

**Central Coast Hunter Range Region  
Wamberal Lagoon Nature Reserve**

**Fire Management Strategy (Type 2)  
2006  
Sheet 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.  
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Published by the Department of Environment and Conservation (DEC).  
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ISBN: 1741378613 DEC 2006/123 Date approved: 11 April 2006  
This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of Rural Fires Act 1997.

**Location**



**Main Details**

Protection	UTM ASD 1986
Air Photo	(GIS: Wamberal, air.asd, Reservoir, air.asd) Copyright 97/98 (GIS: Gosford.asd)
1:25,000 Topo Map	(GIS: Gosford.asd)
UBD Map	Pages 60, 69, 90 (GIS: UBD, hem.asd)
LGA	Gosford
Electorate	The Entrance

**Communication Resources**

Service	Channel	Location/Comments
NPWS - VHF	2709	Manaro Mountain
RFS - PAR (Gosford)	Main - 107 Other - 97, 100, 104, 113 (other)	
RFS - GRN (Gosford)	181	
LRF - CB		
Mobile Phone	Good Coverage	
Satellite Phone	118 727 618 615 78	

**Agency Contact Details**

Agency	Contact Position	Number
NSW National Parks and Wildlife Service	Dist. Officer (24 hour) Central Area Manager Operations Coordinator Regional Office (Gosford)	4320 4295 4320 4215 4320 4232 4320 4204
NSW Rural Fire Service	Fire Control Centre SIS Operations Bookings Emergency	4340 2911 4340 4008 (24 Hr) 4367 4095 4363 5959 131 233
Gosford Hospital	Hospital Gosford City Council	4320 2111 4325 8222

**Fire Season Information**

Most extreme fire weather conditions occur during Spring and early Summer resulting from higher mean temperatures, lower relative humidity and strong winds.  
Winds from the north-southwest sector which are warmer and lower in humidity will significantly raise the bushfire danger rating when higher wind speeds occur and generally provide the most difficult fire weather conditions.  
Strong sea breezes can also increase fire behaviour in coastal regions.

**Prescribed Burnings** No prescribed burnings proposed

**Current RFR**

Low/Mod	High
As far as possible, undertake indirect, parallel or direct attack along existing control lines. As far as possible, minimise area burnt. Identify and survey backup control lines.	Undertake indirect, parallel or direct attack to minimise time to contain the fire. Construct new hand tool lines if necessary to minimise time to contain the fire. Identify and survey backup control lines. Undertake indirect attack along existing or newly constructed control lines. Secure and deepen control lines along the most protected downwind side of the fire. Identify and survey backup control lines.
All	

**Control Objectives**

Refer to Strategy for Fire Management 2003 and Fire Management Manual 2005.  
List all personnel involved in suppression operations on the Strategy.

**General**

Resource	Guidelines
<b>Aerial Water Bombing</b> (NPWS FPM 4.1 / NSW Fire Agencies Aviation SOPs / OZ / NPWS Guidelines for Effective Aircraft Management)	Water bombing aircraft can be used in this reserve to support fire suppression operations. The basin and ocean are water sources. Air bases could be established at Remembrance Drive or the cemetery grounds. Foam is not to be used in this reserve.
<b>Visitor Management</b> (NPWS FPM 2.3.5.4.3.1)	The park may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.
<b>Rehabilitation</b> (NPWS FPM 5.1)	Where practicable containment lines should be established and rehabilitated as part of the wildfire suppression operation.
<b>Aerial Ignition</b> (NPWS FPM 4.2.20.4.4.1 / NSW Fire Agencies Aviation SOPs / OZ / NPWS Guidelines for Effective Aircraft Management)	Use to small areas of reserve, aerial ignition of backburns during wildfires is unlikely.
<b>Backburning</b> (NPWS FPM 4.9)	Due to small area of reserve and sensitive vegetation, containment strategies should minimise the area of backburning. The first combatant agency onsite may assume control of the fire, but they must ensure the relevant land management agencies are properly notified. On the arrival of other combatant agencies, the initial incident controller will consult with regard to the ongoing command, control and incident management requirements as per the relevant BFMIC Plan of Operations.
<b>Command &amp; Control</b> (NPWS FPM 4.2)	Writing and teaming agents (suffragans) should not be used in wildfire suppression.
<b>Fire Suppression Chemicals</b> (NPWS FPM 4.2.20.4.4.3)	Construction of new containment lines should be avoided, where practicable except where they can be constructed with minimal environmental impact. New containment lines require prior consent from senior NPWS Officer. Proposed containment lines are indicated on the Bushfire Suppression Map and include vehicle tracks (Category 9 access only) along drainage lines in west of reserve and walking tracks over dune in middle of reserve. Vehicle access along beach area is from Wamberal SLSC and is Category 9 only.
<b>Smoke Management</b> (NPWS FPM 3.4)	Smoke could potentially impact on The Entrance Road - closures may be required, contact Police, RTA, Wamberal Primary School (0841111) and Forrester Beach Retirement Village (4364333) should have a low risk of smoke impact from the reserve. The use of ashmowing equipment is not appropriate in Wamberal Lagoon Nature Reserve.
<b>Earthmoving Equipment</b> (NPWS FPM 4.2.20.4.4.3)	

**Conservation Considerations**

Refer to Strategy for Fire Management 2003 and Fire Management Manual 2005.  
List all personnel involved in management operations on the Strategy.

**Aboriginal Cultural Heritage Site Management** (NPWS FPM 4.1.11)

Avoid all ground disturbance including the use of mechanical machinery, handline construction and drives over sites.  
Avoid water bombs which may cause ground disturbance.  
Sites may be burnt by bushfires, back burn or prescribed burn without damage (soil loss) fire soil erosion may cause artefact movement (erosion).

**Threatened Fauna Management** (NPWS FPM 4.1.4.5.2)

Species	Management
Minopernis ophion	Potential for inappropriate fire regimes to reduce prey invertebrate diversity. Avoid fire management works within close proximity (<100m) to known den sites, especially during the breeding season. Maintain a mosaic of fire frequencies and intensities within habitat to increase/maintain a diverse food supply.
Pandon	Fire unlikely to impact individuals or habitat.
Halcyon	Avoid high intensity fires within potential habitat, during the breeding season as it may decrease the availability of nesting sites.
Puffinus assimilis	Fire is unlikely to significantly impact upon this species at this location.
Little Shearwater	Fire is unlikely to affect this species if fire does not minimise the amount of potential habitat available for nesting in the breeding season.
Sterna fuscata	Fire unlikely to affect this species if fire does not minimise the amount of potential habitat available for nesting in the breeding season.
Sooty Tern	Fire unlikely to affect this species if fire does not minimise the amount of potential habitat available for nesting in the breeding season.

**Threatened Flora Management** (NPWS FPM 4.1.2.5.2)

Species	Management
Chamaesyce psammoptera (Endangered)	Threats: perennial herb which grows on sandstone and exposed sites on headlands. Prone to the survival of this species include disturbance to the foraging habitat and overgrowth by Blou Bush (Chrysanthemum occidentale). Avoid burning management activities along headlands towards northern end of reserve.
Eleocharis obtusius	A 100% search may kill the plant, seeds stored on plant or in soil. Species may include obligate seed regeneration.
Hard Quandong (Regionally significant)	Species resilient from rhizome, recruitment mainly after fire, sparse dispersed by wind, seedbank probably persistent. Research indicated.
Lindaea (dinophila locally rare)	Avoid burning within known/potential habitat (along foredune), until further research has been undertaken in relation to the effects of fire upon this species.
Stachyopus (Regionally significant)	This species is likely to be fire sensitive however, evidence of vigorous coppicing following fire suggests the species may be tolerant of low intensity fires.
Syzium paniculatum	Species is found within littoral rainforest FEZ so avoid fire in these areas.
Morsetia Lily Pili (Vulnerable)	Perennial sub-shrub to 15cm high. Grows in coastal sclerophyll forest.
Wilsonia (Vulnerable)	Perennial sub-shrub to 15cm high. Grows in coastal sclerophyll forest.

**Fire Intervals Guidelines**

Vegetation Community	Fire Intervals (years)	Minimum	Maximum
Coastal Headland Low Forest	8	40	50
Coastal Headland Forest	7	40	50
Coastal Sand Banks Scrub	7	30	30
Coastal Sand Forebush Scrub	Avoid Fire		
Coastal Sand Littoral Rainforest	Avoid Fire		
Coastal Sand Swamp Forest	7	35	35
Coastal Sand Wetland - Heath	7	35	35
Disturbed - Canopy Only	N/A		
Disturbed Scrub	N/A		
Estuarine Swamp Sclerophyll	Avoid Fire		
Estuarine Riparian Forest	Avoid Fire		
Estuarine Swamp Oak Forest	7	35	35
Fire regime	7	35	35
Tumble Spotted Gum Ironbark Forest	7	35	35
Wamberal Low Open Heath Forest	7	35	35

**Fire Management Zones**

The objective of LMZ is the protection of human life and property. This will have precedence over guidelines for the management of biodiversity. Maintain overall fuel load at moderate to low.

Asset Protection Zone	Zone	Action	Responsibility
LMZ 1 (Killicka Rd) / LMZ 2 (Lava St)	Zone 1	Maintain and monitor fuel loads at or below 1500kg/ha.	NPWS
	Zone 2	Mechanical fuel reduction as required.	NPWS
	Zone 3	Mechanical fuel reduction as required.	NPWS
LMZ 1 / LMZ 2 (Coastal Littoral Rainforest)	Zone 1	As far as possible maintain fire regimes within specified intervals.	NPWS
	Zone 2	As far as possible implement specified threatened species management guidelines.	NPWS

