Lachlan Valley Nature Reserve
Goonawarra Precinct
Fire Management Strategy 2014
Mapsheet 1 of 1

Office of Environment & Heritage
NSW National Parks & Wildlife Service

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

Contact: OEH PWG Regional Office: 200 Yambil St, Griffith NSW 2680 P.O. Box 1049 Griffith NSW 2680 ph. 02 6966 8100

ISBN: 978 1 74359 403 2 **OEH:** 2014/0085 **Date:** Jan 2015 **Version No:** 1

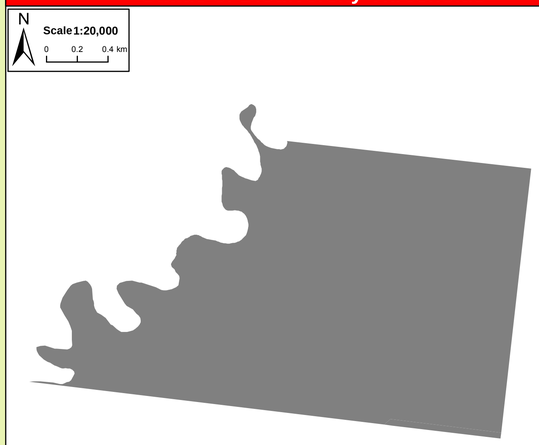
Map Details		Related Documents
Datum: Geocentric Datum of Australia (GDA) 1994 **Projection:** Map Grid of Australia (MGA) Zone 55 **Data:** Spot Satellite Imagery: 2005.	**1:50k Topographic Map:** Booligal 7830-S, One Tree 7829-N **Scale:** Noted scales are true when printed on A1 size paper	OEH Fire Management Manual 2013 - 2014.

Operational Guidelines

Brief all personnel involved in suppression operations on the following issues using the SMEACS format:

General	Guidelines
Aerial Water Bombing	▪ 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	▪ Aerial ignition may be used during back-burning or fuel reduction operations where practicable, but only with the prior consent of NPWS Senior Officer, Section 44 delegate or as prescribed in an operational burn plan, ▪ The use of aerial ignition as a fire suppression tool should be specified in the IAP or within the prescribed burn plan. ▪ Aerial ignition will only be undertaken by qualified and competent navigators and bombardiers, ▪ Utilise aerial ignition to rapidly burn out large areas.
Back-burning	▪ 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, clear a 1m radius 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.
Command & Control	▪ Standard Incident Management Systems are to be applied, ▪ 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 Incident Controller will consult with regard to the ongoing command, control and incident management team requirements as per the relevant BFMC Plan of Operations, and be consistent with BFCC Policy 2-2006.
Containment Lines	▪ 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 and receive consent from 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 personal involved in containment line construction should 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.
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 always be guided 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 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.
Fire Advantage Recording	▪ All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
Fire Suppression Chemicals	▪ 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.
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.
Water	▪ The Lachlan River is a potential water source, ▪ Although not mapped many stock tanks do exist in the area. Most are rainfall fed but some may be fed from the Wah Wah stock and domestic system. Utilise local knowledge. ▪ Otherwise consider a water cart from Booligal (26km) or Hay (70km)
WARNINGS	▪ Reserve prone to flooding and its trails will most likely not be trafficable after flood events or rainfall.

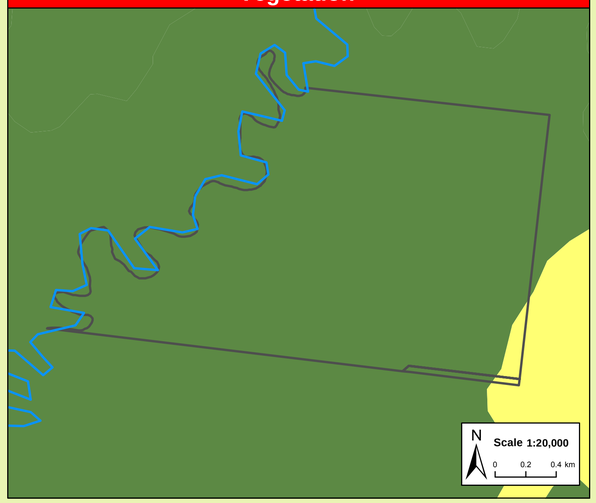
Status of Biodiversity Thresholds



Evaluation of Biodiversity Thresholds	
Within Threshold	Within the threshold for vegetation in this area. Species have had sufficient time to mature and reproduce, and for habitats to develop. ▪ *A fire event is neither required nor should one necessarily be avoided.*

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

Vegetation



Vegetation Map Legend

Broad Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
Forested Wetlands	Riverine Forest/Lignum and Nitre Goosefoot	An interval between fire events less than 10 years and greater than 35 years should be avoided. **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 Riverine 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.
Arid Shrublands (Chenopod sub formation)	Bladder Saltbush	**Fire should be avoided where Chenopods occur.**	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 be erratic and fast moving. In ephemeral years fire 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.
Fire History	No fire history exists in modern NPWS databases for this reserve but local knowledge tells us that in the late 1970's / early 1980's the whole reserve saw wildfire of quite high intensity, hence the whole reserve being identified as " within threshold".		
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 it will be very difficult to undertake prescribed burning across many communities as the surface fuels will be very low. Wildfire areas will be minimised.		

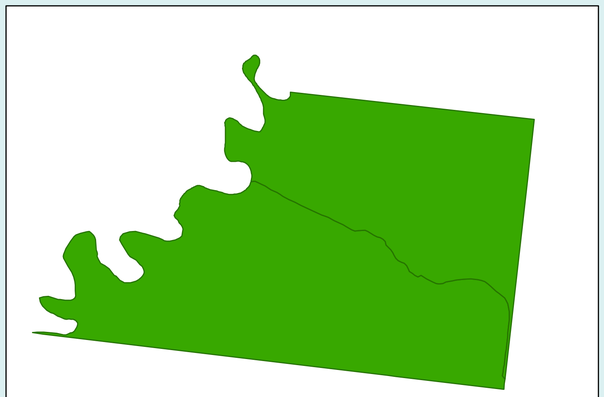
Fire Season Information

Wildfires	▪ The critical wildfire season generally occurs from October/November to March/April. ▪ Dry lightning storms frequently occur and typical fire weather conditions are winds from the west to the north, high day time temperatures and low humidity ▪ Particular care is required following periods of Winter rain and after periods of negative Southern Oscillation Indices.
Prescribed Burning	▪ Prescribed burning should generally be undertaken during Autumn, Winter or early Spring ▪ Care should be taken to ensure a low intensity burn over most of the area treated.

Threatened Sites Guidelines

Site	Guidelines
	Aboriginal Cultural Heritage Site Management
IS1	▪ Do not cut down trees ▪ As far as possible protect the site from fire ▪ Use of foams, wetting agents & retardant is acceptable.
	Threatened Fauna Management
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.

Bushfire Risk Management Strategies

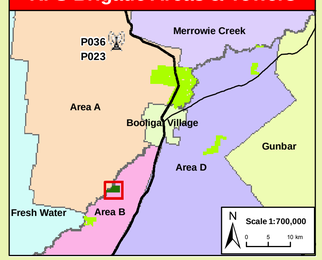


Fire Management Zones	
Land Management Zones	The objective of **LMZs** is to conserve biodiversity and protect cultural and historic heritage. Manage fire consistent with fire thresholds.

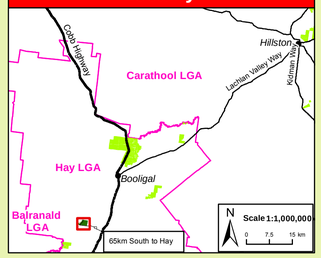
Suppression Strategies

Typical Conditions	Indicative Suppression Strategies
▪ Current Fire Danger Rating (FDR) of **Very High or Greater,** ▪ Short and medium range 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.	**Direct** Initial attacks should be to try to extinguish or to contain to the smallest possible area. **Indirect** 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.
▪ 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.	**Direct** Evaluate the biodiversity thresholds and use direct attack methods to extinguish if required. **Indirect** Develop a fire suppression plan to the maximum allowable perimeter based on Biodiversity thresholds.

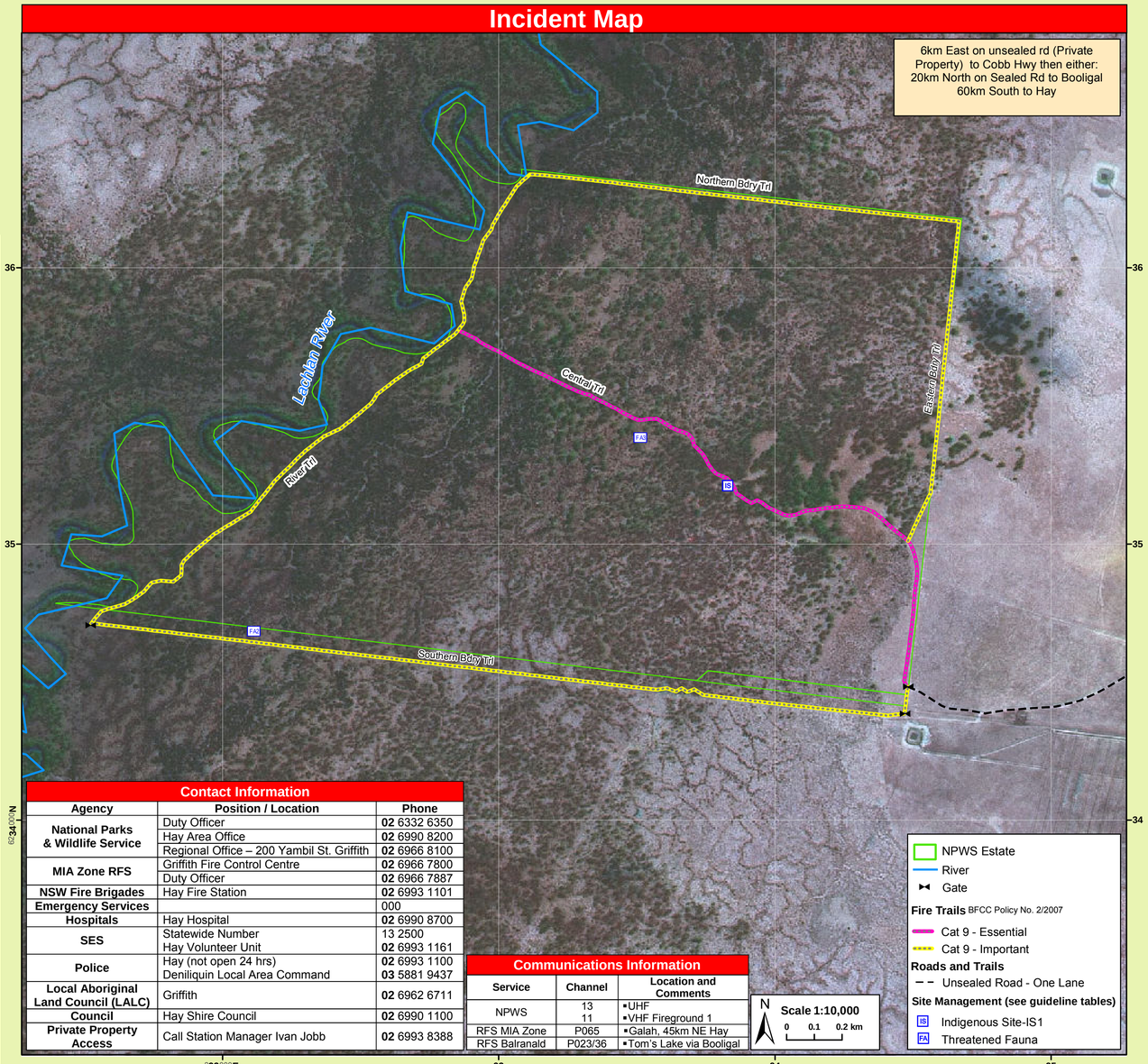
RFS Brigade Areas & Towers



Locality



Incident Map



Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer	**02** 6332 6350
	Hay Area Office	**02** 6990 8200
	Regional Office – 200 Yambil St. Griffith	**02** 6966 8100
MIA Zone RFS	Griffith Fire Control Centre	**02** 6966 7800
	Duty Officer	**02** 6966 7887
NSW Fire Brigades	Hay Fire Station	**02** 6993 1101
Emergency Services		000
Hospitals	Hay Hospital	**02** 6990 8700
SES	Statewide Number	13 2500
	Hay Volunteer Unit	**02** 6993 1161
Police	Hay (not open 24 hrs)	**02** 6993 1100
	Deniliquin Local Area Command	**03** 5881 9437
Local Aboriginal Land Council (LALC)	Griffith	**02** 6962 6711
Council	Hay Shire Council	**02** 6990 1100
Private Property Access	Call Station Manager Ivan Jobb	**02** 6993 8388

Communications Information

Service	Channel	Location and Comments
NPWS	13	▪ UHF
	11	▪ VHF Fireground 1
RFS MIA Zone	P065	▪ Galah, 45km NE Hay
RFS Balranald	P023/36	▪ Tom's Lake via Booligal