

# Lachlan Valley National Park Booigal & Moon Moon Precincts Fire Management Strategy 2012

Mapsheet 1 of 1

This strategy should be used in conjunction with aerial photography and field reconnaissance during incidents and the development of incident action plans. These data are not guaranteed to be free from error or omission. The NSW National Parks and Wildlife and its employees disclaim liability for any act done on the information in the data and any consequences of such acts or omissions. This document is copyright. Apart from any fair dealing for the purpose of study, research, criticism or review, as permitted under the copyright Act, no part may be reproduced by any process without written permission. This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of Rural Fires Act 1997. The NSW National Parks and Wildlife Service is part of the Office of Environment and Heritage. Published by the Office of Environment and Heritage (NSW).

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| Map Details   | Related Documents   |
|---|---|
| Datum: Geocentric Datum of Australia (GDA) 1994<br>Projection: Map Grid of Australia (MGA) Zone 55<br>Data: Spot Satellite Imagery: 2005. | 1:50k Topographic Map: Booigal 7830-S, Mount Cemon 7930-S, Cowl Cowl 7930-N.<br>Scale: Noted scales are true when printed on A1 size paper. |

## Operational Guidelines

Brief all personnel involved in suppression operations on the following issues using the SMEACS format:

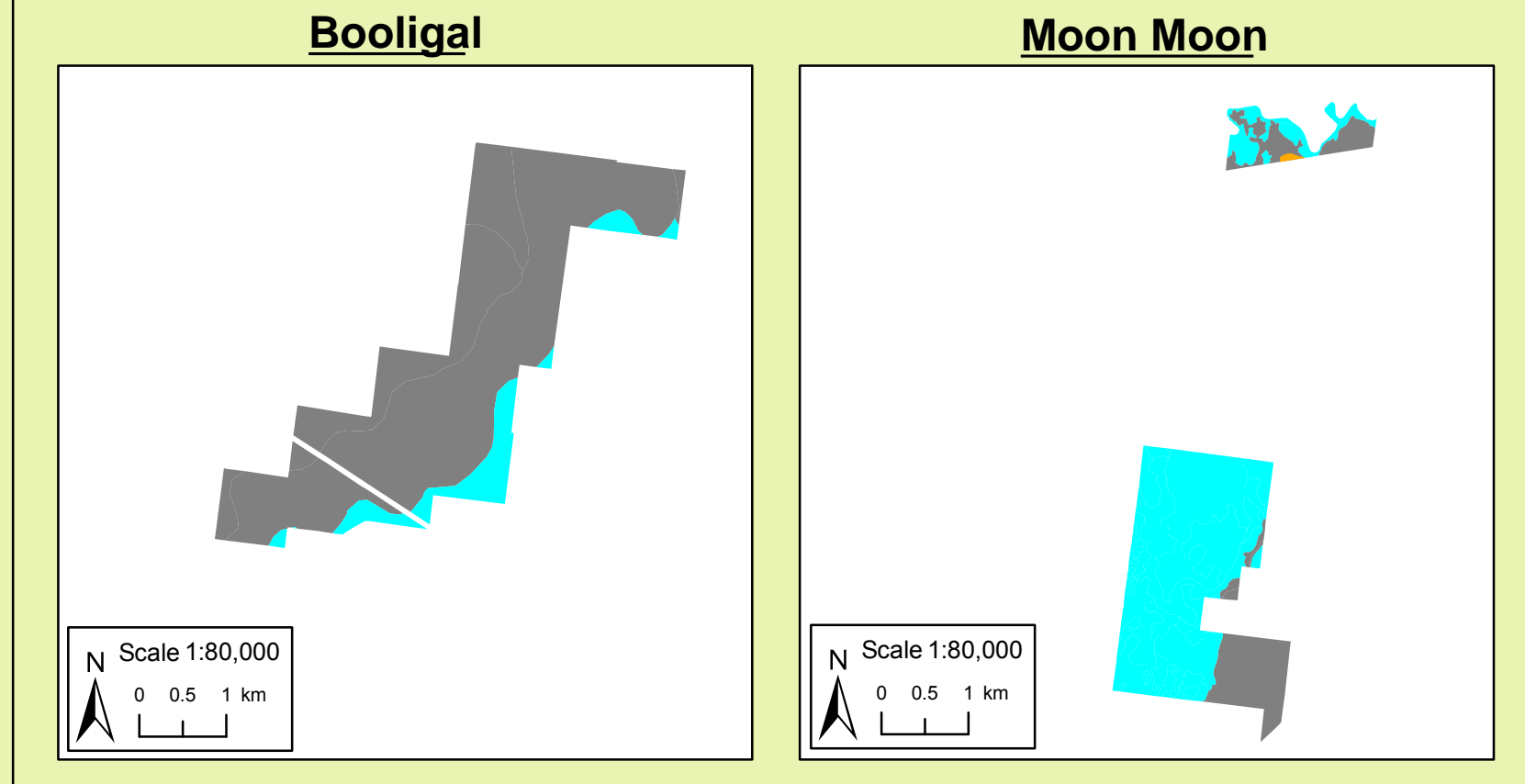
| General                           | Guidelines   |
|-----------------------------------|--|
| <b>Aerial Water Bombing</b>       | <ul style="list-style-type: none"> <li>The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spot-overs.</li> <li>The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances.</li> <li>Where practicable foam should be used to increase the effectiveness of the water.</li> <li>Ground crews must be alerted to water bombing operations.</li> </ul>  |
| <b>Aerial Ignition</b>            | <ul style="list-style-type: none"> <li>Aerial ignition may be used during back-burning or fuel reduction operations where practicable, but only with the prior consent of NPWS Regional Manager, OEH Section 44 delegate or as prescribed in an operational burn plan.</li> <li>Aerial ignition will only be undertaken by accredited navigators &amp; bombardiers.</li> <li>The pattern for aerial ignition will be specified in the IAP during fire suppression.</li> <li>Utilise incendiaries to rapidly burn out large areas where required.</li> </ul>  |
| <b>Back-burning</b>               | <ul style="list-style-type: none"> <li>Temperature and humidity trends must be monitored carefully to determine the safest times to implement back-burns. Generally, when the FDI is Very High or greater, back-burning should commence when the humidity begins to rise in the late afternoon or early evening, with a lower FDI back-burning may be safely undertaken during the day.</li> <li>Where practicable, clear a 1m radius around dead and hollow bearing trees adjacent to containment lines prior to back-burning, or wet down these trees as part of the back-burn ignition.</li> <li>Use parallel containment lines when applicable.</li> <li>All personnel must be fully briefed before back-burning operations begin.</li> </ul>  |
| <b>Command &amp; Control</b>      | <ul style="list-style-type: none"> <li>Standard Incident Management Systems are to be applied.</li> <li>On the arrival of other combatant agencies, the initial incident controller will consult with regard to the ongoing command, control and incident management team requirements as per the relevant BFMC Plan of Operations.</li> <li>Where OEH is not the first responding fire authority to arrive at a fire on OEH-managed lands, a competent officer of the first arriving fire authority will direct fire management activities until a competent OEH officer assumes control (unless prior agreements have been made).</li> </ul>   |
| <b>Containment Lines</b>          | <ul style="list-style-type: none"> <li>Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact.</li> <li>For new containment lines IMT to liaise with and receive consent from a Senior NPWS officer prior to construction.</li> <li>Use parallel containment lines when applicable.</li> <li>All containment lines not required for other purposes should be closed at the cessation of the incident.</li> <li>All personnel involved in containment line construction should be briefed on both natural and cultural heritage sites in the location.</li> <li>Containment line construction using earthmoving equipment must be in accordance with the earthmoving guidelines contained within the RFMS.</li> </ul>   |
| <b>Earthmoving Equipment</b>      | <ul style="list-style-type: none"> <li>Earthmoving equipment may only be used with the prior consent of a senior NPWS officer, and then only if the probability of its success is high.</li> <li>Earthmoving equipment must always be guided and supervised by an appropriately experienced person, and accompanied by a support vehicle. When engaged in direct or parallel attack this vehicle must be a fire fighting vehicle.</li> <li>Containment lines constructed by earthmoving equipment should consider the protection of drainage features, observe the Threatened Species and Cultural Heritage Operational Guidelines, and be surveyed, where possible, to identify unknown cultural heritage sites.</li> <li>Earthmoving equipment must not leave tracks or create new tracks in Machinery Exclusion areas as marked on the Incident Map of a RFMS.</li> <li>Earthmoving equipment must be washed down, where practicable, prior to it entering NPWS estate and again on exiting NPWS estate.</li> <li>Where multiple items of earthmoving equipment are being used, the IMT should consider the establishment of a Plant Operations Manager.</li> </ul> |
| <b>Fire Advantage Recording</b>   | <ul style="list-style-type: none"> <li>All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.</li> </ul>   |
| <b>Fire Suppression Chemicals</b> | <ul style="list-style-type: none"> <li>Use of wetting and foaming agents (surfactants) is permitted on the reserve.</li> <li>The use of fire retardants are only permitted with the prior consent of the senior NPWS officer and should be avoided where reasonable alternatives are available.</li> <li>Exclude the use of surfactants and retardants within 50m of watercourses, dams and swamps.</li> <li>Areas where fire suppression chemicals are used must be mapped and the used product's name recorded.</li> <li>The Threatened Species Operational Guidelines are to be observed.</li> </ul>  |
| <b>Rehabilitation</b>             | <ul style="list-style-type: none"> <li>Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.</li> </ul>   |
| <b>Smoke Management</b>           | <ul style="list-style-type: none"> <li>The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations.</li> <li>If smoke becomes a hazard on local roads or highways, the police and relevant media must be notified.</li> <li>Smoke management must be in accordance with relevant RTA traffic management guidelines.</li> </ul>  |
| <b>Structural Fire Fighting</b>   | <ul style="list-style-type: none"> <li>OEH personnel are not trained in structural fire fighting and must not enter a structure in order to undertake structural fire fighting.</li> <li>Fire suppression activities may be undertaken from outside a structure in accordance with the policies in the NPWS FMM, in order to protect a built asset.</li> </ul>   |
| <b>Visitor Management</b>         | <ul style="list-style-type: none"> <li>The reserve may be closed to the public during periods of extreme fire danger or during prescribed burning or wildfire suppression operations.</li> </ul>   |
| <b>WARNINGS</b>                   | <ul style="list-style-type: none"> <li>Beware of overhead powerlines.</li> <li>Reserve prone to flooding and only some trails will be trafficable after flood events or rainfall.</li> </ul>   |

## Threatened Sites Guidelines

### Aboriginal Cultural Heritage Site Management

Note: An Aboriginal sites survey is yet to be conducted for this reserve (as of August 2012). Therefore Aboriginal sites may be present and consideration in engaging a Senior NPWS Officer or Aboriginal Sites Officer prior to hazard reduction and wildfire suppression activities is required. Avoid fire and grading control lines within 100 m of a water course, wherever possible, to protect unknown aboriginal sites.

## Status of Biodiversity Thresholds



| Evaluation of Biodiversity Thresholds |  |
|---------------------------------------|--|
| <b>Vulnerable to Frequent Fire</b>    | The area will be too frequently burnt if it burns this year.<br>Protect from fire as far as possible.  |
| <b>Within Threshold</b>               | Within the threshold for vegetation in this area. Species have had sufficient time to mature and reproduce, and for habitats to develop.<br>A fire event is neither required nor should one necessarily be avoided.<br>Underburnt, excessive time since last fire, species may become extinct. |
| <b>Long Unburnt</b>                   | A fire event may be ecologically advantageous. Consider allowing unplanned fires to burn.<br>NB. Fire thresholds are defined for vegetation communities to conserve biodiversity.  |

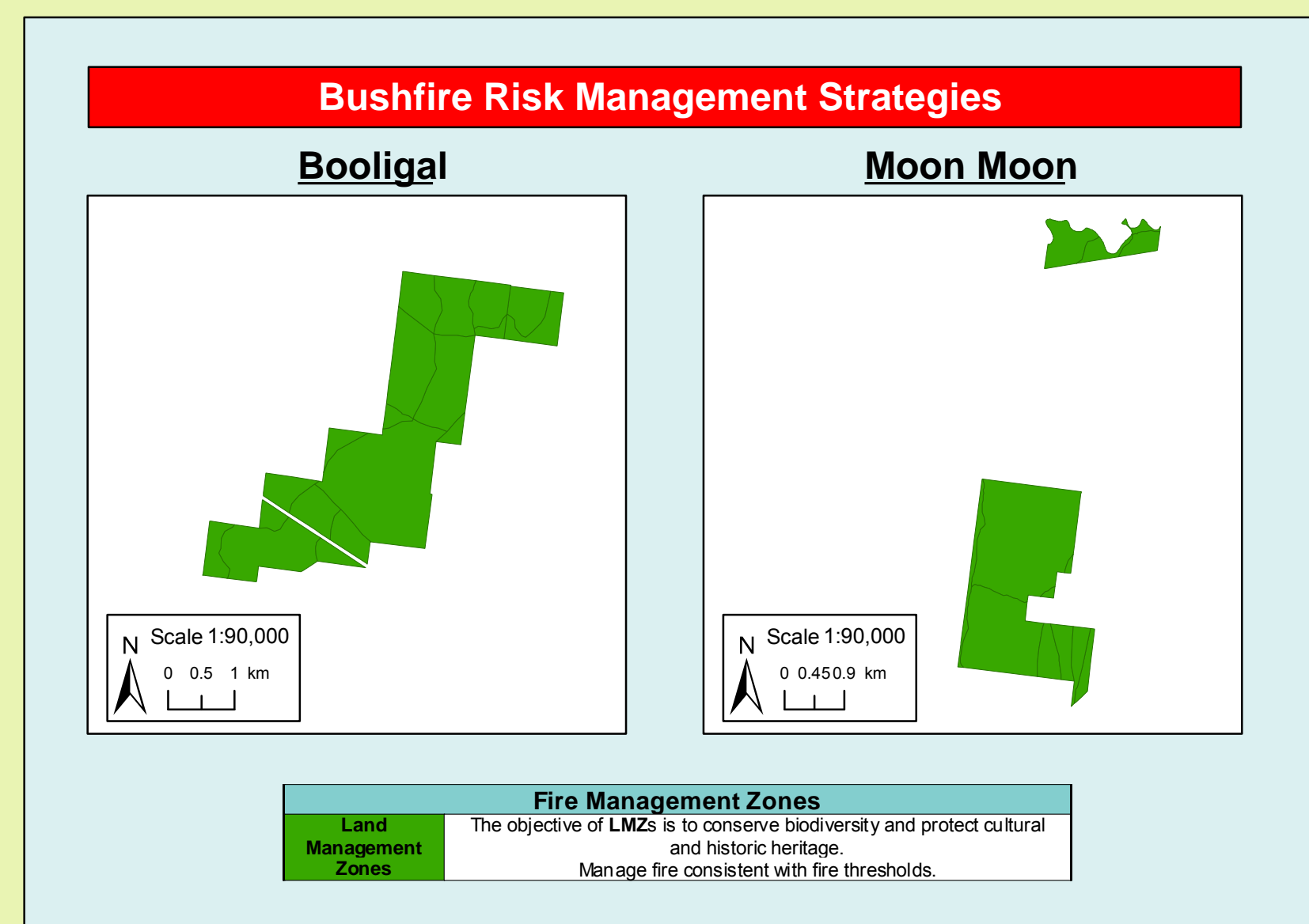
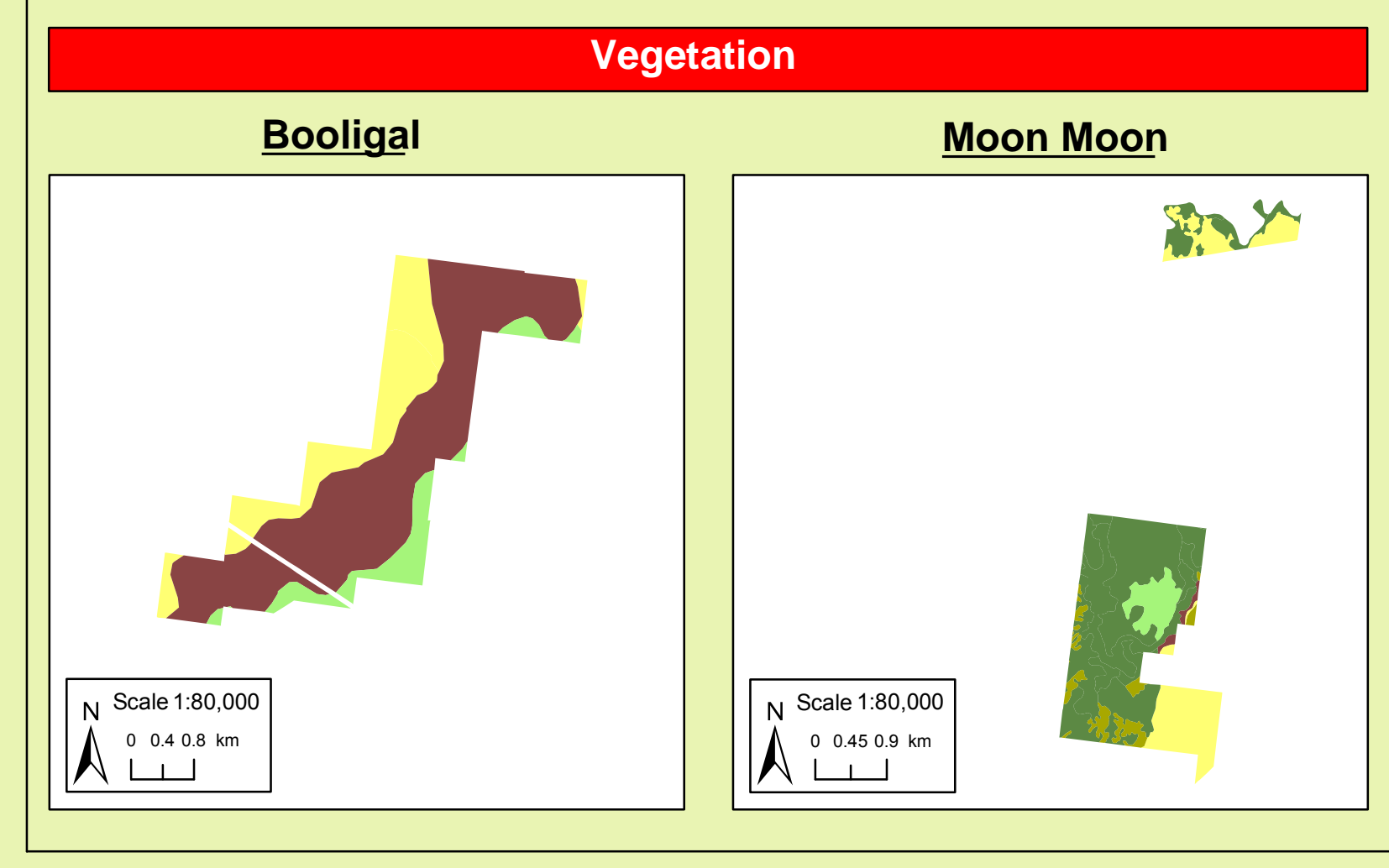
## Vegetation Map Legend

| Broad Vegetation Class                     | Vegetation Type   | Biodiversity Thresholds  | Fire Behaviour  |
|--|---|--|---|
| Forested Wetlands                          | River Red Gum/Black Box Forests   | An interval between fire events less than 10 years and greater than 35 years should be avoided. River Red Gums will only tolerate low intensity fires. Individual trees may survive canopy scorch if they are not under stress and are in older age classes. Younger trees will not survive moderate to high intensity fires. Two fires occurring in the same area in a period of less than 20 years apart may reduce the extent of River Red Gum Forests. | These vegetation communities will generally not carry fire unless there are high ephemeral fuel loads, which generally occur after flooding events. In favourable years the River Red Gum forests can be scattered with high red beeds, which can result in isolated areas of very high to extreme fire behaviour. In years of high ephemeral fuels, landscape fires are possible as fire potential will be very high to extreme, characterised by spotting from Black Box and River Red Gum communities and fast moving fires in other communities. Red Gum trees commonly form candles. In periods of high ephemeral fuel loads the wetlands pose a risk of extreme fire intensities, hot - fast moving fires and rapid change in direction associated with wind. |
| Freshwater Wetlands                        | Lignum & Nitre Goosefoot Open Areas   | An interval between fire events less than 10 years and greater than 35 years should be avoided. Fire should be avoided where Chenopod species occur.   |   |
| Semi-arid Woodlands (Grassy sub-formation) | Black, Grey and Yellow Box - Lignum Woodlands or Black Box Chenopod Open Woodland | An interval between fire events less than 9 years should be avoided. There is no maximum interval between fire events specified for this vegetation type as there was insufficient data to give definite intervals. Fire should be avoided where Chenopod species occur. Two fires in the same area in a period of less than 10 years apart may remove younger Black Box trees.  |   |
| Arid Shrublands (Chenopod sub-formation)   | Bladder Saltbush & Open Areas   | Fire should be avoided where Chenopods occur.  | High intensity fast moving fire once grasses have cured. Fire behaviour is dominated by winds, both speed and direction. Even in very low fuel, grass fires can be erratic and fast moving. In ephemeral years fire intensity will be higher and in drought years minimal growth will result in moderate fire behaviour but potentially still fast moving depending on weather conditions at the time.  |
| Grasslands                                 | Native grass species  | An interval between fire events less than 3 years and greater than 10 years should be avoided.   |   |

**Fire History**  
Fire history data is incomplete for these reserve areas. A recent fire in February 2012, started by lightning off-park and burnt approximately 145 Ha of which less than 1 Ha came onto the northern portion of Moon Moon Precinct.

**Ephemeral Conditions**  
Ephemeral fuel conditions occur after consecutive years of effective rainfall and significant flooding events. This in turn leads to the growth and build up of fine surface fuels such as grasses and herbs, which can create a continuous fuel load across all of the above vegetation communities. As a result expect higher fire intensity.

**Drought Conditions**  
During drought conditions and when vegetation communities are visibly stressed it will be very difficult to undertake prescribed burning across many communities as the surface fuels will be very low. Wildfire areas will be minimised.



## Suppression Strategies

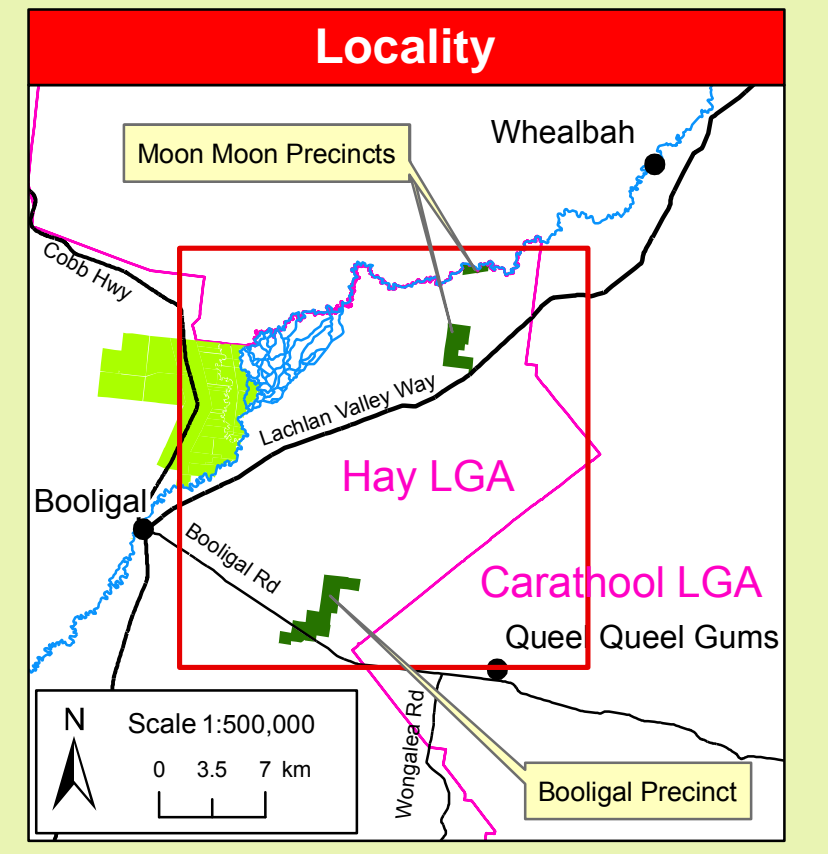
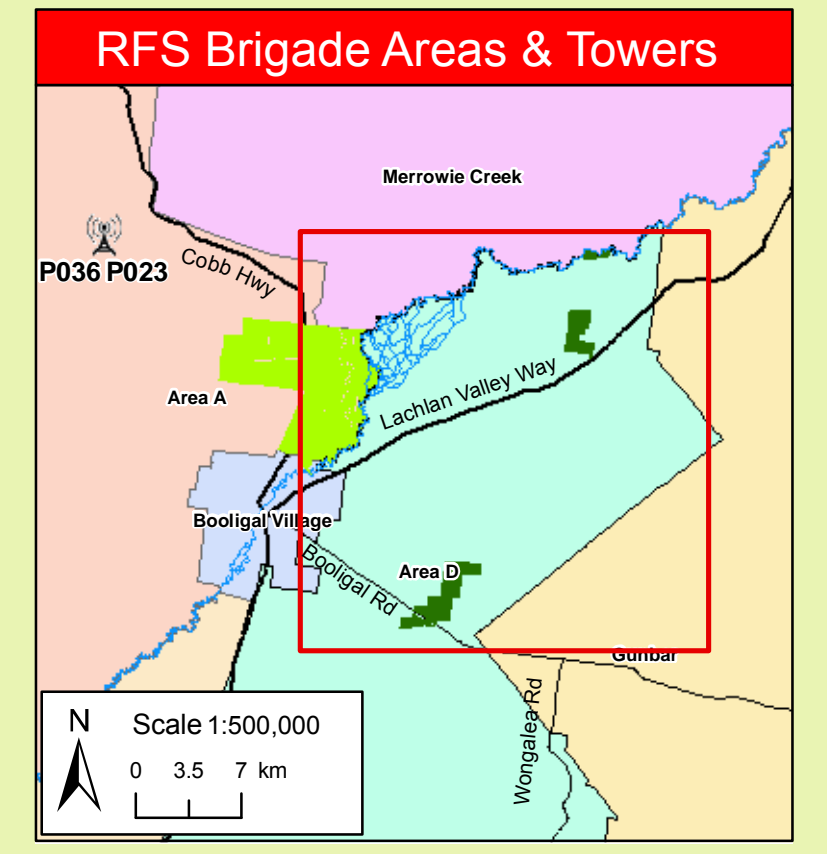
| Season   | Typical Conditions   | Indicative Suppression Strategies  |
|--|--|--|
| Just prior to or during the critical fire season | <ul style="list-style-type: none"> <li>Current Fire Danger Rating (FDR) of Very High or Greater.</li> <li>Short and medium range forecasts suggest conditions typical to a FDR of Very High or Greater.</li> <li>A risk to life and/or property exists in the short - medium term.</li> <li>A broad area risk to biodiversity exists.</li> </ul> | <p><b>Direct</b><br/>Initial attacks should be to try to extinguish or to contain to the smallest possible area.</p> <p><b>Indirect</b><br/>Develop a suppression plan using existing and/or potential containment lines. If possible take into account biodiversity requirements but never to the detriment of life and property.</p> |
| Outside of the critical fire season              | <ul style="list-style-type: none"> <li>FDR of High or below.</li> <li>Short - medium term forecast indicate a continuing FDR of High or below.</li> <li>No risk to life or property exists in the short-medium term.</li> <li>Only small area risk to biodiversity exists.</li> </ul>  | <p><b>Direct</b><br/>Evaluate the biodiversity thresholds and use direct attack methods to extinguish if required.</p> <p><b>Indirect</b><br/>Develop a fire suppression plan to the maximum allowable perimeter based on Biodiversity thresholds.</p>   |

## Contact Information

| Agency   | Position / Location                        | Phone        |
|--|--|--------------|
| National Parks & Wildlife Service                          | Duty Officer (8am-10pm)                    | 02 6332 6350 |
|  | Regional Office - 200 Yambill St, Griffith | 02 6966 8100 |
|  | Hay Area Office                            | 02 6990 8200 |
| Mid West Team Rural Fire Service (Carrathool and Hay LGAs) | Hay Fire Control Centre                    | 02 6993 4213 |
| NSW Fire Brigades  | Hay Fire Station                           | 02 6993 1101 |
| Emergency Services   | Hay Hospital                               | 02 6990 8700 |
|  | Hay Volunteer Unit                         | 13 2500      |
| SES  | Hay Station (not open 24 hrs)              | 02 6993 1100 |
|  | Deniliquin Local Area Command              | 03 5881 9437 |
| Police   | Hay Shire Council                          | 02 6990 1100 |

## Communications Information

| Service                      | Channel | Location and Comments  |
|------------------------------|---------|------------------------|
| NPWS UHF                     | 13      | •Kalyarr & Hay         |
| RFS Hay                      | P025    | •Maude                 |
|                              | P040    | •Hay                   |
|                              | P056    | •Walgrove, 25km SE Hay |
|                              | P065    | •Galah, 45km NE Hay    |
| RFS Balranald                | P035    | •Balranald             |
|                              | P062    | •Lowbidgee             |
| State Forests VHF (Repeater) | 223     | •Mathoura              |
|                              | 226     | •Calmo                 |



## Fire Season Information

|                           |   |
|---------------------------|---|
| <b>Wildfires</b>          | <ul style="list-style-type: none"> <li>The critical wildfire season generally occurs from October/November to March/April.</li> <li>Dry lightning storms frequently occur and typical fire weather conditions are winds from the west to the north, high day time temperatures and low humidity.</li> <li>Particular care is required following periods of Winter rain and after periods of negative Southern Oscillation Indices.</li> </ul> |
| <b>Prescribed Burning</b> | <ul style="list-style-type: none"> <li>Prescribed burning should generally be undertaken during Autumn, Winter or early Spring.</li> <li>Care should be taken to ensure a low intensity burn over most of the area treated.</li> </ul>  |

