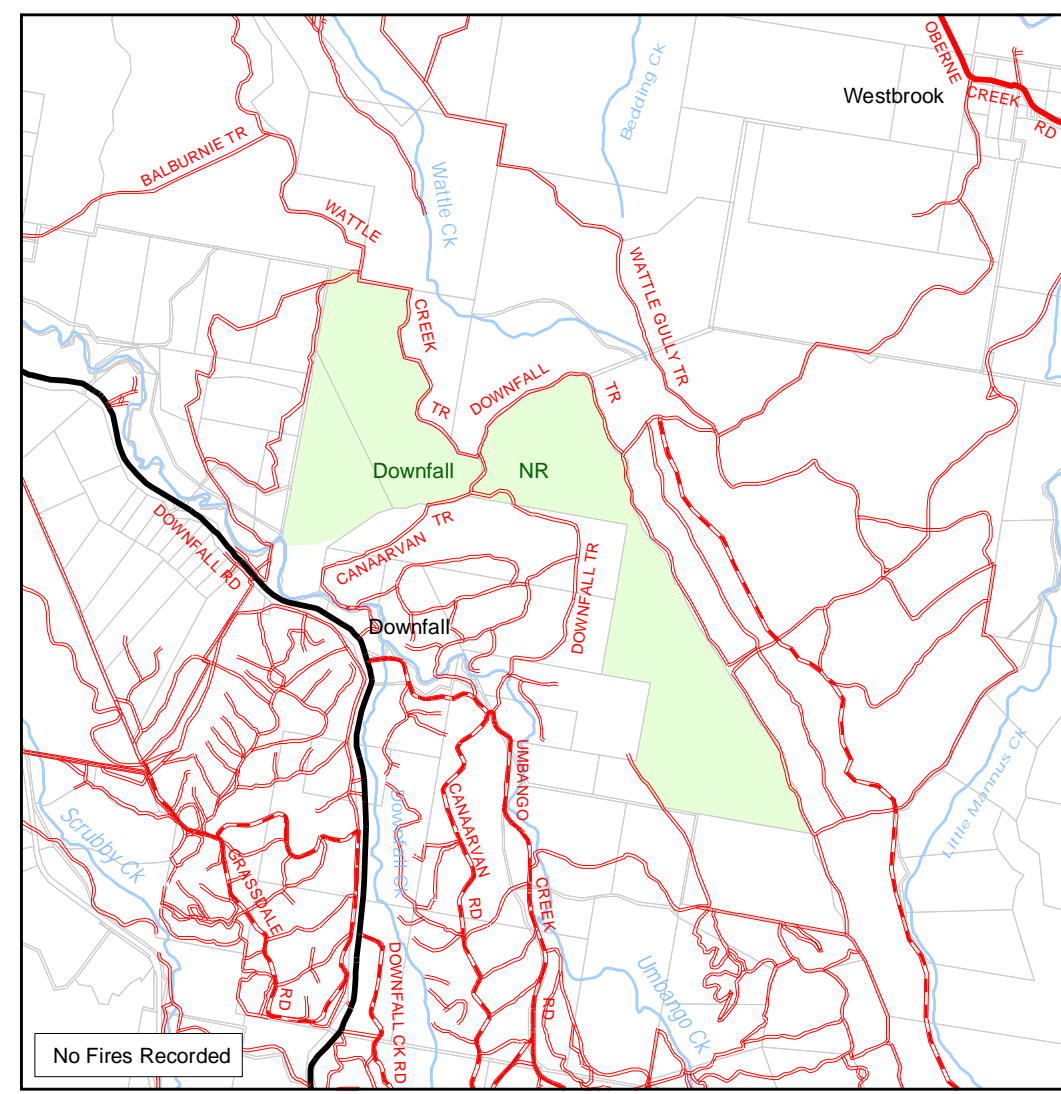
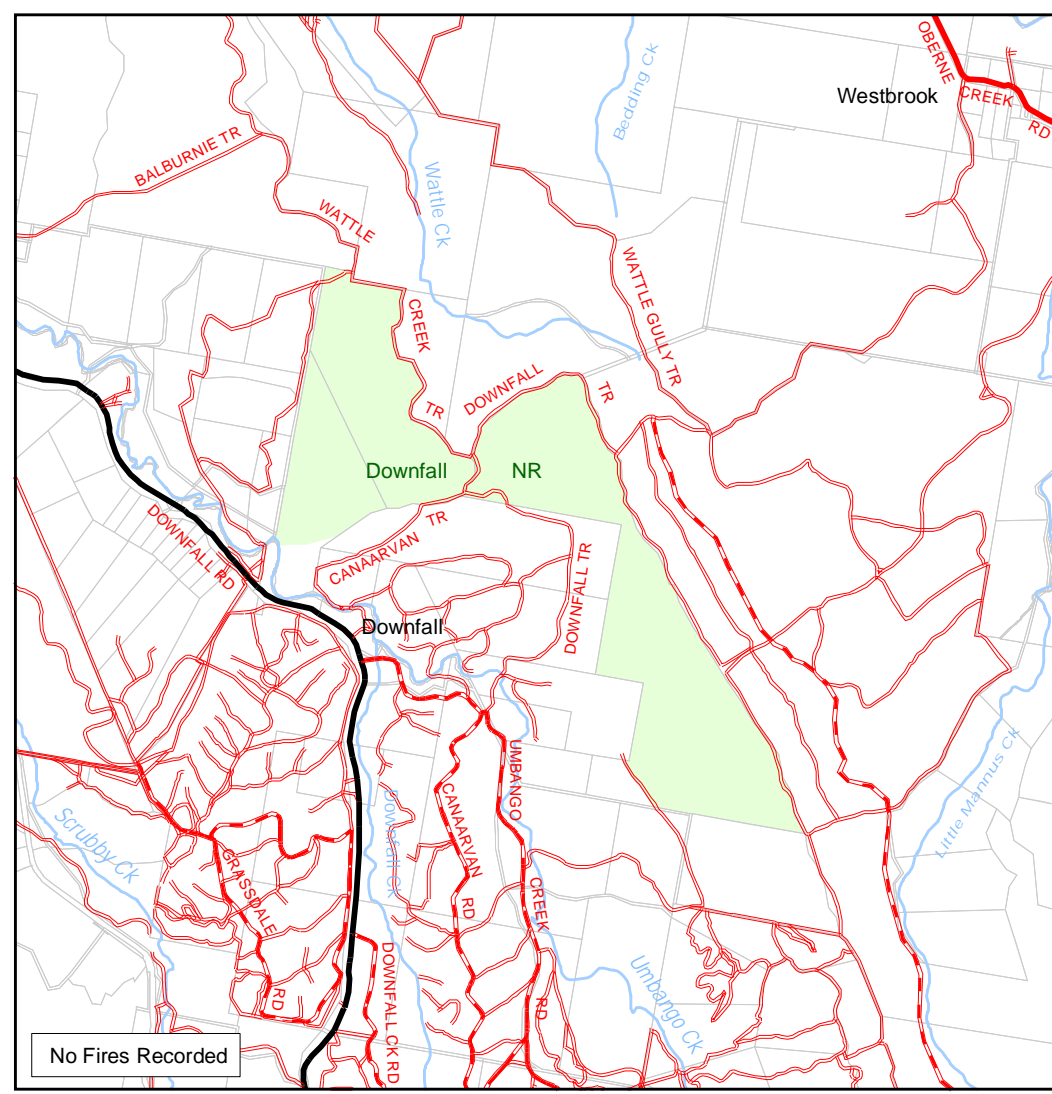


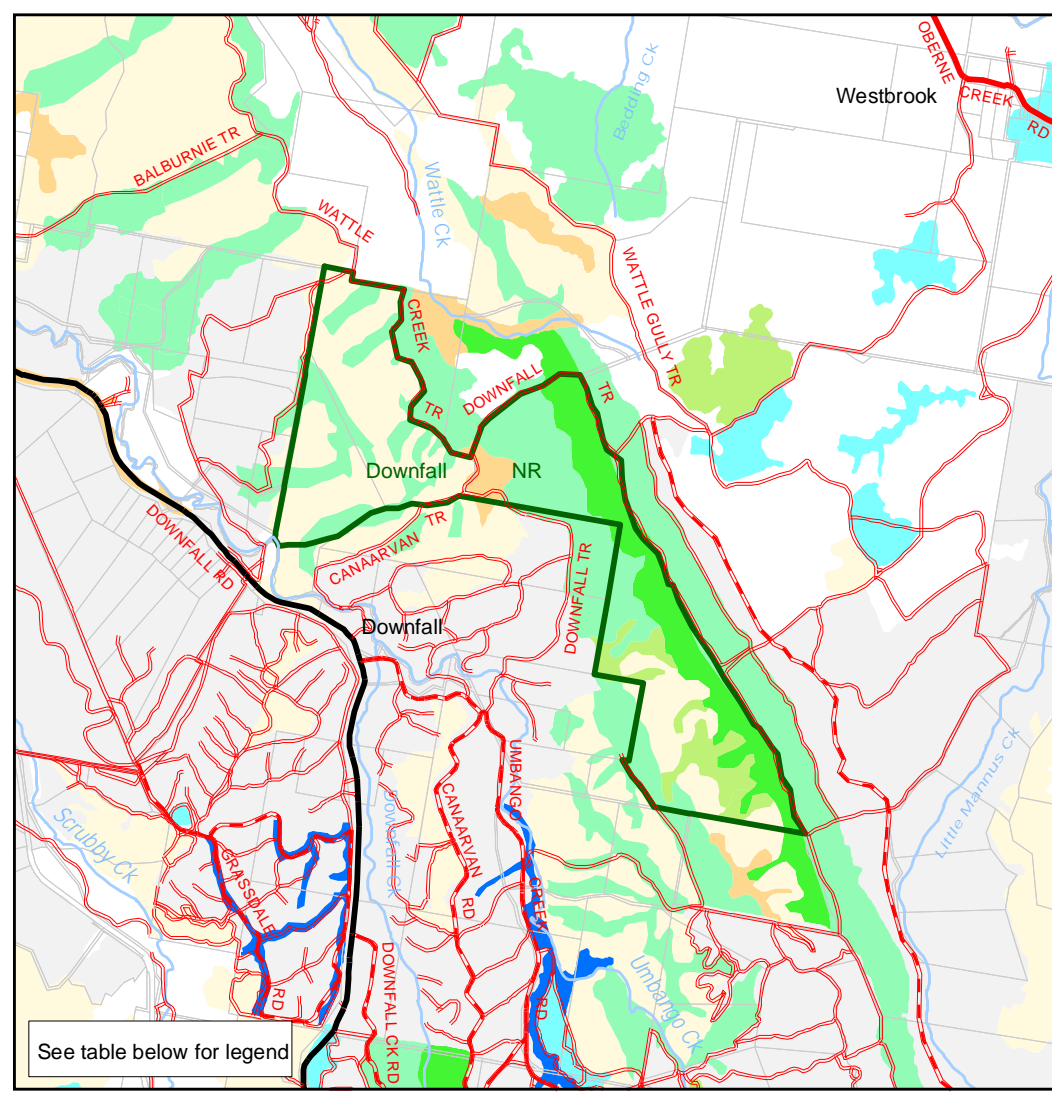
Map 1: Fire History - Wildfire



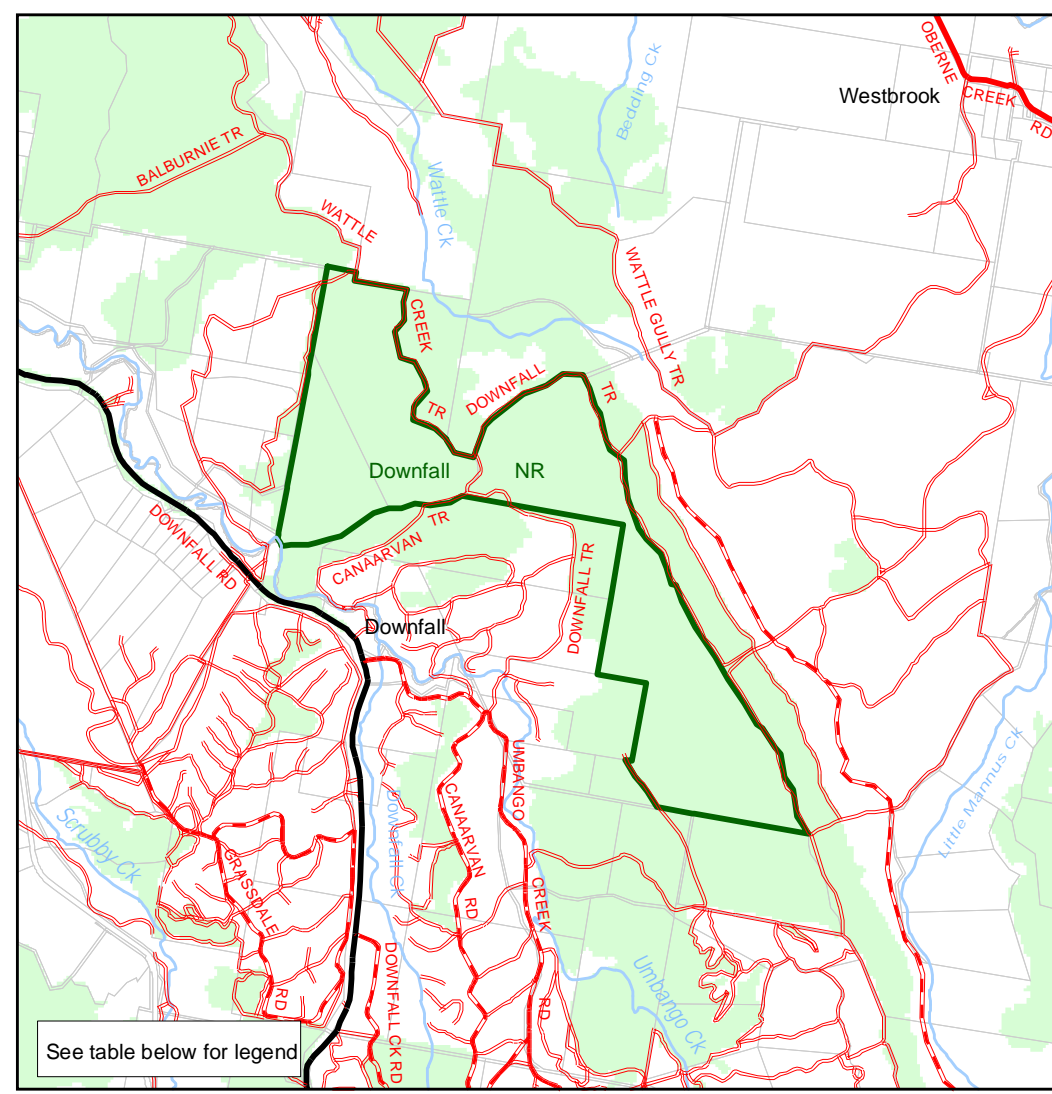
Map 2: Fire History - Prescribed Burns



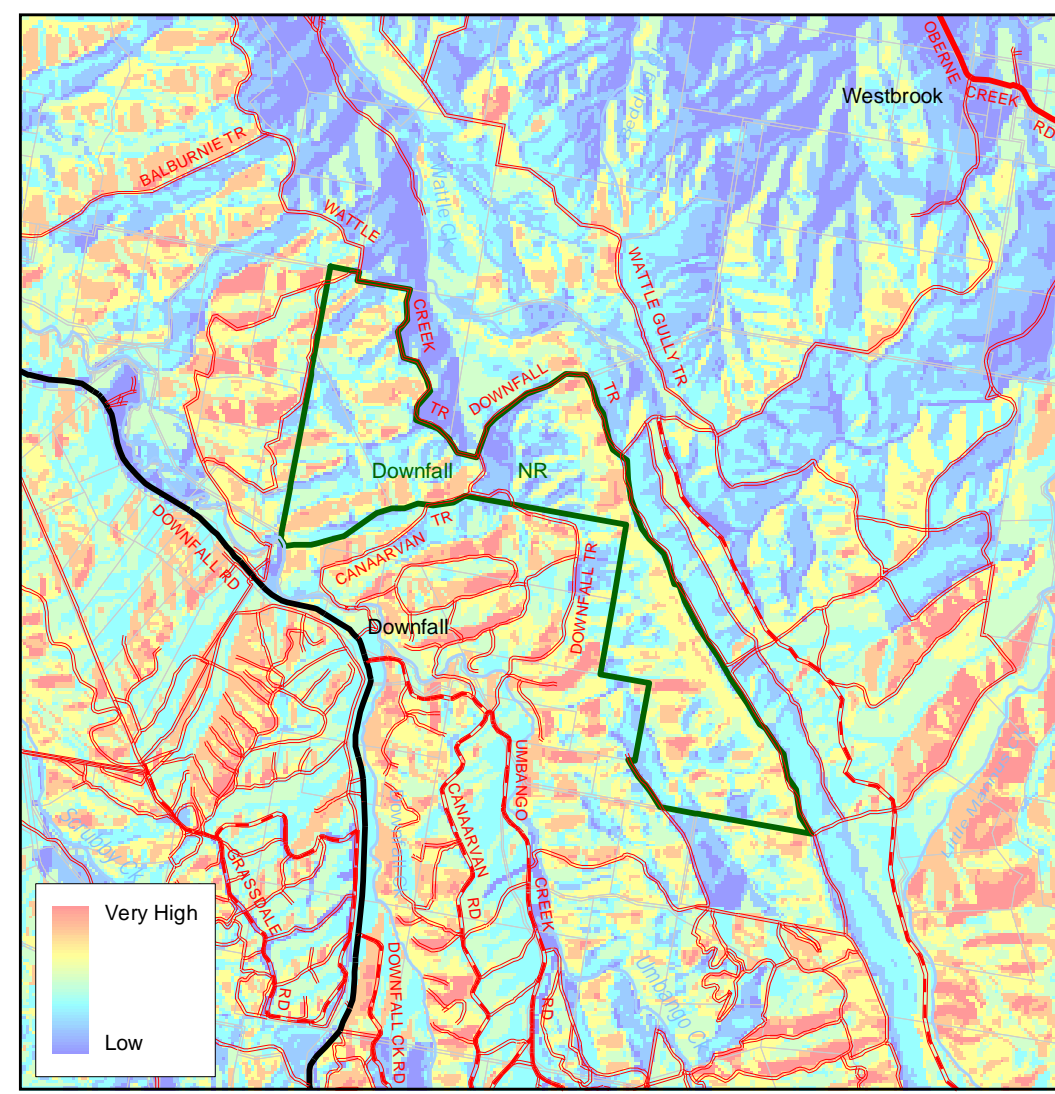
Map 3: Vegetation Communities



Map 4: Vegetation Threshold Analysis



Map 5: Bushfire Behaviour Potential



MAPS 1 & 2: FIRE HISTORY

Ignitions	There are no recorded ignitions within the reserve.
Prescribed burns	No prescribed burns have been implemented within the reserve by NPWS since the land was transferred in 2001. There have been no known prescribed burns applied during previous land management operations.
Wildfire	There are no records from the previous land management agency either written or mapped for the reserve. Neighbours can be recalled observing fire within the reserve during that period of land management, where some have indicated the extent of 400 years without fire.
Fire Frequency	There are no indicators that have been in place for the last 30-40 years, grass fires over 2 m tall show tall shrubs that have not been burnt for a long time. The frequency and interval between fires has important implications relative to bushfire management.

MAP 6: THREATENED FAUNA

Fire Group	Common Name	Scientific Name	TSC Status	Vulnerable Period	
A	Barking owl	<i>Ninox connexus</i>	V	Jun-Dec	
	Black-chinned honeyeater	<i>Meliphaga cinerea</i>	V	Jul-Dec	
	Squabbled jilby	<i>Ptilinopus amabilis</i>	V	Jun-Dec	
	Turquoise parrot	<i>Agapornis melanoptera</i>	V	Aug-Dec	
	Eastern honeyeater	<i>Myzomela melanocephala</i>	V	May-Dec	
	Diamond finbill	<i>Steganopleura bichenovici</i>	V	Aug-Jan	
	Spotted warbler	<i>Myzomela melanoptera</i>	V	Aug-Dec	
	B	Potential amphibian & invertebrate species that may be vulnerable to fire or fire suppression techniques.			
		Threatened Fauna Guidelines & Considerations			

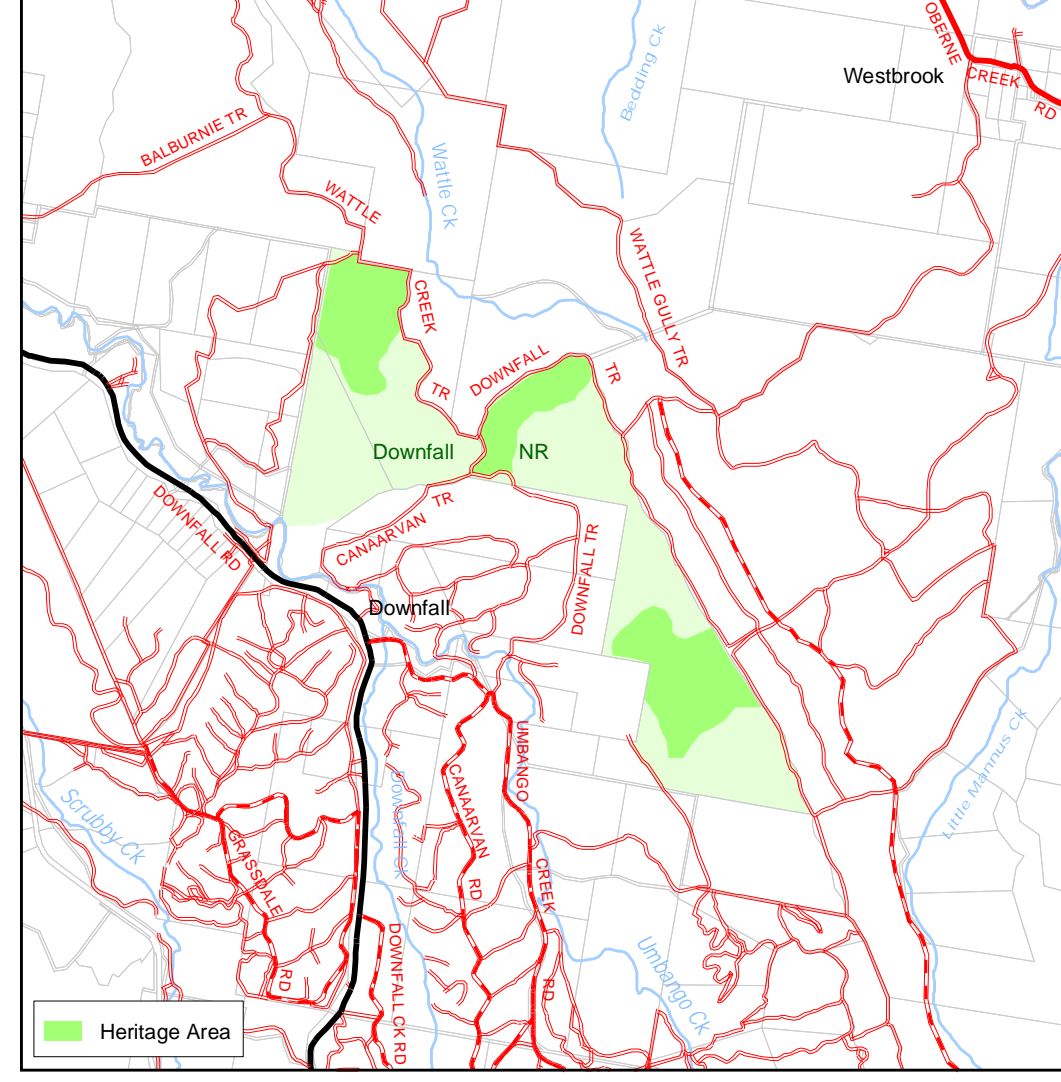
MAP 3: VEGETATION COMMUNITIES & THRESHOLDS

Vegetation Group	Vegetation Description	Recent HRS	% Reserve
24	Apple Box & Norton Box - Moist Grass Forest	12	<1
26	Broad Leaved Peppermint & Apple Box - Grassy Forest	50	10
45	Red Stringybark/Scribbly Gum & Rough-barked Red Gum - Dry Forest/Grass Open Forest	176	35
49	Broad Leaved Peppermint & Norton Box - Grassy Forest	157	32
67	Bottle Gum & Broad Leaved Peppermint - Pine Grass Forest	96	19
173	Bumast Vegetation	0	0
182	Blackberry Inwaded Streams	0	0
198	Pine Plantation	0	0
199	Natural Vegetation - Partially Cleared	<1	<1

MAP 4: VEGETATION THRESHOLD ANALYSIS

Threshold	Vegetation Group	% of Reserve	Interpretation & Management Guidelines
Overburn	NA	0	Identified: Two consecutive fires have been recorded close together and the area is considered to be overburned. Additional fire in this area would lead to adverse fire regimes and may threaten community biodiversity. Fire should be avoided for this year and until another analysis of thresholds is conducted to assess trends.
Vulnerable	NA	0	Identified: would be overburned if the area burns before the end of 2006. Fire should be avoided for this year and until another analysis of thresholds is conducted to assess trends.
Recently burnt	NA	0	Identified: The area has been burnt within the threshold interval. Fire this year would push the vegetation fire into the vulnerable class. Fire should be avoided for this year, but could be assessed for postponing or other programs in the future.
Underburnt	NA	0	May require fire after 2006 for Asset protection, strategic, or biodiversity reasons. Areas that may be overburned by fuel reduction burning for asset and strategic protection programs, ecological purposes, and unplanned fire events may be allowed to burn. The vegetation community demonstrates a loss of biodiversity - conditions are suitable. The nearby reserve vegetation, flora and fauna community requirements. Planned fire may be introduced for fuel reduction burning for asset or strategic protection purposes. Unplanned fire events may be allowed to burn if the vegetation community demonstrates a loss of biodiversity - conditions are suitable. The nearby reserve vegetation, flora and fauna community requirements. Planned fire may be introduced for fuel reduction burning for asset or strategic protection purposes. Unplanned fire events may be allowed to burn if the vegetation community demonstrates a loss of biodiversity - conditions are suitable. The nearby reserve vegetation, flora and fauna community requirements.
Almost underburnt	NA	0	Planned fire may be introduced for fuel reduction burning for asset or strategic protection purposes. Unplanned fire events may be allowed to burn if the vegetation community demonstrates a loss of biodiversity - conditions are suitable. The nearby reserve vegetation, flora and fauna community requirements. Planned fire may be introduced for fuel reduction burning for asset or strategic protection purposes. Unplanned fire events may be allowed to burn if the vegetation community demonstrates a loss of biodiversity - conditions are suitable. The nearby reserve vegetation, flora and fauna community requirements.
OK	24, 26, 45, 49, 67	100	Areas where thresholds have been exceeded to the point where the community is at risk of being lost. The history of the area should be reviewed to determine whether it is underburnt or overburnt. Areas that may be overburned by fuel reduction burning for asset and strategic protection purposes, ecological purposes, and unplanned fire events may be allowed to burn. The history of the area should be reviewed to determine whether it is underburnt or overburnt. Areas that may be overburned by fuel reduction burning for asset and strategic protection purposes, ecological purposes, and unplanned fire events may be allowed to burn. The history of the area should be reviewed to determine whether it is underburnt or overburnt.

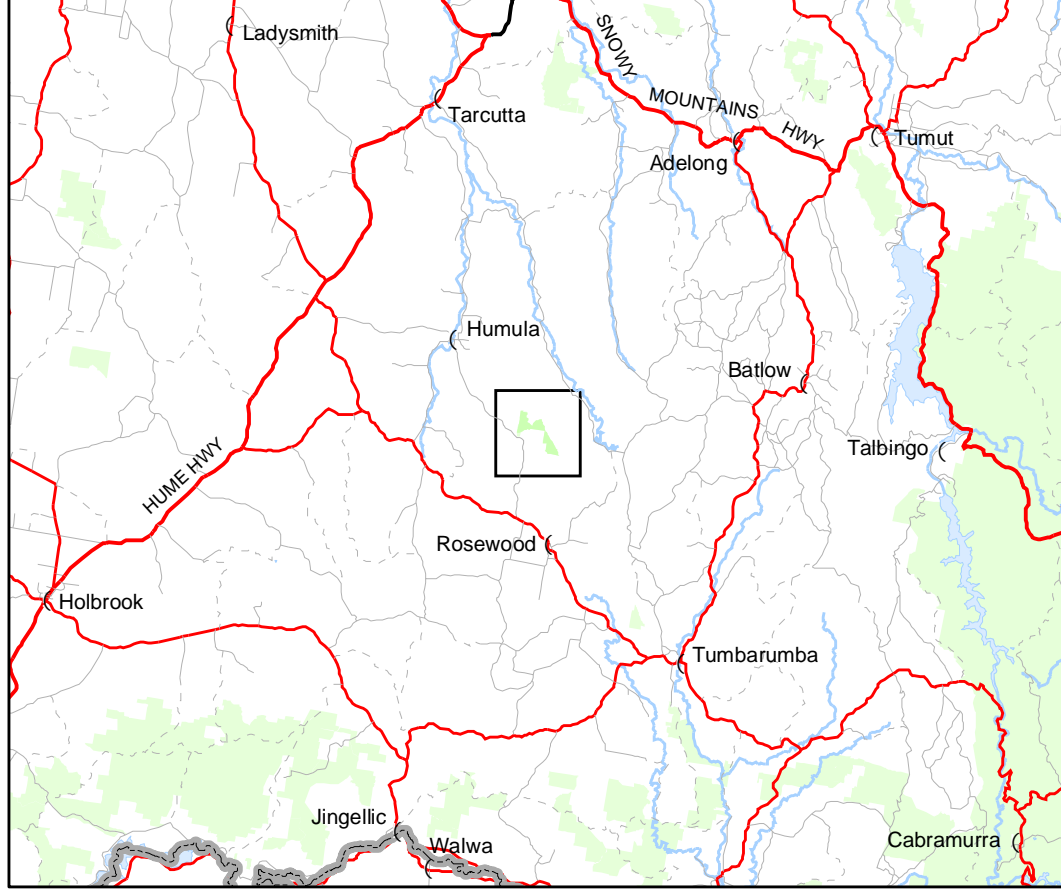
MAP 6: Risk Assessment - Cultural & Natural



MAP 6: CULTURAL HERITAGE

Key Guidelines
Identified sites must be protected.
TSC Categories, AHMS and WMS, must be assessed during incidents and/or for preparation of fire management plans for prescribed burning or other works programs to ensure records are included. Aboriginal information from AHMS is sensitive and subject to a Memorandum of Understanding. Site data must be kept confidential and appropriate.
For fuel reduction burning program, protection resources will be defined in the Review of Environmental Factors and burning program guidelines.
Where possible, trained staff will provide advice on site protection methods.
Comply with all conservation management plans when they occur.

Location



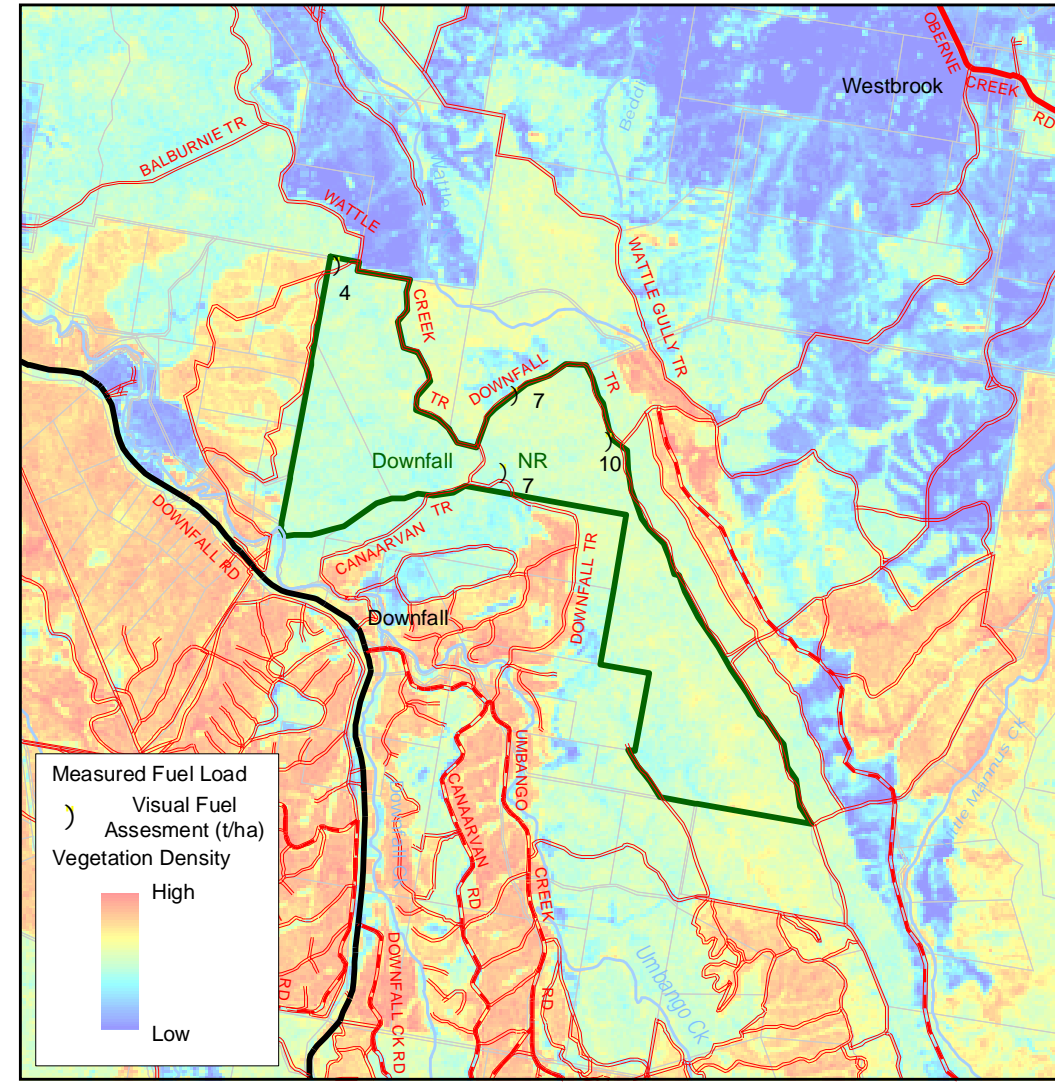
MAP 3: VEGETATION COMMUNITIES & THRESHOLDS

Fire Interval	Vegetation Group	Vegetation Management Guidelines & Considerations
15-60	Apple Box & Norton Box - Moist Grass Forest	24 Frequent fire regimes may cause local outbreaks. Successive fires occur <15 years apart, however the majority of species within the community underlying sampled should survive >20 years apart. Some species like <i>Allocasuarina</i> spp. and <i>Allocasuarina</i> spp. are capable of persisting >60 years without fire. The vegetation community is not susceptible to dieback and adjacent lands and is under represented within the reserve. It is a key community essential for TSC land species. Where possible: - Monitor the potential for large and frequent fire, when successive fires occur <15 years apart or greater than 100 years apart. - Avoid burning mature trees during mid or early autumn. - Prescribed fires may be implemented in areas where there is a demonstrated loss of biodiversity. - Prescribed fires may be implemented in 10% of the vegetation group so long as the community has not been burnt >20 years apart.
10-110	Red Stringybark/Scribbly Gum & Rough-barked Red Gum - Dry Forest/Grass Open Forest	45 Frequent fire regimes may cause dieback of successive fires occur <10 years apart, however the majority of species within the community underlying sampled should survive >20 years apart. Some species like <i>Allocasuarina</i> spp. and <i>Allocasuarina</i> spp. are capable of persisting >100 years without fire. The community is of high quality and essential for TSC land species. Where possible: - Monitor the potential for large and frequent fire, when successive fires occur <10 years apart. - Avoid burning mature trees during mid or early autumn. - Prescribed fires may be implemented in areas where there is a demonstrated loss of biodiversity. - Prescribed fires may be implemented in 10% of the vegetation group so long as the community has not been burnt >20 years apart.
20-60	Broad Leaved Peppermint & Norton Box - Grassy Forest	26 Frequent fire regimes may cause dieback of successive fires occur <20 years apart, however the majority of species within the community underlying sampled should survive >20 years apart. Some species like <i>Allocasuarina</i> spp. and <i>Allocasuarina</i> spp. are capable of persisting >100 years without fire. The community is of high quality and essential for TSC land species. Top 10% priority to retain with frequent fire. Where possible: - Monitor the potential for large and frequent fire, when successive fires occur <20 years apart. - Avoid burning mature trees during mid or early autumn. - Prescribed fires may be implemented in 10% of the vegetation group so long as the community has not been burnt >20 years apart.
25-100	Broad Leaved Peppermint & Apple Box - Grassy Forest	49 Frequent fire regimes may cause dieback of successive fires occur <25 years apart, however the majority of species within the community underlying sampled should survive >20 years apart. Some species like <i>Allocasuarina</i> spp. and <i>Allocasuarina</i> spp. are capable of persisting >100 years without fire. The community is of high quality and essential for TSC land species. Top 10% priority to retain with frequent fire. Where possible: - Monitor the potential for large and frequent fire, when successive fires occur <25 years apart. - Avoid burning mature trees during mid or early autumn. - Prescribed fires may be implemented in 10% of the vegetation group so long as the community has not been burnt >20 years apart.

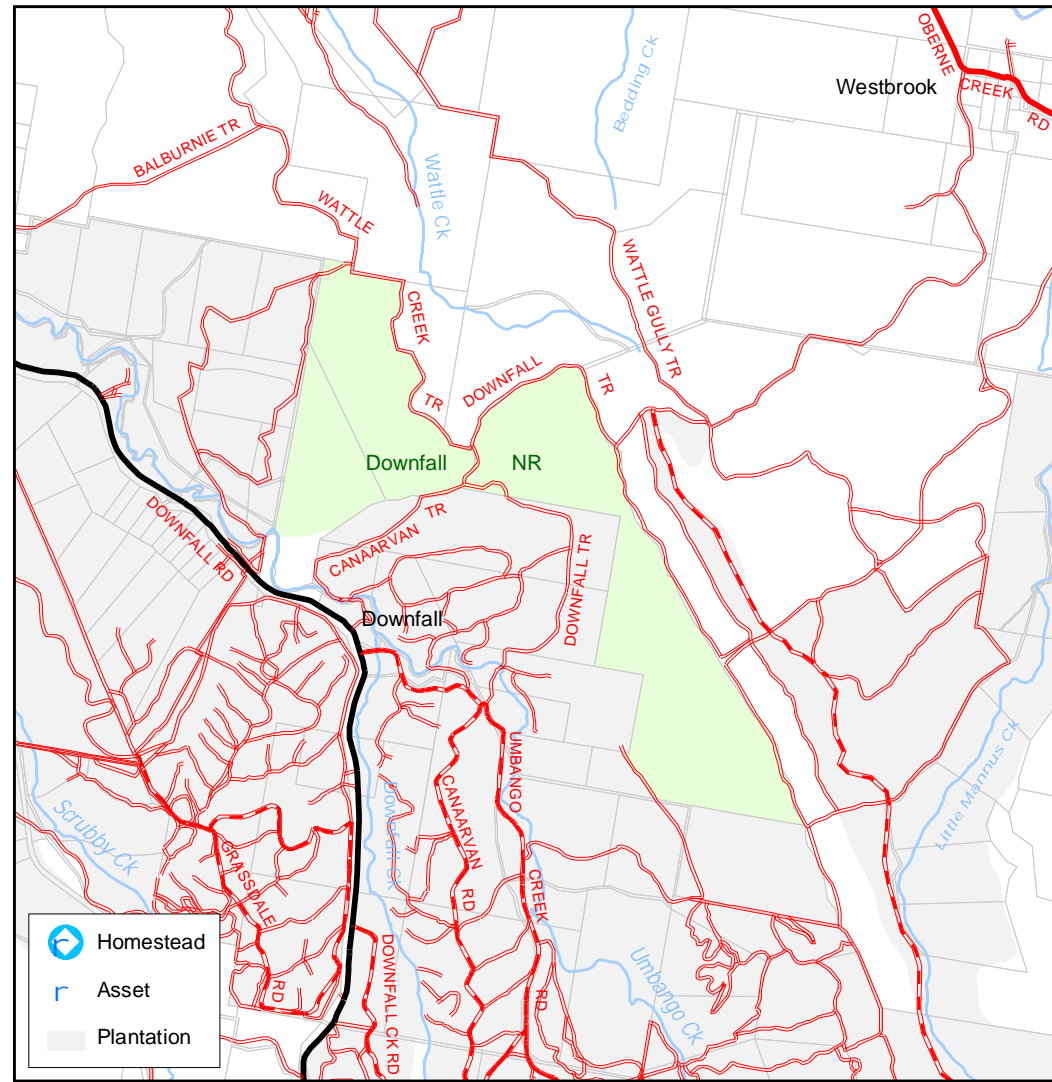
MAP 9: FUEL LANDSCAPE

Recorded Fire Status & Annual Fuels (Recorded December 2002)	Tba	Notes
Minimum Fuels (including bark)	100	Vegetation Group 45 - Moderate landscape fuels (MZF) & high bushfire behaviour fuels.
Maximum Fuels (including bark)	180	Vegetation Group 24 - Moderate landscape fuels (MZF) & high bushfire behaviour fuels. The highest fuel levels in the reserve do not exceed 180m and occur in <2% of the reserve.
Average Fuels (including bark)	70	Much of the reserve fuels modelled appear to fall within the T3 this range.

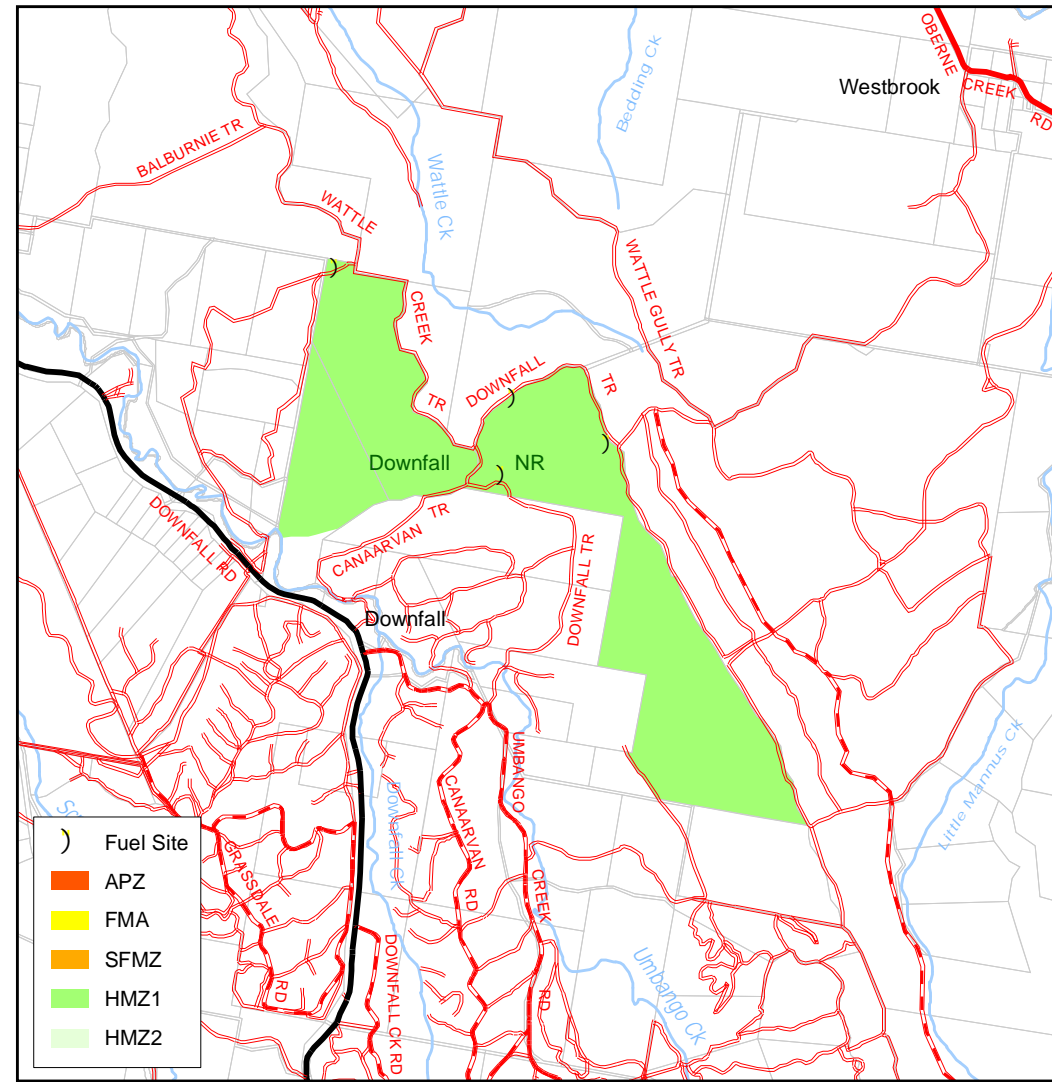
MAP 9: Fuel Landscape



MAP 7: Risk Assessment - Property



MAP 8: Bushfire Management Zones



MAP 8: BUSHFIRE MANAGEMENT ZONES

Management Zone	Definition	Management Guidelines
Asset (APZ)	Life, property and commercial assets in high bushfire behaviour potential risk areas on DEC sites.	Assets should be reviewed annually to measure potential hazards and increased threats. - Works program to follow Risk Assessment (RA) and Property Guidelines.
Fuel (FMA)	Fuel Monitoring Areas are localities for monitoring fuel, fuel, grass, dead and down material and ecological health.	Monitor regularly to quantify changes in the landscape, which may indicate an increased risk. - Monitor to improve knowledge ecological responses and health and identify undesirable changes in vegetation communities. - The areas to establish SPZ's where appropriate.
Strategic (SPAZ)	Strategic Fuel Management Zones are areas used to target potential risks of high bushfire, high intensity, broad spread of ground spotting or combustion reserve APZ's. The zones are implemented to reduce prescribed burns in the target area, within the life of the fire.	The implementation of fuel management programs should comply with DEC guidelines and should be conducted in areas identified in the strategy as a SPAZ. - Implementing prescribed burns or other vegetation management programs should only occur where more than 80% of the area exceeds 15 the 80% C. - Any program must include monitoring guidelines and also prescribed burns to maintain effectiveness of the program on fuels and the ecological impacts.
Heritage 1 (HMZ1)	Areas of high priority natural or cultural conservation value. It identifies areas of recent cultural and natural values. This zone is important for the protection of cultural heritage and the conservation of some species habitat to prevent declining numbers or extinctions.	Heritage areas should be assessed annually to determine potential hazards, threats to cultural heritage, and prescribed fire in these areas if appropriate for ecological purposes or protection of cultural heritage. - Implement recovery plan guidelines where they exist. - Manage during bushfires according to HMZ2 guidelines.
Heritage 2 (HMZ2)	This zone identifies areas of significance for natural and cultural features across the broader landscape. This generally means parts of the reserve that have not been surveyed and/or have no records of significant features or threatened species.	These heritage zones should be monitored to determine threats to biodiversity and managed in accordance with conservation policy and practices. - Prescribed fire may be applied in these areas if appropriate for ecological purposes or protection of cultural heritage. - Manage during bushfires according to HMZ2 guidelines.

South West Slopes Region Downfall Nature Reserve Fire Management Strategy 2006

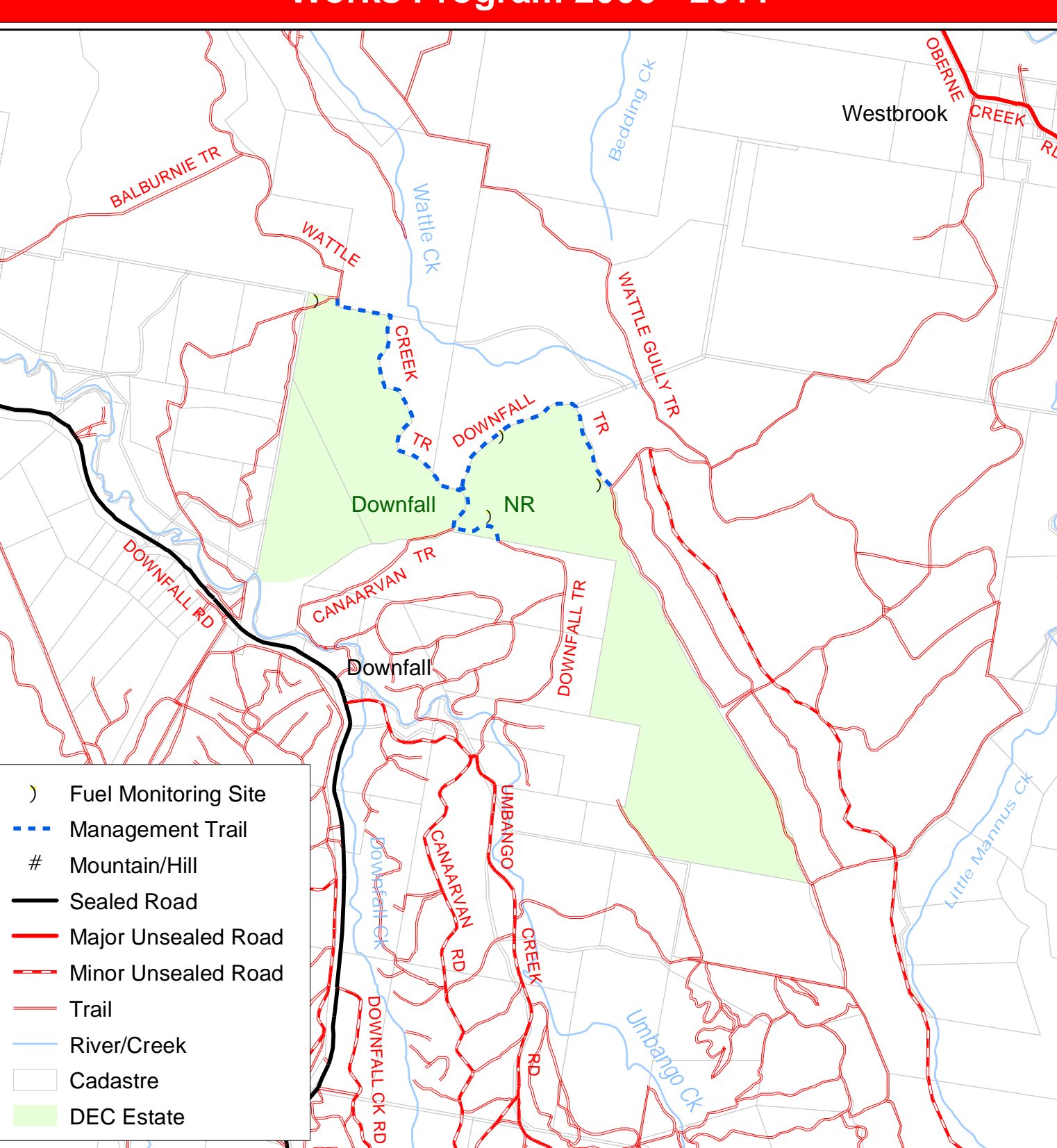
Scale: Works Program map 1:40000, Location map 1:900000, other maps 1:60000
Version: June 2006, ISBN: 1 74137 277 1, DEC: 2005/103

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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Works Program 2006 - 2011

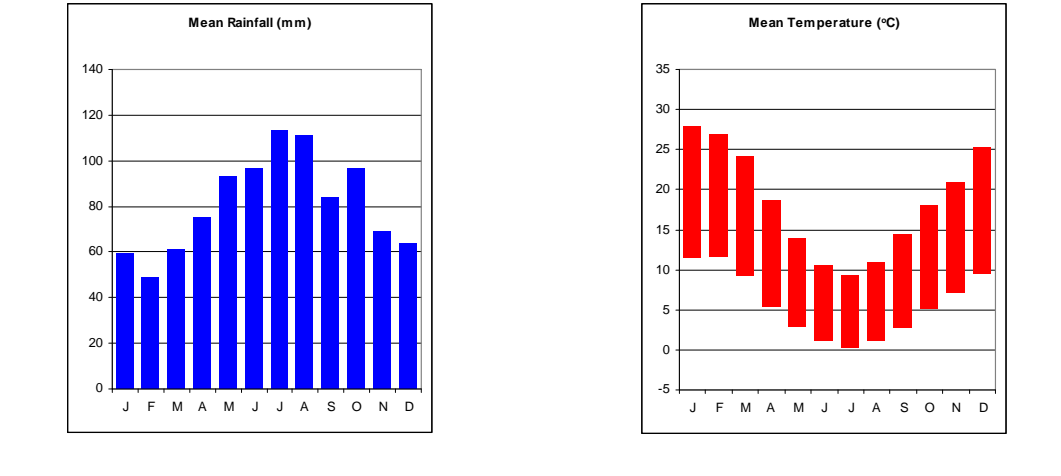


WORKS PROGRAM

Asset	Priority	Name, Area or Detail	Management Strategy	Proposed Works
Trails	High	Management Trails	- Maintain management trails for safe 4WD access for Cat 1 vehicles. - All trails to be clearly signposted at intersections and trailheads. - Could be used during emergencies for Cat 1 vehicles. - May be required as a control line option.	- Assess trails and signage annually and maintain as required as specified in Regional Operations Program. - Include works in Regional Operations Plan Program.
		Dormant Trails	-	- Assess trails and document condition and suitability as a control option prior to each fire season.
Heritage M2 1	Medium	Cultural heritage, threatened, vulnerable & endangered reserve APZ's, and the landscape.	- Manage and protect natural & cultural heritage values with appropriate fire management regimes. - Monitor vegetation changes across the landscape (especially with fuel monitoring).	- Assess thresholds every 5 years, before works programs or directly after fire events.
		General landscape, natural and cultural conservation values.	- Manage and protect natural & cultural values with appropriate fire management regimes.	- Monitor thresholds every 5 years, and after fire events.
Heritage M2 2	Medium	Fuel and vegetation monitoring	- Monitor established fuel monitoring sites (6), including strategic and landscape fuels. - Improve information by establishing additional sites (2).	- Establish additional sites by end 2008 fire season. - Maintain a 2 year monitoring regime and monitor directly after the events.
Fuel Management & Prescribed Burns	Low	No planned fire has been proposed for the past (5 years).	- Where bushfire risk and damage potential resources and the only practical solution is fuel management, review Fire Management Strategy and determine the appropriate method and program to reduce the risk, damage or threat.	- Any prescribed burns must be managed in accordance with DEC policy and through negotiations with the Bush Fire Management Committee. Prescribed burns must be managed in cooperation with neighbours.

RESOURCE INFORMATION

Downfall Nature Reserve (DNR) was gazetted on 17 January 2001. For the purposes of the Fire Management Strategy, Downfall Nature Reserve will be defined as the 'Reserve', unless otherwise stated.	Parks and Wildlife Division, National Parks and Wildlife Service	State Government of Queensland
The Reserve straddles a ridge that stretches from Hamula to Turbunbamba. The reserve is approximately 20km south-west of Bulbin. The reserve is similar to the Castlegary Nature Reserve. Sites in the south-west end, being an island of native vegetation supporting an array of endangered species and habitat in a landscape dominated by pine plantations. Threatened species include squabbled jilby, eastern honeyeater, diamond finbill, barking owl, and turquois parrot.	South West Slopes Region, Brisbane	Greater Home Land Government Area
Access to the west of the reserve is through private land, via Concession Trail off Downfall Road or via State Forest trails to the south. There is no running water or dams within the reserve. Unburnt Creek may not flow during dry periods.	Rural Fire Services	Other Agencies
Department of Environment and Conservation	Other Agencies	Bungee Jump Marginal Land and Council
Rural Fire Services	Other Agencies	Wangy and Marumbidgee Catchment Management Authority



IMPORTANT: The following planning information is based on the best possible data for each table category. When used in conjunction with other information in the plan, concessions may be needed where asset management and biodiversity requirements differ.