THE BUREAU FIRE DANGER PRODUCTS PDF SELF-LEARNING GUIDE

What are The Bureau Products?

The Bureau produces products as part of the AFDRS suite of services that provide nation-wide standard information about fire danger in simple formats for a variety of uses:

- To provide **public warnings**
- To publish fire danger information for **quick reference**
- To support fire management **decision making**
- To support longer term **planning and preparedness**.

Most of these products were also part of the McArthur system of fire danger; however, all products have undergone changes to align with the AFDRS, and some **new products** have been added.

The Bureau products can be broken down into two categories:

1. The **Fire Weather Products** (associated with short to medium term forecasting)
2. The **Fire Danger Outlooks** (associated with modelling of seasonal conditions out to three months).

How do I access The Bureau products?

This section will discuss how to access the products via The Bureau website. Be aware that the products may also be reflected on state or territory emergency services websites, sometimes with additional important information such as total fire bans and current incidents.

The Bureau issues fire weather warnings when forecast weather conditions are likely to be dangerous. See The Bureau landing page for weather warnings: **www.bom.gov.au.**

The public Fire Danger Rating (**FDR**) tables can be accessed on the public The Bureau website. Search for Fire Danger Rating Tables to find your state or territory table.

The agency only products are provided via The Bureau's registered users area of the website. Registered users can access them at **http://reg.bom.gov.au/reguser**. Registered access is usually granted to organisations that require it for their work. Please discuss access with your supervisor.

What are the Weather Products?

Public Products

Fire Weather Warnings

When required, **Fire Weather Warnings** are issued for Fire Weather Districts and are normally issued in the afternoon for the following day. This is so they are available for evening television and radio news broadcasts. Warnings are renewed at regular intervals and may be issued or amended and reissued as required. Keep up to date with the fire weather warnings by checking The Bureau website and/or weather app.

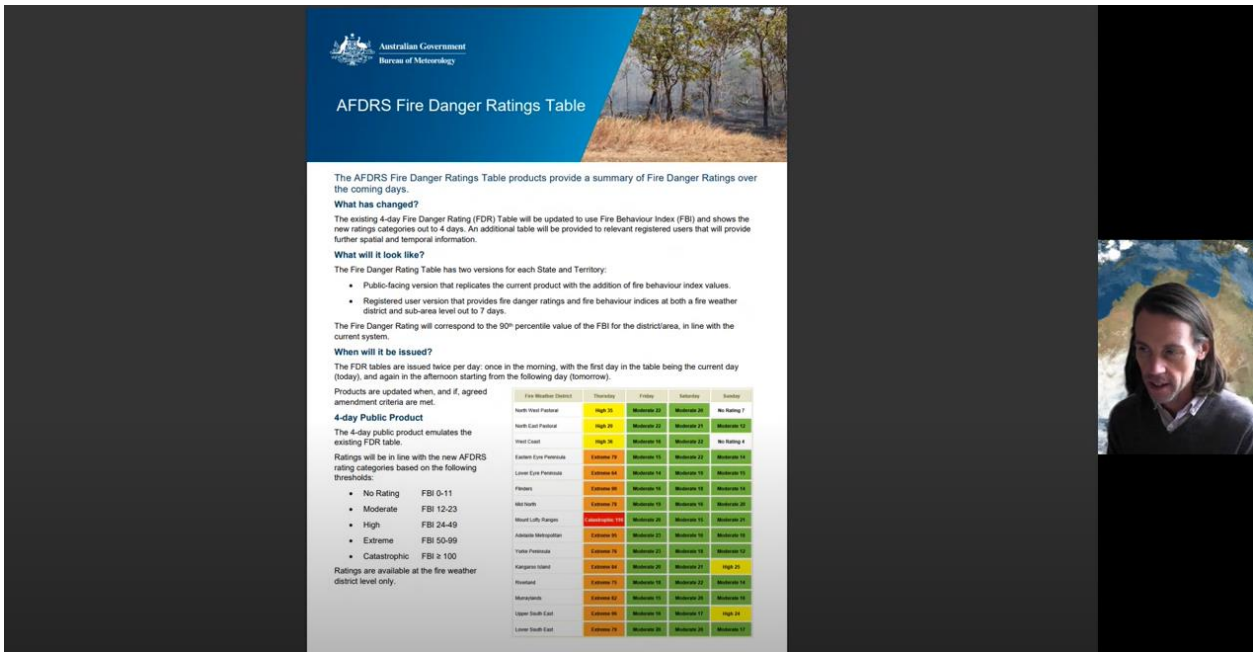
Also monitor agency and emergency services websites and social media and tune into emergency broadcasters.

Fire Danger Ratings

This product provides four days of forecast Fire Danger Ratings in a simple format for public awareness.

These are issued per state or territory and show the new **AFDRS Fire Danger Ratings** categories out to four days for each Fire Weather District. **Figure 1** shows an example. These tables also show the forecast Fire Behaviour Index (FBI) as a numeral next to the Fire Danger Rating, for those requiring that extra level of detail.

Steve McGibbony from the Bureau of Meteorology guides users about using both the public and agency **Fire Danger Rating tables** in the video below. Click on the image or the link below the image to view it.



YouTube link: https://youtu.be/zYn8E_I6R1A

The Bureau Product Guide contains further information: Here.

Fire Weather District	Thursday	Friday	Saturday	Sunday
North West Pastoral	High 35	Moderate 22	Moderate 20	No Rating 7
North East Pastoral	High 29	Moderate 22	Moderate 21	Moderate 12
West Coast	High 36	Moderate 16	Moderate 22	No Rating 4
Eastern Eyre Peninsula	Extreme 79	Moderate 15	Moderate 22	Moderate 14
Lower Eyre Peninsula	Extreme 64	Moderate 14	Moderate 19	Moderate 15
Flinders	Extreme 90	Moderate 16	Moderate 18	Moderate 14
Mid North	Extreme 78	Moderate 19	Moderate 16	Moderate 20
Mount Lofty Ranges	Catastrophic 116	Moderate 20	Moderate 15	Moderate 21

Figure 1: Example of a public fire danger rating table

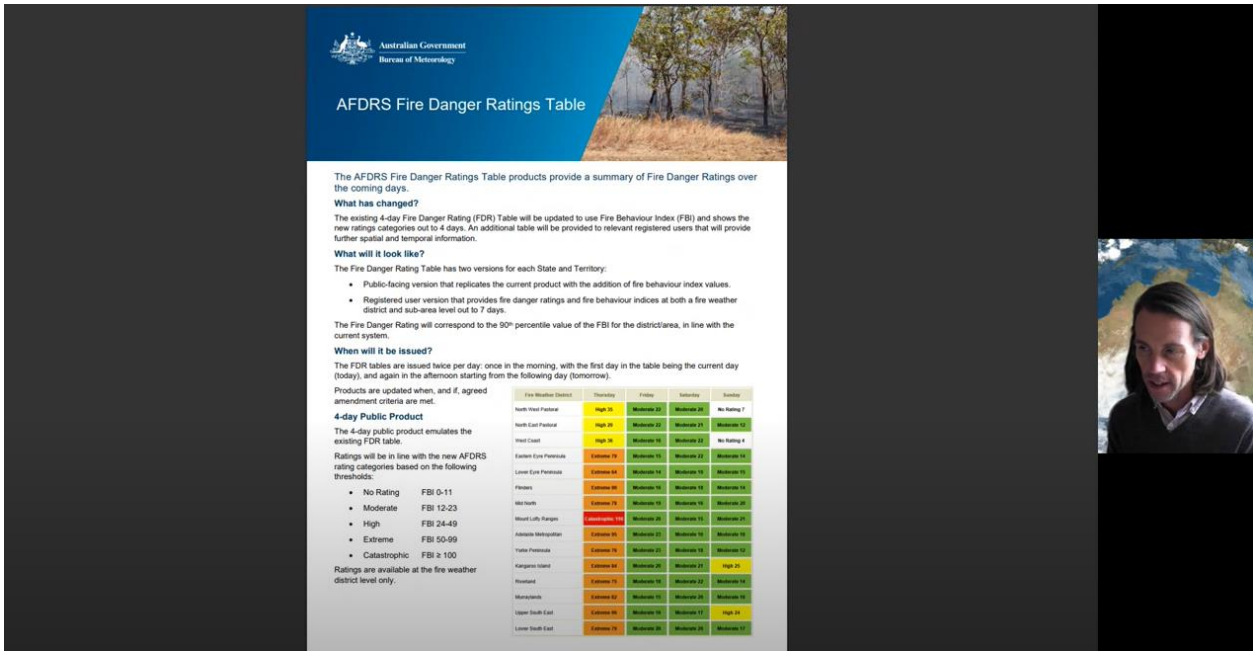
Agency products

Detailed Fire Danger Ratings

This new product provides detailed forecasts of fire danger information **out to seven days** to aid in agency level decision-making processes.

The information is provided per jurisdiction for Fire Weather Districts, but users can drill down to Sub-Areas as shown in **Figure 2.**

Steve McGibbony from the Bureau of Meteorology guides users about using both the public and **agency Fire Danger Rating tables** in the video below. Click on the image or the link below the image to view it.



YouTube link: https://youtu.be/zYn8E_I6R1A

The BoM Product Guide contains further information: Here.

Fire Weather District	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
North West Pastoral	HI 27	MOD 12	MOD 17	MOD 14	NoR 11	MOD 15	MOD 17
North East Pastoral	HI 30	MOD 12	MOD 12	MOD 13	NoR 11	MOD 14	MOD 14
West Coast	HI 35	MOD 14	NoR 10	NoR 7	NoR 7	MOD 17	MOD 17
Ceduna	HI 31	NoR 10	MOD 15	MOD 12	MOD 13	MOD 16	MOD 16
Elliston	MOD 16	NoR 11	NoR 11	NoR 10	NoR 7	MOD 17	HI 25
Streaky Bay	HI 28	NoR 11	NoR 8	MOD 13	NoR 7	HI 25	HI 25
Wudinna	MOD 14	NoR 9	MOD 14	NoR 11	NoR 11	MOD 13	HI 25
Eastern Eyre Peninsula	EXT 55	MOD 17	MOD 13	MOD 14	MOD 14	MOD 16	MOD 16
Lower Eyre Peninsula	EXT 52	MOD 15	NoR 11	MOD 14	MOD 14	HI 25	HI 25
Flinders	EXT 67	NoR 11	MOD 13	MOD 12	MOD 12	HI 25	HI 25
Mid North	EXT 60	NoR 8	NoR 7	NoR 10	NoR 7	HI 19	HI 19
Mount Lofty Ranges	CAT 105	MOD 14	NoR 7	MOD 13	MOD 14	HI 25	MOD 14

Figure 2: Example of an agency fire danger rating table

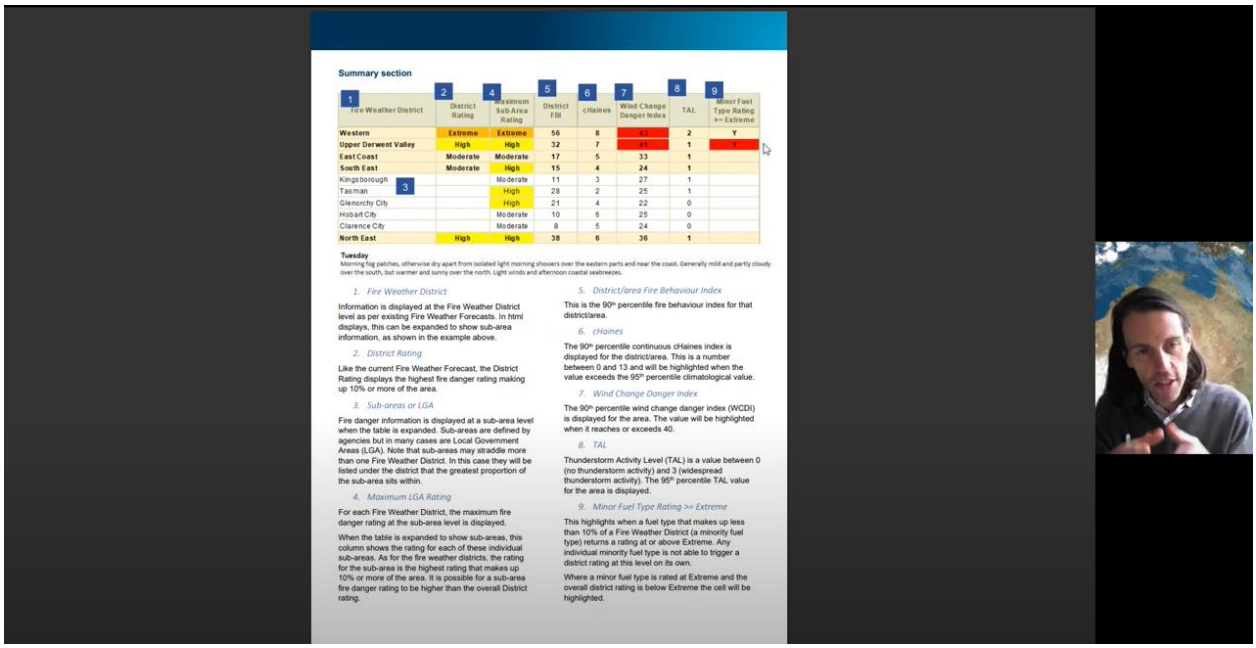
Fire Weather Forecast

The AFDRS Fire Weather Forecast is used by fire and emergency management personnel for fire preparedness. It provides insight into forecast fire danger risk and the underpinning weather parameters.

The Fire Weather Forecast is provided in three sections:

- **Summary Forecast**
- **Detailed Forecast**
- **Weather Forecast**

Steve McGibbony from the Bureau of Meteorology guides users about using the **Fire Weather Forecast** product in the video below. Click on the image or the link below the image to view it.



YouTube link: https://youtu.be/lJCRTLXMckk

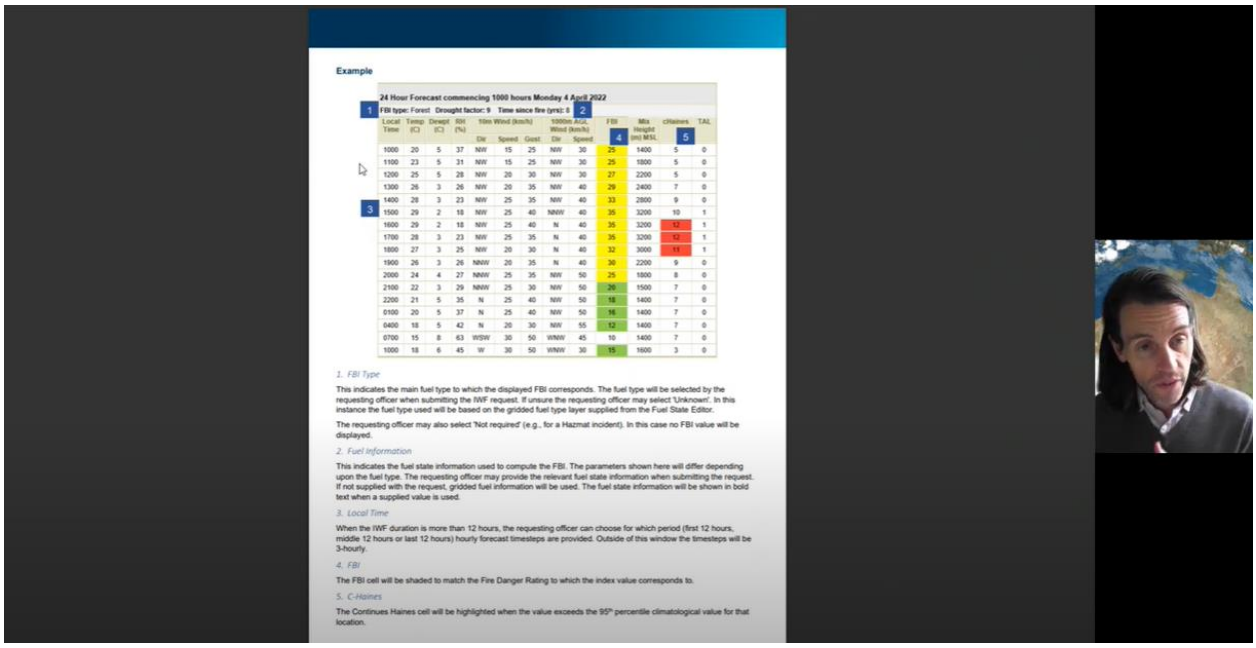
The Bureau Product Guide contains further information: Here.

Incident Weather Forecasts

Incident Weather Forecasts provide critical localised and specific weather and FBI short term forecast information for an incident. This is to assist incident managers in operational decisions.

Requesting officers will be able to choose the fuel type from the eight standard fuel models used in the AFDRS.

Steve McGibbony from the Bureau of Meteorology guides users about using the Incident Weather Forecast product in the video below. Click on the image or the link below the image to view it.



YouTube link: https://youtu.be/t5PTS6xqWy0

The Bureau Product Guide contains further information: Here.

Observation Bulletin

The Fire Weather Observation Bulletin calculates and/or displays (see **Figure 3**):

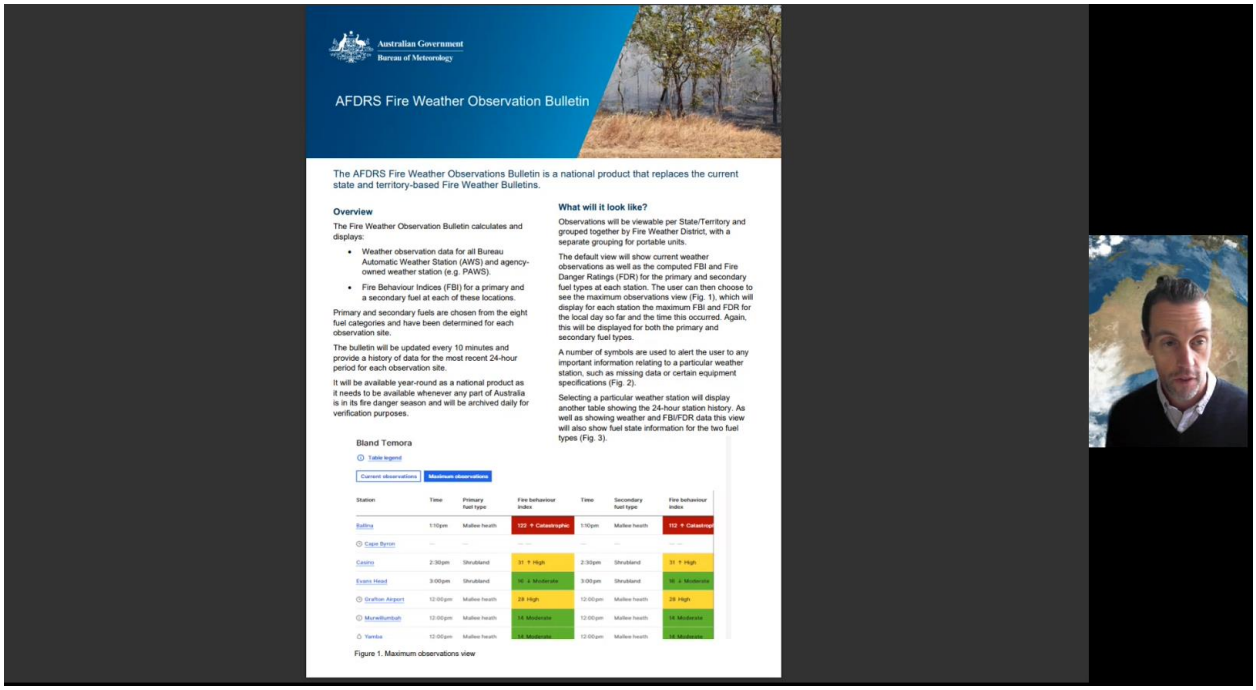
- **Weather observation data** for all Bureau Automatic Weather Station (AWS) and agency-owned Portable Automatic Weather Stations (PAWS).
- **FBI** for a primary and a secondary fuel.

Primary and secondary fuels are chosen from the eight fuel categories and will be determined for each observation site.

The Bulletin is updated every 10 minutes and provides data for the most recent 24-hour period for each observation site.

The Bulletin is archived so historic information can also be accessed.

Steve McGibbony from the Bureau of Meteorology guides users about using the **Observation Bulletin** product in the video below. Click on the image or the link below the image to view it.



YouTube link: https://youtu.be/BWT8e-wl-P4

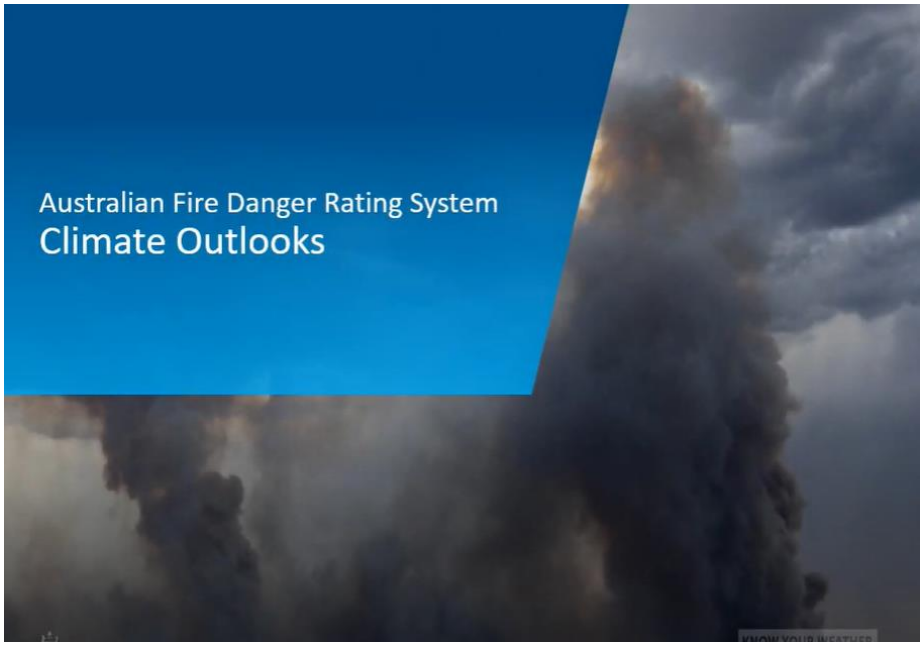
The Bureau Product Guide contains further information: Here.

What are the Fire Danger Outlooks?

The **Fire Danger Outlooks** include three products designed to interpret climatological data. These products support the process of preparing Seasonal Outlooks that forecast and describe the coming fire season. **Seasonal Outlooks** are prepared by AFAC with The Bureau and the jurisdictions to give guidance for strategic planning of fire management capabilities and operational fire readiness.

The AFDRS Fire Danger Outlooks provide probabilistic outlooks (out to three months) using climate modelling and fuel information. Outlooks are produced twice weekly, coinciding with the existing public rain/temperature outlook generation. AFDRS climate data is processed by collecting AFDRS fire danger data into either two or three categories for specific time periods. This process enables the creation of two kinds of visualisations: 'chance of above median' plots and 'tercile' plots. A third product examining the tercile timeseries is also provided.

Dr Naomi Benger from the Bureau of Meteorology guides users about using the **Fire Danger Outlooks** in the video below. Click on the image or the link below the image to view it.



YouTube link: https://youtu.be/3XbNaNTx8S4

The Bureau Product Guide contains further information: Here.