

Communications Information
Kangaroo River Nature Reserve

Services	Channel	Location & Comment
NPWS - VHF	31	Red Rocks Repeater 100% Coverage
NPWS - VHS (Fireground Comm)	43 & 36	17-18 & VHF Channels
NPWS - VHS (Portable Repeater)	4 & 13	Store at NPWS Bungonia - transportable
NPWS RFS (x Band Repeater)	14	Store at NPWS Nowra Workshop - transportable
RFS PAIR - VHF Shoalhaven	84 & 29	Full range of both simplex & duplex
RFS - VHF Shoalhaven	5 & 1	NPWS VHF & RFS PAIR channels
Aircraft - VHF	119.1	Or as advised by State Ops
Phone		
Public Phones		Kangaroo Valley
Mobile Phone - CDMA		Telstra - Good Coverage
Mobile Phone - GSM		Good coverage all carriers
Satellite Phone		Available to equipment from NPWS Highlands Area Office

CONTACT INFORMATION
Emergency Calls - Fire, Ambulance, Police
Call '000' stating service required

Emergency Contact	Dept. of Environment & Conservation
Business Hours - 0830-1630 Mon-Fri	4423 2170
South Coast Region	4421 0013
After Hours / All areas	4887 8244
Local NPWS Area Office - Fitzroy Falls	4423 2170
Nowra Rd Fitzroy Falls, 2577	
South Coast Regional Office	4423 2170
35 Graham St. Nowra NSW 2541	
Rural Fire Service	
Shoalhaven Fire Control Centre	000
Business Calls	4424 4424
RFS Brigades located at:	
(Group Area 1) Kangaroo Valley	For Brigade contact telephone numbers contact Shoalhaven Fire Control 4424 4424
Beaumont	
Cambevarra	
Zovoca (Wingecambebee Fire Control)	4871 2666
NSW Fire Brigades	
Nowra	4421 4754
Moss Vale	4868 1288
Forests NSW	
Hardwood Forest	
Ballarinn Bay Office	4472 8211
Supervisor (Northern)	0428 433 687
Police	
Kangaroo Valley Police Station	4465 1144
Nowra Local Area Command	4421 9699
State Emergency Service (SES)	
Emergency Assistance	133 500
Nowra Headquarters	4423 0081
Local Government	
Shoalhaven City Council (After Hours)	4429 3111
4421 3100	
COMMUNITY CONTACTS	
Nearest Hospitals	
Shoalhaven Hospital, Nowra	4421 3111
WILDLIFE RESCUE	
WIRRES	4862 1768
NANA	0418 427 214

Operational Guidelines - Barrengarry Nature Reserve

These guidelines are provided to assist fire management activities within the reserve. They are framed by current cooperative arrangements with other fire authorities. NPWS strategies for fire management, reserve management plans, neighbours and other site specific issues that need to be considered. Feedback on these matters is always appreciated and should be directed to NPWS Highlands Area Office, Nowra Rd, Fitzroy Falls NSW 2577.

Command and Control: The NPWS is responsible for fire management within the reserve. Any fire authority may initiate size-up and attack with advice to the NPWS upon initial fire sighting or report. See Contacts section to advise fire reports in or within 8km of the reserve. Class 1 fire suppression operations may remain under command of the initial attack agency following assessment and advice by NPWS.

Fire Suppression: Firefighter safety is paramount. Containment options should consider using bordering roads and clearings. Where possible to limit unnecessary damage, earthmoving equipment should not be used in the reserve. If extreme fire conditions prevail, fall back to property protection of adjacent areas. There are no visitor facilities in the reserve and visitation is negligible.

Earthmoving Equipment: The use of earthmoving equipment for fire suppression within the reserve requires NPWS consent. There are significant natural values at unnecessary risk from unskilled use of earthmoving equipment. Contact NPWS if earthworks are required. ALL use of earthmoving equipment will be consistent with NPWS safety, operational and environmental guidelines.

Foam and Retardant Use: Avoid foam and retardant use within the reserve unless there is a significant necessary operational advantage. DO NOT use on or near watercourses or rainforest areas. This reserve is within an urban water supply catchment. DO NOT use foams or retardants near water storages or supply infrastructure. Unless under emergency conditions always obtain permission before using rural water supplies / sources. Take care when tanker filling not to contaminate water sources.

Aerial operations: Aerial operators should be briefed on location of transmission lines in the area, note the depiction of powerlines on the map is incomplete. Consider safety implications where aircraft will operate over adjacent urban areas, dwellings or operate from publicly accessible fireground sites. Aerial operations should be postponed or abandoned if there is a high risk of a storm moving through the area, or there is a significant wind change anticipated. This area is within a controlled airspace, advise Nowra Military (HMAS Albatross) of likely scope of operations required. (02 4424 1257)

Smoke Management: This reserve is near a busy road. Consider prompt advice to communities downwind and consider traffic management during fire suppression operations. Consider safety and health implications during Prescribed Burning operations. Cold air drainage patterns in this area may also carry smoke some distance from the fireground and may adversely affect transport operations. Notify nearby road and airspace management agencies if a smoke hazard to traffic is likely.

Rehabilitation: Earthmoving equipment and other resources should be allocated to soil erosion control works and remedial restoration before standing down from fire operations.

Arson: Report ALL fires of unknown cause or suspected arson to Police via Fire Control. Protect likely ignition points or evidence. Report any suspicious activity on or near the fireground.

Map Grid: Datum for map grid shown is AGD 86. This will remain in use until the majority of map sheets covering the area are revised to the newer GDA datum. To approximately locate a map reference given in GDA to this map (AGD 86) move approximately 200 metres to the southwest from the given grid reference. Conversely, to relay a grid reference from this map (AGD 86) to someone with a GDA map, give the reference of a point approximately 200m to the northeast of the position shown on this map.

**Barrengarry Nature Reserve
Fire Management Strategy
November 2006**

This Map should be used in conjunction with topographic maps and ground reconnaissance during incidents and the development of incident action plans.

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**Grid Interval 1000m
Australian Map Grid Zone 56
Scale 1:5000
Kangaroo Valley Map Sheet
(1:25 000)**

Please forward comments on this strategy to:
ec_feedback@environment.nsw.gov.au
or NPWS Highlands Area Office, Nowra Rd Fitzroy Falls NSW 2577

Fire Management Strategy Information

For fire management planning the reserve comprises one main type of fire management zone with strategies to address fire management in the particular area. Other strategies apply to the whole reserve (eg fire access network) or address fire management for particular values found in the reserve (eg threatened species, cultural sites). These strategies guide the fire management and related works within this reserve. Guidelines are also provided to assist with operational matters - see table.

Fire Management Zones - Barrengarry Nature Reserve

HMZ Heritage Management Zone: Within this zone fire is managed towards a range of intensities and frequencies required in order to conserve natural processes (biodiversity) and cultural assets. Fire authorities continue to aim at containing wildfires in these areas.

For more information on the strategies and purposes of this zone refer to the NSW NPWS Strategy for Fire Management. www.nationalparks.nsw.gov.au
NB: Some zones may extend beyond the boundaries of the Reserve to a logical fire break or boundary for the zone. Where these are outside the Reserve the owners / managers need to be contacted for details of fire management options for these areas.
The zone will form part of the overall Bush Fire Risk Management Plan for the Shoalhaven.

Strategies to be used for Fire Management and Bushfire Suppression

Heritage Management Zones - HMZs

Map ID	Zone Name
HMZ 1	Reserve HMZ
	Strategies
	The Plan of Management stipulates fire will be not introduced into the reserve, however the biodiversity thresholds will need to be assessed annually to ensure correct environmental management of the reserve.

Overall Fire Response and Management Strategies

Fire Detection: The NPWS maintains and contributes to cooperative fire detection and response arrangements across the Shoalhaven Fire District. This includes lookouts, surveillance flights, lightning detection and communications systems.

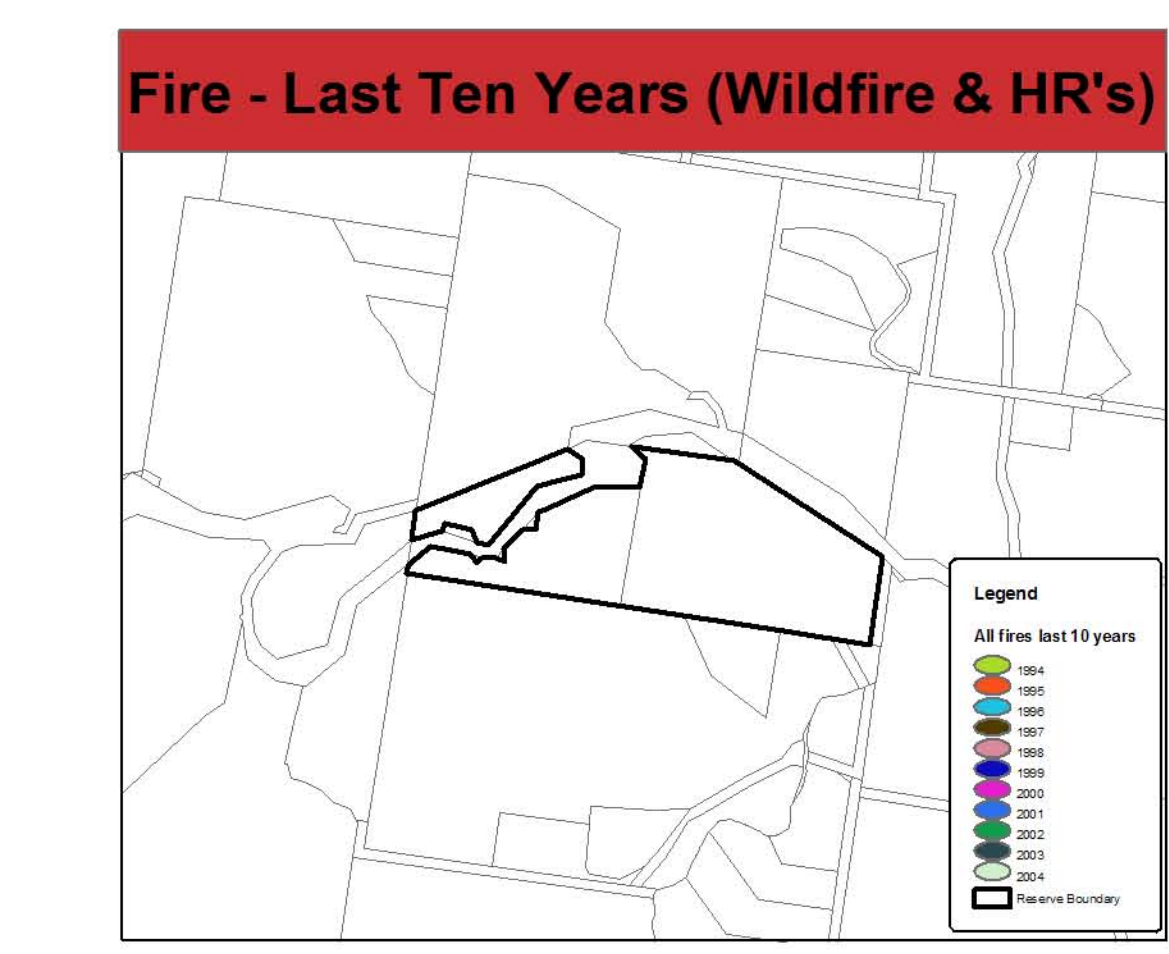
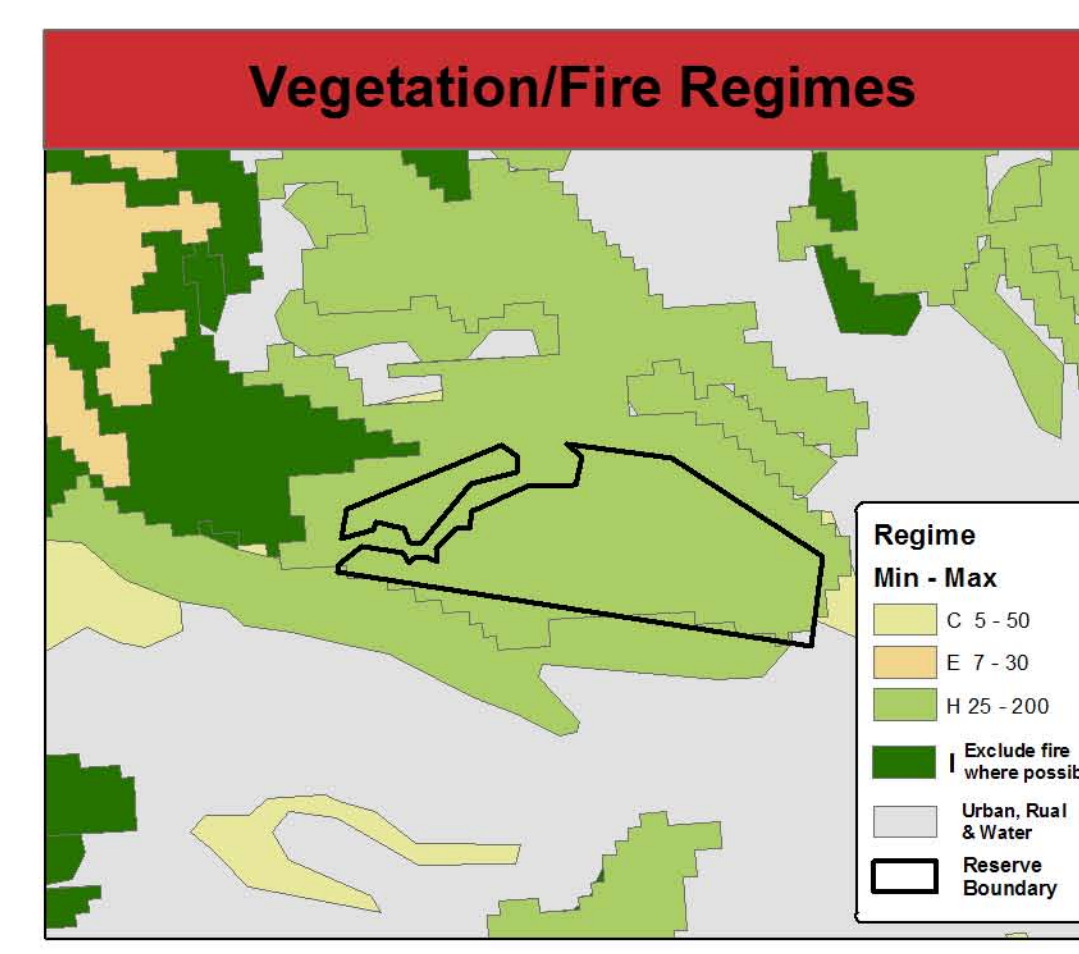
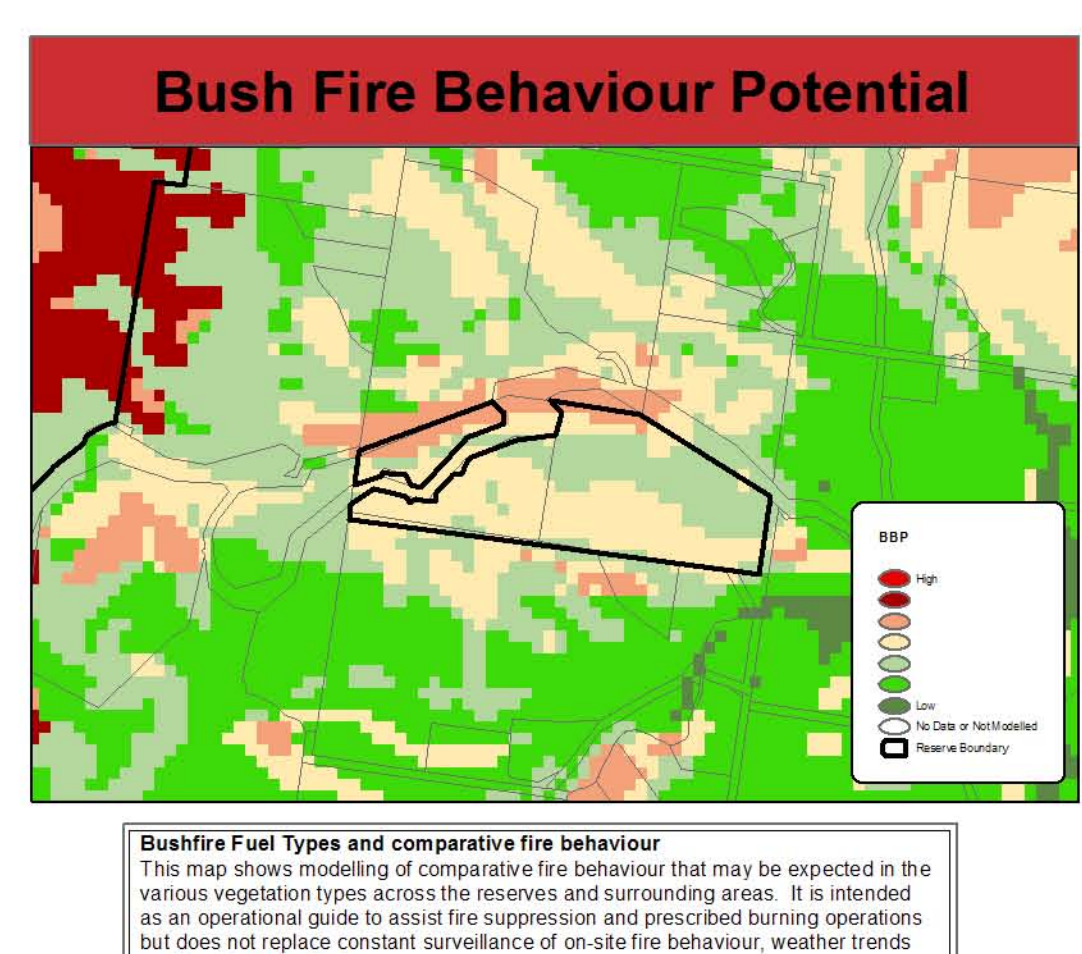
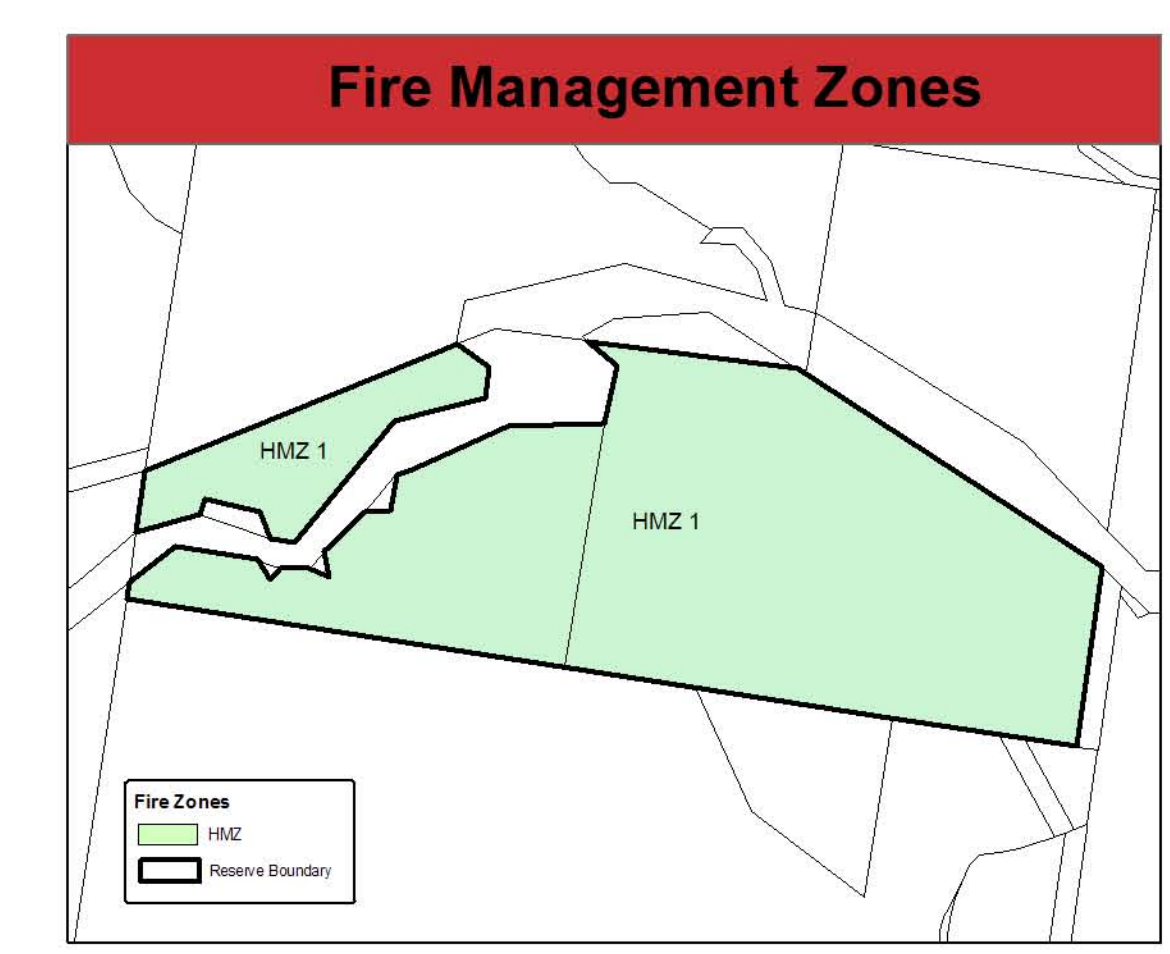
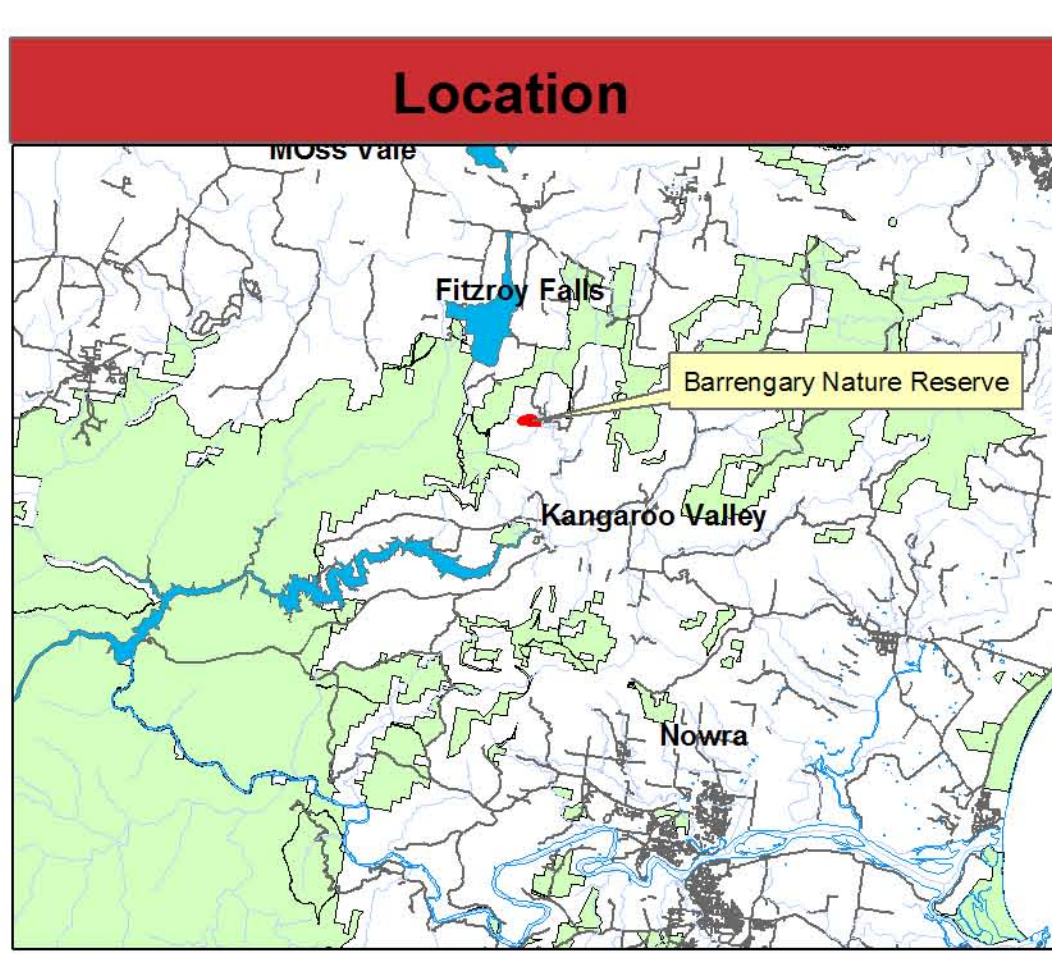
Fire Response: Apart from any specific conditions indicated in the Operational Guidelines, the NPWS as a NSW fire authority prepares and maintains personnel and equipment to undertake fire management and response within the reserve. These resources are also provided under cooperative contact, callout and incident management arrangements within the Shoalhaven Fire District and across NSW.

Fire Suppression: As this reserve is small and near rural residential areas, most unplanned fire will require a prompt response aimed at limiting the size of the area affected. Fire suppression tactics in all areas will primarily consider immediate neighbour and firefighter safety, minimising unnecessary disturbance and will have regard to constraints defined within the reserve Plan of Management.

Community Information: The NPWS will participate in cooperative community information programs in the Shoalhaven Fire District. For this reserve this will focus on biodiversity maintenance, property preparation and protection near the reserve and NPWS role in cooperative fire management and response in the reserve.

Fire Season information and weather patterns:

Wildfires: Fire history indicates fires of greater intensity and control difficulty during late spring, summer and early autumn, though periods of drought may extend this period from late August to June. Strong, drier westerly winds are noted from late August to mid October. During summer, moister north-east sea-breezes may push inland against predicted patterns though this effect diminishes further from the coast and may cause highly changeable conditions on the fireground. Likewise, the effects of southerly maritime changes is later and lesser than along coastal areas. Thunderstorm activity in the summer months may produce sudden changes in wind speed and direction with possible lightning ignitions and highly variable rainfall.



Fire Regimes - Vegetation

In order to maintain biodiversity within the reserve the following regimes are indicated for vegetation types that may be present. The aim is for a range of areas with differing times since fire within these intervals. Fire frequency in SFAZs may trend toward lower thresholds in order to provide a strategic advantage in containing wildfire. The below intervals are broad guidelines only and fire requirements for specific species may need to be considered.

The vegetation types listed below are not necessarily present within the area covered by this Fire Management Strategy.

Map ID	Vegetation type	Minimum fire interval	Maximum fire interval
C	Open forest, Woodland.	5	40
E	Open Forest, Dry Forest, Heathland.	7	30
H	Moist Forest, Gorge/Gully Forest.	2	500
I	Rainforest.	Exclude fire where possible	Exclude fire where possible
No	Rural, Urban, Waterbodies	N/A	N/A