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Grid Interval 1000m Australian Map Grid Zone 56

Please forward comments on this strategy to: sc.fireplans@environment.nsw.gov.au or NPWS Nowra Area Office, PO Box 707, Nowra NSW 2541

Call "000" stating service required	
	(Dept.of Environment & Conservation
Emergency Contact	
Business Hours - 0830-1630 Mon	Fri. (02) 4423 2170
After Hours / All areas	1800 629 104
Local NPWS Area Office	
Nowra	(02) 4428 6300
South Coast Regional Office	(02) 4423 2170
55 Graham St. Nowra NSW 2541	
Rural Fire Service	
Shoalhaven Fire Control Centre	
Emergency calls	000
Business Calls	4424 4424
For Brigade Contact No.s - Contact Fire	Control
ISW Fire Brigades	
Nowra Fire Station	4421 4754
orests NSW	
Hardwood Forests	
Batemans Bay office	4472 6211
olice	
Nowra Police Station	4421 9699
State Emergency Service (SES)	
Emergency Assistance No.	132 500
Shoalhaven Headquarters	4423 0081
ocal Government	
Shoalhaven City Council	4429 3111
(After Hours)	4421 3100
OMMUNITY CONTACTS	•
NANA	0418 427 214
Nearest Hospital	
Shoalhaven Hospital (Nowra)	4421 3111

Fire Management Strategy Information

For fire management planning the reserve is divided into two main types of fire management zones each 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

SFAZ

Strategic Fire Advantage Zones: These zones are strategically placed and managed to provide an advantage for fire fighters in containing and suppressing wildfires. Here, fire frequency may occur towards the lower thresholds necessary to conserve biodiversity, ie more often. Fuel management within the SFAZ may be implemented within the whole or part of the zone. The aim will be to provide strategic fire advantage while allowing for patchiness and variability of fire intensity.

HMZ

Heritage Management Zones: Within these zones 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 these zones refer to the NSW NPWS Strategy for Fire Management. www.nationalparks.nsw.gov.au

NB: Some zones 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.
 These zones will form part of the overall Bush Fire Risk Management Plan for Shoalhaven Fire District.
 Fire Management Zones and strategies for (Reserve Name)

Strategies to be used for Fire Management and Bushfire Suppression

## Strategic Fire Advantage Zone Strategies - SFAZs Map ID Zone Name S1 Southern SFAZ S2 Northern SFAZ

Review fire management works program for the zone annually – post fire season.

This assessment includes bushfire fuel, fire history, biodiversity maintenance and the condition of fire control facilities within the zone such as fire access tracks, slashed areas, gates, information signs, identified water points etc. Fire related works for reserve declared and reported to District Bush Fire Management Committee. Annually – pre-season.

Undertake burning under prescribed conditions where indicated by above fire fuel assessments and biodiversity maintenance requirements – as required.

Maintain identified fire access tracks to indicated standard – as required.

Maintain cooperative management and communication with adjoining landholders so that effective fire risk management is maintained across the zone and adjoining bushlands.

Seek cooperation of local RFS brigades in the monitoring of SFAZ fuel and access conditions.

Assess and report condition of fire access tracks to emergency services - pre

## Map ID Zone Name

Strategies

Review fire management works program for the zone annually, post fire

season.

This assessment includes, fire history, biodiversity maintenance and the condition of fire control facilities within the zone such as fire access tracks,

condition of fire control facilities within the zone such as fire access tracks, slashed areas, gates, information signs, identified water points etc.

Undertake burning under prescribed conditions where indicated by above assessment for biodiversity maintenance requirements – as required.

Communications Information				
Service	Channel	Location and Comments		
RADIO				
NPWS - VHF	31	Red Rocks repeater		
NPWS - VHF (Fireground Comms)	43-44	17-18 - 5 Watt Channels		
NPWS - VHF (Portable Repeater)	14	Stored at Nowra Area depot / transportable.		
NPWS/RFS (X Band Repeater)	14	Stored at Nowra Area depot/transportable. Full range of both simplex and duplex NPWS VHF & RFS PMR channels.		
RFS - PMR - UHF	CH 74, CH 35			
CB - UHF	28	Forestry use		
Aircraft - VHF		As advised by State Ops		
PHONE				
Mobile Phone - CDMA		Minimal coverage available, none in valleys.		
Mobile Phone - GSM		Poor coverage, none in valleys.		
Satellite Phone		Available for deployment ex Highlands and Nowra Area offices.		

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. During periods of higher fire danger this reserve may be patrolled and restrictions placed on visitor access and use of fire. These will be notified via the local media.

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 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 visitor and firefighter safety, minimising unnecessary disturbance and will have regard to constraints defined within reserve Plans of Management.

Prescribed Fire: May be introduced to maintain biodiversity or meet protection obligations as identified within the fire management zones as mapped. The NPWS maintains a record of known fire history and will annually review the need to undertake prescribed burning. Each proposal is subject to environmental assessment and operational safety planning. All burning proposals for the coming season (July-June) are listed with the Shoalhaven Bush Fire Management Committee. For details or enquiries contact the NPWS Area (see Contacts) or Shoalhaven Fire Control.

Fire Management Access: The NPWS will maintain the fire tracks identified on the map (in red) to a trafficable standard for Category 1 and Category 9 fire tankers as indicated. At a minimum these will be reviewed prior to the fire season and when the annual fire management works program is prepared. Other management tracks will be maintained as required for reserve management operations or to limit environmental effects and should always be assessed before being used for fire operations. Any firefighting access problems should be immediately notified to the NPWS Area office (see Contacts). Also refer to operational guidelines.

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

## Fire Works Program The works program arising from the above strategies are prepared and reviewed

This program is prepared from the post fire season assessment of each of the zones as above. Also considered are seasonal weather trends, available resources and cooperative arrangements with neighbours, other fire authorities and land management agencies.

Fire related works for the reserve are summarised and presented to the local District Bush Fire Management Committee annually usually before the bushfire danger period. Some works indicated may not be completed due to prevailing weather patterns, or the necessary redirection of effort and resources to other priority fire tasks such as wildfire control and rehabilitation. In most cases, such deferred works are carried forward into subsequent programs.

Information on the works to be undertaken are available from local NPWS offices and the Shoalhaven District Bush Fire Management Committee at the district RFS

Other Fire Management Information and Strategies for specific Natural and Cultural values

Bush Fire Fuel Types and comparative fire behaviour

This map shows modelling of comparative fire behaviour that may be expected in the various vegetation types across the reserve and surrounding areas. It is intended as an operational guide to assist fire suppression and prescribed burning operations but does not replace constant surveillance of on-site fire behaviour, weather trends and local

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 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 cover the area in a daily pattern, diminishing after sunset. Blustery southerly changes may also progress up the coast over this period causing sudden changes in wind speed and direction. Thunderstorm activity in the summer months may produce unstable fireground weather with possible

Prescribed Burning: Late summer / autumn / and winter are the preferred seasons for prescribed burning where desirable stable conditions and trends are more likely. Burning may take place outside these periods for specific operational and biodiversity

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-

Map ID	Fire Strategies	Species	Common Name	Species Status
Fauna				B
FA1	Undetermined *	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable
FA 2	No burning of allocasuarina thickets.	Calyptorhynchus lathami	Glossy Black- Cockatoo	Vulnerable
FA3	Undetermined *	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable
FA 4	No slashing, trittering or tree removal.	Heleioporus australiacus	Giant Burrowing Frog	Vulnerable
FA 5	No slashing, trittering or tree removal.	Hoplocephalus bungaroides	Broad-headed Snake	Endangere
FA 6	No fire around known roost sites.	Miniopterus schreibersii oceanensis	Eastern Bentwing- bat	Vulnerable
FA 7	No burning within 100 metres of streams, no slashing, trittering or tree removal.	Mixophyes balbus	Stuttering Frog	Endangere
FA8	No slashing, trittering or tree removal.	Mormopterus norfolkensis	Eastern Freetail- bat	Vulnerable
FA 9	Undetermined *	Petaurus australis	Yellow-bellied Glider	Vulnerable
FA 10	No slashing, trittering or tree removal.	Petrogale penicillata	Brush-tailed Rock- wallaby	Endangere
FA 11	Avoid known roost sites.	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable
FA 12	Undetermined *	Scoteanax rueppellii	Greater Broad- nosed Bat	Vulnerable
FA 13	Undetermined *	Tyto tenebricosa	Sooty Owl	Vulnerable

I II G ING	gilles - vegetation		
may be po these three lower three	o maintain biodiversity within the reserve the foll resent. The aim is for a range of areas with diff esholds may be exceeded where necessary for esholds in order to provide a strategic advantage s only and fire requirements for specific species	ering times since fi asset protection. F e in containing wild	ire within these intervals. Within APZs Fire frequency in SFAZs may trend towa Ifire. The below intervals are broad
The vege Strategy.	tation types listed below are not all necessarily	present within the a	area covered by this Fire Management
Map ID Regime	Vegetation type	Minimum fire interval	Maximum fire interval
С	Open forest, Woodland	5	40
D	Grass forest, Riparian forest, Coast/Plateau complex, Dry forest	5	50
E	Coastal Dune Scrub, Coastal Sands Forest, Open Forest, Dry Forest, Heathland	7	30
F	Riparian Forest, Dry Forest, Swamp Forest, Moist Forest	7	35
Н	Moist Forest, Gorge/Gully Forest	25	200
1	Rainforest, Exotic Forest, Mangrove, Marsh	Exclude fire where possible	Exclude fire where possible
No	Rural, Urban, Waterbodies	N/A	N/A

Comma	and and Control: The NPWS is responsible for fire management within the
initial fir of the re	Any fire authority may initiate size-up and attack with advice to the NPWS upore sighting or report. See Contacts section to advise fire reports in or within 8km eserve. Class 1 fire suppression operations may remain under command of the ttack agency following assessment and advice by NPWS.
visitoru	<b>Safety:</b> Consider public safety within initial response operations, ie clearing likelese areas and sites, warnings and information, on-site protection, closures or tion where instructed by Police.
conside possible brushin	ppression: Firefighter safety is paramount. Containment options should be using existing roads, trails, walking tracks and recently burnt areas. Where to limit unnecessary damage, earthmoving equipment should be limited to grup existing tracks. Sufficient trails exist to break reserve into compartments. If the fire conditions prevail, fall back to property protection of adjacent urban areas.
Earthm equipm significa earthmo earthmo	oving Equipment: Except for immediate initial attack, the use of earthmoving ent for fire suppression within the reserve requires NPWS consent. There are ant natural and cultural values at unnecessary risk from unplanned use of oving equipment. Contact NPWS if earthworks are required. ALL use of oving equipment will be consistent with NPWS safety, operational and mental guidelines.
Foam a there is waterco water s supply i before u	and Retardant Use: Avoid foam and retardant use within the reserve unless a significant necessary operational advantage. DO NOT use on or near ourses, wetlands or swampy areas. Sections of this reserve are within an urban upply catchment. DO NOT use foams or retardants near water storages or infrastructure. Unless under emergency conditions always obtain permission using rural water supplies / sources. Take care when tanker filling not to inate water sources

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: 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

the area. Consider safety implications where aircraft will operate over adjacent urban areas or operate from publicly accessible fireground sites. Aerial operations should be

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 point/s or evidence. Report any suspicious activity on or near the fireground.

Locked Gates: Any NPWS locked gates within reserve are fitted with standard key kept in fire tankers and available from Fire Control. Report any missing or damaged locks via Fire Control or to NPWS. For public safety during fire operations, some gates may need to left in closed position but not locked. Close/lock NPWS gates after operations. Where safe, leave farm gates as you find them.

Map Grid: Datum for map grid shown is AGD 66. 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 66) move approximately 200 metres to the southwest from the given grid reference. Conversely, to relay a grid reference from this map (AGD 66) to someone with a GDA map, give the reference of a point approximately 200m to the northeast of the position shown on this