Morrison's Lake Nature Reserve
Fire Management Strategy 2014

Office of Environment & Heritage
NSW National Parks & Wildlife Service

Mapsheet 1 of 1

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 086 7 **OEH:** 2013/0326 **Date:** July 2014 **Version:** 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.	**1:100k Topographic Map:** Kilfera 7731 (AGD-1966) **Scale:** Noted scales are true when printed on A1 size paper	OEH Fire Management Manual 2013 - 2014.

Threatened Sites Guidelines

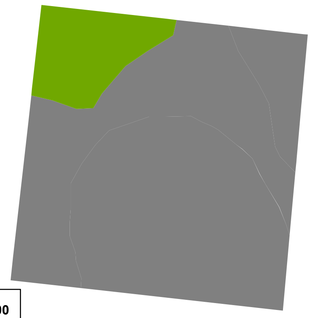
Site	Guidelines
	Aboriginal Cultural Heritage Site Management
Note	An aboriginal sites survey is yet to be conducted for this reserve (as of Jan 2014). Therefore aboriginal sites may be present and consideration in engaging a Senior NPWS Officer or Aboriginal Sites Officer prior to wildfire suppression activities is required.

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, ▪ Aerial ignition will only be undertaken by accredited navigators & bombardiers, ▪ The pattern for aerial ignition will be specified in the IAP during fire suppression.
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.
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.
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.
Visitor Management	▪ 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.
WARNINGS	▪ Beware of overhead powerlines ▪ The Watering points are shown on the SPOT imagery and are the lake itself, various dams and also the Ivanhoe town water supply dam.

Status of Biodiversity Thresholds



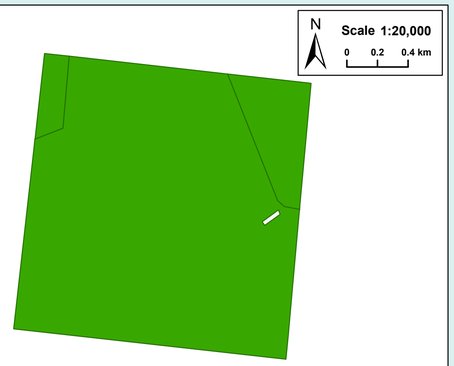
Evaluation of Biodiversity Thresholds	
Within Threshold	Within the threshold for vegetation in this area. Species have had sufficient time to mature and reproduce, and for habitats to develop. ▪ *A fire event is not required and due to the size of the reserve and the lack of existing containment lines all fires would be kept to a minimum.*
No Fire Regime	Fire should be avoided due to Chenopod species being present.
NB. Fire thresholds are defined for vegetation communities to conserve biodiversity	

Vegetation Map Legend

Broad Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
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 (Grassy sub-formation)	Black Box - Lignum Woodlands or Black Box Chenopod Open Woodland	An interval between fire events less than 9 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. Fire should be avoided where Chenopod species occur. Two fires in the same area in a period of less than 10 years apart may remove younger Black Box trees.	
Arid Shrublands (Chenopod sub formation)	Nitre Goosefoot, Eastern Cottonbush	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. Potential spotting from trees.
Grassland	Grasslands (various communities)	An interval between fire events less than 3 years and greater than 10 years should be avoided.	
Fire History	No fire history data exists for this reserve		
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. Wildfires are likely to be difficult to control due to extreme conditions during the day and areas of low fuel that are difficult to back-burn in under night-conditions.		

Vegetation

Bushfire Risk Management Strategies



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

Suppression Strategies

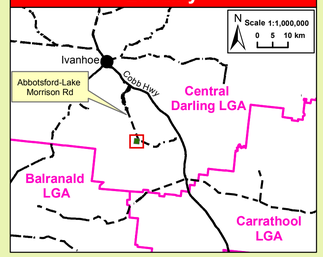
Typical Conditions	Indicative Suppression Strategies
▪ Current Fire Danger Rating (FDR) of **Very High or Greater,** ▪ Short and medium range forecasts suggest conditions typical to a FDR of **Very High** or **Greater,** ▪ A risk to life and/or property exists in the short – medium term, ▪ A broad area 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.

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer	**02** 6332 6350
	Mid West Area & Regional Office – 200 Yambil St Griffith	**02** 6966 8100
NSW Rural Fire Service Far West Team	Fire Control Centre (Cobar) Diverted After Hours	**02** 6836 1226
Fire and Rescue NSW	Hillston Fire Station	**02** 6967 2610
State Forests	Forbes – Duty Mobile	0428 696 678
Emergency Services		000
SES		13 2500
Police Station (not open 24 hrs)	Hay	**02** 6993 1100
Police - Local Area Command	Deniliquin	**03** 5881 9437
Hospital	Ivanhoe	**02** 6995 1133
Ivanhoe Community Working Party	Faye Johnson	0427 283 570
Council	Central Darling Shire Council	**08** 8083 8900

RFS Fire Brigade Areas & Towers

Locality



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 would be avoided in this reserve due to the present of Chenopod species

Incident Map

Communications Information		
Service	**Channel**	**Location and Comments**
NPWS	11 14	▪ VHF Fire Ground 1 ▪ UHF Cobar
RFS UHF All Brigades	20	▪ Initial Response
RFS Cobar	P038	▪ "Ivandale Station" 15km N Ivanhoe
Do not rely on mobile phones, scattered coverage over reserve area.		

Whilst no threatened fauna is shown on the map it should be noted that during times of high rainfall when the lake has water some birdlife may be present