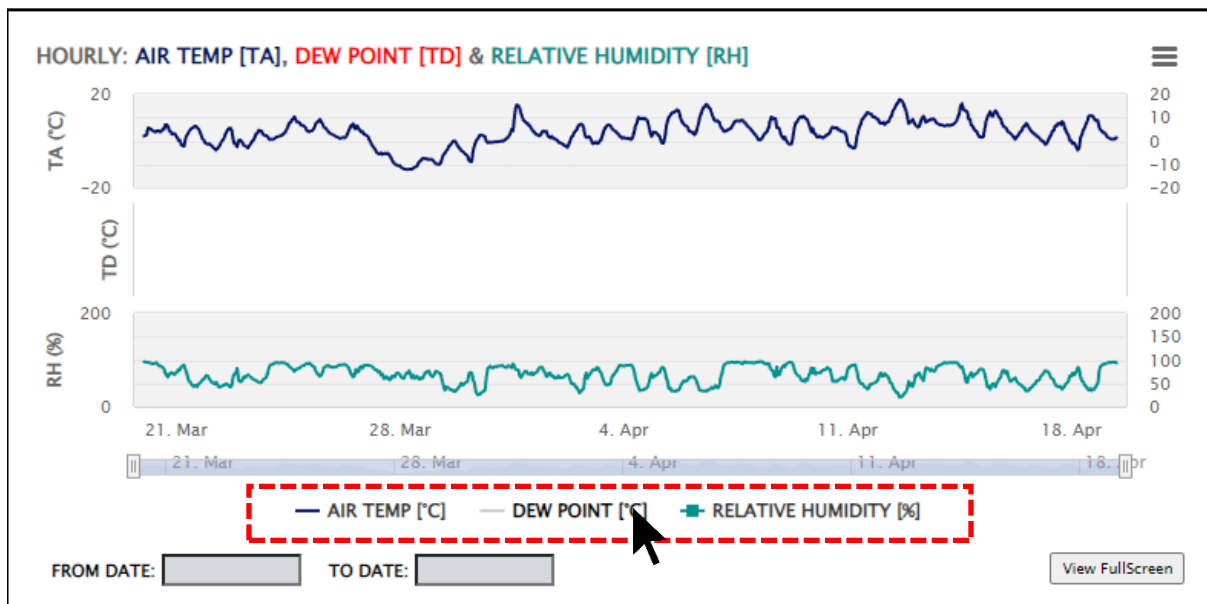


The Air Temperature, Dew Point & Relative Humidity chart displays the hourly values over the last 30 days. Data values can be reviewed by hovering the cursor over the desired range (see below):



Given that this data has been scaled down to a relatively small size, it is recommended to load the chart out to "FullScreen" via the button at the bottom right (View FullScreen) or within the Bar Icon menu (≡) if greater resolution is required.

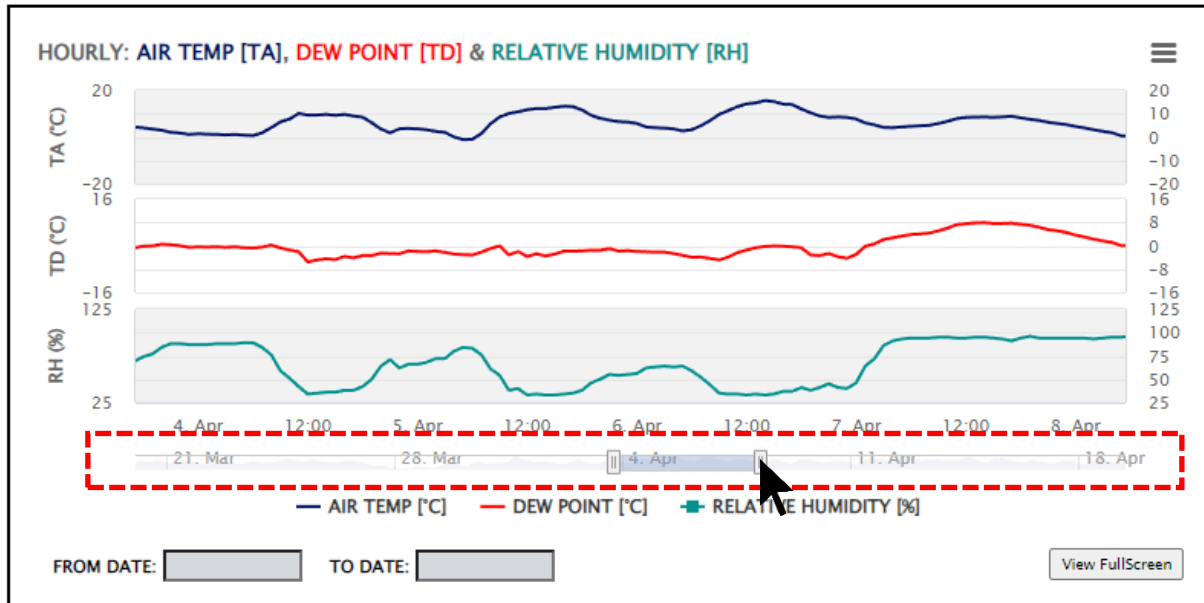
Each time series (ie. Air Temp, Dew Point & Relative Humidity) can be toggled on or off by clicking on the series legend elements below the chart (see below)



The data range may be adjusted in one of two ways:

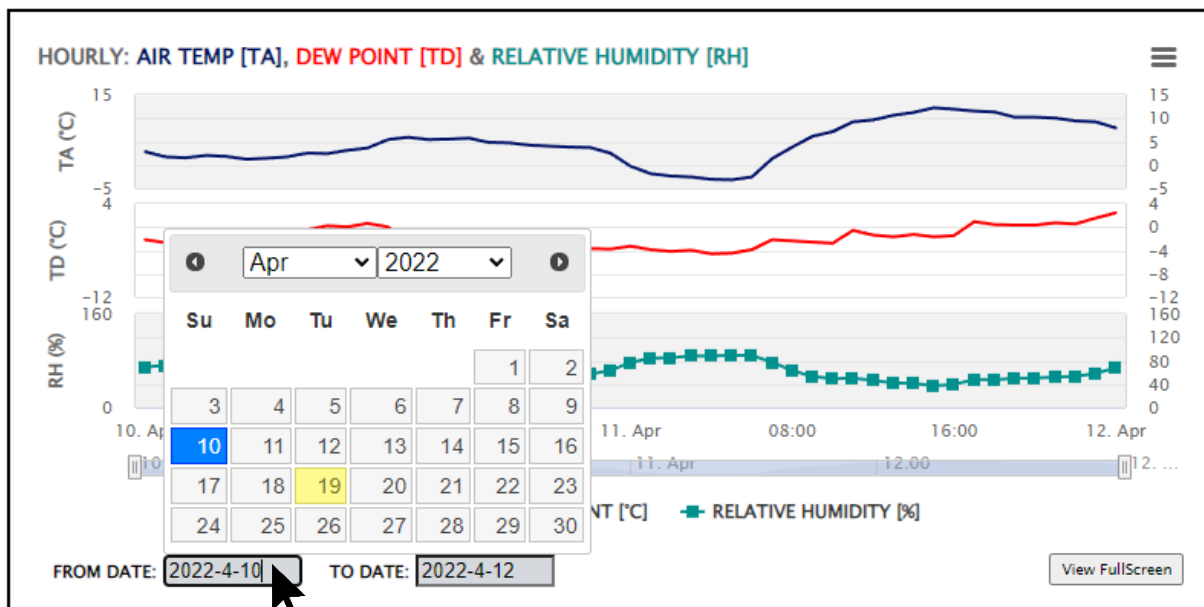
a) Navigator ScrollBar

Within the loaded data range, the scrollbar below the plot area can be moved to focus in on a select range. This is accomplished by dragging the scrollbar blocks to the start/end of your desired range (see below):

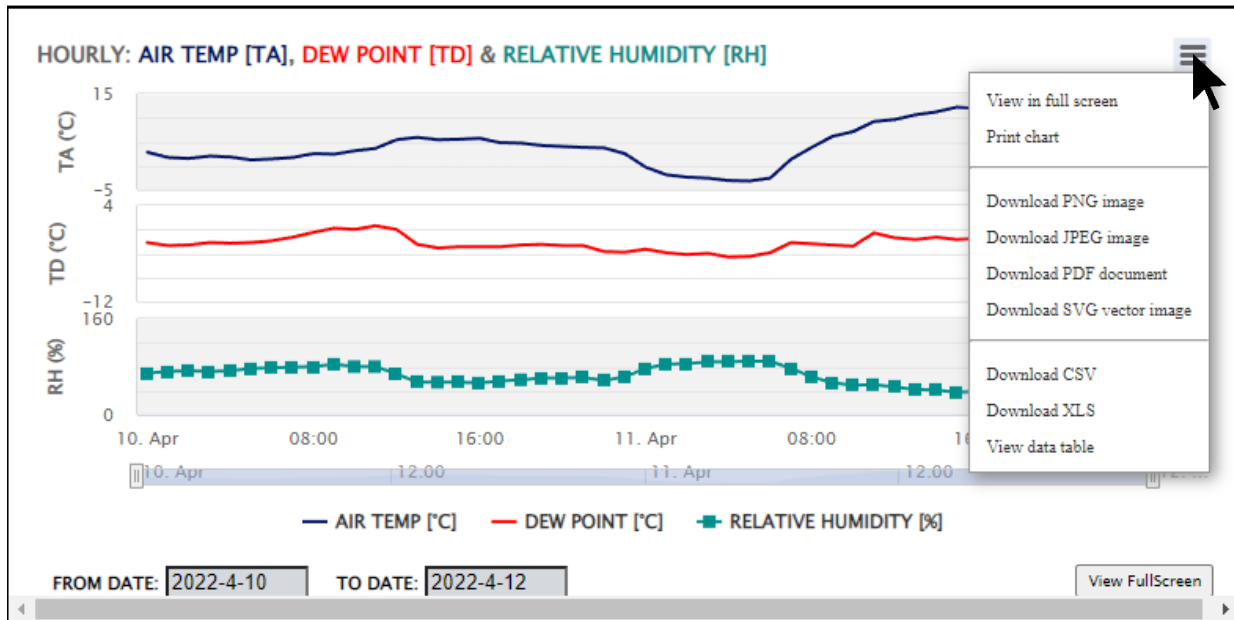


b) "From Date" & "To Date" Selectors

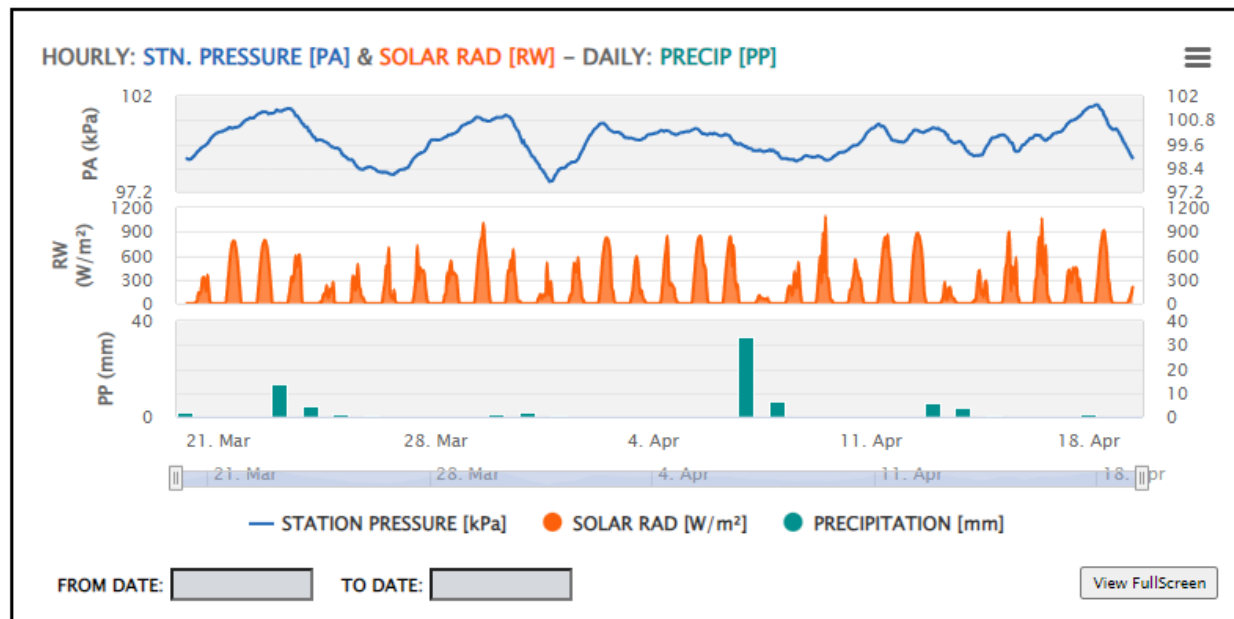
A custom time range can be selected via the "From Date" & "To Date" selectors. This range can be specified manually (ie. Format: YYYY-MM-DD) or may be selected from the pop-up menu (made available when the text field is clicked; see below):



Data from these charts can be exported or printed in a variety of formats via the Bar Icon in the top right of the chart area (see below). Print formats include: PNG, JPEG, PDF and SVG. Export formats include: CSV & XLS.



## 1.2) Station Pressure, Solar Radiation & Daily Precipitation (Interactive Chart)



The Station Pressure, Solar Radiation & Daily Precipitation chart permits for the same functions as described above (ie. 1.1 Air Temperature, Dew Point & Relative Humidity Chart). The Station Pressure & Solar Radiation are displayed as hourly measured values. Alternatively, the

precipitation is a daily accumulated total and does not reflect the current precipitation conditions. Please refer to the above noted module for further instructions.

### 1.3 Hourly (DAY-IN) & Daily (30-DAY) Summary Tables

DAILY (30-DAY)
HOURLY (DAY-IN)

MANSFIELD WEATHER STATION – DAILY (30 DAYS)						
DateTime	MAX TEMP (°C)	MIN TEMP (°C)	MEAN TEMP (°C)	TOTAL PRECIP (mm)	30-DAY PRECIP (mm)	90-DAY PRECIP (mm)
2022-03-20 00:00:00	6.9	2.1	4.3	2.05	56.46	142.58
2022-03-21 00:00:00	6.3	-2.4	2.1	0	54.99	142.05
2022-03-22 00:00:00	5.4	-4.1	-0.1	0	54.99	141.25
2022-03-23 00:00:00	4.5	-3.1	0.8	13.86	68.85	155.11
2022-03-24 00:00:00	10.3	0.6	5.1	4.57	65.83	159.68

The summary table module includes both hourly and daily summarized values for all available parameters. The hourly or daily output can be toggled via the buttons at the top right of the table (ie. DAILY 30-DAY or HOURLY DAY-IN).

The hourly output reflects all data from midnight of the current day to the most recent data value. The daily output is a summary of conditions over the previous 30-days (not including the current day).

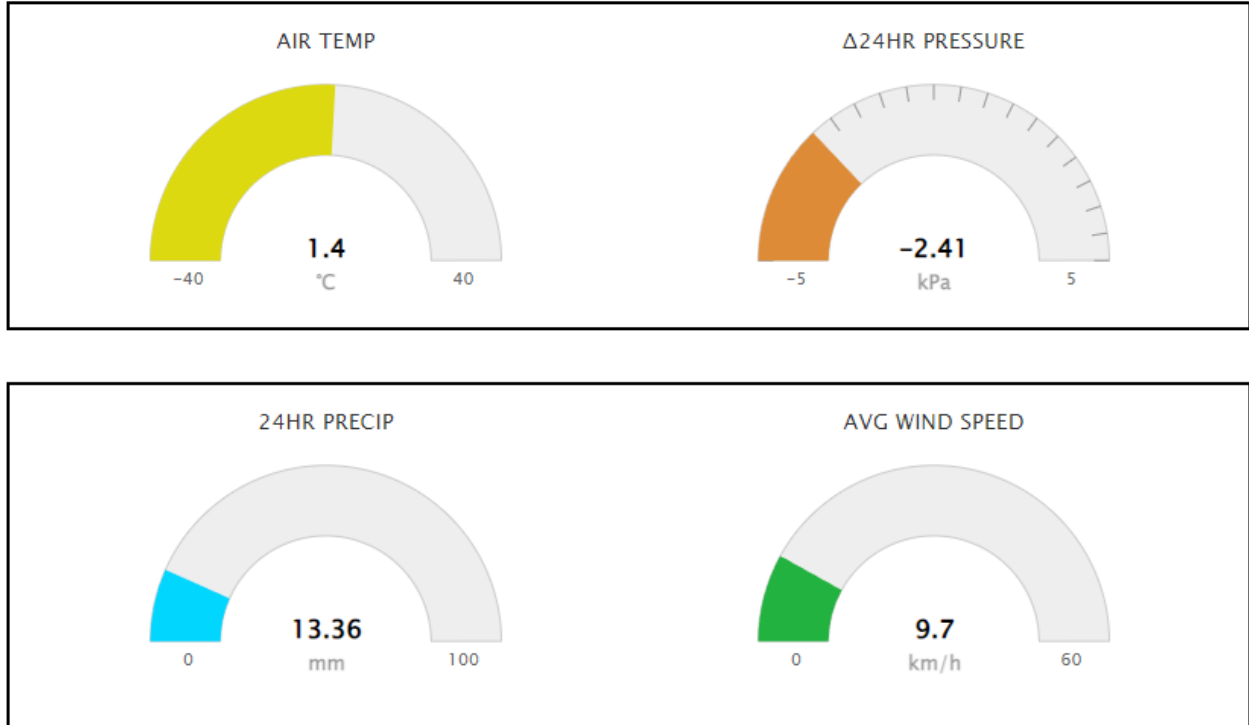
Data from these tables can be exported to CSV format via the “Download CSV” button located at the bottom of the table range (The user must scroll down to the bottom of table to access this feature; see below).

DAILY (30-DAY)
HOURLY (DAY-IN)

2022-04-19 06:00:00	0.6	0	95	0.94	11	99.37	7.1
2022-04-19 07:00:00	0.8	0	94	1.04	33	99.25	10.9
2022-04-19 08:00:00	0.7	0	95	1.05	75	99.11	8.1
2022-04-19 09:00:00	0.7	0	95	1.55	118	98.99	6.9
2022-04-19 10:00:00	1.4	0.5	93	0.26	205	98.89	9.7
2022-04-19 11:00:00	2.3	0.9	90		235	98.81	10.3

Download CSV

## 1.4) Real-Time Gauge Widgets



The real-time gauge widgets are non-adjustable elements that reflect the current (last available data point) air temperature, 24 hour change in air pressure, moving total precipitation accumulation over the last 24 hours and the average wind speed. They are intended to be used as quick reference for reviewing recent weather conditions.

## 2.0 Metadata

A standard metadata form has been developed for each station and can be accessed from the [STATION METADATA](#) link at the top of the page. The metadata form includes information relating to the station and all applicable time series. Station attributes include location information (coordinates, subwatershed), telemetry and additional relevant data sources (as referenced). The time series attributes include the status (active, periodic or historical), a general description of the provided data, a list of individual time series, the RVCA period of record, the data access/availability schedule and the parameters utilized for any associated statistics.