



Shire of Dardanup

# APPENDICES

## BUSHFIRE ADVISORY COMMITTEE MEETING

To Be Held

Tuesday, 15 May 2017  
Commencing at 7.00pm

At

Shire of Dardanup  
ADMINISTRATION CENTRE EATON  
1 Council Drive - EATON

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~ Large Print  
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Upon request.



# Incident Weather Forecasts improvements



Incident Weather Forecasts for fires (previously known as Spot or Special Weather Forecasts) provide critical information to incident managers to help them make important operational decisions.

Improved Incident Weather Forecasts will provide increased precision, extra information and a more targeted forecast, focusing on key weather parameters

## Why change?

Incident Weather Forecasts have been provided in a similar format for around 20 years. In that time significant advances have been made in Numerical Weather Prediction and in the past five years the Bureau has started providing gridded forecast products. To capitalise on these changes, we reviewed this service and users' needs in 2017, and the AFAC Predictive Services Group endorsed the recommendations in late 2017.

The result is the new Incident Weather Forecast. This will replicate the existing service and importantly include improvements based on the recommendations of the review.

Changing the name to Incident Weather Forecast provides a nationally consistent product name. Previously these forecasts were called Spot Fire Weather or Special Fire Weather Forecasts.

## When will the Incident Weather Forecasts begin?

The improved Incident Weather Forecasts are expected to be implemented in mid to late-March 2018.

## What is changing?

Previous forecast sections:

1. Weather forecast
2. Assumptions and uncertainties associated with the forecast

New forecast sections:

Three areas where Bureau of Meteorology forecasters can provide additional information on the key weather parameters critical to decision making.

1. Significant wind changes during the forecast period, including uncertainties
2. Forecast thunderstorm potential, precipitation and cloud, including uncertainties
3. Spatial variation of conditions and other important information

Extra columns in the forecast table provide important information on conditions above the surface and on thunderstorm activity.

- C-Haines: an index of atmospheric stability that can alert users to the possibility of increased or unexpected fire behaviour.
- Mixing height: used to determine smoke dispersion and expected fire behaviour.
- Thunderstorm activity level: allows for quick reference at each time step.

One-hourly time steps provide greater precision for the critical first 12 hours of the incident.

Sample Incident Weather Forecast

Email: request@email.addr

- 1 Significant wind changes during the forecast period, including uncertainties
- 2 Forecast thunderstorm potential, precipitation and cloud, including uncertainties
- 3 Spatial variation of conditions and other important information

**30 Hour Forecast commencing 1800 hours Wednesday 14 February 2018**

Drought factor: 10    Curing value (%): 95    Fuel Loading: 4.5    **5**    **6**    **7**

Local Time	Temp (C)	Dewpt (C)	RH (%)	10m Wind (km/h)			1000m AGL Wind (km/h)			FFDI	GFDI	cHaines	Mix Height (m)	TAL
				Dir	Speed	Gust	Dir	Speed						
1800	28	2	19	NW	25	40	SW	35	35	19	8	2500	2	
1900	23	4	29	W	15	20	SW	35	17	7	8	2500	2	
2000	22	6	35	SW	10	20	SW	30	14	4	5	1900	1	
2100	20	6	40	SW	15	25	SW	30	15	6	5	1900	1	
2200	18	5	43	SW	10	20	SW	30	11	3	5	1900	1	
2300	17	6	49	SW	10	20	SW	25	7	3	6	600	0	
0000	16	7	55	SW	20	30	SW	25	7	6	6	600	0	
0100	15	6	55	SW	15	30	SW	25	6	4	6	600	0	
0200	13	6	62	SSW	10	30	WSW	25	4	2	6	300	0	
0300	12	5	62	SSW	10	15	WSW	25	3	2	6	300	0	
0400	12	5	63	SSW	5	10	WSW	25	2	1	6	300	0	
0500	11	5	67	SSW	5	10	WSW	30	2	1	4	100	0	
0600	11	5	66	SSW	10	20	WSW	30	2	2	4	100	0	
0900	15	5	51	SW	10	20	WSW	30	4	2	4	400	0	
1200	22	5	33	WSW	10	25	WSW	20	11	4	2	1500	0	
1500	26	4	24	W	10	25	WSW	20	16	5	4	2300	0	
1800	27	5	24	W	10	30	WSW	25	17	5	4	2700	0	

1 Significant wind changes are critical for firefighting operations and are given a standalone text area at the top of the forecast.

Including uncertainties allows the forecaster to add value to the forecast by communicating confidence and alternative scenarios specifically related to the wind change.

2 Thunderstorm potential is another critical parameter for firefighting operations. It is combined with cloud and precipitation forecasts to highlight significant weather during the forecast period in this text area.

3 This section details potential differences to the tabular forecast values based on spatial and topographic considerations of the incident location.

It also allows the forecaster to include other important information such as significant inversions, assumptions on the fire site location, fuel information used, and other assumptions made in constructing the forecast.

4 Temp, Dewpt, RH, 10m Wind (Dir, Speed, Gust), FFDI and GFDI are all supplied at 1-hour time steps for the first 12 hours of the incident.

Note: 1000m AGL wind, C-Haines, MixHgt and TAL are all calculated for a 3-hour time period so the 1-hourly values will typically only change every 3 hours.

5 C-Haines is an index of atmospheric stability and provides important information on conditions above the incident location.

High C-Haines values (increased instability) alert users to the possibility of unexpected fire behaviour, notably large plume-dominated fires and pyrocumulonimbus that may lead to thunderstorms with lightning and erratic downdraft winds. See Mills and McCaw for more information and examples.

Mills, G.A. & McCaw L. (2010). *Atmospheric Stability Environments and Fire Weather in Australia – extending the Haines Index*. CAWCR Technical Report No. 20. 151 p

6 Mixing Height is the upper height, to which the lower atmosphere will undergo mixing (mechanical or turbulent) resulting in a nearly uniform air mass—measured in metres above Mean Sea Level (MSL). To obtain the mixing height value Above Ground Level (AGL) you will need to subtract the fire site elevation from the value given.

In simple terms, the mixing height acts as a lid on the height that smoke can reach. Generally, the higher the mixing height, the more unstable the atmosphere is and the higher a smoke plume can potentially reach. Conversely, the lower the mixing height the more stable the atmosphere generally is and the greater potential for smoke to be trapped.

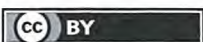
7 TAL is the thunderstorm activity level.

Values correspond to:

- 0. Storms not expected
- 1. Possible storm
- 2. Storm likely
- 3. Storms expected

FIND OUT MORE

For more information about the new Incident Weather Forecast, and how you can use it in your agency, contact [SRFA@bom.gov.au](mailto:SRFA@bom.gov.au) or call (07) 3239 8632.



COMMENTS	Date	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Prohibited Burning Period	Dec - Mar	[Red]											[Red]
Restricted Burning Period				[Yellow]	[Yellow]							[Yellow]	[Yellow]
Open Burn Period	Apr - Oct				[Green]	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]		
New BFB Member Applications	May					[Blue]	[Blue]						
Training Courses for new/exisitng Members. Includes Intro to Bushfire / Aiims / Bushfire	Jun - Oct					[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]		
PPE orders submitted to SoD	May - Aug					[Blue]	[Blue]	[Blue]	[Blue]	[Blue]			
PPE order made	22-Sep									[Blue]			
Vehicle Maint on brigade Appliances	May - Sept					[Blue]	[Blue]	[Blue]	[Blue]	[Blue]			
ESL Appliaction submitted to DFES	22-Mar			[Blue]									
ESL - Brigades to obtain quotes & send wish list to SoD by	23rd Feb	[Blue]	[Blue]			[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]
<b>Important dates to remember</b>													
AGM completed by	30-Apr				[Blue]								
AGM minutes and Positions of commity to SoD by	15-May					[Blue]							
FCO Payment Form	26-Jun						[Blue]						
Training Officer Meeting - 1	Aug								[Blue]				
Training Officer Meeting - 2	Nov										[Blue]		
BFAC Meeting - 1	Feb		[Blue]										
BFAC Meeting - 2	May					[Blue]							
BFAC Meeting - 3	Oct										[Blue]		
WAERN and AVL monthly testing	monthly	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]	[Blue]
Brigade Training - 1	July							[Blue]					
Brigade Training - 2	Aug								[Blue]				
Brigade Training - 3	Sept									[Blue]			
Brigade Training - 4	Oct										[Blue]		
Brigade Training - 5	Nov											[Blue]	
Brigade Training - 6	Dec												[Blue]



**2018/2019**  
**FIRE PREVENTION ORDER**

**FIRST AND FINAL NOTICE**

With reference to Section 33 of the Bush Fires Act 1954, you are required to carry out fire prevention work on land owned or occupied by you, in accordance with the provisions of this order.

This order is valid for the period **1 July – 30 June annually**.  
Work **must** be completed by the **30 November annually** and maintained until the close of the **Restricted Burning Period**.

**PLEASE READ THIS NOTICE CAREFULLY**

**If you do not fully understand this notice, please contact Emergency & Ranger Services during office hours on 9724 0000 or your local Fire Control Officer to discuss.**

**PERSONS WHO FAIL TO COMPLY WITH THE REQUIREMENTS OF THE ORDER MAY BE ISSUED WITH AN INFRINGEMENT NOTICE PENALTY (\$250.00) OR PROSECUTED WITH AN INCREASED PENALTY (MAXIMUM PENALTY \$5,000).  
ADDITIONALLY THE SHIRE OF DARDANUP MAY CARRY OUT THE REQUIRED WORK AT COST TO THE OWNER/OCCUPIER.**

**RESTRICTED BURNING PERIOD**

**Burning Permits Required**

**1 November  
to  
13 December  
**annually****

**PROHIBITED BURNING PERIOD**

**NO FIRES PERMITTED**

**14 December  
to  
15 March  
**annually**  
(subject to extension)**

## RESTRICTED BURNING PERIOD

### Burning Permits Required

16 March

to

26 April

annually

(subject to extension)

#### **RESIDENTIAL, INDUSTRIAL, DEVELOPMENT, RESTRICTED USE, MIXED BUSINESS AND COMMERCIAL ZONES\***

- All flammable material/vegetation (except living trees) MUST be slashed or grazed to a height that does not exceed 50 millimetres and flammable material MUST be removed.
- All wood piles to be stored securely and covered away from the building (in a shed/wood store is recommended)

#### **SMALL HOLDINGS ZONE\***

- BARE EARTH firebreaks of 2 metres width and 4 metres in height must be maintained within and adjacent to the lot boundary and surrounding all haystacks.
- Fire hazards on properties must be slashed to a height of no more than 50 millimetres and flammable material MUST be removed from the property. Where slashing is not possible, material/vegetation must be burnt back or sprayed with suitable herbicide to prevent growth until the end of the restricted period.
- Burn piles are approved under the following conditions:
  - a burn pile is to be no closer than 10 metres to any structure; and
  - a 2 metre wide firebreak is to be placed around the perimeter of any burn pile.
- All wood piles to be stored securely and covered away from the building (in a shed/wood store is recommended)

#### **GENERAL FARMING, RESTRICTED USE AND TOURIST ZONES\***

- Irrigated land is defined as land that is watered, kept fully watered and is maintained in a non-flammable state for the whole of the restricted and prohibited burning periods.
- **Non Irrigated lots** – BARE EARTH firebreaks of 2 metres width and 4 metres in height must be maintained within and adjacent to the lot boundary where it adjoins a road and/or rail reserve.
- **Irrigated lots** – firebreaks are **NOT** required on that lot of land where the lot is being **actively and regularly irrigated throughout the restricted and prohibited burning periods.**
- Irrigation channels that are situated **WITHIN** and adjacent to a lot boundary will be accepted as a firebreak provided the irrigation channel is utilised in that channel throughout the **restricted and prohibited burning periods.**
- Burn piles are approved under the following conditions:
  - a burn pile is to be no closer than 10 metres to any structure; and
  - a 2 metre wide firebreak is to be placed around the perimeter of any burn pile.
- All wood piles to be stored securely and covered away from the building (in a shed/wood store is recommended)

#### **PLANTATIONS**

- BARE EARTH firebreaks of 15 metres width and 4 metres in height must be maintained within and adjacent to the perimeter of plantations with 6-10 metres wide internal firebreaks between compartments.
- Where power lines pass through plantation areas, firebreaks must be in accordance with Western Power specifications.

#### **WHERE AND HOW TO OBTAIN BURNING PERMITS**

Applications for burning permits are available from your local Bush Fire Control Officer at no cost.

General Requirements

**Garden Refuse Urban Areas (town sites):** No garden refuse is permitted to be burnt on the ground, in the open air or in outdoor incinerator within the urban areas of Dardanup, Eaton, Burekup town sites at any time of the year unless a permit to burn has first been obtained from a Fire Control Officer for special circumstances such as a large block that needs hazard reduction

**All Other Areas in Shire of Dardanup:** Pursuant to section 24G(2) and section 25(1a) of the Bush Fires Act 1954, the burning of garden refuse and camp and cooking fires is prohibited in all areas within the Shire of Dardanup during the **Prohibited Burning Period**. Furthermore, pursuant to section 24G(2) the burning of garden refuse and camp and cooking fires are prohibited within the Shire of Dardanup during the **Restricted Burning Period** unless a permit to burn has first been obtained from a Fire Control Officer.

The local Bush Fire Control Officer will note the relevant conditions you must comply with on your burning permit.

**You are advised that Burning Permits are automatically invalidated on days of “severe”, “extreme” or “catastrophic” fire danger.**

**FIREBREAK VARIATIONS/EXEMPTIONS**

If it is considered impractical for any reason to clear firebreaks or remove flammable materials from any land as required by this Order, you should make written application to the Shire of Dardanup **no later than 30 September each year** and include a plan of your land detailing your fire prevention measures to abate fire hazards on the land. The prescribed Firebreak Variation/Exemption Forms are available from the Shire of Dardanup offices. If your request for a variation/exemption is not granted, you must comply with the requirements of this Order.

**For further information please call the Shire of Dardanup 9724 0000 or your local Fire Control Officer.**

**For all fire emergencies, please dial “000”**

\*Zones defined by the Shire of Dardanup Town Planning Scheme No.3.



## FIRE PREVENTION ORDER

### Additional information for property owner/occupier

- All properties must be compliant with the Fire Prevention Order by 30 November each year.
- An inspection of properties will be carried out in all areas of the Shire of Dardanup by an Authorised Officer after 30 November each year.
- Action will be taken for non-compliance with the requirements of the Fire Prevention Order.
- Penalties will apply and the Shire of Dardanup may carry out the required work and charge the cost to the owner/occupier.

### INTERPRETATIONS

**Firebreak:** A maintained strip of bare earth with all **vegetation and** flammable materials (living or dead) removed. Firebreaks must be constructed on the property, as firebreaks on road reserves do not constitute a legal firebreak.

**General Farming Zone:** Land defined by the Shire of Dardanup Town Planning Scheme No. 3.

**Small Holdings Zone:** Land defined by the Shire of Dardanup Town Planning Scheme No. 3.

**Residential Zone:** Land defined by the Shire of Dardanup Town Planning Scheme No. 3.

**Industrial Zone:** Land defined by the Shire of Dardanup Town Planning Scheme No. 3.

**Restricted Use Zone:** Land defined by the Shire of Dardanup Town Planning Scheme No. 3.

**Development Zone:** Land defined by the Shire of Dardanup Town Planning Scheme No. 3.

**Mixed Business Zone:** Land defined by the Shire of Dardanup Town Planning Scheme No. 3.

**Commercial Zones:** Land defined by the Shire of Dardanup Town Planning Scheme No. 3.

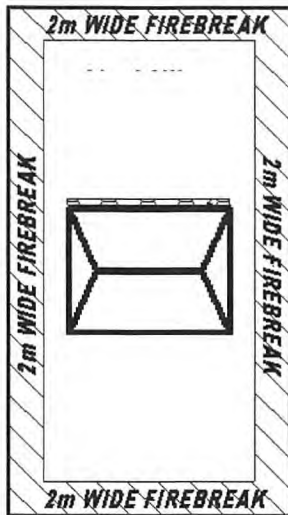
**Tourist Zones:** Land defined by the Shire of Dardanup Town Planning Scheme No. 3.

**Plantation:** Means a stand of trees of 10 hectare or larger, that has been established by sowing or planting of either native or exotic tree species and managed intensively for their commercial and/or environmental value. A plantation includes roads, tracks, firebreaks and small areas of native vegetation surrounded by plantations. Implicit in this definition is the recognition that plantations will be harvested.

**Prohibited Burning Period:** Means **NO** fires shall be lit during this period.

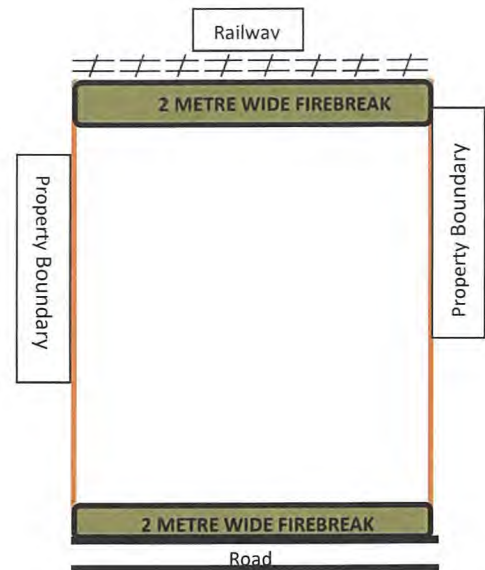
**Restricted Burning Period:** The period of time when permits are required in order to legally burn.





Small Holding

These diagrams are provided as a guide for constructing firebreaks on properties.



General Farming Zone

### FIRE EMERGENCY

For all fire emergencies, please dial "000" in the first instance and give full details of the incident to the operator.

### ADDITIONAL INFORMATION

- Due to seasonal conditions, dates in regard to burning may be varied, therefore it is recommended to check with the Shire of Dardanup or a Fire Control Officer if there is any doubt.
- The Chief Bush Fire Control Officer declares any variations in dates for the Restricted and Prohibited Burning Period. Once a Bush Fire Brigade has extinguished a fire on private property, it is the property owner(s) responsibility to ensure that the fire does not reignite.
- Campfires are completely banned in the Shire of Dardanup during the prohibited burning period.
- When sprayed firebreaks are used, it is recommended that they be sprayed by the end of **August** every year and again if required.
- Fire Control Officers will notify the Shire of Dardanup office of burning permits issued.
- Due to the high costs involved, the Shire is not able to maintain all road verges within its boundaries. Where possible we undertake mitigation strategies such as controlled burning, slashing and some spraying to minimize hazards, however it cannot be guaranteed that this action will sufficiently reduce all fire risks.

### BUSH FIRE CONTROL

It is the responsibility of all owners/occupiers to extinguish any uncontrolled fire that may be burning on their property and it is therefore recommended that all property owners secure and maintain some convenient and effective type of fire-fighting equipment.



**FIRE CONTROL OFFICERS CONTACT DETAILS**

Burekup District (Deputy CFCO North)	Mr Clay Rose	0429 194 735 or 9726 3132
Dardanup Central (District)	Mr Brendan Putt	0409 087 952 or 9728 3343
Eaton Townsite/District (Chief FCO)	Mr Chris Hynes	0428 825 496 or 9726 0251
Ferguson District	Mr Richard Stacey	0427 893 320 or 9728 1289
Joshua/Crooked Brook District	Mr Peter Buck	0428 311 300 or 9731 5254
Upper Ferguson District	Mr Rodney Bailey	0427 283 076 or 9728 3076
Waterloo District	Mr Robert Drennan	0427 263 243
Wellington Mills District	Mr Rob Doherty	0427 558 697 or 9779 9502
West Dardanup District (Deputy CFCO South)	Mr Alan Charlton	0458 281 249

Volunteer Bush Fire Brigades always welcome new members and encourage residents to become involved. All training and personal protective equipment required is provided through the Brigades at no cost. Please contact your local Bush Fire Control Officer.

