Royal and Heathcote National Parks and Garawarra SCA

Fire Management Strategy 2016

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 Rural Fires Act 1997.
The NSW National Parks and Wildlife Service is part of the Office of Environment and Heritage.

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Related Documents

- National Parks and Wildlife Service Fire Management Manual.
- The Royal National Park, Heathcote National Park and Garawarra State Conservation Area Fire Management Strategy Type 3, March 2002.
- Metro Region Incident Procedures and Contact Lists.
- Threatened Species Hazard Reduction Guidelines, Parts 1,2 and 3. NSW Rural Fire Service, As amended.

Fire Season Information

Wildfires	• The statutory wildfire season occurs between 1st September 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.

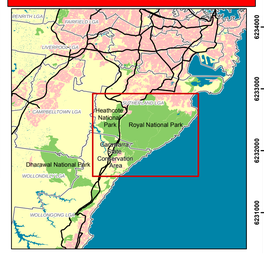
Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Regional Duty Officer (24 hour)	8579 0009
	Royal Area Manager	9542 0632
	Fire Management Officer	9542 0636 0428 248 774
	Strategic Programs Officer	9542 0663 0418 601 745
	Royal Area Office	9542 0632 (fax) 9542 1420
	Metro South West Regional Office	9542 0624 (fax) 9542 1420
WaterNSW	24 Hours	1800 061 069
Sutherland Rural Fire Service	24 Hours Business Hours	9520 6022 9520 4040
Wollongong Rural Fire Service	24 Hours	000
SES	Sutherland Shire Wollongong City	9548 6355 4227 1200
Police	Emergency Sutherland Wollongong	000 9542 0899 4226 7899
Ambulance	Emergency Bookings	000 131 233
Hospital	Sutherland (Caringbah) Wollongong	9540 7111 4222 5000
Council	Sutherland Shire Council Wollongong City Council	9710 0333 4227 7111

Communications Information

Service	Channel	Location and Comments
NPWS - VHF	132	• Garawarra Hospital – General good coverage. • Garawarra Farm – coverage Clare to Wollongong Sandy Point. • Waterfall Network – Good coverage Wilsonia catchment & Heathcote NP. • Poor coverage on high points.
NPWS - UHF	133	• Waterfall Network – Good coverage Wilsonia catchment & Heathcote NP.
Motorola Phone – GSM	-	• Poor coverage in high points.
Satellite Phone	-	• Generally coverage.

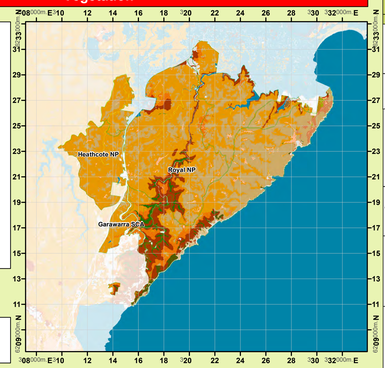
Locality of Reserve and Local Government Areas



Map Details

Datum: Geocentric Datum of Australia (GDA) 1994
Projection: Map Grid of Australia (MGA) Zone 56
Aerial Photography: LPI (2015)
1:25k Topographic Map: Port Hacking 9129-4N / Campbelltown 9020-1N / Otford 9129-4S / Kiama 9029-1S

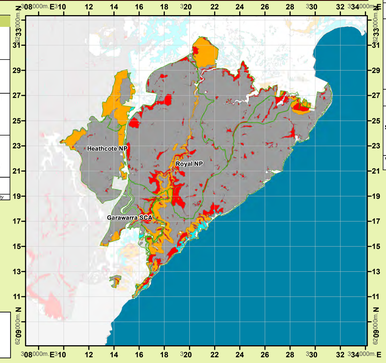
Vegetation



Current Vegetation Status (Fire Thresholds)

Too Frequently Burnt	Fire thresholds have been exceeded. *- Protect from fire as far as possible.*
Vulnerable	The area will be Overburnt if it burns this year. *- 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 allowing unplanned fires to burn.*
Unknown	Insufficient data to determine fire threshold.

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



Recent Fire History

Operational Guidelines

Refer to Strategy for Fire Management 2003 and Fire Management Manual
Brief all personnel involved in suppression operations on the following issues:

General	Guidelines
Aerial Water Bombing	• The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spotovers. • The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances. • Where practicable foam should be used to increase the effectiveness of the water. • Ground crews must be alerted to water bombing operations.
Aerial Ignition	• Aerial ignition may be used during backburning or fuel reduction operations where practicable, but only with the prior consent of NPWS Regional Manager or Section 44 delegate. • Utilise incendiaries to rapidly progress backburns down slope where required.
Backburning	• Temperature and humidity trends must be monitored carefully to determine the safest times to implement backburns. 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.
Command & Control	• 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.
Containment Lines	• Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact. New containment lines require the prior consent of a senior NPWS officer. • Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation. • All containment lines not required for other purposes should be closed at the cessation of the incident. • All personal involved in containment line construction should be briefed on both natural and cultural heritage sites in the location.
Earthmoving Equipment	• Earthmoving equipment may only be used with the prior consent of a senior NPWS officer, and then only if the probability of its success is high. • Earthmoving equipment must be always guided and supervised by an experienced officer, and accompanied by a support vehicle. When engaged in direct or parallel attack this vehicle must be a firefighting vehicle. • Containment lines constructed by earthmoving equipment should consider the protection of drainage features, observe the Threatened Species and Cultural Heritage Operational Guidelines, and be surveyed, where possible, to identify unknown cultural heritage sites. • Earthmoving equipment should be washed down, where practicable, prior to it entering NPWS estate.
Fire Advantage Recording	• All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
Fire Suppression Chemicals	• Wetting and foaming agents (surfactants) are permitted for use in wildfire suppression. • The use of fire retardant is only permitted with the prior consentof the senior NPWS officer, and should be avoided where reasonable alternatives are available. • Exclude the use of surfactants and retardants within 50m of rainforest, watercourses, dams and swamps. • Areas where fire suppression chemicals are used must be mapped and the used product's name recorded. • The Threatened Species Operational Guidelines are to be observed.
Rehabilitation	• Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
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 Management	• The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.

Vegetation Communities and Biodiversity Thresholds

Regime	Vegetation Community	Biodiversity Thresholds	Year Burnt	Area (Ha)
L	Heathland	• Avoid successive fires at intervals of < 7 years. • Avoid fire exclusion for a period of > 30 years.	1993-94 1995-96 1996-97 1997-98 1998-99 2001-02 2002-03 2003-04 2004-05 2007-08 2008-09 2009-10 2010-11 2011-12 2012-13 2013-14 2014-15 2015-16	5496.0 0.1 0.1 0.01 0.3 2376.0 72.3 1.2 3.8 15.6 0.2 0.3 1.2 32.8 64 6.6 63.9 163.3
N	Freshwater Wetland	• Avoid successive fires at intervals of < 6 years. • Avoid fire exclusion for a period of > 35 years.	1993-94 2001-02 2002-03 2010-11 2011-12 2014-15 2015-16	197.3 115 1 0.4 0.6 0.48 5.64
I	Shrubby Dry Sclerophyll Forest	• Avoid successive fires at intervals of < 7 years. • Avoid fire exclusion for a period of > 30 years.	1993-94 1994-95 1995-96 1996-97 1997-98 1998-99 1999-00 2000-01 2001-02 2002-03 2003-04 2004-05 2005-06 2006-07 2007-08 2008-09 2009-10 2010-11 2011-12 2012-13 2013-14 2014-15 2015-16	3934.1 12.1 32.1 0.2 3.1 0.1 61.4 28.1 6673.1 21.1 3.1 3.7 0.7 2.3 3.2 8.5 12.7 79.8 59 271.6 36.9 97.1 397.3
D	Wet Sclerophyll Forest	• Avoid successive fires at intervals of < 25 years. • Avoid fire exclusion for a period of > 60 years.	1993-94 1994-95 1995-96 1996-97 1997-98 1998-99 2000-01 2001-02 2002-03 2003-04 2004-05 2005-06 2006-07 2007-08 2008-09 2009-10 2010-11 2012-13 2013-14 2014-15 2015-16	5367.3 13.1 27.0 3.0 72.0 0.2 8.4 19.1 4972.0 94.0 10.1 9.1 0.6 2.6 6.0 0.05 9.2 2.9 30 4.2 1.7 22.05
A	Rainforest/ Saline Wetland/ Riparian Scrub	• Avoid any fire occurrence (a limited recovery ability exists)	1993-94 1995-96 1996-97 1997-98 2000-01 2001-02 2002-03 2004-05 2007-08 2010-11 2012-13 2013-14 2014-15 2015-16	190.1 2.5 0.02 0.03 0.5 368.1 0.02 0.2 6.2 0.7 0.2 1.9 0 0.13
F	Forested Wetland	• Avoid successive fires at intervals of < 7years. • Avoid fire exclusion for a period of > 35 years.	2015-16	17.47
Nil	Cleared Sand/Rock/ Bare/Ground/ Water	• Not applicable.	2014-15 2015-16	0.2 3.86

Threatened Flora Fire Ecology

Label	Name	Fire Ecology
FL	Acacia bauerl subsp. aspera *(vulnerable)*	• No fire more than once every 7 years • Mechanical works only to 50 cm after March
FL	*Astrotricha crassifolia* Thick-leaf Star-hair *(vulnerable)*	• No fire more than once every 7 years • No slashing, trittering or tree removal adjacent to watercourses
FL	*Eucalyptus camfieldii* Camfield's Stringybark *(vulnerable)*	• No fire more than once every 7 years • No slashing, trittering or tree removal
FL	*Prostanthera densa* Villous Mint-bush *(vulnerable)*	• No fire more than once every 7 years • No slashing more frequently than every 10 years, and no trittering or tree removal
FL	*Pultenaea aristata* Prickly Bush-pea *(Vulnerable)*	• No fire more than once every 7 years • No slashing, trittering or tree removal
FL	*Melaleuca deanei* Deane's Paperbark *(vulnerable)*	• No fire more than once every 8 years • No slashing, trittering or tree removal
FL	*Daniinia biflora (vulnerable)*	• No fire more than once every 10 years • Slashing only to 100 cm, and no trittering or tree removal
FL	*Diuris aequalis* Buttercup Doubletail *(endangered)*	• No fire more than once every 10 years • No slashing, trittering or tree removal
FL	*Genoplesium baueri* Bauer's Midge Orchid *(endangered)*	• No fire more than once every 10 years • No burning between October and May • No slashing, trittering or tree removal
FL	*Persoonia hirsuta* Hairy Geebung *(endangered)*	• No fire more than once every 10 years • No slashing, trittering or tree removal
FL	*Prostanthera marifolia* Seaforth Mintbush *(critically endangered)*	• No fire more than once every 10 years • No slashing, trittering or tree removal
FL	*Leucopogon exolasius* Woronora Beard-heath *(vulnerable)*	• No fire more than once every 13 years (no burning mid-winter) • No slashing, trittering or tree removal
FL	*Syzygium paniculatum* Magenta Lilly Pilly *(endangered)*	• No fire • No slashing, trittering or tree removal
FL	*Wilsonia rotundifolia* Round-leafed Wilsonia *(endangered)*	• No fire • No slashing, trittering or tree removal

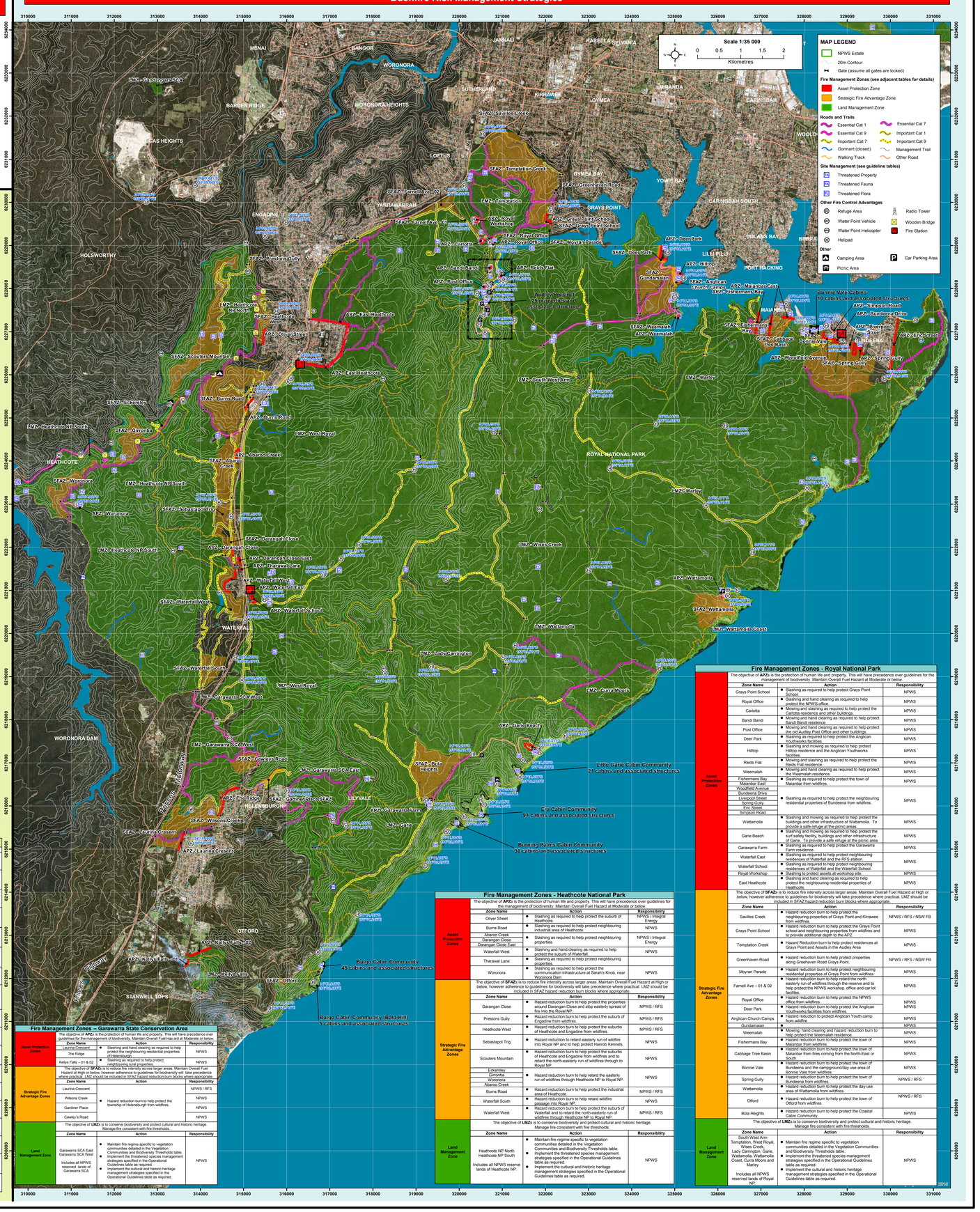
Suppression Strategies

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.

Threatened Fauna Fire Ecology

Label	Name	Fire Ecology
FA	*Heleioporus australiacus* Giant Burrowing Frog *(vulnerable)*	• Avoid fire • Avoid slashing, trittering and tree removal
FA	*Pseudophryne australis* Red-crowned Toadlet *(vulnerable)*	• Avoid burning adjacent to streams, and no burning around ephemeral drainage lines near the headwaters of creeks. • Avoid slashing, trittering or tree removal
FA	*Calyptorhynchus lathami* Glossy Black-cockatoo *(vulnerable)*	• Avoid burning of Allocasuarina thickets
FA	*Ninox strenua* Powerful Owl *(vulnerable)*	• Avoid burning around known nesting sites at any time. • Avoid slashing trittering or tree removal around known nesting sites.
FA	*Tyto tenebricosa* Sooty Owl *(Vulnerable)*	• Avoid burning around known nesting sites at any time. • Avoid slashing trittering or tree removal.
FA	*Ninox connivens* Barking Owl *(vulnerable)*	• Avoid burning around known nesting sites at any time. • Avoid slashing trittering or tree removal around known nesting sites.
FA	*Tyto novaehollandiae* Masked Owl *(vulnerable)*	• Avoid burning around known nesting sites at any time • Avoid slashing trittering or tree removal.
FA	*Burhinus grallarius* Bush-stone Curlew *(endangered)*	• Avoid burning from 1st August to the 31st March and no more than once every two years. • Retain logs on ground where possible. • Slashing in winter only and avoid trittermig or tree removal.
FA	*Pyrrholaemus sagittatus* Speckled Warbler *(vulnerable)*	• Avoid slashing trittering or tree removal.
FA	*Pteropus poliocephalus* Grey-headed Flying-fox *(vulnerable)*	• Avoid burning around know roosting sites.
FA	*Hoplocephalus bungaroides* Broad-headed Snake *(endangered 3)*	• Avoid slashing, trittering or tree removal.
FA	*Varanus rosenbergi* Rosenberg's Goanna *(vulnerable)*	• Avoid high intensity fires that consume tree canopies and fallen logs.
FA	*Cercartetus nanus* Eastern Pygmy-possum *(vulnerable)*	• Avoid slashing trittering or tree removal.
FA	*Phascolarctos cinereus* Koala *(vulnerable)*	• Avoid high intensity fires that scorch or consume tree canopies.
FA	*Chalinolobus dwyeri* Large-eared Pied Bat *(Vulnerable)*	• Avoid burning around known roost sites. • No slashing, trittering or tree removal around known roosting sites.
FA	*Falsistrellus tasmaniensis* Eastern False Pipistrelle *(vulnerable)*	• Protect hollows from fire. • Avoid tree removal
FA	*Miniopterus schreibersii oceanensis* Eastern Bentwing-bat *(vulnerable)*	• Avoid fire around known roost sites. • No slashing around maternity sites.
FA	*Myotis adversus* Large-footed Myotis *(vulnerable)*	• Avoid fire around known roost sites. • No removal of trees around known roosting sites.

Bushfire Risk Management Strategies



Fire Management Zones – Royal National Park

The objective of **APZs** is the protection of human life and property. This will have precedence over guidelines for the management of biodiversity. Maintain Overall Fuel Hazard at Moderate or below.

	Zone Name	Action	Responsibility
Asset Protection Zones	Grays Point School	• Slashing as required to help protect Grays Point School.	NPWS
	Royal Office	• Slashing and hand clearing as required to help protect the NPWS office.	NPWS
	Carlotta	• Mowing and slashing as required to help protect the Carlotta residence and other buildings.	NPWS
	Bandi Bandi	• Mowing and hand clearing as required to help protect Bandi Bandi residence.	NPWS
	Post Office	• Mowing and hand clearing as required to help protect the old Audey Post Office and other buildings.	NPWS
	Deer Park	• Slashing as required to help protect the Anglican Youthworks facilities.	NPWS
	Hilltop	• Slashing and mowing as required to help protect Hilltop residence and the Anglican Youthworks facilities.	NPWS
	Reids Flat	• Mowing and slashing as required to help protect the Moyran Parade residence.	NPWS
	Weemalah	• Mowing and hand clearing as required to help protect the Weemalah residence.	NPWS
	Fishermans Bay	• Slashing as required to help protect the town of Maianbar from wildfires.	NPWS
	Maianbar East Woodfield Avenue		NPWS
	Burdekina Drive Liverpool Street Spring Gully Eric Street Simpson Road	• Slashing as required to help protect the neighbouring residential properties of Burdekina from wildfires.	NPWS
	Wattamolla	• Slashing and mowing as required to help protect the buildings and other infrastructure of Wattamolla. To provide a safe refuge at the picnic area.	NPWS
	Garie Beach	• Slashing and mowing as required to help protect the surf safety facility, buildings and other infrastructure of Garie. To provide a safe refuge at the picnic area.	NPWS
	Garawarra Farm	• Slashing as required to help protect the Garawarra Farm residence.	NPWS
	Waterfall East	• Slashing as required to help protect neighbouring residences of Waterfall and the RFS station.	NPWS
	Waterfall School	• Slashing as required to help protect neighbouring residences of Waterfall and the Waterfall School.	NPWS
	Royal Workshop	• Slashing to protect assets at workshop site.	NPWS
	East Heathcote	• Slashing and hand clearing as required to help protect the neighbouring residential properties of Heathcote.	NPWS
Strategic Fire Advantage Zones	The objective of **SFAZs** is to reduce fire intensity across larger areas. Maintain Overall Fuel Hazard at High or below, however adherence to guidelines for biodiversity will take precedence where practical. LMZ should be included in SFAZ hazard reduction burn blocks where appropriate.		
	Savilles Creek	• Hazard reduction burn to help protect the neighbouring properties of Grays Point and Kirrawee from wildfires.	NPWS / RFS / NSW FB
	Grays Point School	• Hazard reduction burn to help protect the Grays Point school and neighbouring properties from wildfires and to provide additional depth to the APZ.	NPWS
	Temptation Creek	• Hazard Reduction burn to help protect residences at Grays Point and Assets in the Audey Area	NPWS
	Greenhaven Road	• Hazard reduction burn to help protect properties along Greenhaven Road Grays Point.	NPWS / RFS / NSW FB
	Moyran Parade	• Hazard reduction burn to help protect neighbouring residential properties of Grays Point from wildfires.	NPWS
	Farnell Ave – 01 & 02	• Hazard reduction burn to help retard fire north easterly run of wildfires through the reserve and to help protect the NPWS workshop, office and car bit facilities.	NPWS
	Royal Office	• Hazard reduction burn to help protect the NPWS office from wildfires.	NPWS
	Deer Park	• Hazard reduction burn to help protect the Anglican Youthworks facilities from wildfires.	NPWS
	Anglican Church Camps	• Hazard reduction burn to help protect Anglican Youth camp from wildfire	NPWS
	Gundamain		NPWS
	Weemalah	• Mowing, hand clearing and hazard reduction burn to help protect the Weemalah residence.	NPWS
	Fishermans Bay	• Hazard reduction burn to help protect the town of Maianbar from wildfires.	NPWS
	Cabbage Tree Basin	• Hazard reduction burn to help protect the town of Maianbar from fires coming from the North-East or South.	NPWS
	Bonnie Vale	• Hazard reduction burn to help protect the town of Bundeena and the campground/day use area of Bonnie Vale from wildfires.	NPWS
	Spring Gully	• Hazard reduction burn to help protect the town of Bundeena from wildfires.	NPWS / RFS
	Wattamolla	• Hazard reduction burn to help protect the day use area of Wattamolla from wildfires.	
	Otford	• Hazard reduction burn to help protect the town of Otford from wildfires.	NPWS / RFS
	Bola Heights	• Hazard reduction burn to help protect the Coastal Cabin Community.	NPWS
Land Management Zone	The objective of **LMZs** is to conserve biodiversity and protect cultural and historic heritage. Manage fire consistent with fire thresholds.		
	South West Arm, Temptation, West Royal, Wises Creek, Lady Carrington, Garie, Wattamolla, Wattamolla Coast, Curra Moors and Marley Includes all NPWS reserved lands of Royal NP	• Maintain fire regime specific to vegetation communities detailed in the Vegetation Communities and Biodiversity Thresholds table. • Implement the threatened species management strategies specified in the Operational Guidelines table as required. • Implement the cultural and historic heritage management strategies specified in the Operational Guidelines table as required.	NPWS

Fire Management Zones - Heathcote National Park

The objective of **APZs** is the protection of human life and property. This will have precedence over guidelines for the management of biodiversity. Maintain Overall Fuel Hazard at Moderate or below.

	Zone Name	Action	Responsibility
Asset Protection Zones	Oliver Street	• Slashing as required to help protect the suburb of Heathcote.	NPWS / Integral Energy
	Burns Road	• Slashing as required to help protect neighbouring industrial area of Heathcote.	NPWS
	Alarcoc Creek Darangan Close Darangan Close East	• Slashing as required to help protect neighbouring properties.	NPWS / Integral Energy
	Waterfall West	• Slashing and hand clearing as required to help protect the suburb of Waterfall.	NPWS
	Tharawal Lane	• Slashing as required to help protect neighbouring properties.	
	Woronora	• Slashing as required to help protect the communication infrastructure at Sarah's Knob, near Woronora Dam.	NPWS
Strategic Fire Advantage Zones	The objective of **SFAZs** is to reduce fire intensity across larger areas. Maintain Overall Fuel Hazard at High or below, however adherence to guidelines for biodiversity will take precedence where practical. LMZ should be included in SFAZ hazard reduction burn blocks where appropriate.		
	Darangan Close	• Hazard reduction burn to help protect the properties around Darangan Close and stop easterly spread of fire into the Royal NP.	NPWS / RFS
	Prestons Gully	• Hazard reduction burn to help protect the suburb of Engadine from wildfires.	NPWS / RFS
	Heathcote West	• Hazard reduction burn to help protect the suburbs of Heathcote and Engadine from wildfires.	NPWS / RFS
	Sebastapol Trig	• Hazard reduction to retard easterly run of wildfire into Royal NP and to help protect Harrods Kennels.	NPWS
	Scoutens Mountain	• Hazard reduction burn to help protect the suburbs of Heathcote and Engadine from wildfires and to retard the north-easterly run of wildfires through to Royal NP.	NPWS
	Eckersley Girraboja Woronora Alarcoc Creek	• Hazard reduction burn to help retard the easterly run of wildfires through Heathcote NP to Royal NP.	NPWS
	Burns Road	• Hazard reduction burn to help protect the industrial area of Heathcote.	NPWS / RFS
	Waterfall South	• Hazard reduction burn to help retard wildfire passage into Royal NP.	NPWS
	Waterfall West	• Hazard reduction burn to help protect the suburb of Waterfall and to retard the north-easterly run of wildfires through Heathcote NP to Royal NP.	NPWS / RFS
Land Management Zone	The objective of **LMZs** is to conserve biodiversity and protect cultural and historic heritage. Manage fire consistent with fire thresholds.		
	Heathcote NP North Heathcote NP South Includes all NPWS reserve lands of Heathcote NP	• Maintain fire regime specific to vegetation communities detailed in the Vegetation Communities and Biodiversity Thresholds table. • Implement the threatened species management strategies specified in the Operational Guidelines table as required. • Implement the cultural and historic heritage management strategies specified in the Operational Guidelines table as required.	NPWS

Fire Management Zones – Garawarra State Conservation Area

The objective of **APZs** is the protection of human life and property. This will have precedence over guidelines for the management of biodiversity. Maintain Overall Fuel Hazard at Moderate or below.

	Zone Name	Action	Responsibility
Asset Protection Zones	Laurina Crescent The Ridge Kellys Falls – 01 & 02	• Slashing and hand clearing as required to help protect the neighbouring residential properties of Helensburgh. • Slashing as required to help protect neighbouring rural properties.	NPWS
Strategic Fire Advantage Zones	The objective of **SFAZs** is to reduce fire intensity across larger areas. Maintain Overall Fuel Hazard at High or below, however adherence to guidelines for biodiversity will take precedence where practical. LMZ should be included in SFAZ hazard reduction burn blocks where appropriate.		
	Laurina Crescent Wilsons Creek Gardiner Place Cawley's Road	• Hazard reduction burn to help protect the township of Helensburgh from wildfires.	NPWS / RFS NPWS NPWS NPWS
Land Management Zone	The objective of **LMZs** is to conserve biodiversity and protect cultural and historic heritage. Manage fire consistent with fire thresholds.		
	Garawarra SCA East Garawarra SCA West Includes all NPWS reserved lands of Garawarra SCA.	• Maintain fire regime specific to vegetation communities detailed in the Vegetation Communities and Biodiversity Thresholds table. • Implement the threatened species management strategies specified in the Operational Guidelines table as required. • Implement the cultural and historic heritage management strategies specified in the Operational Guidelines table as required.	NPWS