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Aurora Fire Behaviour Calculator now includes Incident Weather Forecasts

### **Key Message**

The Aurora Fire Behaviour Calculator provides enhanced situational awareness for planned burns and bushfire response. Outputs include graphed fire weather and behaviour metrics. Until now, these outputs have been based on the Bureau of Meteorology's (BoM) Australian Digital Forecast Database (ADFD) gridded weather. An enhancement released this week allows Bureau of Meteorology Registered Users to now also select the current Incident Weather Forecasts (IWF) for outputs.

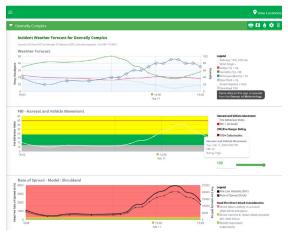
# What are the advantages?

The Aurora Fire Behaviour Calculator uses published fire behaviour models for the predominant bushfire vegetation types. Outputs include the fire weather forecast, fire behaviour index, potential rates of spread, fire line intensity, flame length and head fire direct attack considerations. The calculator is publicly available and mobile device friendly <a href="https://aurora.landgate.wa.gov.au/fbc/#!/">https://aurora.landgate.wa.gov.au/fbc/#!/</a>



# AURORA FIRE BEHAVIOUR CALCULATOR

Calculates Fire Behaviour Index, Rate of Spread and other behaviour variables using published models for Australian vegetation, aligns with Australian Fire Danger Rating System. The calculator ingests the Bureau of Meteorology's ADFD™ forecast gridded weather into models for your personalised locations



IWFs are incident-specific forecasts issued by the BoM to assist emergency services with decision making when planning and undertaking bushfire operations. IWFs are provided upon request by emergency management agencies for bushfires, planned burns, structural fires, HAZMAT operations or for training purposes.





IWFs provide greater detail than the ADFD datasets alone, with additional text-based information on temporal and spatial uncertainty as well as forecasts tailored for local topography and other effects by fire weather meteorologists. An urgent IWF can be received within one hour of receiving the request. In contrast, the complete ADFD gridded forecasts are routinely updated twice per day in the early morning and afternoon.

#### What does it mean for me?

The option to select the current IWF data in the allows users to access and compare these site-specific forecasts with the ADFD and calculate key fire behaviour metrics. On the main menu of the Aurora Fire Behaviour Calculator BoM Registered Users can now chose to 'View Incident' and login to BoM Incident Weather using their BoM Registered User credentials. All current IWFs now appear in the 'Available Incidents' drop-down menu. Users can select the incident and calculate fire behaviour metrics using the default fuel type and model parameters or by defining their own.

For more information and advice, please contact Bushfire Technical Services on <a href="mailto:environment@dfes.wa.gov.au">environment@dfes.wa.gov.au</a>

JACKSON PARKER
DIRECTOR BUSHFIRE TECHNICAL SERVICES