

Angophora Reserve

Bush Fire Management Plan 2014

This Map Based Plan is to be read in conjunction with the Angophora Bush Fire Management Plan - Supporting Document 2014.

Locality Map



Map Details	
Datum: Geocentric Datum of Australia (GDA) 1994	
Projection: Map Grid of Australia (MGA) zone 56	
Aerial Photography: Provided by NearMap (March 2012)	
To be printed at: A0	

Contact Information		
Agency	Position / Location	Phone
Fire & Rescue NSW	Emergency	000
	Avail 1938	9999 1677
Rural Fire Service	Emergency	000
	24 Hour Warrigah/Pittwater Rural Fire District	8741 5555
Sydney Water	24 hour Service & Emergency Contact	13 20 90
	Emergency	000
SES	Warrigah/Pittwater	9486 3399
	Emergency	000
Police	Northern Beaches Local Area Command	9971 3399
	Emergency	000
Ambulance	Bookings	131 233
	Emergency	9998 0333
Hospital	Mona Vale	9970 3113
	Pittwater Council	

Burn Schedule

Proposed Burn Year	Fire Management Zone
2014 - 2016	SFAZ 10, SFAZ 2
2015 - 2017	SFAZ 11, SFAZ 3
2016 - 2018	SFAZ 4
2017 - 2019	SFAZ 6, SFAZ 1
2018 - 2020	SFAZ 8, SFAZ 5
2019 - 2021	SFAZ 9, SFAZ 7

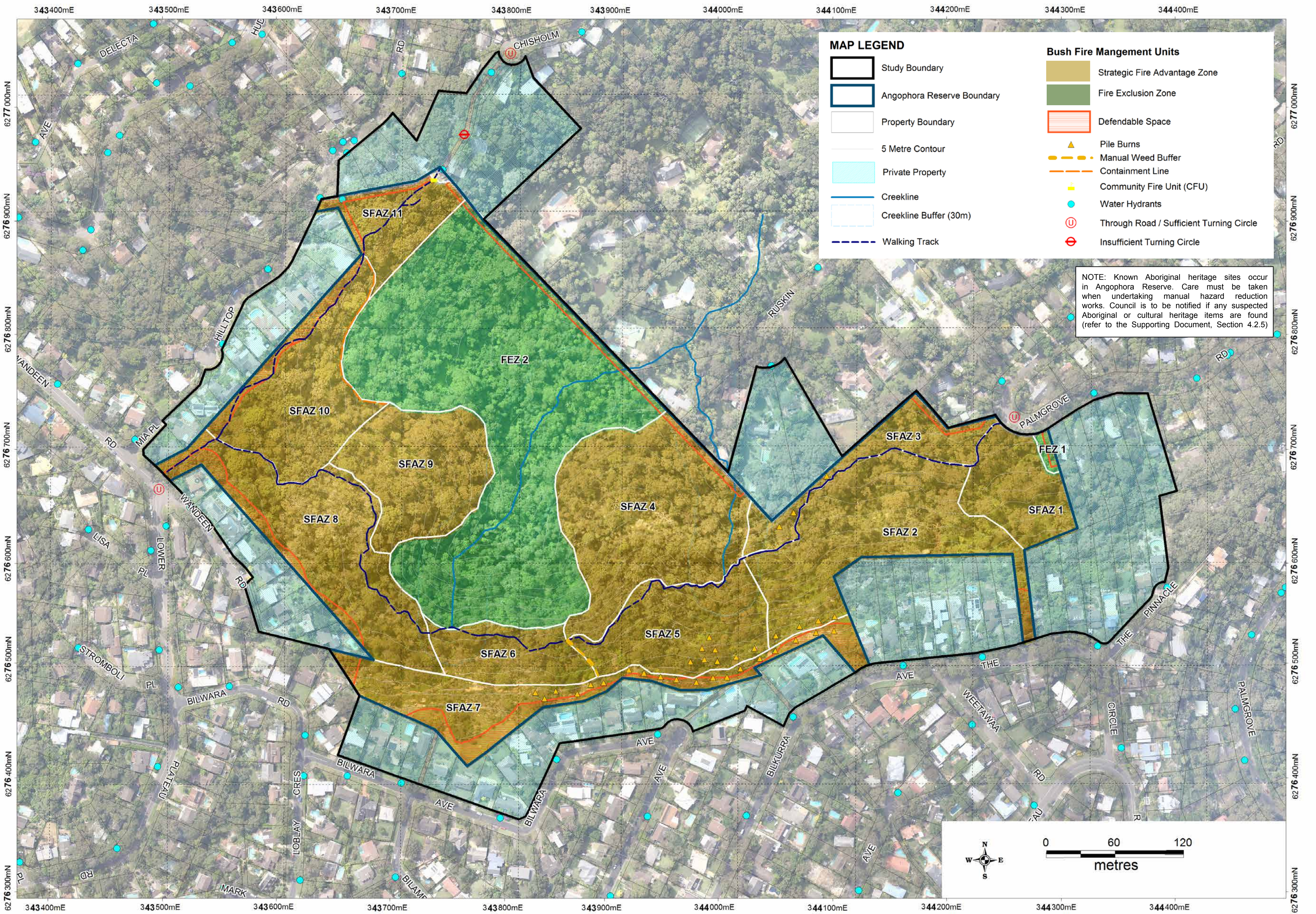
Fire Season Information	
Wildfires	The statutory wildfire season occurs between 1st October and 31st March. This may be extended if weather conditions lead to increased fire danger outside of this period.
Prescribed Burning	Prescribed burning in this area is normally undertaken in Autumn through to Spring.

Suppression Strategies
In the event a wildfire breaks out in the reserve, the following actions should be carried out by Fire and Rescue NSW. Actions will be dependent on Fire Danger Ratings determined by the Bureau of Meteorology (BOM) website - www.bom.gov.au .
<ul style="list-style-type: none">As far as possible, undertake indirect parallel or direct attack along existing or natural control lines.Construct new control lines if necessary to minimise the time to contain the fire.Ensure there is sufficient time to secure control lines. Also have contingency control lines in place in case the initial control lines are unsuccessful.As much as possible, implement threatened species, EECs, Aboriginal and cultural management guidelines.

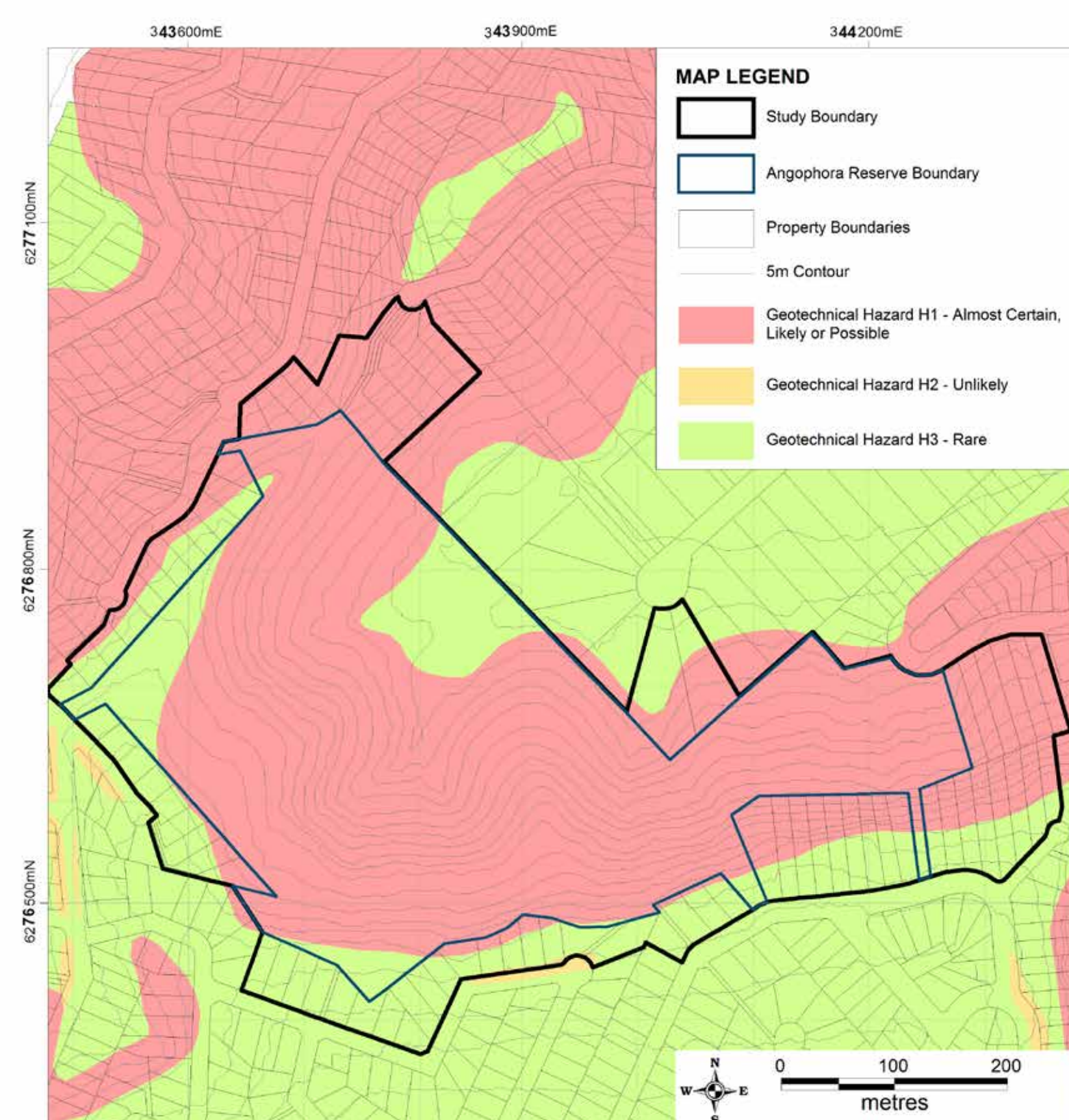
Recommended Hazard Reduction Works

Strategic Fire Advantage Zones			
Zone Name	Action	Refer to Section	Responsibility
SFAZ 1	Vegetation Type: Pittwater Spotted Gum Forest EEC (Moist) / Dry Sclerophyll Forests (upper escarpment) Slope: 15 - 20° with steep escarpment drop occurring on private property (~40-50°) Aspect: Northern A hazard reduction burn was undertaken in 2004. Consider burning within the moist Pittwater Spotted Gum Forest (PSGF) between 2017 and 2019 to reduce high fuel loads. Undertaking smaller ecological burns no more than once every 10 years in PSGF should be considered to encourage recruitment of gums.		
	A hazard reduction burn or pile burns in the Dry Sclerophyll Forest component on the upper escarpment could be of benefit to reduce high fuel loads. If an area burn is undertaken, this burn should extend onto adjoining private property to the east.		
	- Undertake manual hazard reduction. Pile burns may be permitted where cut vegetation cannot be removed or mulched.	4.2.2 / 4.3	Council
	- Undertake weed management.	4.2.6	Council
SFAZ 2	Vegetation Type: Pittwater Spotted Gum Forest EEC (Dry) / Dry Sclerophyll Forests (upper escarpment) Slope: ~20° with steep escarpment drop occurring on private property (~40-50°) Aspect: Northern A hazard reduction burn was undertaken in 2004. Consider burning this zone between 2015 and 2017 to reduce fuel loads. Following a controlled burn in this zone, small ecological burns no more than once every 10 years may be undertaken in PSGF to encourage recruitment of gums.		
	- Undertake manual hazard reduction.	4.2.2	Council
	- Undertake weed management.	4.2.6	Council
	- A prescribed burn may be undertaken between 2015 and 2017. Ignition points are to be implemented along the existing walking track. Pile burns may be permitted where cut vegetation cannot be removed or mulched, particularly in the Dry Sclerophyll Forests on the upper escarpment.	4.3	Council / FRNSW
SFAZ 3	Vegetation Type: Pittwater Spotted Gum Forest EEC (Moist) Slope: 5 - 20° Aspect: Northern Part of this zone was burnt in 1996. A burn in this zone is proposed between 2014 and 2016.		
	- Undertake weed management. Regular sweeps of the core of this zone should occur to target woody weeds such as Lantana and Cestrum. Treat bracken by slashing where necessary.	4.2.6	Council
	- A prescribed burning should extend onto private property (15 - 37 Ruskin Row). To the north, a crushed granite track occurring on private property provides a potential containment line; ignition points for a burn should be implemented along this containment line with the burn allowed to run up to the walking track. Funding for post fire maintenance is required.	4.3	Council / FRNSW
	- Pile burning may be undertaken along the north-eastern boundary and between properties 35 and 37 Ruskin Row and the walking track. Any piles are to be made out of view of residents to prevent adding garden waste to piles therefore increasing the hazard.	4.3	Council
SFAZ 4	Vegetation Type: Dry Sclerophyll Forest / Pittwater Spotted Gum Forest EEC (Moist) Slope: 21 - 24° Aspect: North-eastern This zone is relatively pristine condition. There is no record of fire occurring here. A burn may help to promote recruitment of eucalypt species. This gully area is predominately Pittwater Spotted Gum Forest EEC (Moist) with species characteristic of Littoral Rainforest EEC now occurring. An ecological burn may be undertaken on the lower escarpment, outside of the riparian zone, to encourage recruitment of gums.		
	- Undertake manual hazard reduction.	4.2.2	Council
	- Undertake weed management.	4.2.6	Council
	- A prescribed burn is to occur between 2016 and 2018. A burn should only occur under conditions where the fire is self-extinguishing as it approaches rainforest/moist vegetation.	4.3	Council / FRNSW
SFAZ 5	Vegetation Type: Dry Sclerophyll Forest / Pittwater Spotted Gum Forest EEC (Dry) / Pittwater Spotted Gum Forest EEC (Moist) Slope: 15 - 20° Aspect: Northern Majority of this zone is Dry Sclerophyll Forests however some Pittwater Spotted Gum Forest EEC occurs on the edges of this zone. This zone is bordered by gully areas to the east and west. The western part of this zone was last burnt in 1998. The remainder was burnt during a hazard reduction burn in 2004. A burn in the centre of this zone, avoiding the outer edges of Pittwater Spotted Gum Forest EEC should be undertaken between 2018 and 2020.		
	- Undertake manual hazard reduction.	4.2.2	Council
	- Undertake weed management. Regular sweeps of the core of this zone should occur.	4.2.6	Council
	- Undertake manual hazard reduction.	4.2.2	Council
SFAZ 6	Vegetation Type: Dry Sclerophyll Forest / Pittwater Spotted Gum Forest EEC (Moist) / Coastal Swamp Heath EEC Slope: 18 - 25° Aspect: Northern This zone is predominately Dry Sclerophyll Forest with a damp gully with moist Pittwater Spotted Gum Forest EEC and a small patch of Coastal Swamp Heath EEC in the north-eastern corner. This zone was burnt in 1998 and again 2010. The Dry Sclerophyll Forest may be burnt between 2017 and 2019 however the moist Pittwater Spotted Gum Forest EEC must be avoided until 2020+. A small ecological burn may be undertaken in the Coastal Swamp Heath EEC in 2017+. A lot of dead standing timber still remains in this zone from previous burns and should be left in situ.		
	- Undertake manual hazard reduction.	4.2.2	Council
	- Undertake weed management.	4.2.6	Council
	- Hand removal only between track and escarpment edge for safety and to protect potential Aboriginal Heritage sites occurring beneath sandstone overhangs.	4.2.5	Council / FRNSW
SFAZ 7	Vegetation Type: Dry Sclerophyll Forests / Altered / Managed Vegetation Slope: 16 - 24° Aspect: Northern This is a well maintained SFAZ with relatively low risk. No burning is required in the next 5 years. There are weed and dumping issues.		
	- Undertake post burn weed removal. Traverse upper slopes targeting woody weeds. Ground weed such as Asparagus fern should be managed to prevent spread further into the Reserve.	4.2.6	Council
	- A prescribed burn may be undertaken between 2019 and 2021.	4.3	Council / FRNSW
	- Undertake manual hazard reduction between properties and the escarpment edge.	4.3	Council / FRNSW
SFAZ 8	Vegetation Type: Dry Sclerophyll Forests Slope: ~10° Aspect: North / North-eastern Burnt in 2010, consider burning again between 2018 and 2020. Relatively good condition with minimal post fire maintenance required. No significant weed issues.		
	- Undertake post burn weed removal. Occasionally treat annual weeds e.g. fleabane. Control aquatic weeds such as Ludwigia in ephemeral drainage lines.	4.2.6	Council
	- Hand removal only between track and escarpment edge for safety and to protect potential Aboriginal Heritage sites occurring beneath sandstone overhangs.	4.2.5	Council
	- Undertake weed management. Regular sweeps of the core of this zone should occur.	4.2.6	Council
SFAZ 9	Vegetation Type: Pittwater Spotted Gum Forest EEC (Moist) Slope: 21 - 24° Aspect: North-eastern This zone is relatively pristine condition. There is no record of fire occurring here. A burn may help to promote recruitment of eucalypt species. Access is limited due to slope, this may be a Work Health & Safety issue for Council staff and contractors.		
	- A prescribed burn may occur between 2019 and 2021. On edges where a containment line has not been established, a burn should only occur under conditions where the fire is self-extinguishing as it approaches rainforest vegetation.	4.3	Council / FRNSW
	- Potential Aboriginal heritage sites may be present, no works / burning permitted within 20 metres of any escarpment edge / overhang.	4.2.5	Council / FRNSW
	- Undertake weed management. Regular sweeps of the core of this zone should occur.	4.2.6	Council
SFAZ 10	Vegetation Type: Dry Sclerophyll Forest / Pittwater Spotted Gum Forest EEC (Moist) Slope: 10 - 24° Aspect: North-eastern / Eastern There is no burn history for this zone. This zone is high priority for burning, to be included on the Warrigah/Pittwater 2014/15 Hazard Reduction Program. There are often issues with encroachment and dumping along the North-western boundary.		
	- A prescribed burn is to occur between 2014 and 2016. Ignition points are to be implemented along the north-eastern containment line. A running burn will require a westerly influence to get fire to run up slopes where it can be extinguished along the existing walking track.	4.3	Council / FRNSW
	- Potential Aboriginal heritage sites may be present, no works / burning permitted within 20 metres of any escarpment edge / overhang.	4.2.5	Council / FRNSW
	- Undertake weed management. Regular sweeps of the core of this zone should occur.	4.2.6	Council
SFAZ 11	Vegetation Type: Dry Sclerophyll Forest / Pittwater Spotted Gum Forest EEC (Moist) Slope: 24° Aspect: North-western / North-eastern This zone slopes steeply to the north-west and north-east from a plateau where the walking track occurs. Dry Sclerophyll Forest occurs on the plateau, with moist Pittwater Spotted Gum Forest on the slope. To the north-east, the vegetation is dominated by Angophora costata covered with Cissus antarctica. Selective thinning of Cissus antarctica should be undertaken; the vine should be removed from the tree canopy but allowed to persist in the understorey as it acts as a fire retardant. This vegetation is considered a low hazard.		
	- Undertake weed management. Regular sweeps of the core of the reserve should occur to target woody weeds. Ground weed such as asparagus fern should be managed to prevent spread further into the reserve. Treat bracken by slashing where necessary.	4.2.6	Council
	- Ensure fixed CFU equipment is well maintained and accessible.	4.7	Council
	- Manage encroachments and vegetation dumping by residents near the entrance of the reserve. Consider providing additional green collection bins or an annual pile burn of garden waste at the end of Chisholm Avenue. A 'no dumping' sign is to be installed.	4.5	Council
ALL SFAZ	Defendable Space - Undertake manual hazard reduction	4.2.1	Council
	- Undertake pre and post burn weed removal.	4.2.6	Council
	- Undertake weed management. Regular sweeps of the core of the reserve should occur to target woody weeds. Ground weed such as asparagus fern should be managed to prevent spread further into the reserve. Treat bracken by slashing where necessary.	4.2.6	Council
	- Populations of Elbow orchid should be identified on Councils mapping. Hand clearing around known populations should be undertaken prior to burning.	4.2.4	Council
ALL DS	Defendable Space - Undertake manual hazard reduction	4.2.1	Council
	- Undertake pre and post burn weed removal.	4.2.6	Council
	- Treat bracken by slashing on slopes less than 18°	4.2.6	Council
	- Inspect Defendable Space annually. Establish fixed photo monitoring points.	4.2.1	Council
FEZ 1	Vegetation Type: Littoral Rainforest Slope: 15 - 20° Aspect: Northern The Littoral Rainforest EEC vegetation in the furthest most north-eastern corner of the Reserve is dominated by Angophora costata and Cabbage Tree Palm Livistona australis. Although Cabbage Tree Palm fronds are extremely flammable, this zone is considered a low hazard. Fire should be excluded from this vegetation. Palm fronds should be collected and removed off site prior to the bush fire season.		
	- Maintain a manual buffer on western edge to prevent weed spread into adjoining Littoral Rainforest and to act as a containment line.	4.3	Council
	- Undertake pile burning. The south-west corner of the zone has heavy fuel loads, predominately weed and old piles.	4.3	Council
	- Hand removal only between track and escarpment edge for safety and to protect potential Aboriginal Heritage sites occurring beneath sandstone overhangs.	4.2.5	Council / FRNSW
FEZ 2	Vegetation Type: Dry Sclerophyll Forest / Pittwater Spotted Gum Forest EEC (Moist) / Coastal Swamp Heath EEC Slope: 18 - 25° Aspect: Northern This zone is predominately Dry Sclerophyll Forest with a damp gully with moist Pittwater Spotted Gum Forest EEC and a small patch of Coastal Swamp Heath EEC in the north-eastern corner. This zone was burnt in 1998 and again 2010. The Dry Sclerophyll Forest may be burnt between 2017 and 2019 however the moist Pittwater Spotted Gum Forest EEC must be avoided until 2020+. A small ecological burn may be undertaken in the Coastal Swamp Heath EEC in 2017+. A lot of dead standing timber still remains in this zone from previous burns and should be left in situ.		
	- Undertake manual hazard reduction.	4.2.2	Council
	- Undertake weed management.	4.2.6	Council
	- Hand removal only between track and escarpment edge for safety and to protect potential Aboriginal Heritage sites occurring beneath sandstone overhangs.	4.2.5	Council / FRNSW
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	- Undertake weed management.	4.2.6	Council
	- Hand removal only between track and escarpment edge for safety and to protect potential Aboriginal Heritage sites occurring beneath sandstone overhangs.	4.2.5	Council / FRNSW

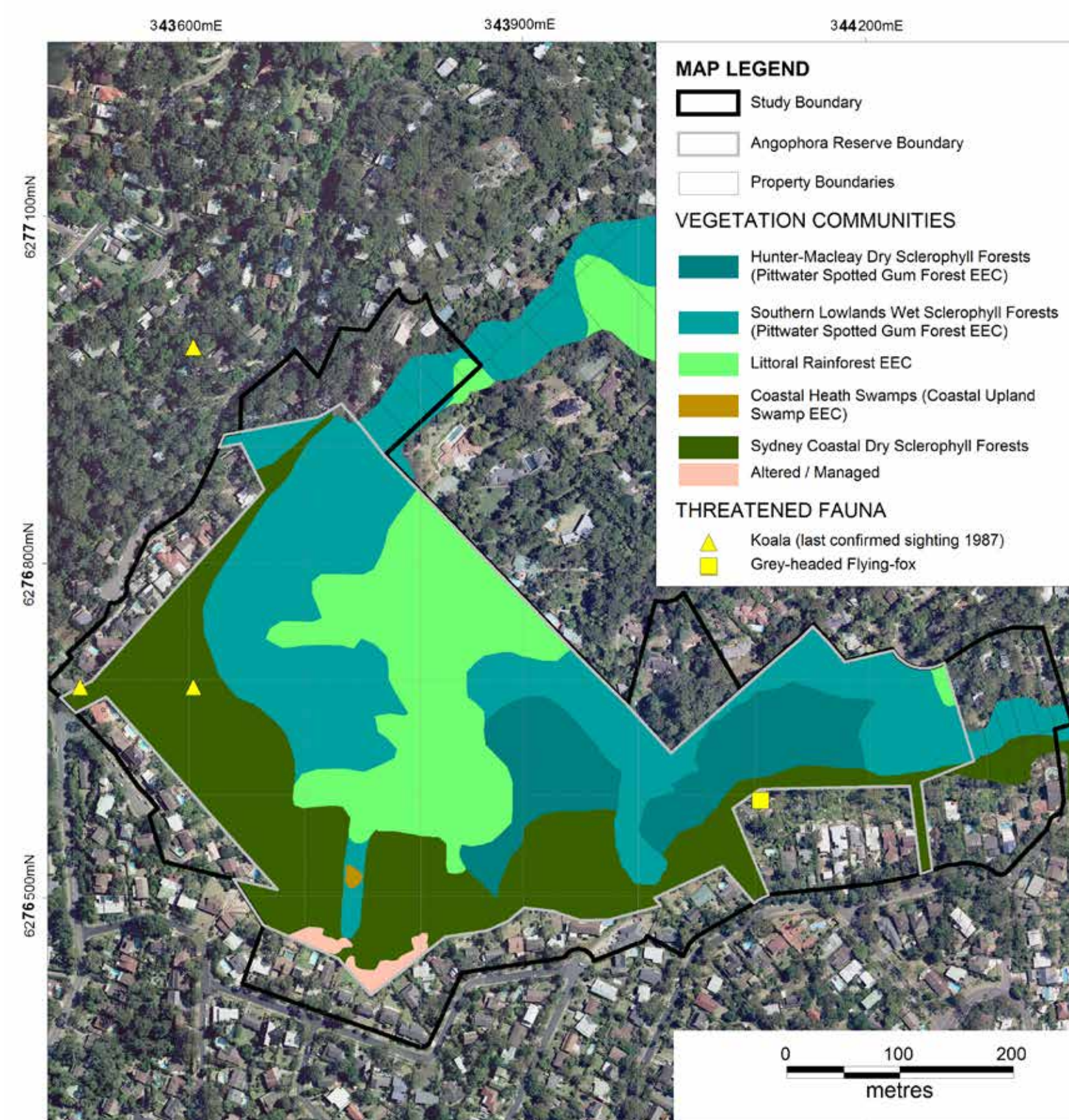
Fire Management Zones



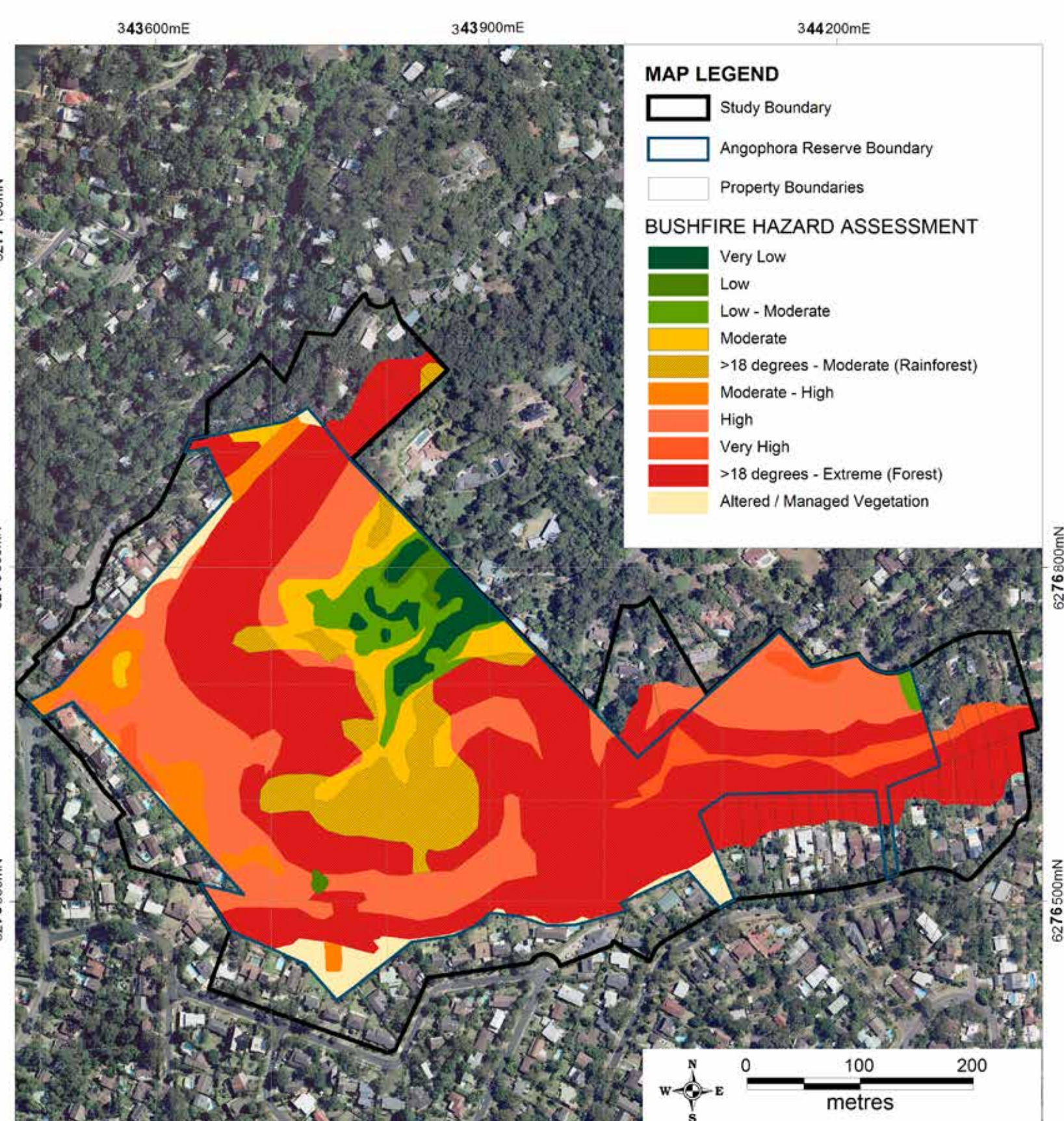
Geotechnical Hazard Map



Vegetation Communities & Threatened Species Map



Bush Fire Hazard Assessment Map



References: Pittwater Native Vegetation Management Plan (Pittwater, 2008), Pittwater Native Fauna Management Plan (Pittwater, 2011), BioNet - Atlas of NSW Wildlife Website (OEH, 2013), NSW Scientific Committee Final Determinations (Scientific Committee 2013), Biglow Newport Escarpment BFM (Ecological, 2008), NSW RFS Bush Fire Environmental Assessment Code (RFS, 2006b), Warrigah/Pittwater Bush Fire Risk Management Plan (RFS, 2010).

Prepared by Pittwater Council in consultation with the NSW Rural Fire Service and Fire and Rescue NSW in 2014. This Plan will be reviewed in 5 years time.