

1.0 Forecast tab

The Forecast tab provides a tabular display of hourly weather conditions imported from file or entered manually by the user. Fire Weather Index (FWI) System, Fire Behaviour Prediction (FBP) System, and Solar values are automatically calculated for each date and time in the table based on the specified ignition location.

- Use the Columns option in the lower-left corner to customize what values are displayed in the table.
- Use the FWI option in the lower-left corner to change starting code values and the HFFMC calculation method.
- Use the FBP option in the lower-left corner to change the fuel type and parameters used for primary and secondary FBP System calculations.
- Three Display buttons in the upper-left corner are used to view the forecast in hourly, diurnal (min/max), and daily (noon standard) formats.
- Buttons along the bottom of this tab allow the user to edit weather values and export the table in a variety of formats.

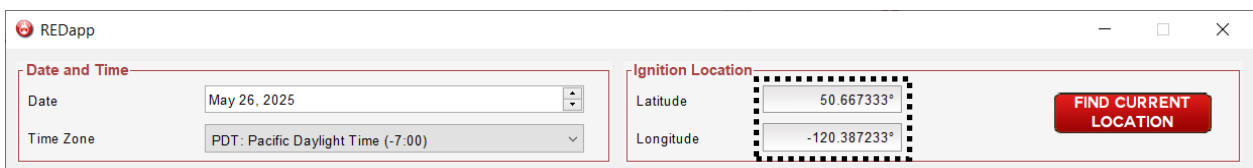
Example 1.1. Import weather file from SpotWx.com

The standard header names for an hourly weather file are provided in the following table. The first column must be "hourly". The order of the remaining columns is not important. Header names can be provided in upper or lower case. The SpotWx.com web application provides an option to download numerical weather forecasts in this format.

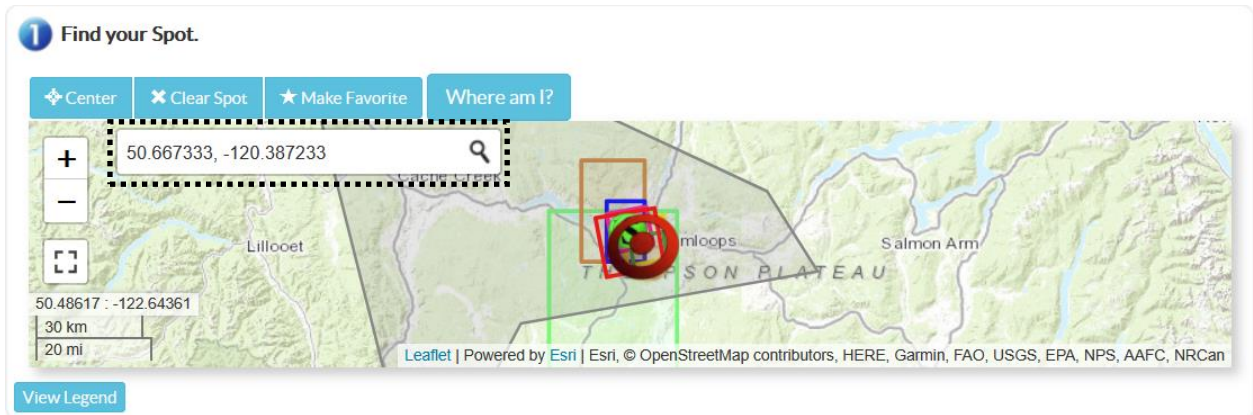
Header Name	Data Type	Description
hourly	character	Date in d/m/Y format
hour	integer	Hour of the day (0 to 23)
temp	numeric	Temperature (°C)
rh	numeric	Relative humidity (0 to 100 %)
precip	numeric	Precipitation accumulated over the past hour (≥ 0 mm)
ws	numeric	Wind speed (≥ 0 km/h)
wd	numeric	Wind direction (0 to 360 compass degrees)

This example demonstrates how to import an hourly weather forecast file downloaded from SpotWx.com.

1. Open a web browser to [SpotWx.com](https://spotwx.com) and copy the Ignition Location coordinates from REDapp into the "Find your Spot" search field and press **Enter**.



The screenshot shows the REDapp interface with two main sections: 'Date and Time' and 'Ignition Location'. In the 'Date and Time' section, the 'Date' is set to 'May 26, 2025' and the 'Time Zone' is set to 'PDT: Pacific Daylight Time (-7:00)'. In the 'Ignition Location' section, the 'Latitude' is '50.667333°' and the 'Longitude' is '-120.387233°'. A red button labeled 'FIND CURRENT LOCATION' is located to the right of the location fields.

























2. Select your forecast from one of the Numerical Weather Models listed in SpotWx.com. For this example, the 3.5 day from the Canadian Regional Deterministic Prediction Model (RDPS) was selected.

2 Select your forecast.

Location: Y:50.667333 X:-120.387233, 50.66733 Lat, -120.38723 Lon
Time Zone: America/Vancouver, PDT, UTC -7 hrs

Numerical Weather Models

Agency	Model	Info	Model Date/Time
	 HRDPS 1km West	2 Day Forecast, 1 km res.	5:00 am, Mon, May 26
	 HRDPS Continental	2 Day Forecast, 2.5 km res.	11:00 am, Mon, May 26
	 RDPS	3.5 Day Forecast, 10 km res.	11:00 am, Mon, May 26
	 GDPS	10 Day Forecast, 15 km res.	5:00 am, Mon, May 26
	 GEPS	16 Day Forecast, 0.5 degree res.	5:00 am, Mon, May 26
	 HRRR	18 hr Forecast, 3 km res.	2:00 pm, Mon, May 26
	 RAP	21 hr Forecast, 13 km res.	2:00 pm, Mon, May 26
	 NAM	3.5 Day Forecast, 12 km res.	11:00 am, Mon, May 26
	 SREF	87 hr Forecast, 16 km res.	8:00 am, Mon, May 26
	 GFS	10 Day Forecast, 0.25 degree res.	11:00 am, Mon, May 26
	 GFS UV Index	5 Day Forecast, 0.5 degree res.	5:00 am, Mon, May 26

3. Select **Open Tabular version** in the upper-left corner of the next SpotWx.com page.

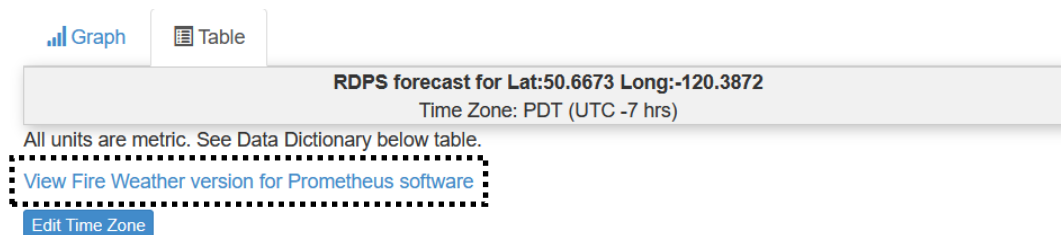
SpotWx  [Open Tabular version](#) [Change Units](#)

RDPS forecast for Y:50.667333 X:-120.387233 @ Lat:50.66733, Lon:-120.38723

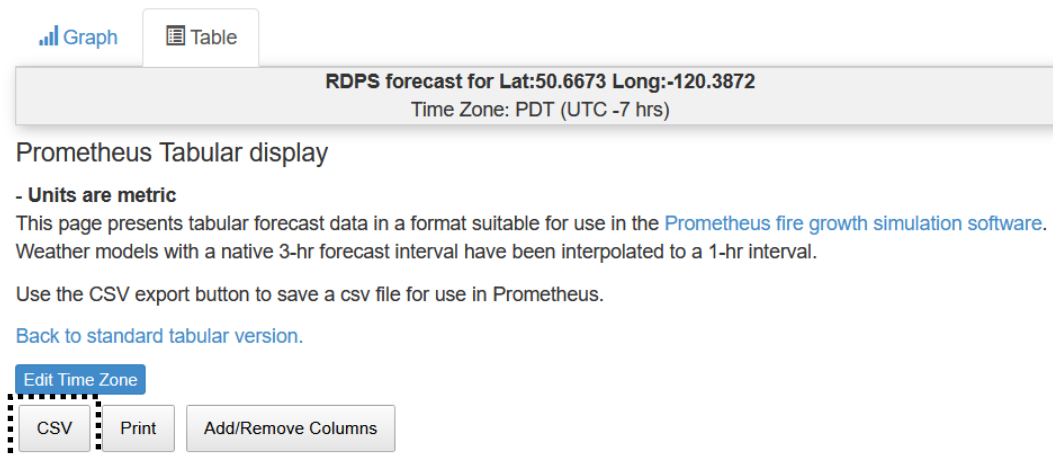
Model date: 11:00 am, Mon May 26, 2025 (PDT, UTC-7 hrs), Model elevation: 751m / 2464ft, Land Proportion: 98%

SpotWx

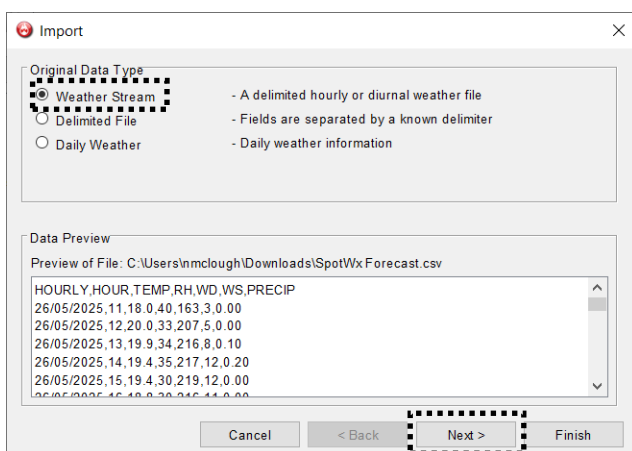
4. Select **View Fire Weather version for Prometheus software** in the upper-left corner of the next SpotWx.com page.



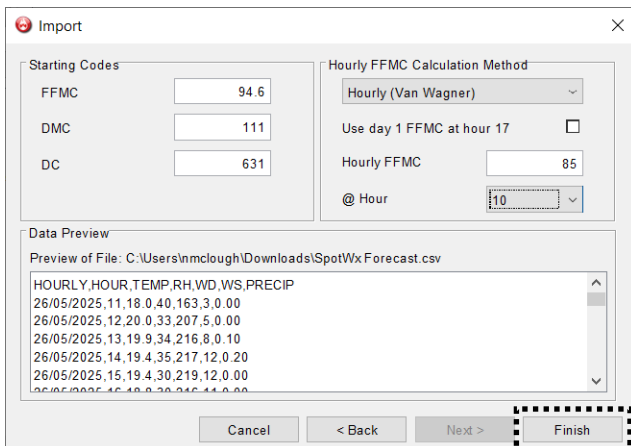
- Click the **CSV** button in the upper-left corner of the next SpotWx.com page. A file named "SpotWx Forecast.csv" will be saved to the Downloads folder on your computer.



- In REDapp, select the Import Weather button from the bottom of the Forecast tab. Navigate to the CSV file downloaded from SpotWx.com and click **Open**. An Import window will appear with a data preview. Select the **Weather Stream** data type option and click **Next**.



- Enter FWI System starting code values and select a method for calculating Hourly Fine Fuel Moisture Code (HFFMC). You can also skip this step by accepting the default values and adjust starting code values and HFFMC method later using the FWI option in the lower-left corner of the Forecast tab. Click **Finish**.



Import

Starting Codes

FFMC: 94.6

DMC: 111

DC: 631

Hourly FFMC Calculation Method

Hourly (Van Wagner)

Use day 1 FFMC at hour 17: ☐

Hourly FFMC: 85

@ Hour: 10

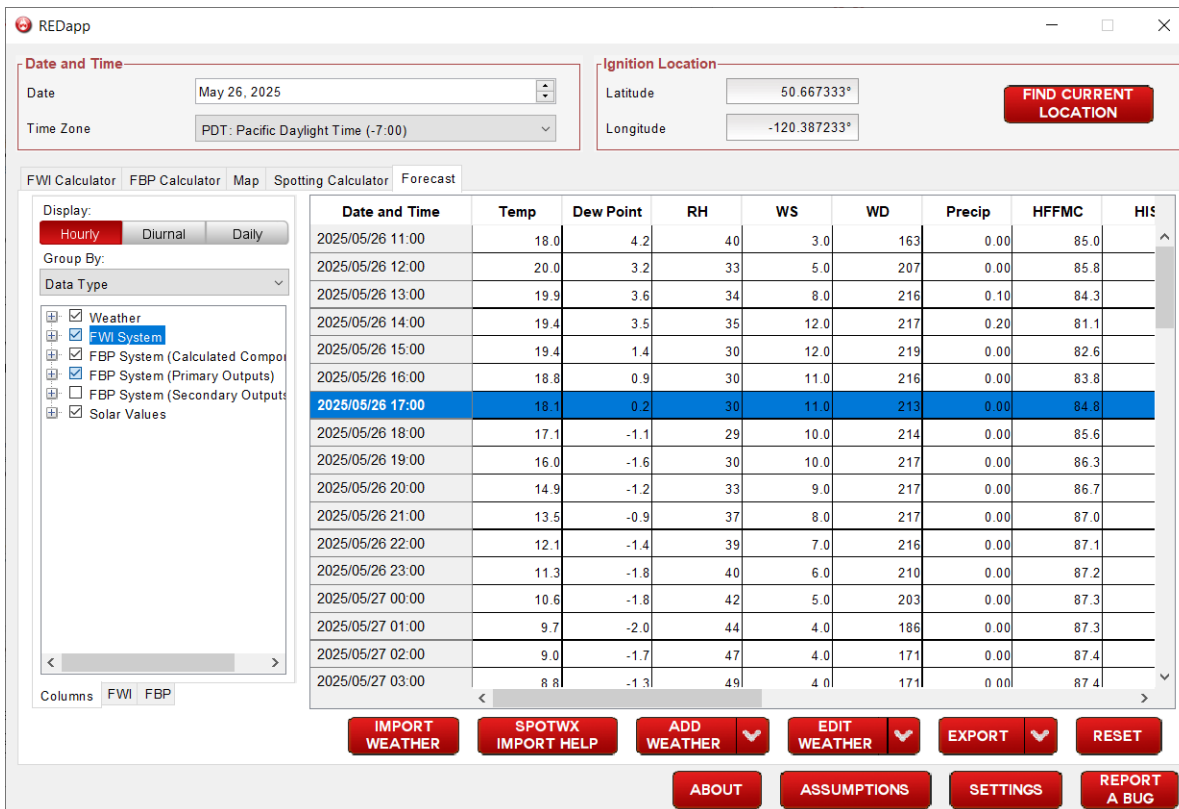
Data Preview

Preview of File: C:\Users\mclough\Downloads\SpotWx Forecast.csv

```
HOURLY,HOUR,TEMP,RH,WD,WS,PRECIP
26/05/2025,11,18.0,40,163,3.0,0.00
26/05/2025,12,20.0,33,207,5.0,0.00
26/05/2025,13,19.9,34,216,8.0,0.10
26/05/2025,14,19.4,35,217,12.0,0.20
26/05/2025,15,19.4,30,219,12.0,0.00
26/05/2025,16,18.8,0.9,216,11.0,0.00
26/05/2025,17,18.1,0.2,213,11.0,0.00
26/05/2025,18,17.1,-1.1,29,10.0,0.00
26/05/2025,19,16.0,-1.6,30,10.0,0.00
26/05/2025,20,14.9,-1.2,33,9.0,0.00
26/05/2025,21,13.5,-0.9,37,8.0,0.00
26/05/2025,22,12.1,-1.4,39,7.0,0.00
26/05/2025,23,11.3,-1.8,40,6.0,0.00
26/05/2025,00,10.6,-1.8,42,5.0,0.00
26/05/2025,01,9.7,-2.0,44,4.0,0.00
26/05/2025,02,9.0,-1.7,47,4.0,0.00
26/05/2025,03,8.8,-1.3,49,4.0,0.00
```

Buttons: Cancel, < Back, Next >, Finish

8. The weather forecast can now be viewed as a table in the REDapp Forecast tab.



REDapp

Date and Time

Date: May 26, 2025

Time Zone: PDT: Pacific Daylight Time (-7:00)

Ignition Location

Latitude: 50.667333°

Longitude: -120.387233°

FIND CURRENT LOCATION

FWI Calculator | FBP Calculator | Map | Spotting Calculator | **Forecast**

Display: Hourly | Diurnal | Daily

Group By:

Data Type:

- ☒ Weather
- ☒ FWI System
- ☒ FBP System (Calculated Components)
- ☒ FBP System (Primary Outputs)
- ☐ FBP System (Secondary Outputs)
- ☒ Solar Values

Date and Time	Temp	Dew Point	RH	WS	WD	Precip	HFFMC	HIS
2025/05/26 11:00	18.0	4.2	40	3.0	163	0.00	85.0	
2025/05/26 12:00	20.0	3.2	33	5.0	207	0.00	85.8	
2025/05/26 13:00	19.9	3.6	34	8.0	216	0.10	84.3	
2025/05/26 14:00	19.4	3.5	35	12.0	217	0.20	81.1	
2025/05/26 15:00	19.4	1.4	30	12.0	219	0.00	82.6	
2025/05/26 16:00	18.8	0.9	30	11.0	216	0.00	83.8	
2025/05/26 17:00	18.1	0.2	30	11.0	213	0.00	84.8	
2025/05/26 18:00	17.1	-1.1	29	10.0	214	0.00	85.6	
2025/05/26 19:00	16.0	-1.6	30	10.0	217	0.00	86.3	
2025/05/26 20:00	14.9	-1.2	33	9.0	217	0.00	86.7	
2025/05/26 21:00	13.5	-0.9	37	8.0	217	0.00	87.0	
2025/05/26 22:00	12.1	-1.4	39	7.0	216	0.00	87.1	
2025/05/26 23:00	11.3	-1.8	40	6.0	210	0.00	87.2	
2025/05/27 00:00	10.6	-1.8	42	5.0	203	0.00	87.3	
2025/05/27 01:00	9.7	-2.0	44	4.0	186	0.00	87.3	
2025/05/27 02:00	9.0	-1.7	47	4.0	171	0.00	87.4	
2025/05/27 03:00	8.8	-1.3	49	4.0	171	0.00	87.4	

Columns: FWI | FBP

Buttons: IMPORT WEATHER, SPOTWx IMPORT HELP, ADD WEATHER, EDIT WEATHER, EXPORT, RESET, ABOUT, ASSUMPTIONS, SETTINGS, REPORT A BUG

Tip: Right-click a highlighted row in the Statistics table to transfer weather and FWI System values to the FBP Calculator or display an elliptical projection on the Map.