

REPORT OF THE STATE BUSHFIRE COORDINATION COMMITTEE FIRE DANGER SEASON WORKING GROUP

Cherryville Fire (9th May 2013)

The Fire Danger Season Working Group was established under the State Bushfire Coordination Committee at the request of the Minister for Emergency Services with the aim to review the circumstances of the Cherryville Fire and to review the declaration of the Total Fire Ban and the Fire Danger Season process.

The Fire Danger Season Working Group membership was comprised of;

Katherine Stanley-Murray LGA (Chair)

Peter White Primary Producers (SA)

Andrew Watson Bureau of Meteorology

Grant Pelton Dept for Environment Water and Natural Resources

Leigh Miller SA Country Fire Service

Graham Gates Natural Resources Management Council

Wayne Thorley SACFS Volunteers Association

Frank Crisci SA Power Networks

The responsibilities of the Fire Danger Season Working Group as defined in the Terms of Reference were to;

- Review of the circumstances of the Cherryville fire to assess whether there was a need for the declaration of a Total Fire Ban on that day and whether an extension of the Fire Danger Season for the Mt Lofty Ranges Fire Ban District was warranted.
- Review the processes defined within the *Fire and Emergency Services Act, 2005* regarding the declaration of a Total Fire Ban, the declaration of the Fire Danger Season and the associated fire safety provisions.
- Consideration of measures that could be undertaken to address any identified deficiencies within the provisions of the *Fire and Emergency Services Act, 2005* regarding the declaration of a Total Fire Ban, the declaration of the Fire Danger Season and the associated fire safety provisions.

1. SUMMARY

- a. The Fire Danger Season Working Group found that the forecast weather conditions for the day of the fire for the Mt Lofty Ranges Fire Ban District were significantly less than those needed for the declaration of the Total Fire Ban by CFS and that the actual weather conditions experienced on the day did not reach those forecast by the Bureau of Meteorology. Based on the forecast weather conditions the Fire Danger Season Working Group agreed that there was no justification for the declaration of a Total Fire Ban for 9th of May.
- b. The Fire Danger Season Working Group reviewed the legislative responsibilities and the process used for fixing the Fire Danger Season dates

and, based on the advice provided by Bushfire Management Committees, agreed that there was no justification for the CFS Chief Officer to have extended the Fire Danger Season for the Mount Lofty Ranges Fire Ban District.

However the Fire Danger Season Working Group considers that the process used by Bushfire Management Committees in developing recommendations to the CFS Chief Officer was inconsistent across the State and could be improved by the use of a prescriptive and documented process for data assessment.

- c. The Fire Danger Season Working Group is concerned about the lack of prescribed fire safety provisions in the *Fire and Emergency Services Act, 2005* for the period of the year which falls outside of the Fire Danger Season and recommends the introduction of a set of Codes of Practice which will provide guidance to landholders who may be considering burning off land or vegetation piles or using equipment.

2. WEATHER

The Bureau of Meteorology provided advice to the Fire Danger Season Working Group that on the days leading up to the 11th of May, SA was under the influence of warm, dry northerly winds, ahead of an approaching trough.

These conditions were experienced across the state from the 7th of May until the change on the 11th of May.

The Bureau of Meteorology reported that the warm, dry and windy conditions resulted in Severe Fire Danger Rating (FDR) being declared for Wednesday the 8th of May for the West Coast, Eastern Eyre and Lower Eyre Peninsula Fire Ban Districts. Mount Lofty Ranges had a forecast district Forest Fire Danger Index (FFDI) of 34 (Very High FDR).

Similar conditions were forecast on Thursday the 9th of May with Severe Fire Danger declared for the West Coast, Eastern Eyre and Lower Eyre Peninsula Fire Ban Districts. The forecast Fire Danger Rating for the Mount Lofty Ranges Fire Ban District was Very High with a FFDI of 33.

The forecast conditions for the Mt Lofty Ranges Fire Ban District were considerably lower than the threshold Fire Danger Index of 50 (Severe FDR) which is used for the declaration of a Total Fire Ban.

The actual fire weather conditions that were observed on the day of the Cherryville fire were milder than the Bureau of Meteorology had forecast with readings from the Mt Lofty weather station, the nearest to the fire, recording a maximum FFDI of 11 (Low-Moderate FDR) .

Table 1: Forecast and Observed Fire Danger Indices and Fire Danger Ratings for the Mt Lofty Ranges Fire Ban District for the 9th of May 2013

Station	Forecast FFDI	Forecast FDR	Observed FFDI	Observed FDR
Mount Crawford	34	Very High	16	High
Kuitpo	27	Very High	21	High

Hindmarsh Island			27	Very High
Strathalbyn	29	Very High	31	Very High
Mount Lofty			11	Low-Moderate

The Bureau of Meteorology also advised that annual grass curing was reported as being less than 100% across the State and greening of the grasslands had begun. Grasslands in the Mount Lofty Ranges Fire Ban District were reported as being 30% cured. These figures indicate that fire behaviour would be reduced in grasslands allowing greater opportunities for fire control.

At this time however forest fuels were still dry with a Drought Factor of 10 (the highest) reported in most Fire Ban Districts including the Mount Lofty Ranges.

3. TOTAL FIRE BAN DECLARATION

The CFS Chief Officer has the power under Section 80 of the *Fire and Emergency Services Act, 2005* to declare a Total Fire Ban for any portion of the State. For this purpose the State is divided into 15 Fire Ban Districts which have been established according to similarity of fuel type, land use and climatology.

The CFS Chief Officer has delegated the responsibility for the declaration of a Total Fire Ban to the CFS State Coordinators who undertake an On-call role throughout the year to meet CFS emergency response responsibilities.

CFS will normally impose and disseminate TFBs by 1730 hours on the preceding day.

On days when the forecast maximum FDI is greater than or equal to 45 in one district or more, the Bureau of Meteorology Fire Weather Forecaster will provide preliminary advice to the CFS delegated officer by approximately 1430 hours.

By 1600 hours, the Bureau of Meteorology Fire Weather Forecaster will fax the Fire Weather Forecast to the CFS State Coordination Centre.

The delegated officer will confirm with the Bureau of Meteorology Fire Weather Forecaster the district Fire Danger Ratings and the Total Fire Bans to be imposed for the following day and make the necessary arrangements for this information to be sent to the Bureau of Meteorology as soon as practicable thereafter.

The Bureau of Meteorology Fire Weather Forecaster is required to issue the District Fire Danger Ratings product by 1615 hours to ensure this information is included in other forecast products.

Once this is completed, CFS will undertake the paging of on call staff and the official announcements to the media and the public will commence.

This process was enacted on the day prior to the Cherryville fire but no Total Fire Ban was declared for the Mt Lofty Ranges Fire Ban District as the Fire Danger Index for the day was forecast to be 33, well below the trigger of 50 for the declaration of a Total Fire Ban.

Finding

The Fire Danger Season Working Group found that the forecast weather

conditions for the day of the fire for the Mt Lofty Ranges Fire Ban District were significantly less than those needed for the declaration of the Total Fire Ban by CFS and that the actual weather conditions experienced on the day did not reach those forecast by the Bureau of Meteorology. Based on the forecast weather conditions the Fire Danger Season Working Group agreed that there was no justification for the declaration of a Total Fire Ban for 9th of May.

4. FIRE DANGER SEASON DECLARATION

a. Legislative process

The *Fire and Emergency Services Act, 2005* Section 78 defines the process for the Chief Officer of the SA Country Fire Service to declare a Fire Danger Season for any part, or for the whole of the State. During the defined Fire Danger Season there are a number of regulations which place restrictions on the use of fire in the open and on the use of prescribed appliances or activities.

As defined under Section 78 (2), the CFS Chief Officer must consult with the relevant Bushfire Management Committee regarding the fixing of the Fire Danger Season.

As defined under Section 78 (3), the Fire Danger Season dates must be published in the Government Gazette and in a newspaper circulating generally throughout the State.

b. Bushfire Management Committee process

Each year in September/October and again in March/April the CFS requests, through Bushfire Management Committee Executive Officers, that the Bushfire Management Committees consider the Fire Danger Season dates for their particular Fire Ban Districts. To aid this decision-making process, the latest CFS Fire Danger Season outlook paper, which provides an analysis of fire weather and fire danger conditions for the following 3 months, is circulated to Bushfire Management Committees for consideration. Bushfire Management Committees may then discuss this at a meeting scheduled for that time or make contact with Bushfire Management Committee members for comments via email. Some Bushfire Management Committee Executive Officers also seek advice from CFS Groups and Brigades.

The Executive Officers record the results of discussion in the Bushfire Management Committee minutes, if the discussion was held at a scheduled Bushfire Management Committee meeting, or the comments from Bushfire Management Committee members are emailed to CFS for summarising and the compilation of a report with recommendations to the CFS Chief Officer for consideration.

The CFS Chief Officer consulted with all Bushfire Management Committees in September 2012 regarding the fixing of Fire Danger Season.

At that time the Adelaide Mt Lofty Ranges, Fleurieu, and Flinders Mid North Yorke Bushfire Management Committees determined that prevailing climatic and fuel conditions at that time meant that it was too early to make a recommendation on Fire Danger Season dates for the Mt Lofty Ranges Fire Ban District. These Bushfire Management Committees were consulted again in October and it was

recommended that the Fire Danger Season dates for the Mt Lofty Ranges Fire Ban District should be set as starting on the 1st December 2012 and ending on the 30th of April 2013. These dates were published on the 25th of October 2012.

These Bushfire Management Committees were once again consulted regarding the end-date for the Mt Lofty Ranges Fire Danger Season in March 2013 to determine if changes in fuel and climatic conditions would mean a change to the published Fire Danger Season Dates.

The result of the March 2013 consultation process was that the CFS Chief Officer did not extend the Fire Danger Season for the Mt Lofty Ranges Fire Ban District. The end date of the Fire Danger Season was left as the 30th April 2013 as originally gazetted on the 25th of October.

The Fire Danger Season Working Group considered the process of consulting with Bushfire Management Committees and was concerned that;

- Some Bushfire Management Committees did not formally meet to discuss the setting of Fire Danger Season dates and consequently did not thoroughly consider the setting of dates.
- Many of those who were consulted by email did not provide a reason for their opinion regarding the dates they supported.
- The process of consulting by email does not result in an agreed view of Fire Danger Season dates as opinions of members are not discussed with other members.
- There appears to be no objective consideration of aspects relevant to the fixing of the Fire Danger Season dates.

Finding

The Fire Danger Season Working Group reviewed the legislative responsibilities and the process used for fixing the Fire Danger Season dates and, based on the advice provided by Bushfire Management Committees, agreed that there was no justification for the CFS Chief Officer to have extended the Fire Danger Season for the Mount Lofty Ranges Fire Ban District.

However the Fire Danger Season Working Group considers that the process used by Bushfire Management Committees in developing recommendations to the CFS Chief Officer was inconsistent across the State and could be improved by the use of a prescriptive and documented process for data assessment.

5. FIRE SAFETY PROVISIONS

During the defined Fire Danger Season there are a number of regulations defined in the *Fire and Emergency Services Regulations, 2005* which place restrictions on the use of fire in the open and on the use of prescribed appliances or activities.

The restrictions imposed during the Fire Danger Season include fire safety provisions requiring the presence of a person who is able to control the fire, the presence of an appropriate agent to extinguish the fire, and the space around the fire to be cleared of flammable material for a distance of 4 metres.

If a type of fire, activity or appliance is not prescribed for use during the Fire Danger Season, a permit must be obtained from a person authorised under the *Fire and Emergency Services Act*. Such a person may issue a permit for that fire,

or the conduct of that activity, if he/she assesses the activity to be both justified and that it can be undertaken safely.

Outside of the declared Fire Danger Season no such fire safety provisions need to be considered by anyone wishing to light or maintain a fire in the open, or to conduct any activity which is normally restricted during the Fire Danger Season.

Records show that since 2005 the Country Fire Service attends, on average, 310 rural fires outside of the Fire Danger Season each year. This number would be reduced if fire safety provisions were applied by the person who lit the fire.

The Fire Danger Season Working Group considered a number of ways in which this matter could be addressed including the introduction of;

1. year-round fire safety provisions written into the Act,
2. a year-round permit process for the lighting of fire in the open, or
3. legislative or voluntary Codes of Practice for specific types of fire or activity.

The Fire Danger Season Working Group agreed that the introduction of fire safety provisions to address the matter of the use of fire and appliances outside of the Fire Danger Season would be useful but was concerned about the inflexibility of such a process and the timeliness of having such changes made to the *Fire and Emergency Services Act*.

CFS had previously sought the opinion of Bushfire Management Committee members regarding the introduction of a year-round permit system and the response was overwhelmingly negative. The Fire Danger Season Working group considered the email responses received and agreed that the current permit would not be a suitable vehicle in its current form. While the current permit system may see the greater adoption of fire safety measures by permit holders it is primarily a paper-based process and provides no state-wide visibility of permits issued. The associated burn notification process is out-dated and is in need of review.

The Working Group discussed the matter of establishing a Code of Practice approach to addressing the issue of fires outside of the Fire Danger Season and, given the success of the Voluntary Grain Harvesting Code of Practice which was introduced in 2010, agreed that this approach could be used effectively to reduce the number of fires responded to by CFS.

Advice from Office of the Parliamentary Committee regarding whether such a Code of Practice would be best called up in legislation was considered and the Working Group agreed that the introduction of a Voluntary Code would provide a more timely process. It was considered that if a voluntary approach proved unsuccessful, a Code could be called up in legislation if needed. A Voluntary Code would need to be accompanied by a comprehensive communications strategy.

A 'one size fits all' Code was not considered to provide the best solution as fire escapes and the level of risk are not equally related to all activities and tend to be seasonal. Investigation and consultation with industry groups should be undertaken to achieve the best results without introducing undue bureaucracy but still meeting community safety needs.

It was agreed that three types of Code of Practice should be considered;

- Agricultural Burning.
- Pile Burning.
- Appliance use.

Finding

The Fire Danger Season Working Group is concerned about the lack of prescribed fire safety provisions in the Fire and Emergency Services Act, 2005 for the period of the year which falls outside of the declared Fire Danger Season and recommends the introduction of a set of Codes of Practice which will provide guidance to landholders who may be considering burning off land or vegetation piles or using equipment.

Katherine Stanley-Murray

Chair

SBCC Fire Danger Season Working Group

22 July 2013