

significant natural and cultural values at unnecessary risk from unplanned use of earthmoving equipment. Contact the NPWS if earthworks are required. ALL use of earthmoving equipment will be consistent with NPWS safety, operational and Foam and Retardant Use: DO NOT use on or near watercourses, wetlands, rainforests or swampy areas. DO NOT use foams or retardants near water storages or supply in frastructure. Unless under emergency conditions always obtain permission before using rural water supplies / sources. Take care when tanker filling not to contaminate Aerial operations: Aerial operators should be briefed on location of transmission lines in the area, Consider safety implications where aircraft will operate over adjacent 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. The eastern section of 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 transport operations. Notify nearby highway 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 the reserves 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 be left in closed position but not locked. Close/lock NPWS gates after operations. Where safe, leave farm gates as you find them. Map Grid: (zone 56) 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

MapID	Strategies	Species	Species status
Flora		Y Y	
FL 1	No fire more than once every 7 years. No slashing, trittering or tree removal.	Acacia constablei	Vulnerable
FL 2	No fire more than once every 7 years. No slashing, trittering or tree removal.	Budawangia gnidioides	Vulnerable
FL 3	No fire more than once every 10 years. No slashing, trittering or tree removal.	Eucalyptus sturgissiana	Vulnerable
FL 4	No fire more than once every 7 years. No slashing, trittering or tree removal.	Haloragis exalata	Vulnerable
FL 5	No fire more than once every 10 years. No slashing, trittering or tree removal.	Haloragis exalata subsp. exalata var. laevis	Vulnerable
FL 8	No Fire. No slashing, trittering or tree removal.	Irenepharsus trypherus	Endangered
FL 7	No fire more than once every 8 years. No slashing, trittering or tree removal.	Melaleuca deanei	Vulnerable
FL 8	No Fire. No slashing, trittering or tree removal.	Pom aderris cotoneaster	Endangered
FL 9	No fire more than once every 7 years. No slashing more frequently than every 10 years, no trittering or tree removal.	Prostanthera densa	Endangered

240000	
Overall Fire Response and Management Strategies	
Fire Detection: The NPWS main tains and contributes to cooperative fire detection an response arrangements across the Shoalha ven Fire District. This includes lookouts, surveillance fights, lightning detection and communications systems. During periods or	
higher fire danger these reserves may be patrolled and restrictions placed on visitor access and the use of fire.	
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 reserves. These resources are also provided under cooperative contact, callout and incident manageme arrangements within the Shoalhaven Fire District and across NSW.	ent
Fire Suppression: The reserves are large and linked to other natural sites, most	-
unplanned fire will require a prompt response aimed at assesing fire size, access, and options for containment/limits to spread of fire. Fire suppression factics 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 main tains a record of known fire history and will annually review the need to undertake prescribed burning. Each proposal is subject to environmental assessment and	3
operational safety planning. All burning proposals for the coming season (July-June) a listed with the Shoalhaven Bush Fire Management Committee. For details or enquiries	re
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/or 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	
main tained 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 (s	
Contacts). Also refer to operational guidelines.	_
Community Information: The NPWS will participate in cooperative community information programs in the Shoalhaven Fire District. For these reserves this will focus fire management works and biodiversity maintenance, personal safety and the safe use	
fire, property preparation and protection near the reserves and the NPWS role in cooperative fire management and response in the reserves. Slashing / other bush fire fuel management works: The NPWS will maintain slashe	4
areas as indicated within the reserves. For information on other slashed areas or fire management works contact NPWS Nowra Area Office or Shoalhaven Fire Control.	៊ី
Fire Works Program The works program arising from the above strategies is prepared and reviewed	- 1
annually. 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 are cooperative arrangements with neighbours, other fire authorities and land management.	nd
agencies. Fire related works for the reserves are summarised and presented to the loc District Bush Fire Management Committee annually, usually before the bushfire dange	cal er
period. Some works indicated may not be completed due to prevailing weather pattern 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	5,
forward into subsequent programs. Information on the works to be undertaken are available from local NPWS offices and the Shoalhaven District Bush Fire Management	t
Committee at the district RFS headquarters.	
Fire Season information and weather patterns: Wildfires: Fire history indicates fires of greater intensity and control difficulty during late	te
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 m 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	

Octobe predicts highly of maritim the sur possibl Prescriprescript at high	r. During summer, mo ister no ed patterns though this effect of changeable conditions on the fi le changes is later and lesser to namer months may produce suc e light bring ignitions and highly libed Burning: Late summer / bed burning where desirable si	rth-east sea-bree diminishes further freground. Likew than along coasta does not coasta variable rain fall. autumn / and win table conditions a criter in the seaso.	from the coast and may cause ise, the effects of southerly if areas. Thunderstorm activity in wind speed and direction with the area the preferred seasons for ind trends are more likely. Areas n. Burning may take place outside			
		MaplD	Strategies	Species	Common	Species status
		Fauna		2	Name	status
		11.5.22				V
		FA1	 No slashing, trittering or tree removal. 	Calam anthus fuliginosus	Striated Fieldwren	Vulnerable
		FA2	Specific Requirements undetermined*	Callocephalon fim briatum Calyptorhynchus lathami	Gang-gang Cockatoo Glossy Black-Cockatoo	Vulnerable Vulnerable
	Species	FAS	No burning of allocasuarina thickets. Mechanical hazard reduction permitted, but a void allocasuarina thickets.	Calypiomynchus lathami	Glossy Black-Cockatoo	Vulnerable
	status	FA4	 No slashing, trittering or tree removal. 	Cercartetus nanus	Eastern Pygmy-possum	Vulnerable
	Vulnerable	FA.5	No burning around known roost sites. No slashing, trittering or tree removal around known roost sites.	Chalinolobus dwyeri	Long-eared Pied Bat	Vulnerable
		FA6	Specific Requirements undetermined*	Dasyurus maculatus	Spotted-tailed Quoli	Vulnerable
es	Vulnerable	FA7	Protect hollows. No tree removal.	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable
na	Vulnerable	FA8	No fre. No slashing, trittering or tree removal.	Heleioporus australiacus	Giant Burrowing Frog	Vulnerable
= 3	Vulnerable	FA9	No burning within 200 metres of known locations. No slashing, trittering or tree removal.	Litoria littlejohni	Heath Frog	Vuinerable
SD.	Vulnerable	FA 10	 Specific Requirements undetermined* 	Melanodryas cucullata	Hooded Robin	Vulnerable
ъμ.	Vullerable	FA 11	Specific Requirements undetermined*	Peta urus australis	Yellow-bellied Glider	Vulnerable
18	Endangered	FA 12	No slashing, trittering or tree removal.	Petrogale penicillata	Brush-tailed Rock- wallaby	Endangered
	7.47 20 20 20 40 40 40 20	FA 13	 Specific Requirements undetermined* 	Phascolarctos cinereus	Koala	Vulnerable
	Vulnerable	FA 14	Specific Requirements undetermined*	Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable
ter	Endangered	FA 15	 No burning around known nesting sites at any time. No slashing, tritlering or tree removal at these sites. 	Tyto novaehollandiae	Masked Owl	Vulnerable
a,	Endangered	FA 16	 No burning around known nesting sites at any time. No slashing, tritlering or tree removal at these sites. 	Tylo tenebricosa	Sooty Ow I	Vuinerable
		FA 17	 Specific Requirements undetermined* 	Varanus rosenbergi	Rosenberg's Goanna	Vulnerable
		FA 18	 Specific Requirements undetermined* 	Xanthom yza phrygia	Regent Honeyeater	Endangered
	36	FA 19	No slashing trittering or tree removal	See NPWS	See NPWS	Endangered

Specific Requirements undetermined – No species specific fire requirements known at present, however the potential impact
of firefighting chemicals and heavy machinery use should be considered and minimised where possible.

Hardwood Forests

Batemans Bay office

Bundanoon Police Station

State Emergency Service (SES)

Emergency Assistance No.

Shoalhaven City Council

Shoalhaven Hospital (Nowra)

COMMUNITY CONTACTS

Nearest Hospital/s

Shoalhaven City Council (After Hours)

Shoalhaven Headquarters

Nowra Police Station

Local Government

Map ID	Zone Name Coolendel
2	Yarramunmum
3	Touga North
4*	Tullyangela
5*	Tolwong Rd North
6*	Tolwong
7*	Touga South
- 8	Yalwal
9	Quiera
10	Deans Flat
	Strategies
	Review fire management works program for the zone annually, post fire season. This assessment includes bushfire fuel, fire his tory, 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 reserves 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. Assess and report condition of fire access tracks to emergency services — pre
9	fire slesson.
	Maintain cooperative management and communication with adjoining landholders so that effective fire risk management is maintained across the zone and adjoining bushlands.
	Where threatened fauna strategies indicate "No Fire" – ensure that where fire needs to be introduced for asset/strategic advantage or vegetation diversity conservation that intermittent strip or mosaic burn patches of limited size are prescribed e.g. less than 50 metres and less than 33%.
*	The purpose of these "strip" SFAZ is to enhance the strategic usefulness of adjacent roads (access routes. Limited burning of non adjacent portions will be undertaken where conditions are suitable and in conjunction with fire management activities in adjacent zones.
Land M	an agement Zones – LMZs
	Zone Name
11	Valley
12	Bulee
13	Sturgiss
14	Tryers
15	Ettrema
16	Wombat
17	Bundundah
	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, slashed areas, gates, information signs, identified water points etc.
	Undertake burning under prescribed conditions where indicated by above

Strategic Fire Advantage Zone Strategies - SFAZs

4472 6211

4883 6044

4421 9699

4423 0081

4421 3100

0418 427 214

4421 3111

	complex, Dry forest	7.45071		
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	
SI.	Rainforest, Exotic Forest, Mangrove, Marsh	Exclude fire where possible	Exclude fire where possible	
No gime	Rural, Urban, Waterbodies N/A		NA	
borio	ginal & Historic Heritage Sites			
	ginal & Historic Heritage Sites Strategy		Site Type	
ap ID			Site Type Sites affected by fire itself	
ap ID	Strategy		Sites affected by fire itself eg possible artefacts of	
ap ID	Strategy As far as possible – protect site	from fire	Sites affected by fire itself eg possible artefacts of flammable materials such	
ap ID I-A	Strategy As far as possible – protect site Do not cut down trees Use of foams, wetting agents an	from fire	Sites affected by fire itself eg possible artefacts of flammable materials such	
ap ID I-A	Strategy As far as possible – protect site Do not cut do wn trees Use of foams, wetting agents an acceptable As far as possible – protect site Avoid all ground disturbance in cearth moving machinery, handlin	from fire nd retardants is from fire duding the use of	Sites affected by fire itself eg possible artefacts of flammable materials such as scarred or carved trees Sites less affected by fire but prone to disturbance by suppression operations	
boricap ID H-A H-B	Strategy As far as possible – protect site Do not cut do wn trees Use of foams, wetting agents an acceptable As far as possible – protect site Avoid all ground disturbance in c	from fire nd retardants is from fire duding the use of e construction	Sites affected by fire itself eg possible artefacts of flammable materials such as scarred or carved trees. Sites less affected by fire	

disturbance by fire

scatters, middens.

suppression operations.

eg - burial sites, artefact

and driving over sites.

disturbance.

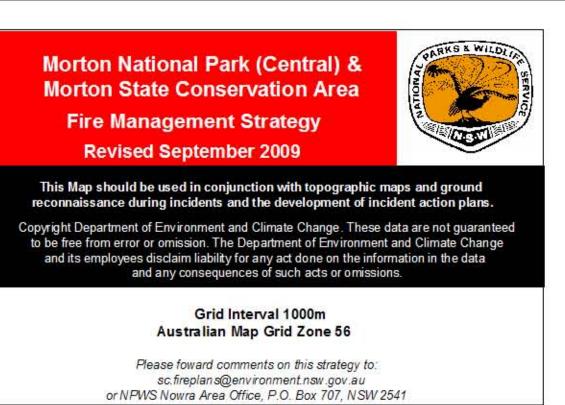
Avoid water bombing, which may cause ground

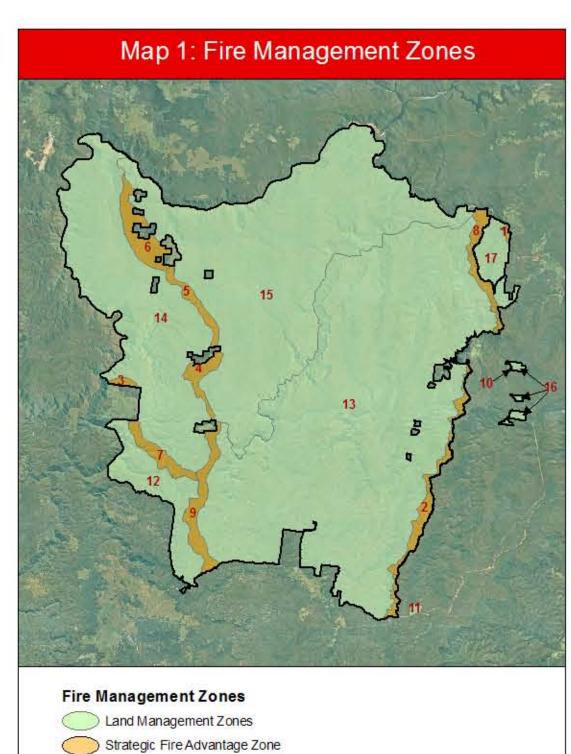
Site may be burned by bushfire, backburn or

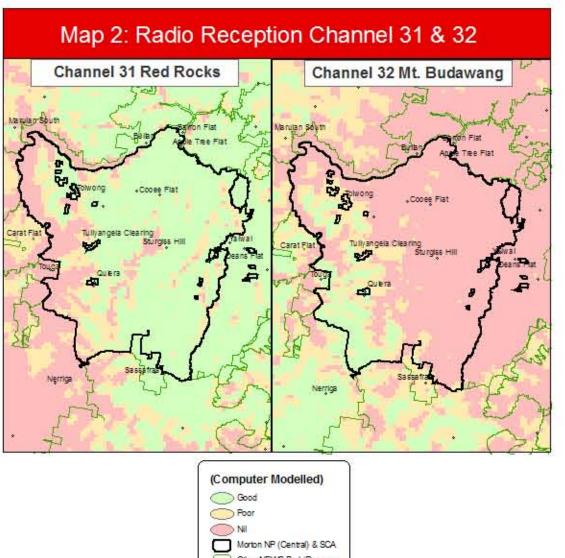
Avoid use by vehicles and earthmoving plant

prescribed bum without damage

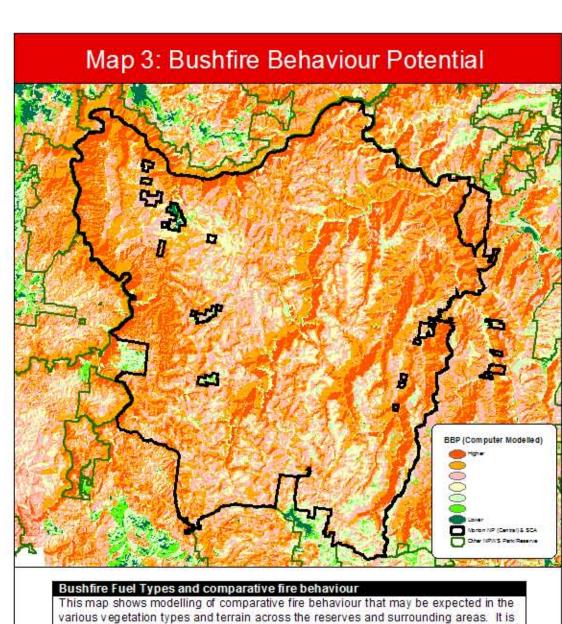
Se rvice	Channel	Location and Comments
RADIO		
NPWS - VHF	31	Red Rocks repeater - Northern, Eastern & Southern
TANKET VENT	32	Mount Budawang - South/Western
NPWS - VHF (Fireground Comms)	43-44	17-18 - 5 Watt Channels
NPWS - VHF (Portable Repeater)	14	Stored at Nowra Area depot / transportable.
NPWS / RFS (X-band Repeater)	14	Stored at Nowra / transportable. Full range of both simplex & duplex NPWS VHF & RFS PMR channels.
RFS - PMR - UHF	CH 84	Red Rocks
The state of the s	CH 77	Sassa fras
Jackson Harrison	CH 29	Kangaroo Valle y
CB - UHF	28	Forestry use
Aircraft - VHF		As ad vised by State Ops
PHONE		
Mobile Phone - Next G & GSM		Poor to no coverage none in valleys.
Sa tellite Phone		Available for deployment ex Ulladulla and Nowra Area offices







Other NPWS Park/Reserve



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 terrain effects.

