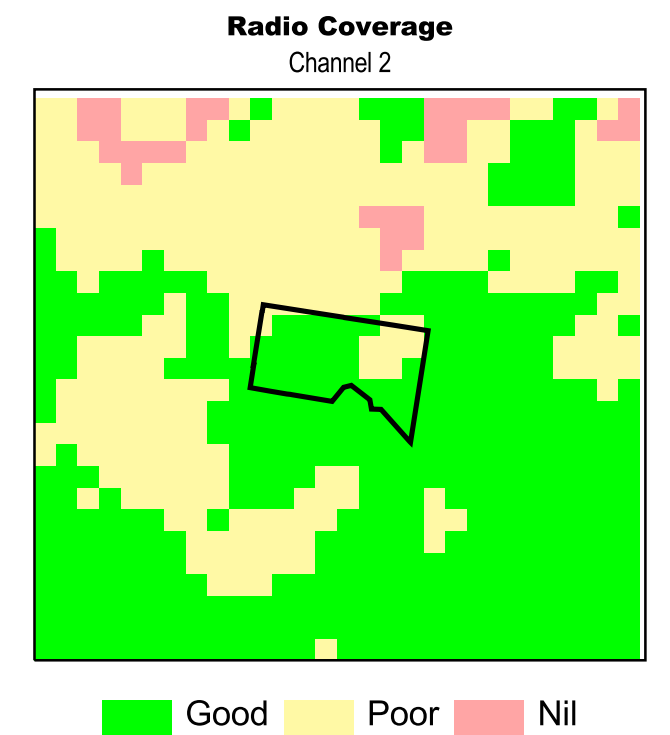
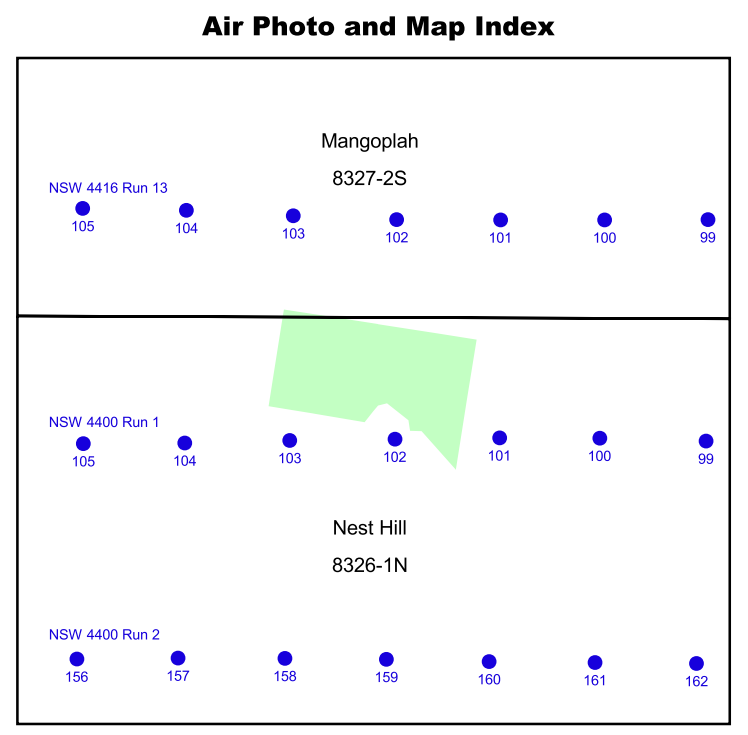


- Assembly Area
- Base Camp
- Control Centre
- Staging Area
- Airbase
- Water Point - Helicopter
- Water Point - Vehicle
- Helipad
- Refuge Area
- Escape Route
- Farm Dam
- Spotheight
- Survey Landmark
- Gate
- Locked Gate
- Asset
- Asset Buffer Zone
- Heritage Management Zone 1 (HMZ1)
- BFCC Standard Trail
 - Primary
 - Secondary
 - Dormant
- Management Trail
 - Cat 1
 - Cat 2
 - Cat 7
 - Cat 9
- Other Roads
 - Sealed Road
 - Main Unsealed Road
 - Minor Unsealed Road
 - Trail
 - Dormant Trail
- Walking Track
- Railway
- Landing Ground
- Major Power Line (With Voltage)
- Minor Power Line
- Creek
- Drainage Line
- Waterbody
- 100m Contour
- 20m Contour
- Cadastre
- State Border
- Nest Hill NLR
- Other DEC Estate
- Crown Land
- State Forest
- Timber Plantation
- Wooded Area
- Karst Area
- Recently Burnt Area



OPERATIONAL GUIDELINES	
ACTIVITY	OPERATIONAL GUIDELINES
Command, control and firefighting arrangements Fire Response (FMM 4.1 & 4.2)	<ul style="list-style-type: none">First fire personnel of any agency on site may assume control of the fire, but must ensure the relevant land management agency is promptly notified.On arrival of other fire agencies, the initial incident controller will consult with the other agencies on the ongoing command, control and incident management team requirements as per the relevant BFMC Plan of Operations.The use of earth-moving equipment, retardants and aerial suppression must be approved by a senior NPWS officer.
Aircraft Operations (NPWS FMM 4.4 & 4.8)	<ul style="list-style-type: none">Aerial water bombing and aerial ignitions are permissible in this reserve, however can only be used and commenced on the instruction of the incident controller or senior NPWS officer.Water bombing operations should support containment operations by aggressively attacking flanks, hotspots, spot-overs and head fires where required.Where possible, teams should be used to increase the effectiveness of water, however limit use within 50m of watercourses and dams.The use of water bombing aircraft without the support of ground based suppression crews should be limited to specific circumstances as determined by the senior NPWS officer.Ground crews must be briefed and alerted to aerial ignition and water bombing operations.
Back burning (NPWS FMM 4.8)	<ul style="list-style-type: none">All backburning operations must be planned and approved by a senior NPWS officer.All crews must be briefed on the sequence and safety precautions of the operation.Generally, burning should commence when the humidity rises in late afternoon or early evening and spotting is minimal. With a low FDI, burning may be safely undertaken during the day.Where practicable, clear 1m radius around dead and fibrous barked trees adjacent to containment lines prior to burning, or wet down these trees as part of the backburn ignition preparation.
Control lines (NPWS FMM 3.9)	<ul style="list-style-type: none">Existing constructed or natural fire control advantages should be used, wherever possible, to contain bushfires.Trails that comply with the Bush Fire Coordinating Committee Policy 1/03 "Fire Trails" are identified on this operations map.As a minimum, management trails identified on the operations map are maintained to a standard to provide access to Category 9 vehicles, unless otherwise indicated.Dormant trails may be used as a strategic control line during an incident, however may need some mechanical work to clear regenerating vegetation and fallen timbers.
Earth moving machinery (NPWS FMM 4.3)	<ul style="list-style-type: none">Strategies involving earth-moving equipment must be approved by the senior NPWS officer before implementation.Earth-moving equipment must be supervised and guided by an experienced NPWS officer or a person recognised to be appropriately experienced.All earth-moving equipment employed in fire operations must be accompanied by a support vehicle that has equipment available to contact support personnel in an emergency. Plant involved in direct or parallel attack must be accompanied by either a slip-on or a fire linker for safety purposes.At the commencement of shifts, all operators and guides must be briefed on safety consideration and actions to prevent damage to sensitive natural and cultural heritage.Where possible, control lines running along valley areas should be constructed 20-50 from gullies to avoid severe erosion.
Fire suppression chemicals (NPWS FMM 4.9)	<ul style="list-style-type: none">Wetting and foaming agents (surfactants) are permitted for use in wildfire suppression.Use of retardants must be authorised by the senior NPWS officer.Retardants should be ammonium sulphate based and should not be used where reasonable alternatives are available.As far as possible, exclude the use of surfactants and retardant within 50m of watercourses and dams.Use surfactants and retardants where natural advantages provide the most effective applications of the chemicals.
Post fire rehabilitation (NPWS FMM 5.1)	<ul style="list-style-type: none">The rehabilitation process should be addressed during the incident, in the Incident Action Plan.
Smoke management (NPWS FMM 3.4)	<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.Where smoke has the potential to be a hazard on local roads or highways the police, RTA, local shire council and relevant media must be notified.Monitor local roads and access for smoke hazards and install road safety/warning signs where necessary. Traffic control must comply with RTA Traffic Control at Worksites Manual requirements.
Transmission lines (Powerlines)	<ul style="list-style-type: none">May cause danger to ground personnel through smoke conduction of electricity through the airContact the relevant authority to turn the power off prior to back burning operations under lines
Water supplies	<ul style="list-style-type: none">Access to water supplies on private property will be negotiated prior to use, except according to S44 provisionsArrangements will be made to replace water used after the fire, as required.

FIRE SEASON INFORMATION

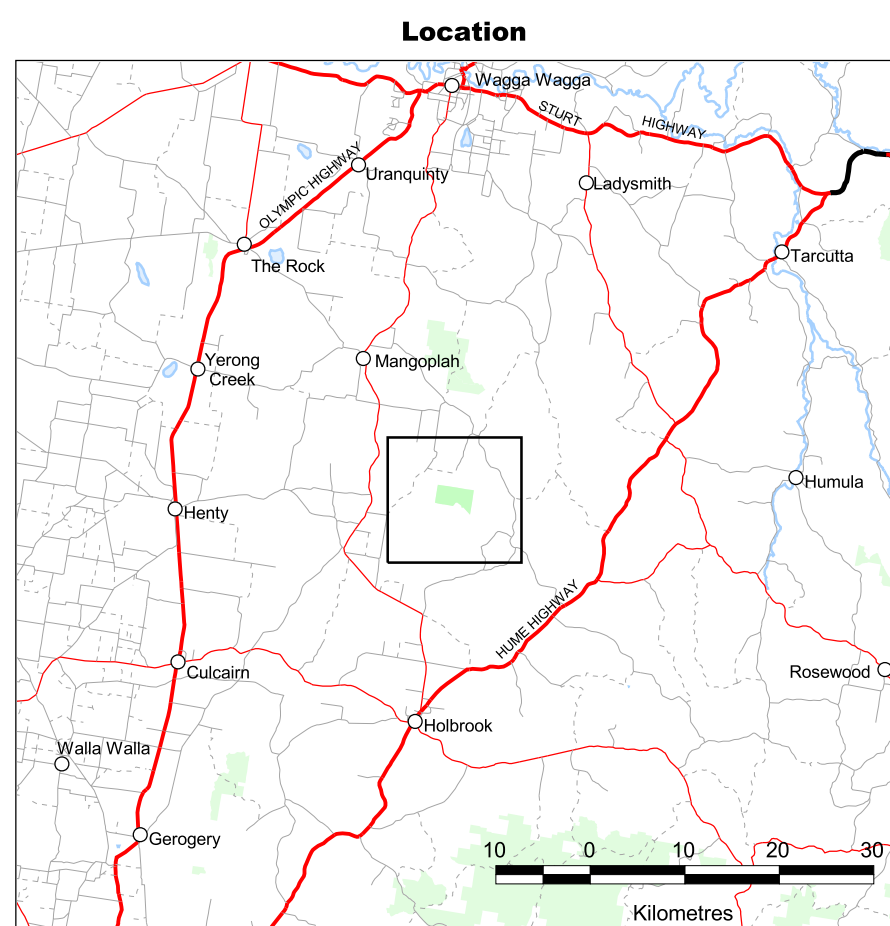
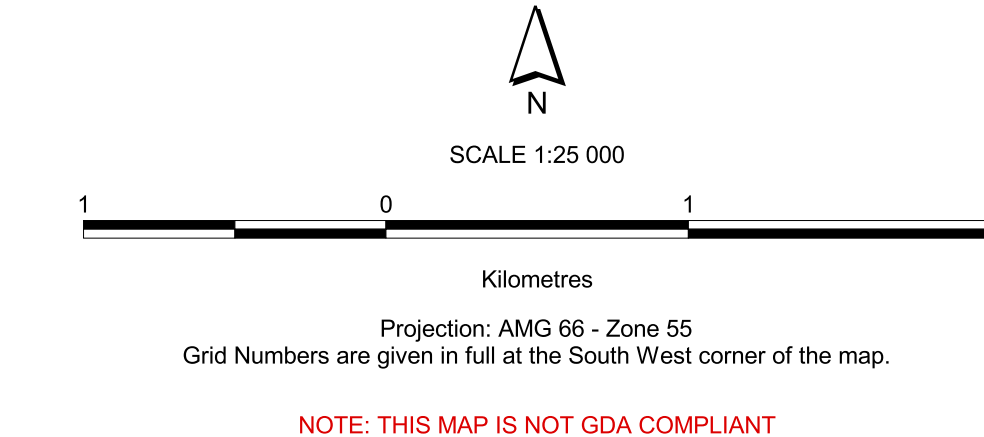
The critical fire season occurs between December and March, when the potential for fire events is at its highest. Particular care and monitoring is required during periods of prolonged drought when strong negative Southern Oscillation Indices precede the fire season, and when low pressure systems dominate central and southern Australia during and leading up to the fire season. During these times fires may exhibit high intensity behaviour in windy conditions and exceed current rate of spread indices. Periods of extended drought, may give rise to higher potential bushfire behaviour during winter.

Any proposed prescribed burning should be undertaken before late autumn precipitation occurs. Least likely period to disrupt fauna during prescribed burning is at the end of March and April, depending on weather conditions (past, present and forecast). Any fire in spring should be avoided.

During the fire season prevailing winds during the day are from the west and northwest. All ignitions under a SW influence should be managed with the potential for flanks to become heads when W to NW wind trends return.

SUPPRESSION STRATEGIES	
FFDI	OPERATIONAL GUIDELINES
Current Low - Mod & Forecast Low - Mod	<ul style="list-style-type: none">Undertake direct, parallel or indirect attack along existing containment lines.Where practicable, consider maximising the fire area in accordance with the requirements of any proposed prescribed burns in the fire planning strategy and Bushfire Management Committee agreements.
Current Low - Mod & Forecast High or >	<ul style="list-style-type: none">In order to minimise the fire area and secure the flanks as soon as possible, undertake direct, parallel or indirect attack along the closest containment lines.Pay particular attention to the flank on the next predicted downwind side.Consider fall back containment strategies.
Current High or > & Forecast High or >	<ul style="list-style-type: none">Undertake indirect attack along existing or newly constructed containment lines.Secure and deepen containment lines along the next predicted downwind side of the fire.Allow sufficient time to secure containment lines to avoid wasted effort and potential failure.Prepare and implement fall back containment strategies.
Fire Advantages	<ul style="list-style-type: none">Streams in the reserve are intermittent and should not be regarded as passive control lines under normal conditionsReserve trails will function as fire advantages

Note: Always ensure there is sufficient time to secure containment lines prior to the fire impacting upon them.



South West Slopes Region

Nest Hill Nature Reserve

Fire Operations Map

2005

Version: September 2005, ISBN: 1 74137 809 5, DEC: 2006/40

This Map should be used in conjunction with air photos and ground reconnaissance during incidents and the development of incident action plans.

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This map is based on Land and Property Information Standard 1:25000 Topographic Map Series. Reproduced with permission of Land and Property Information.

LIFE & PROPERTY GUIDELINES	
Visitor safety (NPWS FMM 3.6)	<ul style="list-style-type: none">Where possible:Visitors in or adjacent to the fire ground will not be permitted unless authorised by the Incident Controller. The presence of visitors should be reported to the incident controller immediately, who will arrange for an evacuation if necessary."Park closed" or "smoke hazard" signs must be placed in areas used by visitors prior to undertaking prescribed burning.Notify media that wildfire or prescribed fire exists within the reserve/area.
Asset Protection (FMM 4.10)	<ul style="list-style-type: none">There are no recorded assets within the reserve.

HERITAGE MANAGEMENT ZONE GUIDELINES	
ZONE	GUIDELINES (WITHIN THE ZONE)
HMZ 1	<ul style="list-style-type: none">Where possible:Contain fires to small areas and lower potential intensity.Minimise the use of earth moving machines.Minimise the use of surfactants/retardants within the zone.Minimise felling large and hollow bearing trees during "mop up" activities.Prescribed fire should be avoided, unless there is a demonstrated loss of biodiversity.
HMZ 2	<ul style="list-style-type: none">Where possible:Minimise the potential for fire to spread and or contain to existing control lines where unplanned fires occur in untreated areas programed for prescribed burning (ie. SFM/Z).Prescribed fire or other fuel manipulation program may be applied to the area to reduce potential risks.Manage fire to produce mosaic (patchy) burn patterns (where weather conditions permit).Earthmoving equipment may be used to contain fire.Retardants and foams may be used to suppress fire, however minimise use within 100 m of water courses and dams.

CULTURAL HERITAGE GUIDELINES	
THEME	GUIDELINES
Aboriginal & Historic Heritage (FMM 4.11)	<ul style="list-style-type: none">Brief personnel involved in control line construction and vehicle based fire suppression operations on site locations and the required management strategies for site protection. Include in Incident Action Plans.Liaise with the relevant heritage officer and or representative where considered necessary.
Scarred trees	<ul style="list-style-type: none">Clear fuels, with hand tools, from tree base and/or foam base to 3m up tree trunk.Do not clear or fell trees.Where possible, avoid new trail construction within 20m of trees and construct trails on the advancing fire side of the tree.Hazard reduction or back burning operations should minimise the potential threat of radiant heat on the tree.
Rock arrangements, rock engravings, bora rings, etc	<ul style="list-style-type: none">Avoid new trail construction or ground disturbance within close proximity of site. Where possible, ensure site is protected by constructing trails or hand tool lines on the advancing fire side.Clear, by hand, excess fuels from the site.Avoid direct attack methods (including aerial water bombing) at known sites. Surfactants and retardants in aerial line drops may be used adjacent to, but not directly on sites.Hazard reduction or back burning operations should minimise the potential threat of radiant heat and smoke (carbon deposition) on sites.
Art sites and overhangs	<ul style="list-style-type: none">Avoid new trail construction or ground disturbance within close proximity of site. Where practicable, ensure site is protected by constructing trails or hand tool lines on the advancing fire side.Clear, by hand (whipper snippers, brush cutters, mowers), excess fuels from the site.Avoid direct attack methods on sites.Avoid aerial water bombing, use of foams and or retardants at known sites. Use of foam or aerial line drops may be used adjacent to, but not directly on sites.Hazard reduction or back burning operations should minimise the potential threat of radiant heat and smoke (carbon deposition) on the site.
Open camp sites	<ul style="list-style-type: none">Avoid ground disturbance at or within close proximity of the site (20m). Earthmoving blades should be raised in these locations to avoid damage to sites on trails, unless a "Consent to Destroy" has been attained.Avoid direct attack methods (including aerial water bombing) at known sites.Use of foam or aerial line drops may be used adjacent to, but not directly on sites.
Historic Heritage	<ul style="list-style-type: none">None recorded.

FMM - contains extracts from NSW National Parks and Wildlife Service Fire Management Manual (December 2004). For the purposes of public exhibition, some information will not be displayed due to obligations under the Freedom of Information Act 1989, Privacy and Personal Information Protection Act 1998, regulations and amendments, and Memorandum of Understanding between the Department of Environment and Conservation and Aboriginal Communities.

RADIO COMMUNICATIONS				
AGENCY/RESOURCE	CHANNEL	MRX FREQ.	MTX FREQ.	NOTES
NPWS (VHF)	2	MRX 77.6375	MTX 80.1375	Jingelic - covers most of the reserve area.
NPWS (VHF) FIRE GROUND	17	82.3875	82.3875	Channel to be determined by ground crews, crew leaders, Division commanders etc. Any changes will be noted in IAP.
	18	79.8375	79.8375	
	19	79.9625	79.9625	
RFS (PMR)	55	MRX 413.375	MTX 403.925	RFS to determine primary communications during an incident.
	77	MRX 418.825	MTX 409.375	110.9 HZ TX & RX
RFS (UHF) CB	27	Pulletop BFB		
	37	Mangoplah BFB		
AIRCRAFT COMMUNICATIONS (Fire Communication Traffic Advisory Frequencies F-CTAF)		119.10 Mhz	State wide	Unauthorised and inappropriate use of Aviation Channels is a criminal offence
		120.80 Mhz	State wide	
		122.80 Mhz	State wide	
		123.45 Mhz	State wide	
		128.70 Mhz	State wide	
		132.75 Mhz	State wide	
Mobile Phone Coverage- generally, good coverage across the reserve area.				

CONTACT PHONE NUMBERS				
NATIONAL PARKS AND WILDLIFE SERVICE			EMERGENCY SERVICES	
SWS Tumut Office (B/H)			6947 7000	6921 0544
SWS Tumut Office Fax			6947 4170	6921 0534
Incident Answering Service (A/H)			1800 629 104	13 1233
RURAL FIRE SERVICE			AMBULANCE	
Wagga Wagga Fire Control Centre (Ph)			6931 5855	State Emergency Service Wagga 6931 6701
			(Fax) 6931 5626	Fire Brigade - Wagga 6921 3022
			6931 5000	
State Operations (24 hrs)			8741 5400	
			OTHER ORGANISATIONS	
			WIRES (24 Hr)	
			6921 5135	

Nest Hill Nature Reserve - Waypoints					
Name	Ref No	Description	Easting	Northing	Longitude Latitude
Cookardina Rd		Staging Area	532540	6072000	147° 21' 31" 35° 29' 42"
Main Gate		Staging Area	532770	6071960	147° 21' 41" 35° 30' 02"
Pine Acres		Waterpoint - Vehicle	532600	6072820	147° 11' 34" 35° 29' 15"