

Blue Mountains Local Emergency Management Plan



Part 1 – Administration

Authority

The Blue Mountains Local Emergency Management Plan (EMPLAN) has been prepared by the Blue Mountains Local Emergency Management Committee in accordance with the *State Emergency & Rescue Management Act 1989*.

APPROVED

ORIGINAL SIGNED

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Chair

Blue Mountains Local Emergency Management Committee

Dated: 1 August 2016

ENDORSED

ORIGINAL SIGNED

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Chair

North-West Metropolitan Regional Emergency Management Committee

Dated: 3 August 2016

Contents

Part 1 – Administration	2
Authority.....	2
Contents.....	3
Purpose.....	4
Objectives	4
Scope.....	4
Principles	5
Test and Review Process	5
Part 2 – Community Context.....	6
Annexure A – Community Profile	6
General.....	6
Landform and Topography	6
Climate	6
Land Use.....	8
Population and People	9
Transport Routes and Facilities	12
Economy and Industry.....	14
Annexure B – Hazards and Risks Summary	15
Annexure C – Local Sub Plans, Supporting Plans and Policies.....	19
Part 3 – Restricted Operational Information.....	20

Purpose

This plan details arrangements for, prevention of, preparation for, response to and recovery from emergencies within the Blue Mountains Local Government Area.

It encompasses arrangements for:

- emergencies controlled by combat agencies;
- emergencies controlled by combat agencies and supported by the Local Emergency Operations Controller (LEOCON);
- emergency operations for which there is no combat agency; and
- circumstances where a combat agency has passed control to the LEOCON.

Objectives

The objectives of this plan are to:

- define participating organisation and Functional Area roles and responsibilities in preparation for, response to and recovery from emergencies;
- set out the control, co-ordination and liaison arrangements at the local level;
- detail activation and alerting arrangements for involved agencies; and
- detail arrangements for the acquisition and co-ordination of resources.

Scope

The plan describes the arrangements at local level to prevent, prepare for, respond to and recover from emergencies and also provides policy direction for the preparation of Sub Plans and Supporting Plans:

- Arrangements detailed in this plan are based on the assumption that the resources upon which the plan relies are available when required; and
- The effectiveness of arrangements detailed in this plan are dependent upon all involved agencies preparing, testing and maintaining appropriate internal instructions, and/or standing operating procedures.

Principles

The following principles are applied in this plan:

- a) The Emergency Risk Management (ERM) process is to be used as the basis for emergency planning in New South Wales. This methodical approach to the planning process is to be applied by Emergency Management Committees at all levels.
- b) Responsibility for preparation, response and recovery rests initially at local level. If local agencies and available resources are not sufficient they are augmented by those at Regional level.
- c) Control of emergency response and recovery operations is conducted at the lowest effective level.
- d) Agencies may deploy their own resources from their own service from outside the affected local area or region if they are needed.
- e) The Local Emergency Operations Controller (LEOCON) is responsible, when requested by a combat agency, to co-ordinate the provision of resources and support. EOCs would not normally assume control from a combat agency unless the situation can no longer be contained. Where necessary, this should only be done after consultation with the Regional Emergency Operations Controller (REOCON) and agreement of the combat agency and the appropriate level of control.
- f) Emergency preparation, response and recovery operations should be conducted with all agencies carrying out their normal functions wherever possible.
- g) Prevention measures remain the responsibility of authorities/agencies charged by statute with the responsibility.

Test and Review Process

The Blue Mountains Local Emergency Management Committee (LEMC) will review this plan every three (3) years, or following any:

- activation of the plan in response to an emergency;
- legislative changes affecting the plan; and
- exercises conducted to test all or part of the plan.

Part 2 – Community Context

Annexure A – Community Profile

General

The Blue Mountains Local Government Area covers approximately 1,431 km² (143,100 hectares), extending 45km east to west and just under 60km north to south. The boundaries of the LGA are complex and follow an array of natural features (creeks and rivers) and arbitrary administrative divisions.

Landform and Topography

The Blue Mountains are largely comprised of deeply dissected sandstone plateaus, which produce an array of steep and rugged terrain, including major escarpment complexes where sheer cliff faces can be up to 300m high. Due to the steep and rocky terrain between plateaus, development is generally restricted to linear corridors along ridge tops. The main spine of development runs along the Great Western Highway, which generally follows the watershed boundary between the Grose River catchment to the north and the catchments of the Cox's River, Erskine Creek and Glenbrook Creek to the south and west. North of the Grose Valley, the Bells Line of Road follows the watershed between the Grose River to the South and the Wollongambe River to the North. The Megalong Valley, located to the west of Katoomba to Blackheath, is a wide, open valley at lower elevation than the surrounding plateaus, but still contains a substantial amount of steep and rocky terrain.

Elevation across the LGA is variable, from just a few metres above sea level along the Nepean River to 1,110m at Mount Victoria.

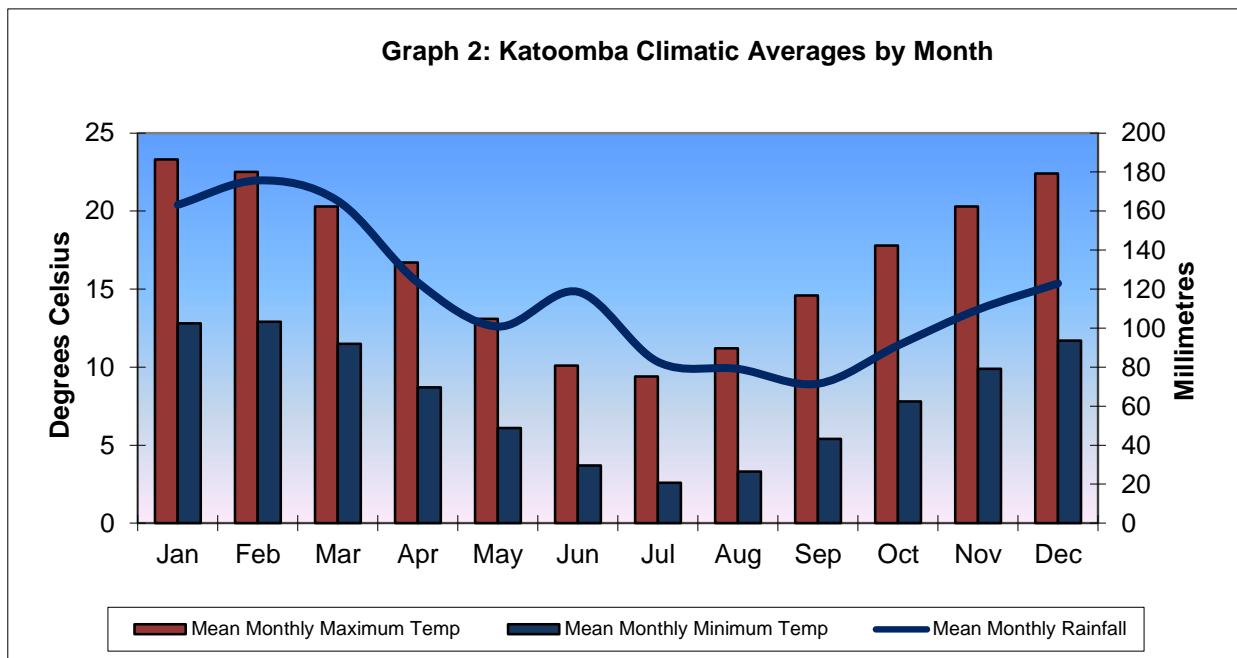
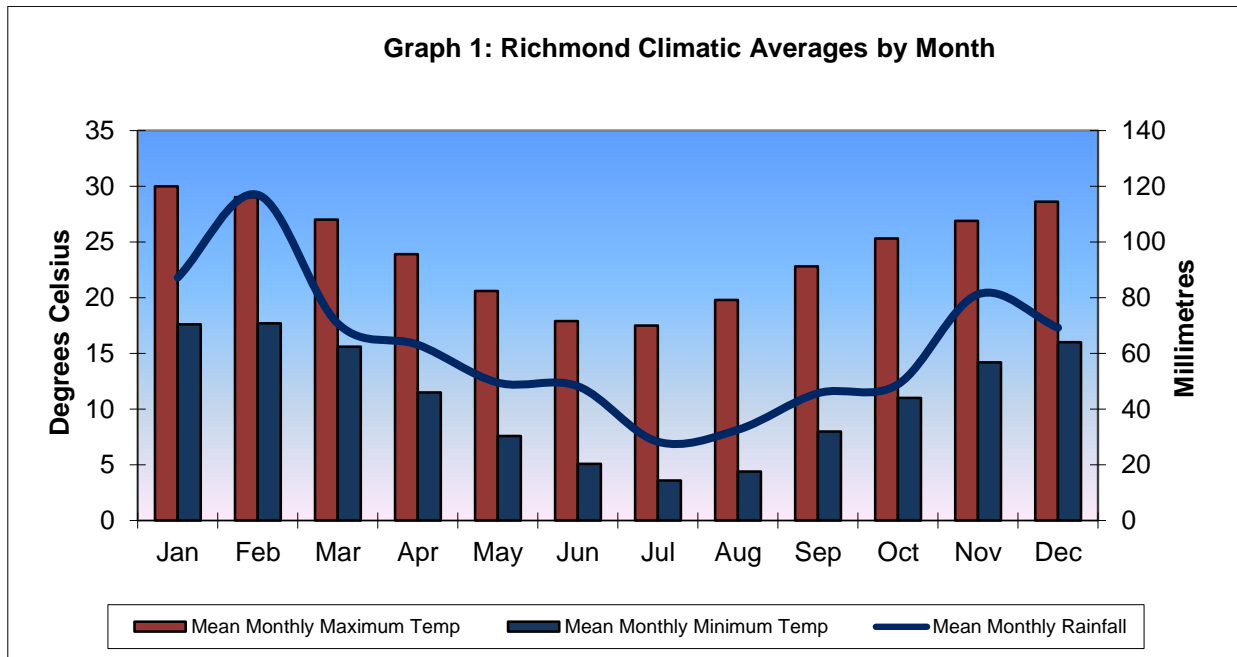
Climate

The Blue Mountains LGA is located within the Central Tablelands weather forecast district. Climate is variable from east to west, primarily in response to changes in elevation. Lower elevations in the east are generally warmer and drier, whereas the higher elevation areas to the west and northwest of the LGA are cooler and receive higher rainfall.

The graphs on the following page present temperature and rainfall data from two Bureau of Meteorology weather stations; Katoomba and Richmond. Although a manual weather station has recently been established in Springwood, sufficient data to illustrate long-term climatic trends is not yet available. The Richmond station is therefore used to represent the climate at lower elevations, although it may not be wholly representative of conditions in the lower Blue Mountains due to its distance from the LGA and location in a different type of topography.

Prevailing wind conditions across the Blue Mountains are variable depending on elevation and topography. Prevailing winds in the Katoomba area are dominated by winds from the

west and south-east. The dominance of these two directions is likely related to the regular passage of frontal systems, where winds ahead of the front tend strongly from the west to north-west, followed by a shift to winds from the south-east as the weather system moves eastward. Prevailing winds in the lower Blue Mountains do not show a significant bias to any direction.



Land Use

Natural Areas

Approximately 92% of the Blue Mountains LGA is mapped as containing natural vegetation. Whilst some of this area has been disturbed and modified, the majority of this area can be considered natural bushland. The landform within these areas remains largely unchanged since European colonisation. These natural areas occur across a range of tenures including Blue Mountains National Park, private land, Council managed reserves and other vacant Crown lands that remain under State Government control.

Blue Mountains National Park was gazetted in 1959 and was declared a place of World Heritage significance in November 2000. The series of reserves that forms this National Park extend beyond the boundaries of the Blue Mountains LGA, and the Park is one element of a 1.03 million hectare series of reserves that form the Greater Blue Mountains World Heritage Area. Blue Mountains National Park is split into two non-contiguous sections by the ridge top developments of the City of Blue Mountains that extend from Lapstone to Mount Victoria.

Residential Development

There are approximately 31,500 parcels of land across the LGA where various forms of residential development have occurred. By area these cleared and developed parcels cover just under 5% of the LGA. These developed areas are dominated by free-standing dwellings, although townhouses and an array of other residential facilities are present.

Areas of residential development are largely restricted to narrow linear ridge-top corridors, interspersed with bushland areas and separated from one another by rugged gullies and escarpments.

Commercial Development

There are 960 parcels of land across the city containing commercial developments. Commercial centres are present within the majority of Blue Mountains towns and villages, however, there are a wide array of businesses scattered throughout the developed areas of the city. The category of commercial development includes shops, cafes and restaurants, accommodation providers, health care practitioners, service stations and warehouses.

Public Infrastructure

1,325 parcels of land are dedicated to the provision of public infrastructure across the city. Land use in this category includes Council owned community buildings, schools and hospitals, Critical infrastructure such as power and water installations, recreation facilities and cemeteries.

Industrial Development

There are 152 parcels of land across the city containing development classified as industrial. Such development is typically restricted to small industrial precincts, as defined by the Blue Mountains Local Environment Plan, however, a small amount of industrial premises are dispersed across the LGA. Key industrial centres are located in Blaxland, Springwood, Lawson and Katoomba.

Rural and Agricultural

Whilst six percent of the city is zoned as rural, only 22 parcels of land are considered to be involved with agricultural production. The rural areas of the city are located in Sun Valley, Megalong Valley, Shipley Plateau, Mount Wilson, Mount Irvine, Mount Tomah and Berambing.

Primary production within the LGA is limited, however, grazing is known to occur in the Megalong Valley, and commercial orchards are present on the Shipley Plateau. Most rural properties are managed for lifestyle values and the owners do not generate their primary income from production on their land. However, small areas of agricultural activity do occur on these lands and the presence of non-commercial livestock and other animals is dispersed and widespread, often in more remote areas at the end of spurs and ridges.

Population and People

Note: All statistics quoted in this section are drawn from 2011 census data unless otherwise stated. Numbers may not be precise and should be considered indicative only.

Population Size

The Blue Mountains is home to 75,942 permanent residents.

Population Projections & Future Growth

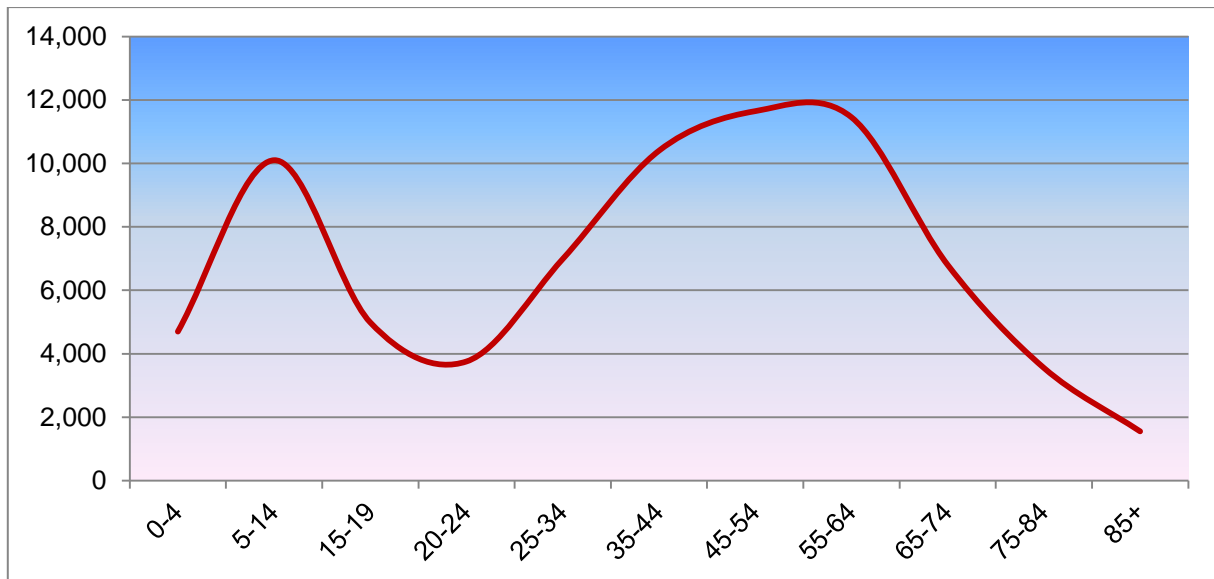
During the period of 2003 to 2013, the growth in Blue Mountains population averaged 0.3% per annum. In contrast to this local population growth, the State of NSW average growth of 1.1% and nationally growth averaged 1.6% per annum. The lower rate of local growth compared to state and national averages is likely a reflection of geographic constraints in the Blue Mountains and the limited capacity for additional housing to be created.

Although the local population could approach 100,000 within 10 years if growth were to continue at 0.3% per annum, it is expected that population will plateau prior to this figure being reached as available housing opportunities are exhausted. This assumes that existing land use planning policies continue to apply and that the NSW Government does not request more intensive development within the LGA as part of a regional housing strategy.

Age Profile

An age profile for residents of the Blue Mountains is provided below. This profile indicates that a large proportion of the population is contained within the age classes from 35 to 65. A significant cohort of younger people is present in the 5 to 14 year age class. The reasons

for the lesser percentage of young adults is not clear, however, this may be influenced by limited tertiary education and employment opportunities within the city and a need to pursue such opportunities outside the Blue Mountains.



Family Type

59,383 of the 75,942 residents of the Blue Mountains identify themselves as being part of a family. 20,386 families are reported as residing within the LGA. A further break down of this figure is provided in the following table.

Description	Number
Couples with children of varying ages	9,219
Couples with no children	7,810
Single parent families	3,177
Other arrangements	180
People describing themselves as living alone	7,183

Lone person households are of some interest due to their expected higher levels of vulnerability, particularly older residents who live alone. Within the older demographic (an age range has not been defined for this statistic), 3,101 people report that they live alone.

Housing

Types of housing within the Blue Mountains LGA is summarised in the following table.

Description	Number
Separate house	25,974
Semi-detached / townhouse	1,418
Flat, unit or apartment:	575
Other dwelling (caravan, cabin, tent etc)	46
Unoccupied private dwellings	3,878

These figures indicate that the majority of homes in the Blue Mountains are typical detached houses, and although it is not specified in the census data, it is likely that the majority of these homes are distributed one per property.

Schools and Education

The Blue Mountains contains a large number of schools and other facilities where young people are present during certain times. Available information regarding child care premises and schools is summarised below, with the total occupancy being inclusive of staff. These facilities are widely distributed throughout the city.

Type	Number	Occupancy
Child care centre / family day care	23	1,112
Out of school hours care	13	855
Preschools	19	536
Primary schools	27	6,620
High schools	9	5,740

Country of Birth

Country of birth for Blue Mountains residents is dominated by Australia, with 78% of residents indicating they were born in the country. Although a diverse range of countries of origin are reported by Blue Mountains residents, key places of birth include the UK (5,473), New Zealand (1,146), Germany (571) and the United States (427). Country of birth was not reported for 5,813 residents.

Languages

The majority of Blue Mountains residents, 90% or 68,601 people, indicate that the only language spoken at home is English. The remaining 7,341 residents report speaking

languages other than English at home, with Chinese languages, Spanish, Italian, German and Greek featuring among these non-English languages. Census data indicates that most of the people who speak languages other than English at home are still relatively fluent in English.

Aboriginality

A total of 1,320 residents are recorded as being of Aboriginal descent.

Vulnerable Communities

The concept of vulnerability, in the context of emergency risk and resilience, is poorly defined and open to subjective interpretation. However, the Blue Mountains contain a range of individuals and community groups that can generally be considered more vulnerable in this context than the wider population. Key characteristics of communities vulnerable to the impacts of disasters include but are not limited to:

- People who, due to their age, a disability, cognitive impairment (e.g. dementia or mental illness), are dependent on others and/or require assistance in completing day to day tasks.
- People who have poor social connectivity within the communities in which they live, which results in a reduced personal support network and compromised ability to cope with a crisis.
- People who reside in isolated areas with no private transport available, and therefore have limited capacity to relocate during a crisis.
- People from non-English speaking backgrounds that may experience difficulties understanding warnings.
- Geographic concentrations of socioeconomic disadvantage, where reduced availability of monetary and material resources leads to reduced community resilience during a crisis.

Vulnerable communities within the Blue Mountains are often not connected geographically, i.e. they are groups of people of a similar nature distributed throughout the community. This poses significant challenges for emergency managers in terms of identifying where vulnerable groups and individuals are located, and how they are targeted with preparedness activities and during emergency events.

Transport Routes and Facilities

Surface Transport

The sandstone plateaus and associated rugged terrain of the Blue Mountains presents a significant barrier to movements of people, materials and products between the Sydney metropolitan area and the central west of New South Wales. As such, three major surface transport corridors from Sydney to west of the Great Dividing Range pass through the Blue Mountains LGA. These include the Great Western Highway, Bells Line of Road and Main Western Railway.

Hawkesbury Road, between Springwood and Yarramundi, forms an important link to Penrith and Richmond but is generally not a primary transport route over the Blue Mountains. Old Bathurst Road, from Blaxland to Emu Heights, is also an important local link road on the eastern escarpment.

The Darling Causeway links the Great Western Highway with Bells Line of Road between Mount Victoria and Bell, and forms an important link between the main Blue Mountains townships and Mount Wilson, Mount Irvine and Mount Tomah. The Darling Causeway also provides a secondary access route to Lithgow via Chifley Road.

The residential, commercial and industrial areas of the Blue Mountains are serviced by a network of over 740km of local roads. Most of these local roads are sealed (approximately 680km), however, some unsealed gravel roads are present, particularly in rural areas.

The Blue Mountains is serviced by limited public transport. The main western railway supports an inter-city service between Lithgow and Sydney, with the frequency of passenger services varying depending on the time of day. This railway line also supports substantial freight movement, including large volumes of coal mined outside the LGA.

Bus services operate on a variety of routes, but are limited to three main non-connecting areas, being Penrith to Springwood, Springwood to Katoomba and Katoomba to Mount Victoria. There is no single connecting bus service from the lower to upper Blue Mountains. Bus services also operate in support of the numerous schools within the Blue Mountains LGA. At school start and finish times, several thousand students, from kindergarten to year 12, may be in transit by bus to and from their school. This includes services to schools located outside the Blue Mountains LGA.

Air Transport

A significant number of commercial airline departures from Sydney's Kingsford Smith airport traverse the Blue Mountains. Helicopter operations may occur in any area as a result of search, rescue and aeromedical evacuation operations, as well as during firefighting, major hazard reduction burning operations and associated with infrastructure work in remote areas.

Four registered helipads are located within the LGA: at RAAF Glenbrook, NPWS Glenbrook, Katoomba Hospital and NPWS Blackheath. Permanent refuelling facilities are only available at Blackheath NPWS helipad. However, helicopter movements can and do take place from numerous other landing places across the city, such as sports fields and ovals, on roads and other suitably clear areas as the need arises.

One registered airfield is present within the Blue Mountains north of Katoomba. This airfield is small and unsealed. The airfield is not commonly utilised and is only suitable for light fixed wing aircraft. In contrast, this airfield is heavily utilised during major bushfires as a refuelling and stabling facility for firefighting helicopters. Small quantities of fuel may be stored on site.

Economy and Industry

Industrial development within the Blue Mountains local government area is limited and the precincts where it occurs are regulated by the Blue Mountains Local Environment Plan (2005). The types of industry in the Blue Mountains varies, however, it is mostly restricted to light industrial activities. Commercial development, including businesses selling and distributing products and materials, is commonly interspersed with industrial premises within these zones.

Land use types within these industrial areas, with the number of premises in brackets, can be summarised as:

- Motor vehicle repair and servicing (18)
- Depots (7)
- Extractive industries (12)
- General industrial (45)
- Light industrial (62)
- Liquid fuel depots (2)
- Waste processing (6)

The Blue Mountains LGA does not contain any significant heavy industry, such as major manufacturing or processing plants, major fuel depots or major mining operations.

Annexure B – Hazards and Risks Summary

A Local Emergency Risk Management (ERM) Study has been undertaken by the Blue Mountains Local Emergency Management Committee identifying the following hazards as having risk of causing loss of life, property, utilities, services and/or the community's ability to function within its normal capacity. These hazards have been identified as having the potential to create an emergency requiring a significant and coordinated response. The Blue Mountains Emergency Risk Management Study should be referenced to identify the complete list of consequences and risk descriptions.

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Agricultural Disease (Animal/Plant)	An agriculture/horticulture incident that results, or has potential to result, in the spread of a communicable disease or infestation. Includes communicable diseases among domestic animals and wildlife.	Possible	Minor	Medium	Department of Primary Industries
Building Collapse	Collapse of a building or other structure owing to structural failure or impact from external or internal event of other hazards and incidents.	Unlikely	Major	High	FRNSW (USAR)
Communicable Disease (Human)	Pandemic illness that affects, or has potential to affect, large portions of the human population.	Possible	Major	Extreme	Ministry of Health

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Dam Failure	A dam wall failure that results in localised or widespread flash flooding.	Unlikely	Moderate	Medium	Dam Owners NSW SES
Earthquake	Earthquake of sufficient strength to cause localised or widespread damage to buildings and infrastructure.	Unlikely	Major	High	LEOCON
Fire (Bush/Grass)	Major fires in areas of bush or grasslands.	Likely	Major	Extreme	NSW RFS FRNSW
Fire (Industrial)	Major structural fires in industrial areas and other similar premises.	Likely	Moderate	High	FRNSW NSW RFS
Fire (Commercial)	Major structural fires in commercial premises and shopping centres.	Likely	Moderate	High	FRNSW NSW RFS
Fire (Residential)	Major structural fire in medium and high density residential premises, including aged care facilities and nursing homes.	Likely	Moderate	High	FRNSW NSW RFS
Flash Flooding	Heavy rainfall causes localised flooding with minimal warning time	Almost Certain	Minor	High	NSW SES

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Hazardous Materials	Hazardous material involved in a fire or other incident, potentially involving release into the environment.	Likely	Minor	High	FRNSW
Heatwave	A sequence of abnormally hot days having the potential to adversely affect human health and infrastructure.	Almost Certain	Moderate	Extreme	SEOCN
Landslip	Rock falls and other mass movement of soil that results in localised or widespread damage, or obstruction of transport routes.	Possible	Major	Extreme	LEOCON
Severe Storm	Severe storm with accompanying lightning, hail, wind, and/or rain that causes severe damage and/or localised flooding (includes tornado).	Almost Certain	Major	Extreme	NSW SES
Transport Emergency (Air)	Aircraft crashes in LGA resulting in fatalities, injuries and/or damage to property.	Possible	Major	Extreme	LEOCON
Transport Emergency (Rail)	A major rail accident that involves fatalities, injuries or substantial damage to infrastructure. The main rail supply route may be disrupted for a protracted period of time.	Possible	Major	Extreme	LEOCON

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Transport Emergency (Road)	A major vehicle accident that disrupts one or more major transport routes that can result in risk to people trapped in traffic jams, restrict supply routes and/or protracted loss of access to or from the area.	Almost Certain	Major	Extreme	LEOCON
Utilities Failure	Major failure of Critical infrastructure, such as water, electricity or gas supplies, for unusually long periods of time as a result of a natural or man-made occurrence.	Likely	Minor	High	LEOCON

Annexure C – Local Sub Plans, Supporting Plans and Policies

Responsibility for the preparation and maintenance of appropriate sub and supporting plans rest with the relevant Combat Agency or the relevant Functional Area Coordinator.

The sub/supporting plans are developed in consultation with the Blue Mountains LEMC and the community.

The plans listed below are supplementary to this EMPLAN. The sub/supporting plans have been endorsed by the LEMC and are determined as compliant and complimentary to the arrangements listed in this EMPLAN.

These plans are retained by the relevant agencies on behalf of the LEMC.

Plan	Purpose	Responsible Agency
Blue Mountains Snow Plan	This sub plan covers preparedness measures, the conduct of response operations and the coordination of immediate recovery measures in the event of significant falls of snow within the Blue Mountains Local Government area.	NSW State Emergency Service

Part 3 – Restricted Operational Information

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