

## Using Fire Behaviour Index for operational policies



### Australian Fire Danger Rating System

The Australian Fire Danger Rating System (AFDRS) uses the latest technology and research to provide a more accurate and detailed prediction of fire behaviour and potential threat to the community.

It has four levels – Moderate, High, Extreme and Catastrophic – and is supported by action-oriented messages to encourage people to take action to protect themselves and others in the face of bushfire risks.

The AFDRS has also replaced the old McArthur Fire Danger Index (FDI) with a new Fire Behaviour Index (FBI) – a scale of fire danger that takes the latest in fire science and produces outputs across eight different vegetation or fuel types (compared to the existing two) to support operational decisions about fire preparedness and bushfire suppression.

The FBI calculations provide a truer representation of forecast and actual fire behaviour especially at the lower end of the scale where an error of  $\pm 20\%$  occurred frequently with the old FDIs.

### Aligning Fire Danger Ratings and FBI with operational decision-making

The old FDI and FBI align reasonably well at the upper end of the scale eg. old GFDI 75 (Extreme) roughly equates to FBI 75 (Extreme), GFDI 51 (Severe) roughly equates to FBI 51 (Extreme).

Your existing operational policies may require adjustments based on the FBI-Fire Danger Ratings alignment. Users with existing Bureau of Meteorology registered MetEye accounts can access the FBI displayed for Fire Ban Districts if the need to refer to FBI instead of Fire Danger Ratings for your levels of preparedness arises.

Total Fire Ban (TFB) declarations will be made on days with an FBI 50 and above (Extreme and above).

### Further information

Please email [cfs.afdrsimplementationteam@eso.sa.gov.au](mailto:cfs.afdrsimplementationteam@eso.sa.gov.au) for further enquiries.

Current AFDRS (SA)		
Rating	GFDI	FFDI
Catastrophic (TFB Declaration)	150+	100+
Extreme (TFB Declaration)	100-149	75-99
Severe (TFB Declaration)	50-99	50-74
Very High	25-49	25-49
High	12-24	12-24
Low-moderate	0-11	0-11

New AFDRS for all jurisdictions	
Rating	FBI
Catastrophic (TFB Declaration for SA)	100+
Extreme (TFB Declaration for SA)	50-99
High	24-49
Moderate	12-23
No rating	0-11