

### Mt Canobolas SCA Fire Management Strategy 2014

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).

Contact: OEH PWG Regional Office: 200 Yambill St, Griffith NSW 2680. P.O. Box 1049 Griffith NSW 2680. ph: 02 6966 8100

ISBN 978 1 74293 987 2 OEH 2013/0033 Date: June 2014 Version: 2

Map Details	Related Documents
Datum: Geocentric Datum of Australia (GDA) 1994 Projection: Map Grid of Australia (MGA) Zone 55 Data: Spot Satellite Imagery, 2005. Scale: Note scales are true when printed on A1 size paper	1:25k Topographic Map: Orange 8731 3-N 1:50k Topographic Map: Cudal 8631-S 1:100 Topographic Map: Orange 8731, Molong 8631

### Operational Guidelines

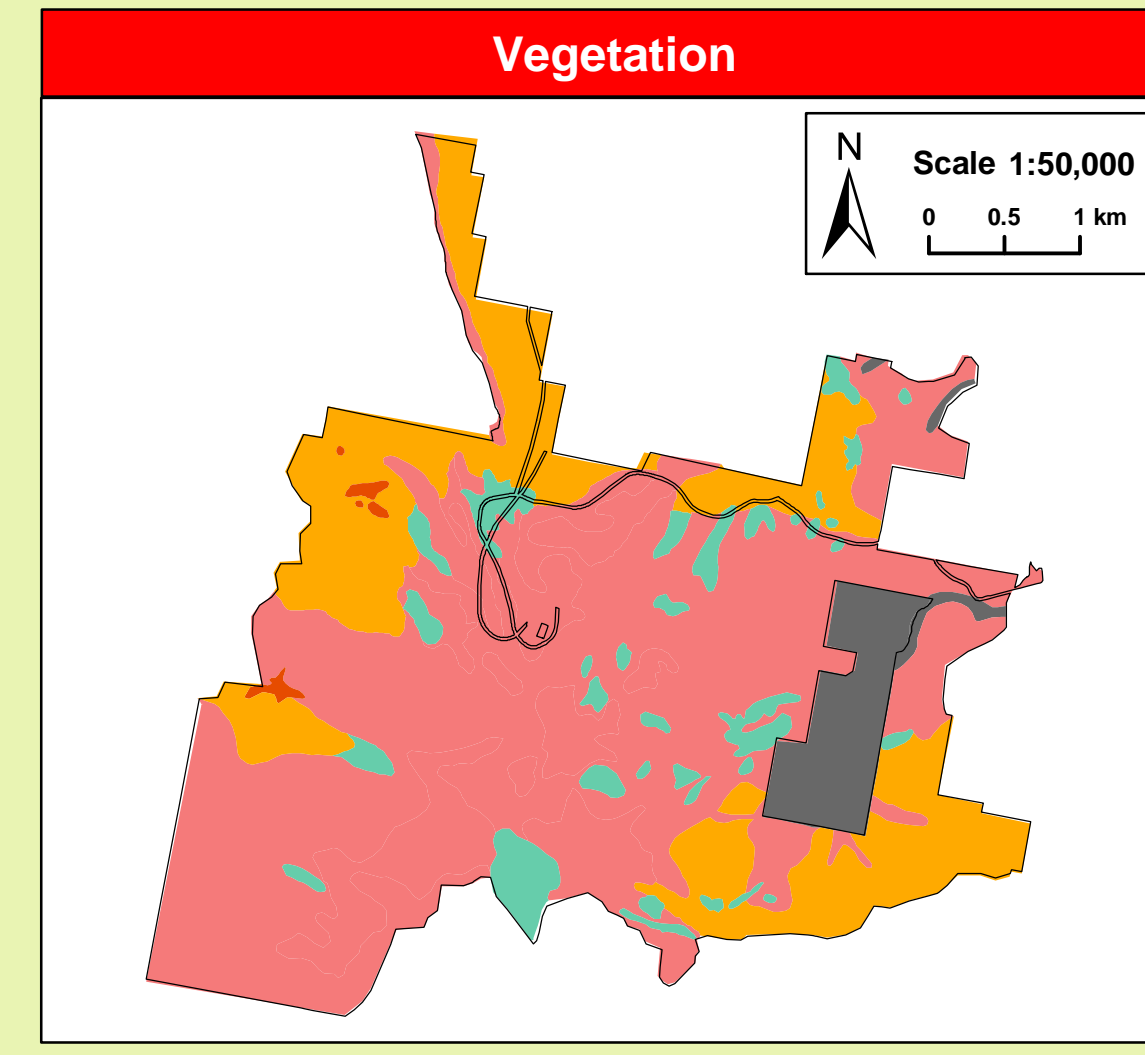
Brief all personnel involved in suppression operations on the following issues using the SMEACS format.

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 Senior Officer, Section 44 delegate or as prescribed in an operational burn plan.</li> <li>The use of aerial ignition as a fire suppression tool should be specified in the IAP or within the prescribed burn plan.</li> <li>Aerial ignition will only be undertaken by qualified and competent navigators and bombardiers.</li> <li>Utilise aerial ignition to rapidly burn out large areas and/or reduce spotting potential by preventing longer uphill fire runs.</li> <li>Aerial ignition can be utilised to rapidly progress back-burns down-slope where required.</li> <li>Avoid the use of aerial ignition in rocky outcrop vegetation communities.</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>The first combatant agency on site may assume control of the fire, but then must ensure the relevant land management agency is notified promptly.</li> <li>On the arrival of other combatant agencies, the 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> </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>Containment lines should avoid rocky outcrops – due to threatened lichens that exist in these areas.</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 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> <li>No earthmoving to be used on rocky outcrop areas due to the presence of threatened lichen species.</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 name recorded.</li> <li>The Threatened Species Operational Guidelines are to be observed.</li> <li>Do not use foams or retardants on rocky outcrop areas – due to presence of threatened lichen species.</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 wildfire suppression operations.</li> <li>Areas of the reserve may be closed for prescribed burning operations.</li> </ul>
<b>WARNINGS</b>	<ul style="list-style-type: none"> <li>Beware of overhead powerlines.</li> <li>Beware of steep slopes as they may increase fire intensity, during wildfire events.</li> <li>Beware of limited vehicle access to and from the summit area during severe or greater FDI.</li> </ul>
<b>Water</b>	<ul style="list-style-type: none"> <li>Use a water cart, brought from Orange (15km NE).</li> </ul>

### 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. 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. A fire event is neither required nor should one necessarily be avoided.
<b>Long Unburnt</b>	Underburnt, excessive time since last fire, species may become extinct. A fire event may be ecologically advantageous. Consider allowing unplanned fires to burn.

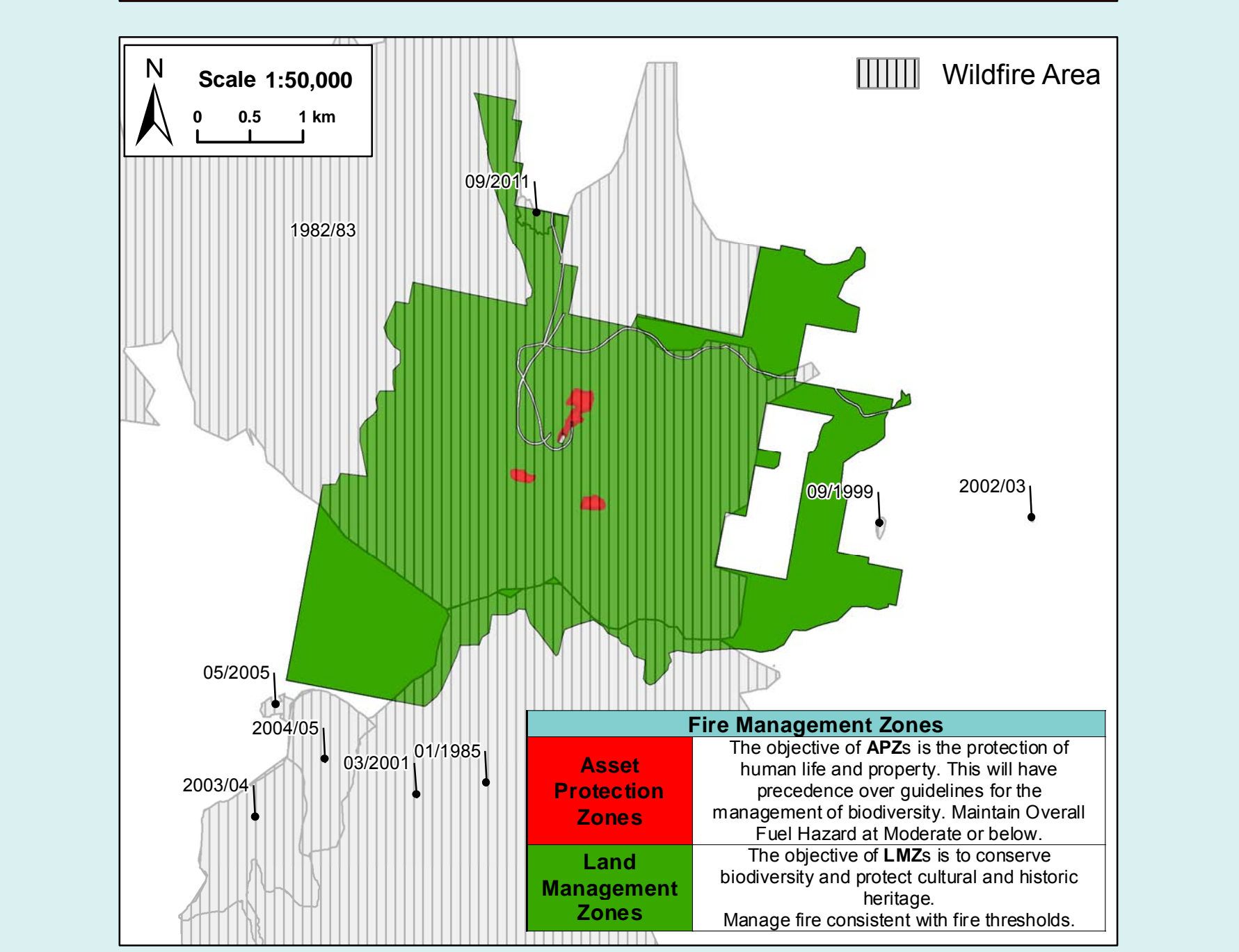
NB. Fire thresholds are defined for vegetation communities to conserve biodiversity



### Vegetation Map Legend

Broad Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
Heathlands and Rocky Outcrops	Outcrop Heath and Shrublands Outcrop Low Open Woodlands	An interval between fire events less than 10 years and above 30 years should be avoided.	Long flame height in heath shrubs expected. Heightened fire activity likely to be short-lived in heath as they are generally small areas.
Dry Sclerophyll Forest (Shrub formation)	Shrubby Open forest & Woodlands	An interval between fire events less than 10 years and above 30 years should be avoided.	In long unburnt areas, very high to extreme potential for spotting due to bark fuels. Isolated areas with heavy ground fuel may have the potential for very high fire behaviour.
Dry Sclerophyll Forest (Shrub & Grass formation)	Waterfall Low Open Woodlands	An interval between fire events less than 10 years and above 30 years should be avoided.	In long unburnt areas, very high to extreme potential for spotting due to bark fuels. Isolated areas with heavy ground fuel may have the potential for very high fire behaviour.
Grassy Woodlands	Grassy Woodlands & Tall Open Forest Grasslands & Grassy Open Woodlands	An interval between fire events less than 8 years and greater than 40 years should be avoided. Area where Snow Gum ( <i>Eucalyptus pauciflora</i> ) trees are present fire the interval is 35 to 50 years.	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. Potential spotting from trees
Other	Disturbed Creek Lines & Unclassified	No fire regime.	
<b>Fire History</b>	Mt Canobolas SCA has a low wildfire frequency with the last notable fire in 1982, which started in the pine plantation adjacent to the reserve. This fire burnt approximately 80% of the reserve area. In the last 10 years 13 prescribed burns have been undertaken covering approximately 30% of the reserve. The region surrounding this reserve is prone to summer lightning events and a large proportion of fires are historically related to dry lightning events with no associated rainfall.		
<b>Drought Conditions</b>	During drought conditions and when vegetation communities are visibly stressed or experiencing dieback no prescribed burning will be permitted and wildfire areas will be minimised. There is a greater risk of wildfire during drought conditions.		

### Bushfire Risk Management Strategies



### Suppression Strategies

Typical Conditions	Indicative Suppression Strategies
<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> Initial attacks should be to try to extinguish or to contain to the smallest possible area.</p> <p><b>Indirect</b> Develop a suppression plan using existing and/or potential containment lines. If possible take into account biodiversity requirements but not to the detriment of life and property.</p>
<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> Evaluate the biodiversity thresholds and use direct attack methods to extinguish if required.</p> <p><b>Indirect</b> Develop a fire suppression plan to the maximum allowable perimeter based on Biodiversity thresholds.</p>

### 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> <li>Avoid prescribed burning between November and March at the northern end of reserve because of potential smoke impacts on surrounding vineyards.</li> </ul>

### Communications Information

Service	Channel	Location and Comments
NPWS VHF	292 290	•Mt Canobolas •WRR Vote Group
RFS Brigades UHF	13 22 26	•Nashdale & Lidster •Canobolas •Springside
RFS PMR	P068	•Mt Canobolas
Forestry Corporation VHF Repeater	3 or 144	•Mt Canobolas

### Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer Level 2 202-209 Russel St Bathurst 2795	02 6332 6350 02 6332 7640
	Regional Office – 200 Yambill St Griffith	02 6966 8100
	Fire Control Centre (Orange) Duty Officer	02 6363 6666 02 6361 8288
NSW Rural Fire Service Canobolas Zone	Fire Control Centre (Orange) Duty Officer	02 6363 6666 02 6361 8288
Fire and Rescue NSW	Orange Fire Station	02 6361 2205
Forestry Corporation	Bathurst – Fireline Macquarie Regional Office	02 6332 4812 02 6331 2044
Emergency Services SES		000 13 2500
Police - Local Area Command	Orange	02 6363 6399
Hospital	Orange	02 6369 3000
Council	Cabonne Shire Council Orange Shire Council	02 6392 3200 02 6393 8000
	LALC	Orange

### Threatened Sites Guidelines

Site	Guidelines
<b>Aboriginal Cultural Heritage Site Management</b>	
More aboriginal sites may be present other than those shown on the Incident Map of this document. Avoid fire and grading control lines within 100 m of a water course, wherever possible, to protect unknown aboriginal sites.	
IS1	<ul style="list-style-type: none"> <li>Do not cut down trees</li> <li>As far as possible protect the site from fire</li> <li>Use of foams, wetting agents &amp; retardant is acceptable.</li> </ul>
IS2	<ul style="list-style-type: none"> <li>Avoid all ground disturbance including the use of earthmoving machinery, handline construction and driving over sites</li> <li>Sites may be burnt by bushfire, backburn or prescribed burn without damage.</li> </ul>
<b>Threatened Fauna Management</b>	
FA1	<ul style="list-style-type: none"> <li>Utilise mosaic burning and avoid disturbance at known sightings, roostings or refuges and avoid frequent fire (&lt;6 years)</li> </ul>
FA4	<ul style="list-style-type: none"> <li>Utilise mosaic burning, protect hollow bearing trees and avoid frequent fire (&lt; 6–10 years)</li> </ul>
FA5	<ul style="list-style-type: none"> <li>Utilise mosaic burning.</li> </ul>
<b>Threatened Flora Management</b>	
FL3	<ul style="list-style-type: none"> <li>Avoid the use of machinery and chemicals.</li> </ul>
Lichens	<ul style="list-style-type: none"> <li>Threatened Lichens occur on Rocky outcrops within the reserve. Avoid disturbance by vehicles and earthmoving machinery. Do not use foams or retardants.</li> </ul>
Tablelands Snow Gum Grassy Woodland EEC	<ul style="list-style-type: none"> <li>Occurs throughout the Grassy Woodland areas of the reserve. Utilise mosaic burning.</li> </ul>
<i>Eucalyptus canobolensis</i>	Predominately found at altitudes between 1200 and 1300 m in Mt Canobolas SCA. Utilise mosaic burning.

