Malabar Headland National Park
Fire Management Strategy
2020

This strategy should be used in conjunction with aerial photography and field reconnaissance during incidents and the development of incident action plans.

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This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of the Rural Fires Act 1997.

Endorsed by: Deon Rensburg

Director, Greater Sydney Branch

Date: 10 / 8 / 2020

Fire Season Information

Wildfires	• The statutory wildfire season occurs between 1st October and 31st March. This may be extended if weather conditions lead to increased fire danger outside of this period.
Prescribed Burning	• Prescribed burning in this area is normally undertaken in Spring through to Autumn.

Related Documents

- National Parks and Wildlife Service Fire Management Manual

Map Details

Datum: Geodetic Datum of Australia (GDA) 1994
Projection: Map Grid of Australia (MGA) Zone 56
Aerial Photography: 2017
1:25k Topographic Map: Bondi 9130-25 3rd Ed & Botany Bay 9130-35 2nd Ed (LPI)

Communications Information

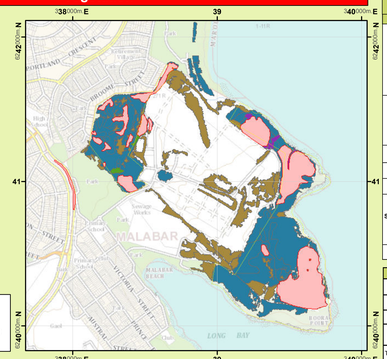
Service	Channel	Location and Comments
NPWS - VHF	124	• Good coverage
UHF - CB	1 - 99	• Available in most NSWFB and RFS vehicles • Choose channel on fire-ground with NSWFB and RFS
Mobile Phone - GSM	-	• Good coverage

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	24hr Call Centre (Public Contact number)	1300 056 294
	Sydney South Area Manager	9337 7021
	Team Leader Fire	9542 0638
	Sydney South Area Office	9337 5511 (fax) 9337 1303
	Greater Sydney Branch Operations Office	9457 8900 (fax) 9457 8265
Fire & Rescue NSW	Emergency	000
	Matraville	9664 1145
SES	Emergency	000 or 132 500
	Randwick	9314 1133
Police	Sydney Southern Division	9765 9000
	Emergency	000
	Eastern Beaches LAC (Maroubra)	9349 9299
	Marine Area Command (Sydney)	93207499
Ambulance	Emergency	000
	Booker Bay	9542 2333
Hospital	Prince of Wales – Randwick (UBD 257 A15)	9650 0555
	St George – Kogarah (UBD 34 D15)	9113 1111
Council	Randwick	9399 0999
ANZAC Rifle Range	Executive Officer	9661 4532
Sydney Water WTP	Plant Manager	9511 8862
Commonwealth Depart of Finance	General inquiries	02 6215 2222
Maroubra Beach Lifeguards	Supervisor	9349 1336
South East Equestrian Club	Carissa Holmes	0466 790 311

Locality of Reserve and Local Government Areas

Vegetation



Legend

- NPWS Estate
- Eastern Suburbs Banksia Scrub

Vegetation Types

- Dry Sclerophyll Forests
- Freshwater Wetlands
- Heathlands
- N/A

Scale 1:4000
Meters
0 200 400 800

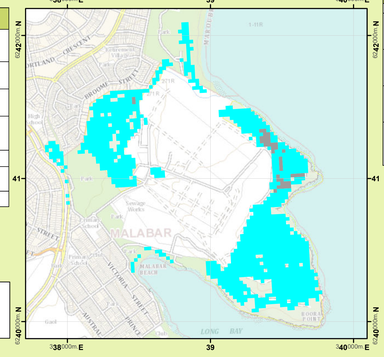
Current Vegetation Status (Fire Thresholds)

Biodiversity Thresholds

Refer to current Fire Management Manual for further information

Too Frequently Burnt	Fire thresholds have been exceeded. *Protect from fire as far as possible.*
Vulnerable to Frequent Fire	The area will be Too Frequently Burnt if it burns before the minimum threshold is reached. *Protect from fire as far as possible.*
Within Threshold	Fire history is within the threshold for vegetation in this area. *A burn is neither required nor should one necessarily be avoided.*
Long Unburnt	Fire frequency is below fire thresholds in the area. *A prescribed burn may be advantageous. Consider ecological effects of allowing fire in these areas.*
Unknown	Insufficient data to determine fire threshold
No Fire Regime	Areas which do not have recommended fire intervals assigned to them eg. cleared land, rock

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



Scale 1:4000
Meters
0 195 390 780

Operational Guidelines

Refer to NPWS Fire Management Manual and other relevant documents.
Brief all personnel involved in suppression operations on the following issues:

General	Guidelines
Burning Operations	• 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, backburning should commence when the humidity begins to rise in the late afternoon or early evening. With a lower FDI backburning may be safely undertaken during the day. • Where practicable, clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down these trees as part of the backburn ignition. • Avoid ignition of backburns at the bottom of slopes where a long and intense up slope burn is likely.
Coordinated Response Arrangements	• The first combatant agency on site may assume control of the fire, but then must ensure the relevant land management agency is notified promptly. • 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.
Fire Control Lines	• Where possible avoid constructing new containment lines unless necessary for containing fire.
Fire Advantage Recording	• All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
Fire Suppression Chemicals	• Fire suppression chemicals should be avoided in areas of high ecological value
Smoke Management	• The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations. • If smoke becomes a hazard on local roads or highways, the police and relevant media must be notified. • Smoke management must be in accordance with relevant RTA traffic management guidelines.
Visitor Safety	• The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.

Vegetation Communities and Biodiversity Thresholds

Vegetation Community	Biodiversity Thresholds
Shrubby Dry Sclerophyll Forest	• Avoid successive fires at intervals of < 7 years. • Avoid fire exclusion for a period of > 30 years.
Heathland	• Avoid successive fires at intervals of < 8 years. • Avoid successive fires at intervals of > 15 years. • Avoid fire exclusion for a period of > 30 years.
Eastern Suburbs Banksia Scrub EEC	• Avoid successive fires at intervals of < 2 years. • Avoid successive fire intervals > 10 years. • Occasional intervals > 7 years. • Avoid successive fires at intervals of < 6 years. • Avoid fire exclusion for a period of > 35 years.
Themeda Grassland on Seacliffs & Coastal Headlands EEC	
Sydney Freshwater Wetland EEC	

Suppression Strategies

Current FDR	Forecast FDR	
Low – Mod	Low – Mod	• As far as possible, undertake indirect, parallel or direct attack along existing control lines. • As far as possible, maximise area burnt without threatening assets, including biodiversity. • Identify and survey backup control lines.
Low – Mod	= > High	• Undertake indirect, parallel or direct attack to minimise the time taken to contain the fire. • Construct new control lines if necessary to minimise the time to contain the fire. • Identify and survey backup control lines.
High	All	• Undertake indirect attack along existing or newly constructed control lines. • Secure and deepen control lines along the next predicted downwind side of the fire. • Identify and survey backup control lines.
All	All	• Ensure there is sufficient time to secure control lines before the fire gets to them. • If there is insufficient time to secure control lines, fall back to the next potential control line. • As far as possible, implement threatened species and cultural heritage management guidelines.

Resource	Guidelines
Aboriginal Cultural Heritage Site Management	
AH1 Artefact (AFT) Earth Mound (ETM) Hearth (HTH) Non Human Bone (BOM) Ochre Quarry (OCQ) Potential Archaeological deposit (PAD) Shell (SHL)	• Do not break earth around known sites, especially where there is surface evidence of artefacts, shell, charcoal or ochre. • Any surface impact adjacent to site must be immediately returned to previous state, a note made of site location, and details of site disturbance provided to OEH cultural heritage unit. • Vehicles or heavy equipment must not be used on or within these sites unless a path exists that will not damage the site. • Vegetation which is screening the site must not be damaged. • There must be no slashing/trittering of vegetation, no tree removal, and no use of earthmoving equipment such as bulldozers. • If using fire, place the control lines well away from the site.
AH2 Art (ART) Grinding Groove (GRG)	• If burning, loose leaf litter must be carefully removed from rock platforms and from under overhangs. Leaf litter is to be returned to the site after the fire as site may be covered for protection from vandalism. • If using fire place the control lines well away from the site. • Heavy equipment (including vehicles) must not be used on rock platforms, or within 10 metres of sites unless there is an existing road available for use. • If burning, rake loose leaf litter away from vegetation in the vicinity of the site if smoke is likely to impact upon rock paintings. • No use of chemicals or other retardants within 20 metres of art sites. If windy the distance is to be extended to 50 metres. • Vegetation which is screening the site must not be damaged. • There must be no slashing/trittering of vegetation, no tree removal, and no use of earthmoving equipment such as bulldozers.
AH3 Aboriginal Resource & Gathering (ARG) Habitation Structure (HAB) Modified Tree (TRE) Water Hole (WTR)	• Loose leaf litter and low ground cover is to be manually cleared by raking for 10 metres around carved or scarred trees and wooden structures. Wooden structures and trees of concern are to be protected all time of burn. For example, dampen earth around structure and trees to be protected, and minimise risk of ember attack. • If using fire place the control lines well away from the site. • Trees of concern must be examined as soon as possible after the passage of the fire and embers that might cause the tree to burn must be extinguished. • Chemicals or other retardants that can impact upon plants and animals used by Aboriginal people or cause damage to water holes must not be used. • There must be no slashing/trittering of vegetation, no tree removal, and no use of earthmoving equipment such as bulldozers. *If site is used by Aboriginal people for resource and gathering then liaise with the Aboriginal community to ensure that hazard reduction is timed to cause minimal damage to the resource, and is not disruptive to gathering practices. Do not proceed if damage cannot be avoided.*
Historic Cultural Heritage	
HH4 – Low flammability and mostly structurally sound sites and earthworks, including stone foundations and aqueducts	• Avoid all ground disturbances, including he use of earthmoving machinery, handline construction and driving over sites. • Waterbombing acceptable. The use of foams, wetting agents and retardant should be avoided • Sites of State Significance. Avoid impact by bushfire, backburn or prescribed burn where possible.
Threatened Fauna Ecology	
Pteropus poliocephalus ***Grey-headed Flying Fox***	• Avoid fire in the near vicinity of roost areas within known/potential habitat where possible, especially during the breeding season (March – October). • Maintain a mosaic of age classes within known/potential foraging habitat.
Miniopterus schreibersii oceanensis **Eastern Bentwing-bat**	• Avoid high frequency fire in habitat, as this will decrease prey. • Known roost sites (Gunnery Emplacements fortifications) to be inspected prior to burning to ensure species is absent.
Ninox strenua **Powerful Owl** *Tyto capensis* **Sreas Owl**	• Avoid medium to high intensity fire. • Maintain appropriate fire regimes to preserve foraging/nesting habitat.
Meridolum maryae **Maroubra Land Snail**	• Avoid burning in humid conditions • Water down course woody debris greater than 15cm diameter • Rake leaf litter away from trees and artificial refuge habitat

Bushfire Suppression

Legend

- NPWS Estate
- Prescribed Burn
- Wildfire
- Equestrian Club
- Refuge Area
- Helipad
- Assembly Area
- Hydrant
- Asset
- Gate (V) = Vehicle Gate
- Gate (P) = Pedestrian Gate
- Threatened Fauna
- Threatened Flora
- European Sites

Aboriginal Sites

- AH1
- AH2
- AH3

Tracks and Trails

Capacity

- Cat 1
- Cat 9
- Walking Track

Scale 1:1000
Meters
0 205 410 820

Bushfire Risk Management Strategies

Fire Management Zones

Asset Protection Zone	The objective of APZs is to: • Provide protection of human life, property & cultural heritage as a precedence over guidelines for the management of biodiversity. • Enable the safe use of direct attack suppression strategies • Maintain the Overall Fuel Hazard at Moderate or below	
	Zone Name	**Action**
	APZ – Pioneer Park	• Maintain existing grassed areas as APZ by regular mowing. • Maintain APZ consistent with specifications in *NSW RFS Standards for Asset Protection Zones*. • Use caution regarding possible asbestos contamination in this APZ
Land Management Zone	The objective of LMZs is to: • Manage fire consistent with fire thresholds • Maintain & enhance biodiversity by preventing the extinction of species which occur naturally within the area. • Protect Aboriginal, historic heritage sites and other culturally significant features from fire.	
	Zone Name	**Action**
	LMZ – Magic Point	• Maintain appropriate fire interval as per ESBS requirements. • Avoid fire in areas surrounding fortifications when Eastern Bent-wing Bats are roosting.
	LMZ – Boora Point	
	LMZ – Service Range South	• Maintain appropriate fire interval as per ESBS requirements
	LMZ – Service Range North	
	LMZ – Franklin Street	
	LMZ - Long Bay	
	LMZ - Ford Street	
	LMZ - Broome Street	
	LMZ - Equestrian School	
	LMZ - Pioneer Park	

Legend

- NPWS Estate

Malabar Tracks and Trails

Importance

- Essential
- Important
- Walking Track

Fire Management Zone

- Asset Protection Zone
- Strategic Fire Advantage Zone
- Land Management Zone

Scale 1:2000
Meters
0 105 210 420