

**Murray Valley National & Regional Parks
Boomanoomana & Mulwala
Precincts**
Fire Management Strategy 2012
Mapsheet 1 of 1

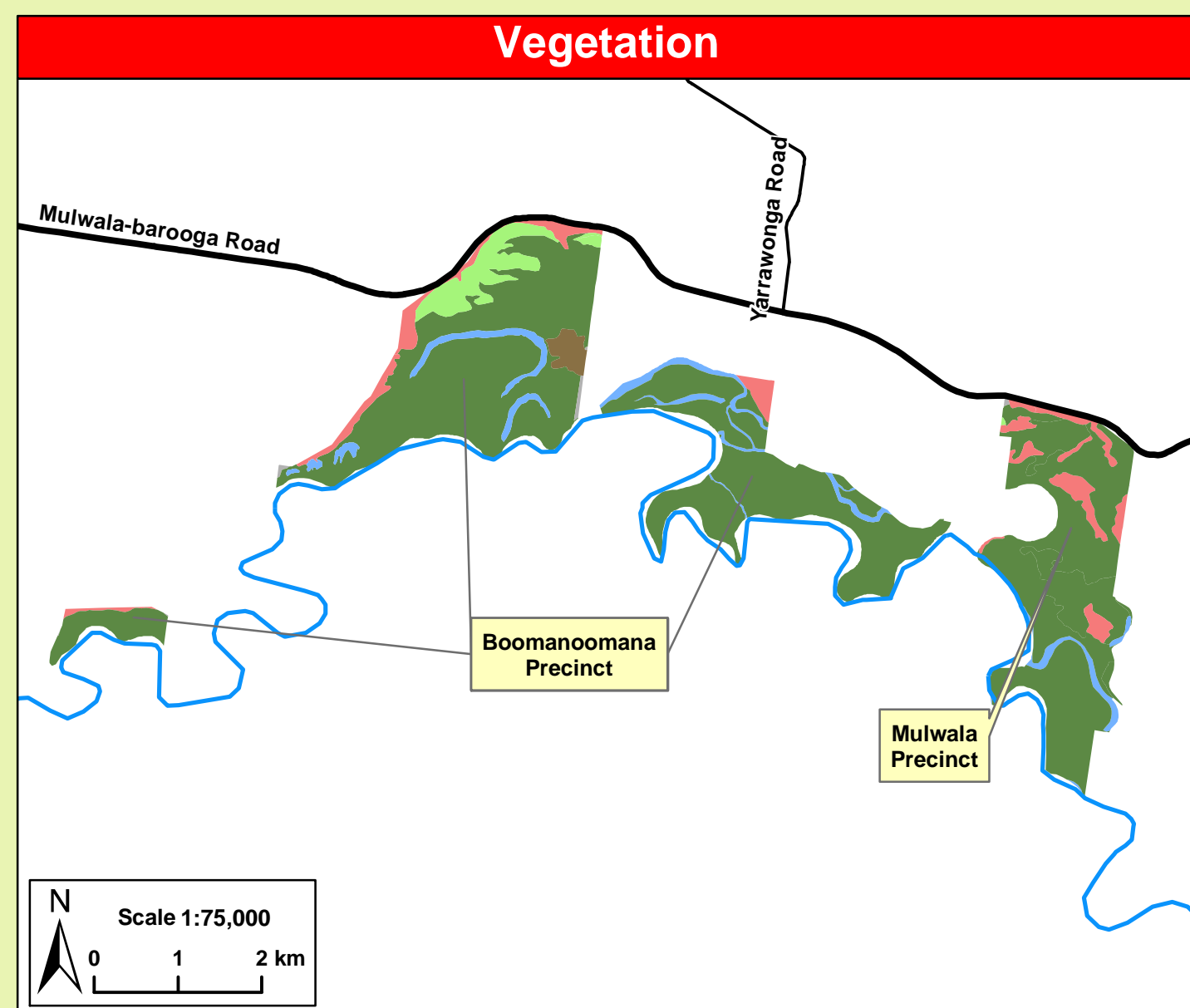
Office of Environment & Heritage
NSW National Parks & Wildlife Service

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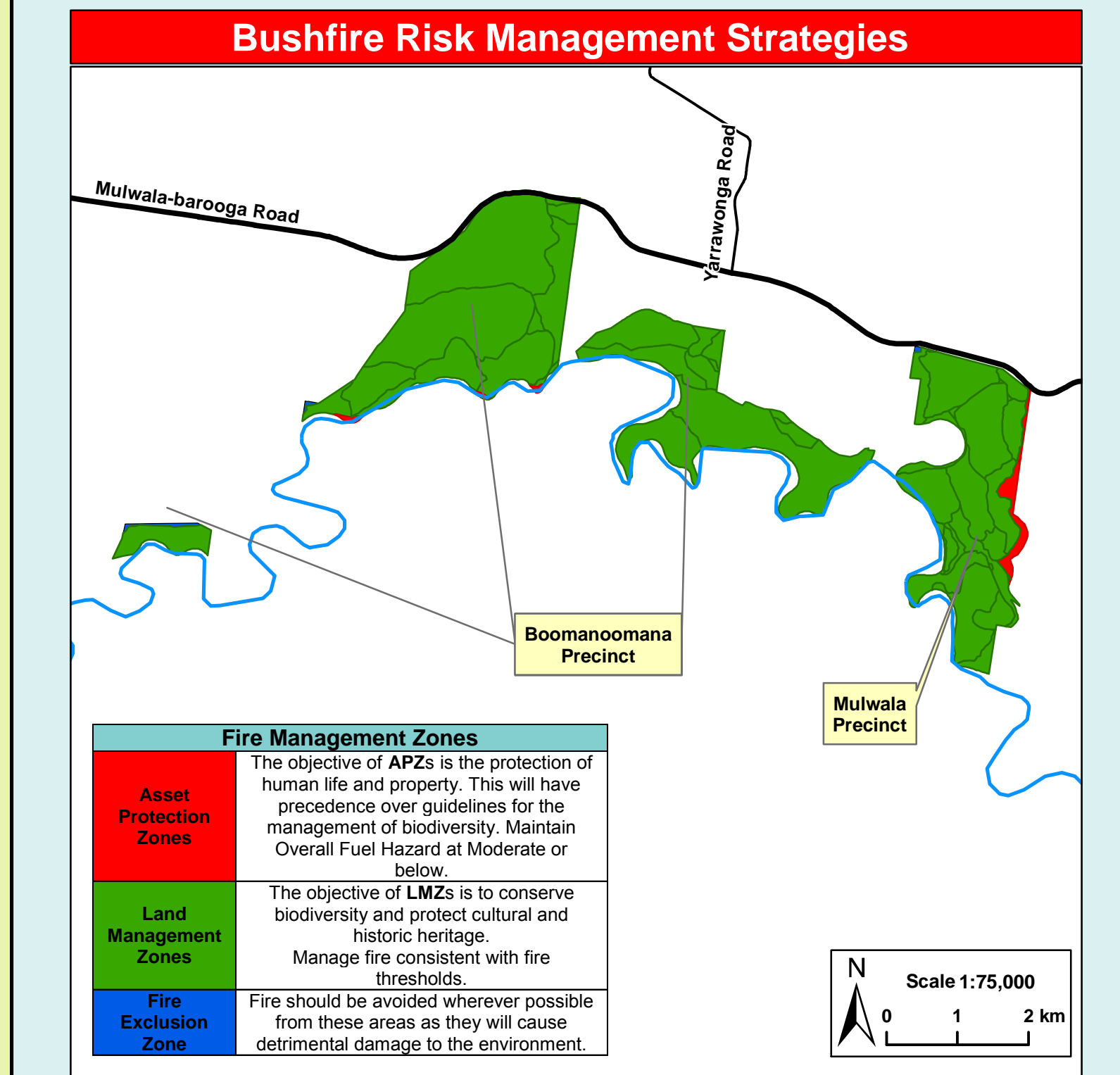
Map Details		Related Documents
Datum: Geocentric Datum of Australia (GDA) 1994 Projection: Map Grid of Australia (MGA) Zone 55 Data: Spot Satellite Imagery: 2005.	1:50k Topographic Map: Tocumwal 8026-S (AGD-1966) Scale: Noted scales are true when printed on A1 size paper.	OEH Fire Management Manual 2011 - 2012.



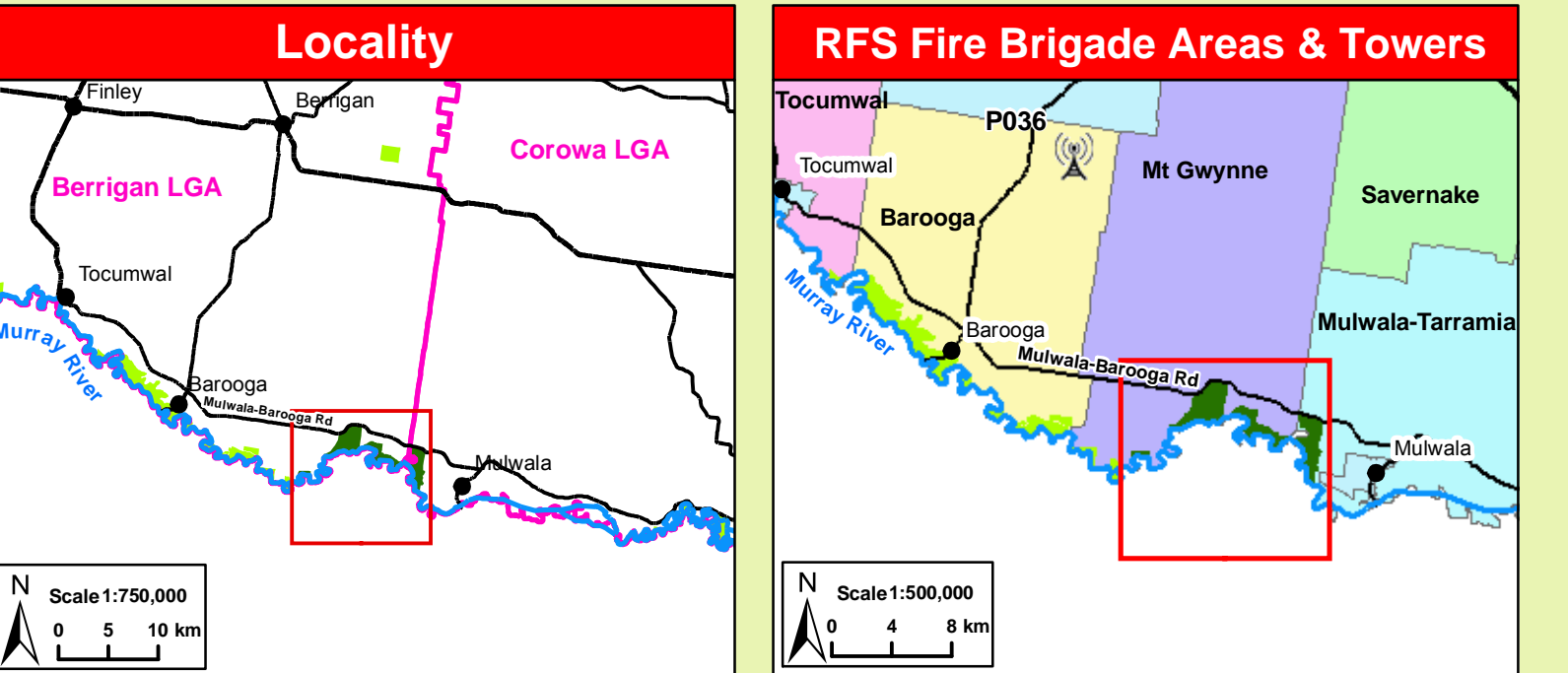
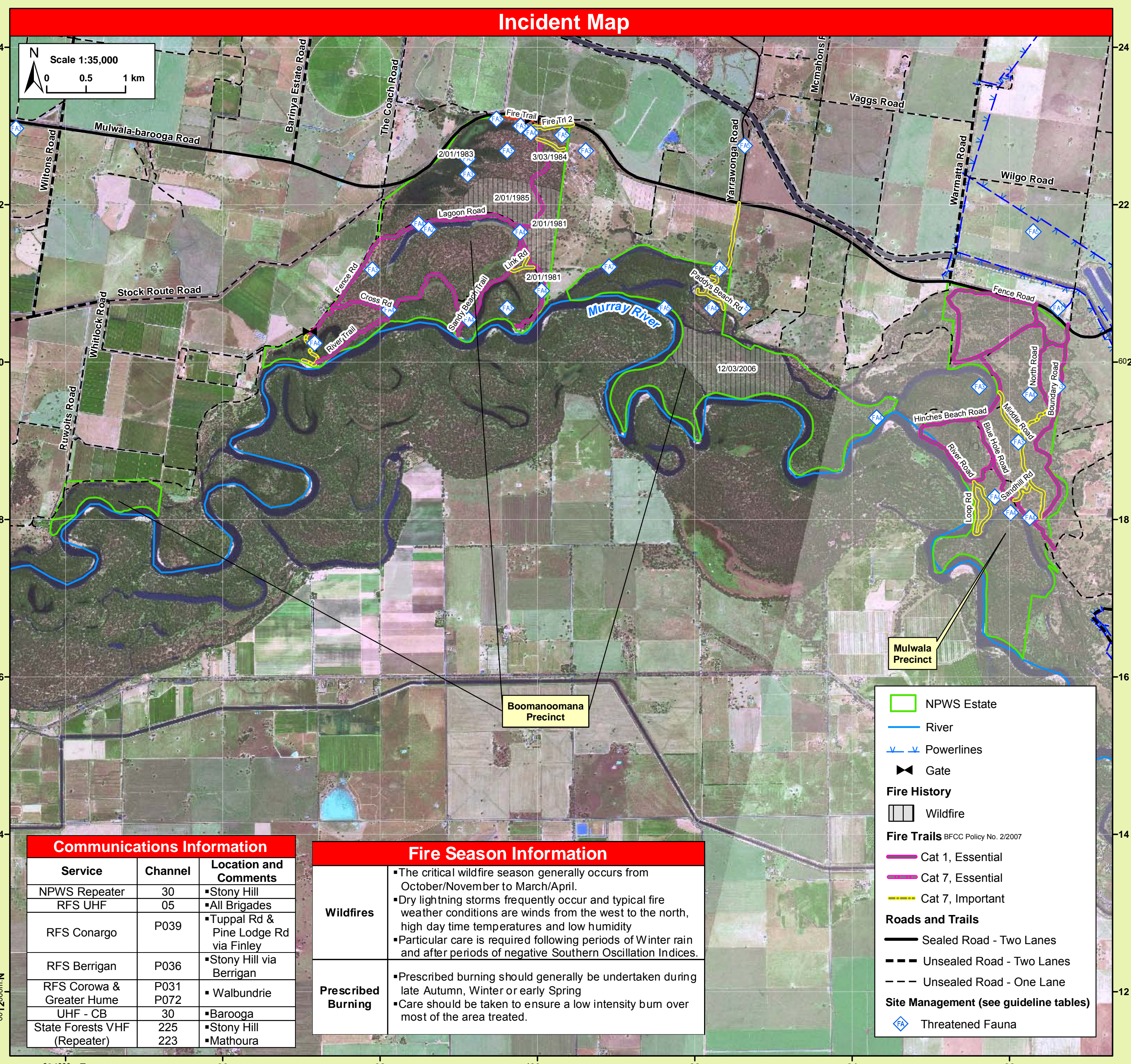
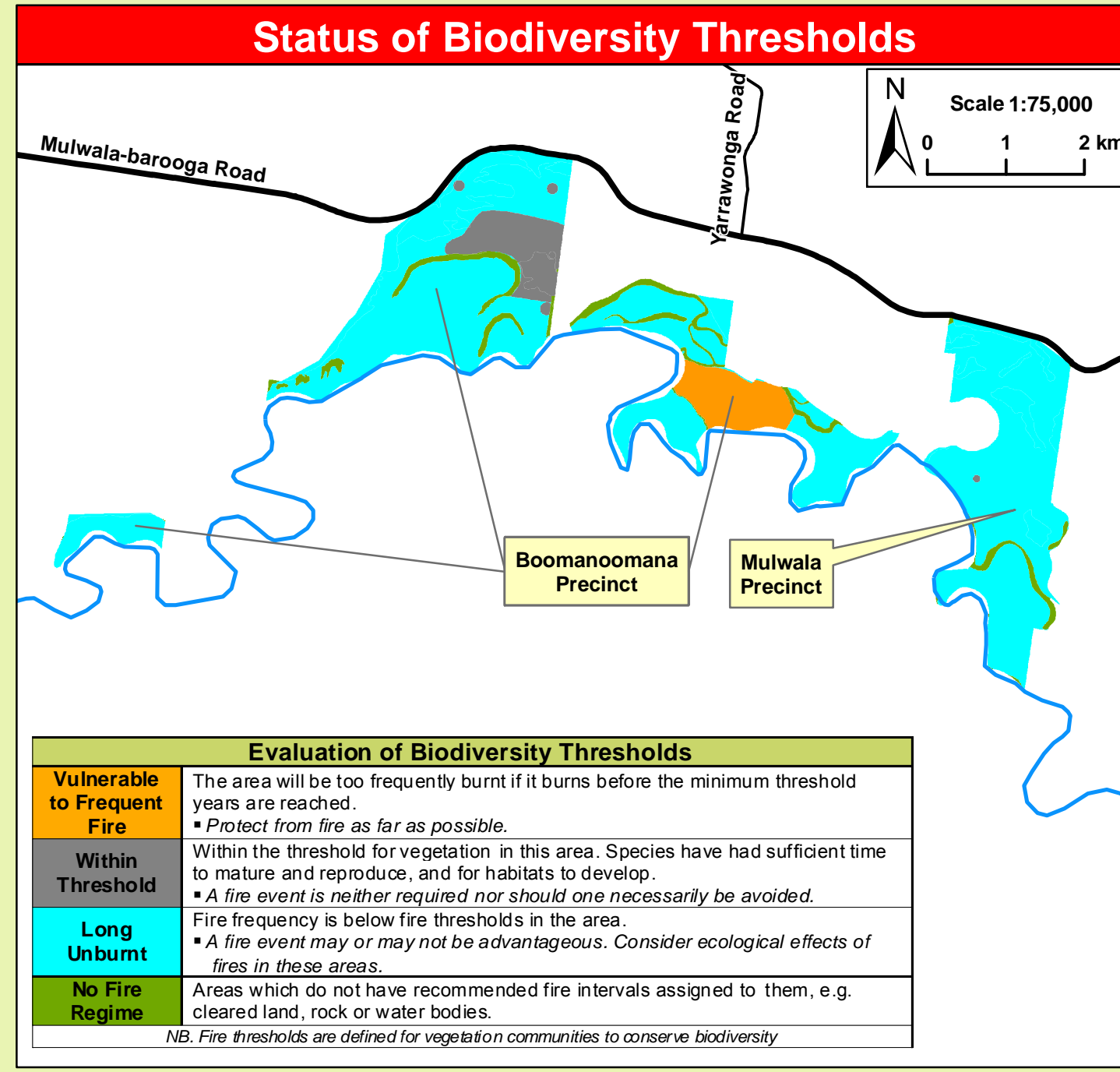
Vegetation Map Legend			
Broad Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
Forested Wetlands	River Red Gum & Box Forests	An interval between fire events less than 10 years and greater than 35 years should be avoided. River Red Gums will only tolerate low intensity fires. Individual trees may survive canopy scorch if they are not under stress and are in older age classes. Younger trees will not survive moderate to high intensity fires. Two fires occurring in the same area in a period of less than 20 years apart may reduce the extent of River Red Gum Forests. Fire should be avoided where Chenopod species occur.	These vegetation communities will generally not carry fire unless there are high ephemeral fuel loads, which generally occur after flooding events. In favourable years the River Red Gum forests can be scattered with 2m high reed beds, which can result in isolated areas of very high to extreme fire behaviour. In years of high ephemeral fuels, landscape fires are possible as fire potential will be very high to extreme, characterised by spotting from River Red Gum communities and fast moving fires in other communities. Red Gum trees commonly form candles.
Freshwater wetlands	Rush - Sedge - Common Reed Wetlands	An interval between fire events less than 10 years and greater than 35 years should be avoided.	In periods of high ephemeral fuel loads the wetlands pose a risk of extreme fire intensities, hot - fast moving fires and rapid change in direction associated with wind.
Semi arid Woodlands (Shrubby subformation)	Cypress Pine / Casuarina Woodland	An interval between fire events less than 15 years should be avoided. There is no maximum interval between fire events specified for this vegetation type as there was insufficient data to give definite intervals.	The Cypress Pine Woodlands generally occur on Sandhill areas and the potential rate of spread would be low due to low overall fuel hazard. Fire runs are likely to slow down when entering this vegetation.
Grassy Woodlands	Mixed Yellow Box Woodlands with Cypress Pine	An interval between fire events less than 8 years and greater than 40 years should be avoided.	High intensity fast moving fire once grasses have cured. Fire behaviour is dominated by winds, both speed and direction. Even in very low fuel, grass fires can erratic and fast moving. In ephemeral years intensity will be higher and in drought years minimal growth will result in moderate fire behaviour but potentially still fast moving depending on weather conditions at the time. Potential spotting from trees.
Non-native vegetation	Cultivated Pasture and / or Cropping	N/A	
Water	Water Bodies	N/A	
Fire History	Wildfires are generally attributed to humans, either from escaped campfires, discarded cigarettes or matches or deliberate ignitions. A number of fires can be attributed to lightning strikes. Most wildfires of those that have been documented - only 7 in the last 31 years were less than 3 Ha with two large fires in 1985 and 2006 that were greater than 90 Ha in extent.		
Ephemeral Conditions	Ephemeral fuel conditions occur after consecutive years of effective rainfall and significant flooding events. This in turn leads to the growth and build up of fine surface fuels such as grasses and herbs, which can create a continuous fuel load across all of the above vegetation communities. As a result expect higher fire intensity.		
Drought Conditions	During drought conditions and when vegetation communities are visibly stressed or experiencing dieback no prescribed burning will be permitted and wildfire areas will be minimised.		

Contact Information		
Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer (8am-10pm)	02 6332 6350
	Regional Office - 200 Yambill St. Griffith	02 6966 8100
	Murray Area Office Fire Control Centre	03 5483 9100
Southern Border Team NSW Rural Fire Service	25 Airport Drive, Albury Corowa Office	02 6051 1511 02 6033 4550
NSW Fire Brigades	Mulwala Fire Station Tocumwal Fire Station	03 5744 1967 03 5874 2406
State Forests	Deniliquin - Duty Mobile	0498 675 211
Emergency Services	SES	000 13 2500
Police Station (not open 24 hrs)	Mulwala Tocumwal	03 5743 8099 03 5874 9399
Police - Local Area Command	Albury Deniliquin	02 6023 9299 03 5881 9437
Hospital	Tocumwal Cobram (Victoria)	03 5874 2166 03 5871 1888
	Yarrawonga (Victoria)	03 5743 8111
Council	Berrigan Shire Council Corowa Shire Council	03 5888 5100 02 6033 8999

Operational Guidelines	
Brief all personnel involved in suppression operations on the following issues using the SMEACS format:	
General	Guidelines
Aerial Water Bombing	<ul style="list-style-type: none"> The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spot-overs. 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	<ul style="list-style-type: none"> Aerial ignition may be used during back-burning or fuel reduction operations where practicable, but only with the prior consent of NPWS Regional Manager, OEH Section 44 delegate or as prescribed in an operational burn plan. Aerial ignition will only be undertaken by accredited navigators & bombardiers. The pattern for aerial ignition will be specified in the IAP during fire suppression. Utilise incendiaries to rapidly burn out large areas where required.
Back-burning	<ul style="list-style-type: none"> 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, back-burning should commence when the humidity begins to rise in the late afternoon or early evening, with a lower FDI back-burning may be safely undertaken during the day. Where practicable, cleared land around dead and hollow bearing trees adjacent to containment lines prior to back-burning, or wet down these trees as part of the back-burn ignition. Use parallel containment lines when applicable. All personnel must be fully briefed before back-burning operations begin. Standard Incident Management Systems are to be applied. 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. Where OEH is not the first responding fire authority to arrive at a fire on OEH-managed lands, a competent officer of the first arriving fire authority will direct fire management activities until a competent OEH officer assumes control (unless prior agreements have been made).
Command & Control	<ul style="list-style-type: none"> Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact. For new containment lines IMT to liaise with a Senior NPWS officer prior to construction. Use parallel containment lines when applicable. All containment lines not required for other purposes should be closed at the cessation of the incident. All personnel involved in containment line construction must be briefed on both natural and cultural heritage sites in the location. Containment line construction using earthmoving equipment must be in accordance with the earthmoving guidelines contained within the RFMS.
Containment Lines	<ul style="list-style-type: none"> 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 always be directed and supervised by an appropriately experienced person, and accompanied by a support vehicle. When engaged in direct or parallel attack this vehicle must be a fire fighting 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 must not leave tracks or create new tracks in Machinery Exclusion Areas as marked on the Incident Map of a RFMS. Earthmoving equipment must be washed down, where practicable, prior to it entering NPWS estate and again on exiting NPWS estate. Where multiple items of earthmoving equipment are being used, the IMT should consider the establishment of a Plant Operations Manager.
Earthmoving Equipment	<ul style="list-style-type: none"> All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
Fire Advantage Recording	<ul style="list-style-type: none"> Use of wetting and foaming agents (surfactants) is permitted on the reserve. The use of fire retardants are only permitted with the prior consent of the senior NPWS officer and should be avoided where reasonable alternatives are available. Exclude the use of surfactants and retardants within 50m of 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.
Fire Suppression Chemicals	<ul style="list-style-type: none"> Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Rehabilitation	<ul style="list-style-type: none"> 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.
Smoke Management	<ul style="list-style-type: none"> OEH personnel are not trained in structural fire fighting and must not enter a structure in order to undertake structural fire fighting. Fire suppression activities may be undertaken from outside a structure in accordance with the policies in the NPWS FMM, in order to protect a built asset.
Structural Fire Fighting	<ul style="list-style-type: none"> The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations. Areas of the reserve may be closed for prescribed burning operations.
Visitor Management	<ul style="list-style-type: none"> Beware of overhead powerlines. Reserve prone to flooding and only some trails will be trafficable after flood events or rainfall.



Suppression Strategies		
Season	Typical Conditions	Indicative Suppression Strategies
Just prior to or during the critical fire season	<ul style="list-style-type: none"> Current Fire Danger Rating (FDR) of Very High or Greater. Short - medium term forecasts suggest conditions typical to a FDR of Very High or Greater. A risk to life and/or property exists in the short - medium term. A broad area risk to biodiversity exists. 	<p>Direct</p> <p>Initial attacks should be to try to extinguish or to contain to the smallest possible area.</p> <p>Indirect</p> <p>Develop a suppression plan using existing and/or potential containment lines. If possible take into account biodiversity requirements but never to the detriment of life and property.</p>
Outside of the critical fire season	<ul style="list-style-type: none"> FDR of High or below. Short - medium term forecast indicate a continuing FDR of High or below. No risk to life or property exists in the short-medium term. Only small area risk to biodiversity exists. 	<p>Direct</p> <p>Evaluate the biodiversity thresholds and use direct attack methods to extinguish if required.</p> <p>Indirect</p> <p>Develop a fire suppression plan to the maximum allowable perimeter based on Biodiversity thresholds.</p>



Threatened Sites Guidelines	
Site	Guidelines
Aboriginal Cultural Heritage Site Management	
Note	An aboriginal sites survey is yet to be conducted for this reserve (as of August 2012). Avoid fire and grading control lines within 100 m of a water course, wherever possible, to protect unknown aboriginal sites.
Threatened Fauna Management	
FA1	Utilise mosaic burning and avoid disturbance at known sightings, roostings or refuges and avoid frequent fire (<6 years).
FA2	Utilise mosaic burning, avoid disturbance at known sightings, roostings or refuges, avoid frequent fire (<6 years) and exclude chemical use.
FA3	Utilise mosaic burning and protect hollow bearing trees.
FA4	Utilise mosaic burning, protect hollow bearing trees and avoid frequent fire (<6 — 10 years).
FA5	Utilise mosaic burning.
FA6	Exclude fire from habitat.
FA7	Exclude fire from habitat and avoid the use of machinery and chemicals.