

# Fire Danger Plotting Tool

This tool visualizes current and historical trends for the Drought Code (DC), Buildup Index (BUI) and Cumulative Daily Severity Rating (CDSR) from fire weather stations nationwide. This allows you to compare fire danger at individual stations in any given region or across the country.

The options include plotting the current year and selected individual years against the historical range of a given weather station with one station per graph, or plotting historical average or current year data for multiple stations on one graph.

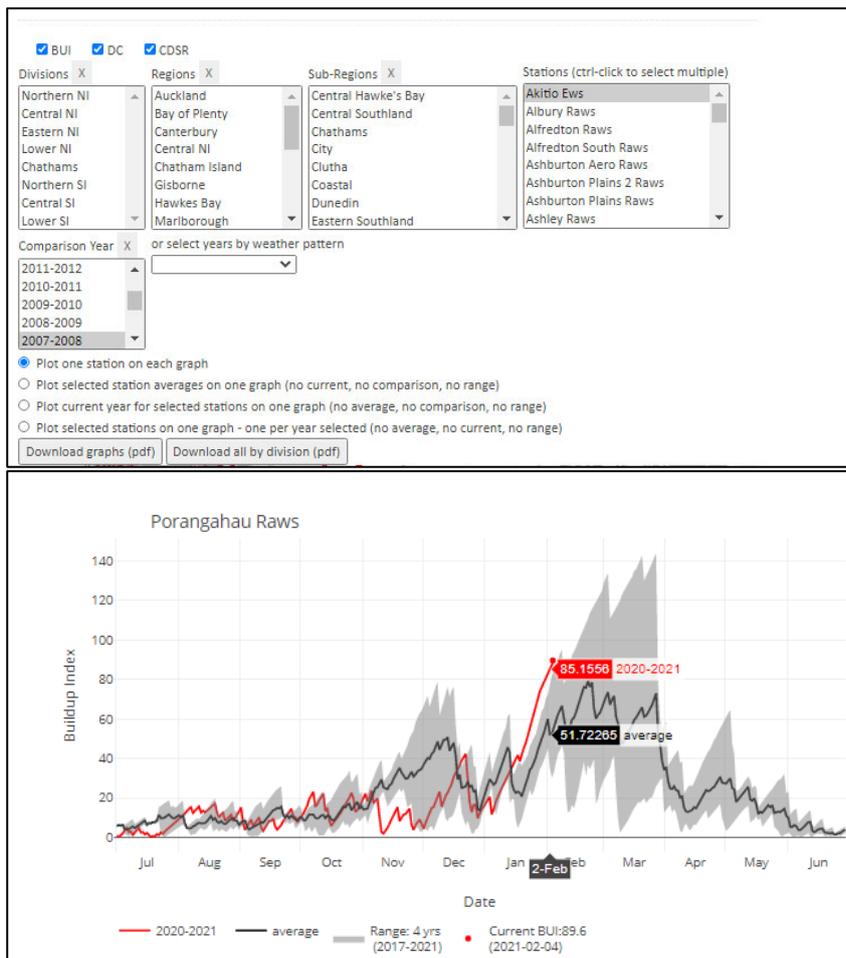
The plots can be viewed online or saved as a PDF file. There is also an option for downloading all the plots grouped by region as multiple PDFs.

This tool is currently in test mode and is not directly visible on our website. However, it can be accessed directly via the following URL:

<https://www.scionresearch.com/rural-fire-research/tools/new-zealand-seasonal-fire-danger-outlooks/trends>

Follow the instructions over leaf to create your own graphs.

Output example:



- The current fire season (bold red line)
- The long-term average (bold black line)
- The range of historical max and min values (light grey shaded area)
- Running your mouse over the graphic highlights the values

## Steps:

### 1. Select fire weather codes/indices

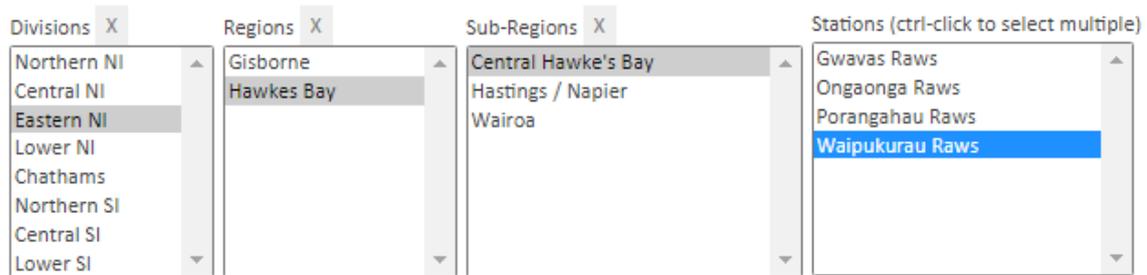
- You have the option to select which fire weather codes/indices (BUI, DC and CDSR) will be plotted by ticking or unticking the small blue boxes near the top of the page:

BUI  DC  CDSR

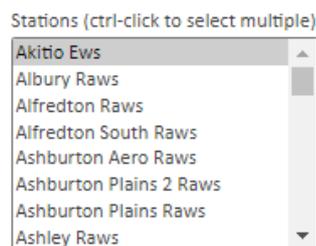
### 2. Select station(s)

- When the page first loads, all stations across the country are listed in the “Stations” list
- You can narrow down this list by clicking a specific division, region and subregion of interest
- Select the station of interest from the “Stations” list by clicking on it, or use one of the methods below to select multiple stations:
  - Hold down Ctrl key on the keyboard while clicking on several stations; OR
  - Click on the first station of interest, hold down Shift key and press Arrow Up or Arrow Down key on the keyboard to select consecutive stations; OR
  - Click on any station in the box and press Ctrl+A on the keyboard to select all stations in the list

Note: if many stations are selected, the processing may take a long time



- If you want to “clear” your selection of Divisions, Regions or Sub-regions, click on the small [x] button next to the corresponding title
  - Clearing Sub-regions will result in the Stations list showing all stations in the region
  - Clearing Regions will result in the Stations list showing all stations in the division
  - Clearing Divisions will return the “Stations” list back to the original state of displaying all available stations in the country

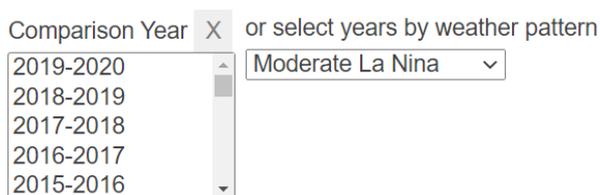


### 3. Graph options

- Select the type of plot you would like to produce from the options below:
  - Plot one station on each graph
  - Plot selected station averages on one graph (no current, no comparison, no range)
  - Plot current year for selected stations on one graph (no average, no comparison, no range)
  - Plot selected stations on one graph - one per year selected (no average, no current, no range)

#### 4. Select comparison year(s)

- If the option “Plot one station on each graph” is selected, one station per graph will be plotted, showing the historical range and average, the current year, and one or several years that could be compared against the current year. These comparison years can be selected in the “Comparison Year” menu (Ctrl+click to select multiple). Alternatively, comparison years can also be determined from the ENSO weather pattern status, which can be selected in the “select years by weather pattern” menu.



- The current 2020/21 fire season is a moderate strength La Niña event based on ENSO status, meaning that it can be expected to behave in a similar way to the previous years with similar classification, ie. 2010/11, 2007/08, 1999/00, and 1998/99 (moderate La Niña) and 2011/12 (weak La Niña). These years are potentially good indicators for what to expect this coming fire season.

#### 5. Download graphs as PDFs

- The plots will be displayed on the webpage, but there’s also an option to save them to your computer in PDF format.
- Click on “Download graphs (pdf)” if you would like to download the graphs currently displayed on the web page as a PDF file.
- Another option is to download plots from ALL stations nationwide with one PDF file per divisions, for which you would have to click on “Download all by division (pdf)”.