



Bega Valley Local Emergency Management Plan 2019



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Authorisation

The Bega Valley Local Emergency Management Plan (EMPLAN) has been prepared by the Bega Valley Local Emergency Management Committee in compliance with the State Emergency & Rescue Management Act 1989, Section 29(1).

APPROVED



Ms Nina Churchward

Chair

Bega Valley Local Emergency Management Committee

Meeting Date: 3 July 2019

ENDORSED

Supt Chris Craner (signed electronically)

Superintendent Chris Craner

Chair

Illawarra South Coast Region Emergency Management Committee

Meeting Date: 12 September 2019

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Distribution

Illawarra South Coast Region	
Region Emergency Operations Controller (REOCON)	1
Region Emergency Management Officer (REMO)	1
Region Emergency Operations Centre (REOC)	1
Bega Valley LEMC	
Local Emergency Operations Controller (LEOCON)	2
Local Emergency Management Officer (LEMO)	1
Local Emergency Management Committee (LEMC)	1
Local Emergency Operations Centre (LEOC)	2
Local Emergency Operations Centre (LEOC) Alternate	1
Ambulance Service of NSW	1
Fire and Rescue NSW (FRNSW)	2
Marine Rescue NSW (MRNSW) Bermagui, Merimbula and Eden Units	3
NSW Department of Primary Industries (NSW DPI)	1
NSW Police Force	2
NSW Rural Fire Service (RFS) Bega Valley District	1
NSW State Emergency Service (NSW SES)	2
NSW Volunteer Rescue Association (VRA) Bega Rescue Squad Inc.	1
NSW Health	2
South East Regional Hospital	3
Department of Family and Community Services (Southern NSW District WelFAC)	1
Transport / Engineering Services	1
Roads and Maritime Services (RMS)	1
Ministry of Defence	1
Local Land Services (LLS)	1
National Parks and Wildlife Service (Merimbula Office)	1
Merimbula Airport (Airport Agencies)	1
Harbourmaster Port of Eden	1
Surf Life Saving Far South Coast	1
Australian Lifeguard Service	1
Red Cross Emergency Services	1
Salvation Army	1
St Vincent de Paul Society	
Telstra	1
Essential Energy	1

Other Organisations – Public Release Version	
Eurobodalla Shire Council LEMO	1
Snowy Monaro Regional Council LEMO	1
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Abbreviations

ABS	Australian Bureau of Statistics
ADF	Australian Defence Forces
BFB	Bush Fire Brigade
CBR	Chemical, Biological or Radiological emergencies
DACC	Defence Assistance to the Civil Community
EMPLAN	State, Region or Local Emergency Management Plan
EOCON	Emergency Operations Controller
EPA	Environment Protection Authority
ERM	Emergency Risk Management
FACS	Family & Community Services NSW
FRNSW	Fire and Rescue NSW
HAZMAT	Hazardous materials
JMIC	Joint Media Information Centre
LEMC	Local Emergency Management Committee
LEMO	Local Emergency Management Officer
LEOC	Local Emergency Operations Centre
LEOCON	Local Emergency Operations Controller
LEP	Local Environmental Plan
LLS	Local Land Services
LO	Liaison Officer
MRNSW	Marine Rescue NSW
NSP	Neighbourhood Safer Place (Place of last resort)
REMC	Region Emergency Management Committee
REMO	Region Emergency Management Officer
REOC	Region Emergency Operations Centre
REOCON	Region Emergency Operations Controller
RFS	NSW Rural Fire Service
RMS	Roads and Maritime Services
SCDM	Sapphire Coast Destination Marketing
SEMC	State Emergency Management Committee
SEOC	State Emergency Operations Centre
SEOCON	State Emergency Operations Controller
SERCON	State Emergency Recovery Controller

SERM Act	State Emergency & Rescue Management Act 1989 (as amended)
SES	NSW State Emergency Service
SITREP	Situation report
SO	Standing Order/s
SOP	Standing Operating Procedures
TOC	Transport Operations Centre
SRA	State Rail Authority
VRA	Volunteer Rescue Association

Part 1 Administration

Authority

The New South Wales Government acknowledges that emergencies are inevitable and they can have potentially significant social, economic and environmental consequences.

Accordingly, the *State Emergency and Rescue Management Act, 1989* (as amended) was enacted in recognition of the need for appropriate and effective prevention, preparation, response and recovery measures for emergency situations.

Section 29(1) of the *Act* delegates the preparation and review of Emergency Management Plans to Local Emergency Management Committees. This Local Emergency Management Plan records the agreed arrangements for the control of emergency situations and the coordination of resources during emergencies.

Purpose

This plan details arrangements for the prevention of, preparation for, response to and recovery from emergencies within the Bega Valley 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 a local level;
- detail activation and alerting arrangements for involved agencies; and
- detail arrangements for the acquisition and coordination 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 the 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 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 Bega Valley Local Emergency Management Committee (LEMC) will review this Local Emergency Management Plan every three (3) years, or following:

- activation of the Plan in response to an emergency;
- legislative changes affecting the Plan;
- exercises conducted to test all or part of the Plan;
- in the event that deficiencies are identified; and
- as roles and responsibilities change.

Security of Information

Emergency Management Plans (State, Region and Local), Sub Plans and Supporting Plans are public documents. However, they do not contain contact details or locations of operations centres, evacuation centres or recovery centres. This and other sensitive information is maintained separately and has a restricted and controlled distribution.

Part 2 Community Context

Annexure A Community Profile

General

The area covered by this Local Emergency Management Plan is the Bega Valley Local Government Area (LGA). Located at the south-eastern extremity of NSW, the LGA is the largest coastal Council in NSW, covering an area of 6,280 square kilometres. From just north of Wallaga Lake and Wandella, the Bega Valley LGA extends through to the Victorian border in the south, Brown Mountain and Mount Darragh to the west and the NSW coastline in the east.

Although the LGA covers a vast area, the landscape is predominantly National Park, Public Reserve and State Forest. A relatively small population of just over 33,000 residents live within coastal and rural townships and villages, some of which are remotely disbursed throughout the area. The key population centres are identified as Bega, Bermagui, Eden and Merimbula.

The Bega Valley LGA adjoins Eurobodalla Shire Council in the North, Snowy-Monaro Regional Council in the West and East Gippsland Shire Council (Victoria) in the South.

Angledale	Dignams Creek (Part)	Mumbulla Mountain	Tantawangalo
Bald Hills	Doctor George Mountain	Murrah	Tarraganda
Barragga Bay	Eden	Myrtle Mountain	Tathra
Bega	Edrom	Nadgee	Timbillica
Bemboka	Frogs Hollow	Narrabarba	Tinpot (Part)
Bermagui	Green Cape	Nelson	Toothdale
Berrambool	Greendale	Nethercote	Towamba
Black Range	Greenlands (Part)	New Buildings	Tura Beach
Bournda	Greigs Flat	Nullica	Verona
Boydton	Jellat Jellat	Numbugga	Wadbilliga (Part)
Broadwater	Kalaru	Nungatta (Part)	Wallaga Lake
Brogo	Kameruka	Nungatta South	Wallagoot
Buckajo	Kanoona	Pambula	Wandella
Burragate	Kiah	Pambula Beach	Wapengo
Candelo	Kingswood	Pericoe	Wog Wog (Part)
Cathcart (Part)	Lochiel	Quaama	Wolumla
Chinnock	Merimbula	Reedy Swamp	Wonboyn
Cobargo	Millingandi	Rocky Hall	Wonboyn North
Coolagolite	Mirador	South Pambula	Wyndham
Coolangubra	Mogareeka	South Wolumla	Yambulla
Coopers Gully	Mogilla	Steeple Flat (Part)	Yankees Creek
Cuttagee	Morans Crossing	Stony Creek	Yellow Pinch
Devils Hole	Mount Darragh	Tanja	Yowrie (Part)

Landform and Topography

The Bega Valley Emergency Management Area is defined by the same boundaries as the Bega Valley LGA.

The Bega Valley Emergency Management Area is dominated by coastal and rural landscapes, with a wide variation in landform. Vast areas of National Park, Public Reserve and State Forest, particularly in the coastal hinterland and along the Great Escarpment in the west, cover approximately 75% of the land area. This land in public ownership provides a scenic backdrop to the area and contributes significantly to the high proportion of intact ecosystems that characterise the landscape, including a high proportion of wilderness areas.

The 225km of pristine coastline contains a considerable variety of coastal landforms, including cliffs, sea caves, deep clefts and extensive dunes through to coastal plain, dissected low tablelands, plateau remnants and shore platforms. Isolated beaches, rocky bays, lakes, coastal lagoons and undisturbed estuaries are also a prominent feature of the area.

Abundant pastoral and agricultural lands are located in the river valleys, particularly in the area surrounding Bega. The hinterland is characterised by undulating coastal slopes and ranges shaped by the underlying granite geology and carved over time by small coastal rivers.

The Great Escarpment, which runs from northern Queensland to the Victorian border, forms the western border of the LGA. It is an erosion feature separating the coast from the inland tablelands and is characterised by mountainous country including large areas of dissected, moderate to rugged topography and plateau.

Significant peaks include Mumbulla Mountain (Biamanga), Dr George Mountain, Mount Imlay, Brown Mountain, Tantawangalo Mountain and Mount Darragh.

Water Catchments

The Bega River and Towamba River are the main water catchments and together with the sub catchments of Tantawangalo Creek, Bemboka River, Brogo River, Couria Creek and Illawambra Creek form the water supply network.

The region's rivers and creeks drain into resource rich tidal lagoons and coastal lakes. The coastline includes 101 ocean beaches, 29 estuaries, approximately 400km of estuarine foreshore and 121 wetlands, with a combined area of 2,753 hectares.

Rivers and Main Tributaries
Bega River: Sandy Creek, Stony Creek, Tantawangalo Creek, Devils Creek, Candelo Creek, Reedy Creek, Wolumla Creek, Frogs Hollow Creek, Greendale Creek
Bermagui River: Coolagolite Creek
Bemboka River: Nunnock River, Brown Mountain Creek, Pollacks Flat Creek
Brogo River: Greens Creek, Robinsons Creek, Yankees Creek, Galoon Creek, Nelson Creek, House Creek, Double Creek, Numbugga Creek, Desert Creek, Stony Creek
Merrica River
Murrah River: Mumbulla Creek, Murrah Lagoon
Nadgee River: Daylight Creek, Wombat Creek, Nadgee Lake, Salt Lake, Little River

Rivers and Main Tributaries
Nullica River: Leos Creek
Pambula River: Chalkhills Creek, Crawleys Creek, Old Hut Creek, Pipeclay Creek, Yowaka River, Broadwater Lake, Pambula Lake
Towamba River: Back Creek, Basin Creek, New Station Creek, Mataganah River, Scrubby Creek, Reedy Creek, Wog Wog River, Letts Creek, Pericoe Creek, Camping Ground Creek, Jingo Creek, Stony Creek, Stanleys Creek, Shelleys Creek, Cochranes Creek, Fishery Creek
Wadbiliga River: Queens Pound River, Lake Creek
Wallagaraugh River: Walla Walla Creek, Wallaby Brook, Falkner Creek, Imlay Creek, Stanley Creek, Snob Creek, Indigo Creek, Allan Brook, Germans Creek, Bruces Creek, Royd Creek
Wonboyn River: Goat Creek, Ludwigs Creek, Old Road Creek, Narrabarba Creek, Watergums Creek, Little Watergums Creek, Stevens Creek
Yowrie River: Trapyard Creek, New England Creek
Small Waterways: Saltwater Creek, Woodburn Creek, Bittangabee Creek, Table Creek, Boydtown Creek, Shadrachs Creek, Two Mile Creek, Palestine Creek, Jellat Jellat Gully, Sandy Beach Creek, Boggy Creek, Dignams Creek, Narira Creek, Wandella Creek
Coastal Waterways
Back Lagoon, Barragoot Lake, Bermagui Harbour, Bithry Inlet, Bittangabee Bay, Bondii Lake, Bournda Lagoon, Broadwater Lake, Bunga Lagoon, Cuttagee Lake, Disaster Bay, Kianinny Bay, Lake Curalo, Little Lake, Merimbula Bay, Merimbula Lake, Middle Lagoon, Mogareeka Inlet, Murrah Lagoon, Nadgee Lake, Nelson Lagoon, Pambula Lake, Salt Lake, Twofold Bay (Snug Cove and Quarantine Bay), Wallaga Lake, Wallagoot Lake, Wapengo Lake, Wonboyn Lake
Dams and Weirs
Ben Boyd Dam*, Brogo Dam*, Cochrane Dam*, Tantawangalo Weir, Yellow Pinch Dam*
*Prescribed Dams, as noted in Schedule 1 of the <i>NSW Dams Safety Act 2015</i> .

National Parks, Nature Reserves and State Forests

The Bega Valley landscape is dominated by National Park, Public Reserve and State Forest. Characterised by vast expanses of wilderness and containing isolated recreation and public interest facilities, the parks, reserves and forests are an integral consideration in the area's emergency management framework.

National Parks and Nature Reserves	
Bell Bird Creek Nature Reserve 53 ha	Gulaga National Park (Part) 4,673 ha
Ben Boyd National Park 10,485 ha	Kooraban National Park (Part) 11,644 ha
Bermaguerie Nature Reserve 818 ha	Mimosa Rocks National Park 5,804 ha
Biamanga National Park 13,617 ha	Mount Imlay National Park 3,808 ha
Bournda National Park 2590 ha	Nadgee Nature Reserve 20,671 ha
Bournda Nature Reserve 6088 ha	South East Forest National Park (Part) 115,499 ha
Davidson Whaling Station Historic Site 6.832 ha	Wadbiliga National Park (Part) 98,530 ha
Eagles Claw Nature Reserve 1 ha	Yurammie State Conservation Area 221 ha

Egan Peaks Nature Reserve		2,145 ha	Approximate total land area		253,100 ha
State Forests					
Bermagui State Forest	1,829 ha	Nadgee State Forest	20,216 ha		
Bombala State Forest (Part)	337 ha	Nalbaugh State Forest (Part)	2,761 ha		
Bondi State Forest (Part)	8,334 ha	Nullica State Forest	14,281 ha		
Broadwater State Forest	160 ha	Nungatta State Forest	915 ha		
Bruces Creek State Forest	911 ha	Tanja State Forest	874 ha		
Cathcart State Forest (Part)	1,614 ha	Tantawangalo State Forest	2,181 ha		
Coolangubra State Forest (Part)	968 ha	Timbillica State Forest	8,094 ha		
East Boyd State Forest	18,585 ha	Towamba State Forest	960 ha		
Glenbog State Forest (Part)	8,642 ha	Wandella State Forest (Part)	5,452 ha		
Gnupa State Forest	1,353 ha	Yambulla State Forest	45,707 ha		
Mumbulla State Forest	5,971 ha	Yurammie State Forest	3,061 ha		
Murrah State Forest	4,592 ha	Approximate total land area		160,500 ha	

Climate

The climate can be described as temperate, with a well-defined warm summer and cool winter. Climate statistics from the Bega All Weather Station (AWS) indicate winter temperatures average a high of 17 degrees and a low of 3 degrees, while summer temperatures average a high of 26.2 degrees and a low of 14.5 degrees. Standard variations in inland and coastal climates apply, with inland areas experiencing greater daily extremes, colder winters and hotter summers than the region's coastal localities.

Rainfall is distributed fairly evenly across the seasons, though the summer months are slightly wetter than the winter ones. The mean number of days of rainfall per annum equal to or above 1mm is 60.9, for an annual average of 621.8mm. The warmer summer months bring thunderstorms with lightning, heavy rain and occasional hail. Short duration, high intensity rainfall events often associated with east coast lows can happen at any time of the year and can lead to flooding. Variations in yearly rainfall totals are also affected by the El Niño-Southern Oscillation.

Prevailing onshore winds from February to June are often associated with orographic lift due to the escarpment from which the moist air gives higher average rainfall in these months. Correspondingly, offshore winds in July to December tend to be drier and strong westerly gales gusting to over 100 km/hour are common at this time of year.

CSIRO's *State of the Climate 2018* report identifies the following key points-

Temperature

- Australia's climate has warmed by just over 1 °C since 1910, leading to an increase in the frequency of extreme heat events.

- There has been a long-term increase in extreme fire weather and in the length of the fire season across large parts of Australia since the 1950s.

Rainfall

- April to October rainfall across south-eastern and south-western Australia has declined.
- Rainfall has increased across parts of northern Australia since the 1970s.
- There is evidence that some rainfall extremes are becoming more intense.
- Streamflow has decreased across southern Australia since the 1970s.
- Streamflow has increased in northern Australia, since the 1970s, in places where rainfall has increased.
- There has been a decrease in the number of tropical cyclones observed in the Australian region since 1982.
- A downward trend in snow depth has been widely observed for Australian alpine regions since the late 1950s.

Oceans

- The ocean surface around Australia has warmed, contributing to longer and more frequent marine heatwaves.
- The world’s oceans are taking up more than 90 per cent of the extra energy stored by the planet as a result of enhanced greenhouse gas concentrations, and the southern hemisphere oceans have taken up the majority of this heat.
- Global sea level has risen by over 20 cm since 1880, and the rate has been accelerating in recent decades.
- Rates of sea level rise vary around Australia.
- The oceans around Australia are acidifying (the pH is decreasing).
- The changes in ocean acidification have led to detectable impacts in areas such as the Great Barrier Reef.
- The ice sheets and ice shelves of Antarctica and Greenland are losing ice due to a warmer climate; sea-ice extent has reduced in the Arctic.

		Bega AWS	Merimbula AWS	Green Cape AWS
Temperature (°C)	Annual Mean Maximum	21.8	20.8	19.7
	Annual Mean Minimum	8.9	9.9	13.3
	Monthly Mean Maximum	27.2 (January)	24.9 (January)	23.8 (February)
	Monthly Mean Minimum	2.2 (July)	4.1 (July)	9.2 (July)
	Highest Temperature	44.6 (18 January 2013)	44.2 (18 January 2013)	37.4 (18 March 2018)
	Lowest Temperature	-8.1 (16 July 1970)	-2.0 (7 July 2004)	-2.0 (13 July 2001)
Rainfall (mm)	Annual Mean Total	624.1	759.4	619.9
	Highest Annual	1020.6 (2010)	1131.8 (2012)	968.6 (1999)
	Lowest Annual	346.6 (2009)	446.8 (2009)	446.4 (2009)
	Highest Month	383.0 (February 2010)	358.0 (February 2010)	449.2 (January 1999)

		Bega AWS	Merimbula AWS	Green Cape AWS
	Highest Daily	219 (11 Feb 2007)	120 (1 May 2006)	326 (24 Jan 1999)
Wind (km/h)	Annual Mean 9am wind speed	7.6	9.0	23.9
	Mean Highest 9am wind speed	10.5 (October)	11.6 (December)	26.3 (November)
	Mean Lowest 9am wind speed	5.6 (May)	6.7 (March)	22.1 (July)
	Annual Mean 3pm wind speed	19.8	17.0	29.2
	Mean Highest 3pm wind speed	22.2 (January)	20.1 (January)	34.0 (November)
	Mean Lowest 3pm wind speed	14.1 (June)	12.4 (June)	24.6 (June & July)

Land Use

Land is used primarily for conservation and timber production, with approximately 75% of the Bega Valley being National Park, Public Reserve or State Forest. The next most prevalent land use is agriculture or primary production, particularly dairy farming.

Five of the area’s six major settlements are located within the coastal zone. Residential zones are predominately low density and large lot configurations, which are based in small coastal and rural towns, villages and localities. Medium density living mainly occurs within the key population centres and adjoining housing estates.

The major industrial precincts are North Bega, Eden and South Pambula, with the main retail, business and commercial zones located within the town centres of Bega, Eden and Merimbula.

	Land Use Zone	Land Area (km ²)	% of LGA
Rural Zones	RU1 Primary Production	1261.44	20.08
	RU2 Rural Landscape	446.15	7.10
	RU3 Forestry	1605.10	25.56
	RU4 Primary Production Small Lots	11.13	0.18
	RU5 Village	7.23	0.12
Residential Zones	R2 Low Density Residential	14.21	0.23
	R3 Medium Density Residential	4.62	0.07
	R5 Large Lot Residential	15.45	0.25
Business Zones	B1 Neighbourhood Centre	0.09	0.00
	B2 Local Centre	0.75	0.01
	B4 Mixed Use	0.93	0.01
	B5 Business Development	0.13	0.00
Industrial Zones	IN1 General Industrial	4.48	0.07
	IN2 Light Industrial	0.45	0.01
	IN4 Working Waterfront	0.04	0.00
Special Purpose Zones	SP1 Special Activities	0.96	0.02
	SP2 Infrastructure	5.64	0.09
	SP3 Tourist	2.10	0.03
Recreation Zones	RE1 Public Recreation	8.26	0.13
	RE2 Private Recreation	2.07	0.03
Environment Protection Zones	E1 National Parks and Nature Reserves	2530.56	40.29
	E2 Environmental Conservation	59.58	0.95
	E3 Environmental Management	216.70	3.45
	E4 Environmental Living	39.17	0.62
Waterway Zones	W1 Natural Waterways	42.37	0.67
	W2 Recreational Waterways	0.85	0.01
	W3 Working Waterways	0.19	0.00
Total		6,280.66	100.00

Population and People

The Bega Valley Shire has a relatively small population of approximately 33,000 people and a population density of 0.05 persons per hectare. Half of the population live within 15km of the coast.

Tourism has a significant impact on population. The peak tourism period coincides with summer and during this time, the population can triple. The main tourist towns Bermagui, Tathra, Merimbula-Pambula and Eden typically experience a three to four-fold boost in their populations during the peak summer tourist season, with local accommodation establishments

generally receiving over 150,000 guest arrivals in December. On average, the Bega Valley receives over 876,000 visitors annually, more than half (56%) of whom are domestic overnight visitors (491,000). See section on Tourism for further information on visitor numbers / beds.

The following residents and households are identified as being more vulnerable to emergency events, due to their circumstances. Some of the vulnerabilities identified could impact emergency operations, communication, evacuation management and response and recovery requirements (statistics as identified in the 2016 Census):

- **Need for Assistance with Core Day to Day Activities:** 2,001 people or 6.0% of the population reported needing help in their day-to-day lives due to a profound or severe disability. People with a profound or severe disability are defined as those people needing help or assistance in one or more of the three core activity areas of self-care, mobility and communication, because of a disability, long term health condition (lasting six months or more) or old age.
- **Language Spoken at Home:** Approximately 3% of residents speak a language other than English at home with German, Dutch, Italian, French and Thai being the most common other languages. Of those who speak a different language, 3.3% speak English very well or well, while 0.28% speak English not well or not at all.
- **Internet Connection:** 2,452 or 18.5% of households did not access the internet from a dwelling in 2016.
- **Households without Access to a Motor Vehicle:** 4.3% of households do not have access to a registered motor vehicle (excludes motorbikes and scooters).
- **Dwelling Types:** There are 13,222 occupied private dwellings and 3,048 unoccupied private dwellings in the area. The building compositions include:
 - Separate houses: 10,934
 - Semi-detached, row or terrace house, townhouse: 1336
 - Flat or apartment: 553
 - Caravan, cabin, houseboat: 184
 - Improvised home, tent, sleepers out: 40
 - House or flat attached to a shop, office: 46
- **Dwelling Tenure:** 45.5% of households own their dwelling outright, 27.4% own their dwelling with a mortgage, while 11.4% rent privately through a Real Estate Agent and 2.9% reside in public or social housing.
- **Sole Occupant Households:** 4018 or 30.3% of households contain only one resident.
- **Industry of Employment:** 13,153 people are employed, of which 52.8% worked full time and 40.2% part-time. 2% of people employed did not state their work hours whilst approximately 4.7% were employed persons who did not work any hours in the week leading up to Census 2016.
- **Method of Travel to Work:** With limited public transport options, most residents travel to work by car (65.1% as a driver and 4.0% as a passenger), while 4.8% walk to work and 7% work from home.

The following tables summarises:

- Age group data for the entire Bega Valley and the four key population centres of Bega, Merimbula, Eden and Bermagui; and
- A detailed listing with population data arranged by each locality.

	Bega Valley LGA		Bega		Merimbula		Eden		Bermagui	
Age	No.	%	No.	%	No.	%	No.	%	No.	%
0-4 years	1,468	4.4	286	6.1	117	3.3	164	5.3	71	4.5
5-14 years	3,789	11.3	631	13.5	267	7.5	332	10.8	153	9.8
15-19 years	1,792	5.3	299	6.3	163	4.5	159	5.1	75	4.8
20-24 years	1,189	3.5	245	5.2	168	4.7	121	3.9	42	2.7
25-34 years	2,482	7.4	480	10.2	284	8.0	258	8.4	88	5.6
35-44 years	3,120	9.3	474	10.1	294	8.2	302	9.8	127	8.2
45-54 years	4,648	13.9	606	12.9	459	12.9	376	12.2	187	12.0
55-64 years	6,154	18.5	652	13.9	612	17.2	493	16.1	302	19.5
65-74 years	5,060	15.2	463	9.9	610	17.2	460	15.0	309	19.9
75-84 years	2,546	7.6	362	7.7	379	10.6	258	8.4	138	8.9
85 years and over	999	3.0	175	3.7	181	5.1	137	4.4	56	3.6
Total	33,247		4673		3534		3060		1548	

Community Context

Communities defined by 2016 Census State Suburbs Including smaller localities, where applicable	Land Area (km ²)	Residents								Households			
		Total	Median Age	Under 19		65 years & over		Need Assistance		Sole Occupant		Without Vehicle	
				No.	%	No.	%	No.	%	No.	%	No.	%
Angledale Greendale	62.9	231	37	58	25.1	29	12.5	10	4.3	26	11.2	3	1.2
Bald Hills	10.7	263	45	78	29.6	44	16.7	6	2.2	15	18.1	0	0.0
Bega Black Range	44.4	4757	42	1328	27.8	947	19.9	311	6.5	558	30.2	179	9.7
Bemboka	334.4	577	51	140	24.2	128	22.1	39	6.7	80	13.8	9	1.5
Bermagui Barragga Bay, Cuttagee	61.8	1671	54	334	20	463	27.6	120	7.2	229	31.9	50	7.0
Berrambool Mirador	2.7	680	47	176	25.9	123	18.1	21	3.1	91	32.3	21	7.4
Bibbenluke Cathcart, includes localities outside BVSC LGA	477.9	302	48	80	26.4	53	17.5	18	6.0	30	26.5	6	5.3
Bournda	82.4	152	46	40	26.3	12	8.2	5	3.2	18	32.7	3	6.5
Boydton	9.4	70	63	27	17	30	18.8	4	5.7	7	10	0	0.0
Brogo	395.8	503	55	98	19.4	120	23.8	24	4.7	66	31.9	3	1.4
Buckajo Kameruka	107.3	404	42	128	31.9	46	11.4	15	3.7	20	14.4	0	0.0
Candelo	96.9	686	47	184	26.8	110	15.6	30	4.3	76	28.5	3	1.1
Cobargo	104	776	53	170	21.9	194	25.3	43	5.5	103	32.4	15	4.7
Coolagolite	88.3	278	53	49	17.6	63	23.3	10	3.5	30	25.6	0	0.0

Communities defined by 2016 Census State Suburbs Including smaller localities, where applicable	Land Area (km ²)	Residents								Households			
		Total	Median Age	Under 19		65 years & over		Need Assistance		Sole Occupant		Without Vehicle	
				No.	%	No.	%	No.	%	No.	%	No.	%
Coopers Gully Stony Creek	43.9	272	47	79	28.7	49	17.9	6	2.2	24	22.9	0	0.0
Dignams Creek includes localities outside BVSC LGA	102.8	160	55	35	22	32	20.2	15	9.4	16	24.6	3	4.5
Eden	85.5	3151	51	668	21.1	876	27.7	232	7.3	436	34.9	96	7.7
Greigs Flat Broadwater	36.6	323	44	78	24.3	47	14.7	6	1.9	20	16.1	0	0.0
Jellat Jellat	10.6	84	47	28	33.3	11	13.0	3	3.5	7	25	0	0.0
Kalaru	14.4	642	41	173	27.1	97	15.1	38	5.9	44	18.6	3	1.3
Kanoona Frogs Hollow, Kingswood, Toothdale	63.6	334	45	94	28.2	55	16.5	12	3.6	11	9.0	4	3.3
Kiah Edrom, Green Cape, Nadgee, Narrabarba, Timbillica, Wonboyn, Wonboyn North	971.6	240	56	16	6.7	44	18.3	15	6.3	37	32.7	3	2.7
Lochiel	53	314	42	110	34.7	31	9.7	13	4.1	19	17.3	3	2.7
Merimbula	6.4	3278	50	625	19	909	27.7	221	6.7	490	35.4	122	8.8
Millingandi	19.2	385	60	52	13.6	117	30.5	20	5.2	58	31.0	3	1.6
Mogareeka Chinnock, Doctor George Mountain, Reedy Swamp	40.3	206	45	49	23.5	18	8.6	3	1.5	18	22.2	0	0.0

Communities defined by 2016 Census State Suburbs Including smaller localities, where applicable	Land Area (km ²)	Residents								Households			
		Total	Median Age	Under 19		65 years & over		Need Assistance		Sole Occupant		Without Vehicle	
				No.	%	No.	%	No.	%	No.	%	No.	%
Nerrigundah Tinpot, Wadbilliga, Yankees Creek, includes localities outside BVSC LGA	2782.5	55	47	14	25.5	3	5.5	3	5.5	4	19	0	0.0
Nethercote Nullica	93.6	366	44	97	26.5	37	10.1	9	2.5	16	12.6	0	0.0
Numbugga Morans Crossing	87.0	178	41	56	31.6	30	17	16	9.0	12	18.5	3	4.6
Nungatta Coolangubra, Yambulla, Nungatta South, Wog Wog	919.3	0	0	0	0	0	0	0	0	0	0	0	0
Pambula	13.2	867	48	206	23.8	235	27.2	91	10.5	114	33.8	24	7.1
Pambula Beach	2.1	665	48	176	26.5	150	22.5	18	2.7	63	23.9	9	3.4
Quaama	0.8	161	51	25	15.7	25	15.7	9	5.6	25	34.7	3	4.2
South Pambula	5.2	418	39	134	32.1	62	14.9	16	3.8	26	18.3	0	0.0
Tanja Mumbulla Mountain, Murrah, Nelson, Wapengo	354.7	381	50	98	25.7	54	14.2	15	3.9	44	29.1	0	0.0
Tantawangalo Mogilla	253.8	225	46	62	27.4	24	10.5	12	5.3	18	22.0	0	0.0
Tarraganda	6.0	246	46	54	21.9	42	16.9	9	3.7	19	20.9	0	0.0
Tathra	6.4	1526	49	324	21.3	348	22.9	78	5.1	208	33.1	33	5.3

Communities defined by 2016 Census State Suburbs Including smaller localities, where applicable	Land Area (km ²)	Residents								Households			
		Total	Median Age	Under 19		65 years & over		Need Assistance		Sole Occupant		Without Vehicle	
				No.	%	No.	%	No.	%	No.	%	No.	%
Towamba Pericoe	209.6	372	49	84	22.7	53	14.3	28	7.5	46	31.9	0	0.0
Tura Beach	5.8	2921	57	515	17.6	1047	35.8	176	6.0	280	23.3	22	1.8
Verona	72.5	414	45	109	26.2	38	9.1	27	6.5	27	16.4	3	1.8
Wallaga Lake	12.4	526	60	85	16.2	179	34.1	35	6.7	88	35.8	6	2.4
Wallagoot	41.3	468	47	105	22.4	62	13.1	17	3.6	29	16.8	0	0.0
Wandella Yowrie	102.3	299	49	67	22.4	54	18.2	21	7.0	23	19.0	7	5.9
Winifred Greenlands, Steeple Flat, includes localities outside BVSC LGA	642.2	195	53	43	21.8	36	18.3	12	6.2	15	18.3	0	0.0
Wolumla South Wolumla, Yellow Pinch	71.2	874	45	236	27	118	13.4	41	4.7	54	17.0	6	1.9
Wyndham Devils Hole, Mount Darragh, Myrtle Mountain, New Buildings, Rocky Hall	325	610	48	145	23.8	88	14.3	24	3.9	57	26.8	6	2.8

Need Assistance

Source: Australian Bureau of Statistics 2016 Census, B18 Core Activity Need for Assistance by Age by Sex

Definition: A person's need for help or assistance in one or more of the three core activity areas of self-care, mobility and communication, because of a disability, long term health condition (lasting six months or more) or old age.

Sole Occupant

Source: Australian Bureau of Statistics 2016 Census, B30 Household Composition by Number of Persons Usually Resident

Definition: Counts the number of persons usually resident in an occupied private dwelling (for this purpose, lone person household).

Without Vehicle

Source: Australian Bureau of Statistics 2016 Census, B29 Number of Motor Vehicles by Dwelling

Definition: Records the number of registered motor vehicles owned or used by household members, garaged, parked at or near private dwellings on Census Night. It includes company owned vehicles garaged, parked at or near private dwellings on Census Night. It excludes motorbikes and scooters.

Tourism

It is appropriate in an Emergency Management Plan to understand where there may be a concentration of people during peak tourism periods.

The Sapphire Coast Destination Management Plan Information Sheet May 2018 indicates that the purpose of visit to the Coast Sub-Region is 73% holiday, 19% visiting friends and relatives, 8% business/other.

Tourism Economic Snapshot for the Bega Valley Shire (Year Ending June 2017) in terms of visitor volume, visitor nights and visitor expenditure provided by Sapphire Coast Tourism:

Domestic Day Visitors	349,000	40%	\$53 million	13%
Domestic Overnight Visitors	491,000	56%	\$347 million	84%
International Overnight Visitors	36,000	4%	\$12 million	3%

Domestic Visitor Nights : 1,821,000

International Visitor Nights : 110,000

The Sapphire Coast Accommodation Audit, 2016, indicated that there are 778 Accommodation Providers in the Bega Valley Shire Local Government Area, providing 21,151 beds.

Merimbula	330	42%	5,437	26%
Pambula	78	10%	2,871	14%
Tathra area	86	11%	3,714	18%
Bermagui	174	22%	4,579	22%
Eden area	86	11%	4,070	19%
Bega area	30	4%	480	2%
TOTAL	784		21,151	

The following table indicates accommodation providers with capacity greater than 100 people/beds:-

Bega Caravan Park	100
Beach Cabins Merimbula	100
Merimbula Gardens Motel	100
Tuscany Apartments	110
Bermagui Beach Hotel	114
Boydton Caravan Park	120
Woodbine Park Eco Cabins	120
Black Dolphin Resort Motel	120
Kianinny Resort	140
Boydton Beach Holiday Park	150
Tathra Beach House Apartments	150

Wonboyn Cabins and Caravan Park	160
Aquarius Resort Apartments	165
Ingenia Holidays Ocean Lake	252
Bermagui - South Coast Holiday Parks	264
Coast Resort	270
Tathra Beachside	392
Secura Lifestyle Countryside Kalaru	495
Regatta Point Holiday Park	582
Discovery Parks BIG4 – Eden	740
Eden Gateway Holiday Park	750
Reflections Holiday Parks Eden	881
Sapphire Valley Caravan Park	980
BIG4 Wallaga Lake Holiday Park	2000
Big 4 Tathra Beach Holiday Park	2000
Discovery Parks Pambula Beach	2296

Source: *Sapphire Coast Accommodation Audit 2016*

In addition to the above, Sapphire Coast Destination Marketing have indicated there are conservatively 437 properties (an additional 2000 beds) in 'Air BnB' properties in the Bega Valley Shire Council Local Government area.

Cruise Eden

The 2017/18 cruise season was worth \$8.1 million to the local economy – this figure is made up of port fees, passenger and crew spend average and estimated return visitation numbers.

A total of 14 cruise ships visited Bega Valley Shire via the Port of Eden in the 2017/18 season with in excess of 20,000 passengers disembarking.

In the 2018/19 season, 16 cruise ships are booked to visit Eden. Passenger numbers this season are expected to be similar or slightly more than the previous season.

The Maritime Travellers Processing Committee (MTPC) is the single point of access to Federal Government Agencies and approved the arrival and departure of cruise ships into the Port of Eden.

Transport Routes and Facilities

Road Network

The two arterial transport routes are the Princes Highway (north-south) and the Snowy Mountains Highway (east-west). Both Highways are vulnerable to traffic hazards and can be blocked for hours at a time. The area's Mains Roads, Local Collector and Local Access roads also form a critical link to remotely disbursed towns and localities, with alternative access sometimes difficult and the potential for temporary isolation.

The Bega Valley transport network is comprised of 751km of sealed roads, 719km of unsealed roads, 161 bridges (57 timber and 104 non-timber) and 67 causeways. The local road network is large, although many routes experience minimal daily traffic due to the small, sparse population, distributed over a large geographic area. However a large component of the traffic is heavy vehicles, including those associated with State Forest production and the dairy industry, as well as school buses and garbage trucks.

Historically, the main hazards affecting the road network include motor vehicle accidents, water over road and bridge or causeway failure due to flooding or storm surges.

There is also an extensive network of National Parks and Wildlife Service and NSW Forestry roads throughout the area. Two NSW Forestry roads provide a vital east-west link within the Shire, south of Eden. Edrom Road links the Princes Highway to the Eden woodchip mill, multipurpose wharf and Explosive Ordnance (EO) Depot Twofold Bay and Imlay Road links the Monaro Highway to the Princess Highway, primarily to haul timber.

Road Name	Classification	Direction	Links
Princes Highway (A1)	State Highway	North-South	Entire EM Area
Snowy Mountains Highway (B72)	State Highway	East-West	Princes Highway to Monaro Highway (B23)
Mt Darragh Road (MR91)	Main Road	East-West	Princes Highway to Monaro Highway
Bega Tathra Road (MR272)	Main Road	East-West	Princes Highway to Sapphire Coast Drive and Tathra Bermagui Road
Tathra Bermagui Road (MR272)	Main Road	North-South	Bega Tathra Road to Cobargo Bermagui Road
Wallaga Lake Road (MR272)	Main Road	North-South	Wallaga Lake with Tathra Bermagui Road
Candelo Bega Road (MR275)	Main Road	East-West	Princes Highway with Candelo and nearby localities
Tantawangalo Mountain Road (MR275)	Main Road	East-West	Candelo and surrounding localities with Mt Darragh Road
Cobargo Bermagui Road (MR320)	Main Road	East-West	Bermagui and nearby localities with Princes Highway
Merimbula Drive (MR7613)	Main Road	East-West	Merimbula with Princes Highway
Imlay Street - Albert Terrace (MR561)	Main Road	North-South	Princes Highway with Eden Port (Snug Cove and Twofold Bay)
Sapphire Coast Drive (MR7621)	Main Road	North-South	Merimbula to Bega Tathra Road
Market Street - Arthur Kaine Drive - Toallo Street (MR7622)	Main Road	North-South	Merimbula with Princes Highway
Candelo Wolumla Road - Mogilla Road (MR7623)	Main Road	East-West	Princes Highway and Snowy Mountains Highway

Airport

The Bega Valley has one commercial airport, which is located south of Merimbula and a private grass airstrip at Frogs Hollow, which caters for flying enthusiasts.

The Merimbula Airport is located to the west of Arthur Kaine Drive, approximately 2 kilometres south of the Merimbula town centre. Runway 03/21 is 1,602 metres long, 30 metres wide and is classified as Code 3.

Regular Passenger Transport services are operated to and from the Airport by Regional Express (Rex) to Sydney, Moruya and Melbourne using Saab 340 aircraft. The Airport also supports the operations of the Air Ambulance, Royal Flying Doctor Service, Rural Fire Service, freight operators, as well as local and visiting private and recreational pilots.

The Merimbula Airport Master Plan 2013 conducted by Rehbein Airport Consulting provides future projections for the Merimbula Airport site.

Ports and Harbours

Eden

The Port of Eden is the southernmost declared port in NSW and services the south coast of NSW, as well as eastern Victoria. The Port consists of a deep water harbour, three wharves and an eight hectare cargo storage facility. It is home to a large fishing fleet and also has significant capacity to service the needs of a variety of importers and exporters. A multi-user wharf services naval operations, container and general cargo and log exports. A breakwater wharf is used by smaller vessels and Anchor Handling Tow Supply vessels for general cargo and bunkering. The main export through Eden is woodchips along with pine logs, explosives and general cargo. The Port provides a Harbour Master, 24 hour pilotage services, hydrographic surveys, management of wharves and port security functions. The cruise industry is also looking to develop activities in Eden with an increasing number of ships having anchored in the harbour, ferrying passengers to shore. Forty (40) cruise ships per annum are projected to visit the Port of Eden by 2020.

The Eden Breakwater Wharf Extension project aims to extend the existing Breakwater Wharf, deepening the adjacent berth pocket and approach channel and disposing of dredge material at an offshore disposal site. This will enable cruise ships up to 325m in length to berth alongside the upgraded Breakwater Wharf so that passengers can embark/disembark via a gangway onto the wharf.

The Wharf Extension is due to be completed in mid 2019.

The Port of Eden is managed by the Waterways Authority whose role is -

- a) the safe conduct of shipping. Combat and coordination for marine emergency operations within its area of responsibility in conjunction with other organisations as required.
- b) To coordinate the available resources required.
- c) To provide a forward marine command post.
- d) To undertake the combat and coordination role during a marine pollution incident.
- e) To support other functional counter disaster plans as required.
- f) Provide a Liaison Officer to the Local Emergency Operations Centre at the request of the Local Emergency Operations Controller.

Participating organisations include -

- Port of Eden Waterways Authority
- NSW Police Service (Land and Water Based)
- NSW Fire Brigades
- Australian Border Force (ABF)
- Maritime Travellers Processing Committee (MTPC)

Supporting organisations include:

- Australian Border Force (ABF)

Bermagui Harbour

On the estuary of the Bermagui River, Bermagui Harbour is a safe all-weather harbour 20km from the continental shelf, making it a desirable destination for deep-sea fishing and water sports. In the boat harbour, the tides are 45 minutes later than Sydney Harbour, with the

shallowest water under the lee of the river’s headland, allowing entry in deteriorating conditions.

Economy and Industry

The Bega Valley is particularly known for its farming industry, predominantly dairy farming and associated cheese manufacturing in Bega, commercial fishing particularly in Eden and tourism along much of the coast. The 2016 Census identified the Health Care and Social Assistance sector as the main industry of employment for residents, followed by Retail, Hospitality, Manufacturing, Construction, Education and Training.

The major industrial precincts are located at North Bega, Eden and South Pambula and the main retail, business and commercial areas are within the town centres of Bega, Eden and Merimbula.

Industry Sector of Employment (2016 Census)	Number of Employees	% of Workforce
Health Care and Social Assistance	1784	14.9
Retail Trade	1506	12.6
Accommodation and Food Services	1371	11.4
Manufacturing	1042	8.7
Construction	781	6.5
Education and Training	925	7.7
Agriculture, Forestry and Fishing	853	7.1
Public Administration and Safety	598	5.0
Professional, Scientific and Technical Services	506	4.2
Transport, Postal and Warehousing	390	3.2
Wholesale Trade	231	1.9
Administrative and Support Services	350	2.9
Financial and Insurance Services	168	1.4
Arts and Recreation Services	199	1.6
Rental, Hiring and Real Estate Services	171	1.4
Electricity, Gas, Water and Waste Services	112	0.9
Information Media and Telecommunications	105	0.8
Mining	10	0.08
Other Sector or Inadequate Response	843	7.0

Source: 2016 Census, Working Population Profile, W09a, b & c.

Annexure B Hazards and Risks Summary

A Local Emergency Risk Management (ERM) Study has been undertaken by the Bega Valley 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. The Bega Valley Emergency Risk Management Study should be referenced to identify the complete list of consequences and risk descriptions.

Bega Valley Hazards and Risks					
Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Agricultural Disease (Animal/Animal)	An agriculture/horticulture incident that results, or has potential to result, in the spread of a communicable disease or infestation.	Unlikely	Major	High	Department of Primary Industries
Bridge Collapse	Failure of a major bridge structure with or without warning owing to structural failure or as a result of external/ internal events or other hazards/ incidents.	Rare	Moderate	Moderate	LEOCON
Building Collapse	Collapse of building owing to structural failure or impact from external/internal event of other hazards /incidents.	Rare	Moderate	Moderate	FRNSW (USAR) LEOCON
Communicable Disease (Human/Animal)	Pandemic illness that affects, or has potential to affect, large portions of the human or animal population	Rare	Major	High	Department of Health
Dam Failure	A dam is compromised that results in localised or widespread flooding.	Rare	Major	High	Dam Owners NSW SES
Earthquake	Earthquake of significant strength that results in localised or widespread damage.	Unlikely	Minor	Low	LEOCON
Fire (Bush or Grass)	Major fires in areas of bush or grasslands.	Almost Certain	Major	Extreme	NSW RFS FRNSW
Fire (Industrial)	Serious industrial fire in office complexes and/or warehouses within industrial estates.	Possible	Minor	Moderate	FRNSW NSW RFS

Bega Valley Hazards and Risks					
Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Fire (Commercial)	Serious commercial fires in shopping centres, aged persons units, nursing homes and hospitals.	Unlikely	Minor	Low	FRNSW NSW RFS
Fire (Residential)	Serious residential fire in medium/high rise apartments.	Unlikely	Minor	Low	FRNSW NSW RFS
Flood (Flash)	Sudden short duration flooding, occurring less than six hours after heavy rainfall.	Possible	Minor	Moderate	NSW SES
Flood (Riverine)	High water level which overtops the natural or artificial banks and/or local overland flooding associated with drainage before entering a watercourse.	Likely	Moderate	High	NSW SES
Hazardous Release	Hazardous material released as a result of an incident or accident.	Possible	Moderate	High	FRNSW
Heatwave	A sequence of abnormally hot conditions having the potential to affect a community adversely.	Rare	Moderate	Moderate	SEOCN
Landslip	Landslip/landslide resulting in localised or widespread damage.	Unlikely	Minor	Moderate	LEOCON
Storm	Severe storm with accompanying lightning, hail, wind, and/or rain that causes severe damage and/or localised flooding.(includes tornado)	Almost Certain	Minor	High	NSW SES
Transport Emergency (Air)	Aircraft crashes in LGA resulting in large number of fatalities, injuries and/or damage to property.	Rare	Moderate	Moderate	LEOCON

Bega Valley Hazards and Risks					
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.	Possible	Moderate	High	LEOCON
Transport Emergency (Sea)	A major accident that results in environmental damage and major recovery operation	Rare	Major	High	Relevant Port / Maritime (NSW RMS)
Tsunami	A tsunami wave of magnitude that presents a risk to land and marine elements.	Rare	Major	High	NSW SES
Utilities Failure	Major failure of essential utility for unreasonable periods of time as a result of a natural or man-made occurrence.	Possible	Minor	Moderate	LEOCON
Pandemic	A major pandemic has the potential to affect communities adversely.	Possible	Major	High	Health

Descriptor	Description
Almost certain	is expected to occur in most circumstances; and/or high level of recorded incidents; and/or strong anecdotal evidence; and/or a strong likelihood the event will recur; and/ or great opportunity, reason, or means to occur; may occur once every year or more
Likely	will probably occur in most circumstances; and/or regular recorded incidents and strong anecdotal evidence; and/or considerable opportunity, reason or means to occur; may occur once every five years
Possible	might occur at some time; and/or few, infrequent, random recorded incidents or little anecdotal evidence; and/or very few incidents in associated or comparable organisations, facilities or communities; and/or some opportunity, reason or means to occur; may occur once every 20 years
Unlikely	is not expected to occur; and/or no recorded incidents or anecdotal evidence; and/or no recent incidents in associated organisations, facilities or communities; and/or little opportunity, reason or means to occur; may occur once every 100 years
Rare	may occur only in exceptional circumstances; may occur once every 500 or more years

Descriptor	Description
Insignificant	No injuries or fatalities. No displacement of people or displacement of only a small number of people for short duration. Little or no personal support required (support not monetary or material). Inconsequential or no damage. Little or no disruption to community. No measurable impact on environment. Little or no financial loss.
Minor	Small number of injuries but no fatalities. First aid treatment required. Some displacement of people (less than 24 hours). Some personal support required. Some damage. Some disruption (less than 24 hours). Small impact on environment with no lasting effects. Some financial loss.
Moderate	Medical treatment required but no fatalities. Some hospitalisation. Localised displacement of people who return within 24 hours. Personal support satisfied through local arrangements. Localised damage that is rectified by routine arrangements. Normal community functioning with some inconvenience. Some impact on environment with no long-term effect or small impact on environment with long-term effect. Significant financial loss.
Major	Extensive injuries, significant hospitalisation, large number displaced (more than 24 hour's duration). Fatalities. External resources required for personal support. Significant damage that requires external resources. Community only partially functioning, some services unavailable. Some impact on environment with long-term effects. Significant financial loss - some financial assistance required.
Catastrophic	Large number of severe injuries. Extended and large numbers requiring hospitalisation. General and widespread displacement for extended duration. Significant fatalities. Extensive personal support. Extensive damage. Community unable to function without significant support. Significant impact on environment and/or permanent damage.

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost certain	High	High	Extreme	Extreme	Extreme
Likely	Moderate	High	High	Extreme	Extreme
Possible	Low	Moderate	High	Extreme	Extreme
Unlikely	Low	Low	Moderate	High	Extreme
Rare	Low	Low	Moderate	High	High

Annexure C Local Sub Plans, Supporting Plans and Policies

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

The sub/supporting plans are developed in consultation with the Bega Valley 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 LEMO on behalf of the LEMC and public release versions are available on the Council Website.

Local Sub and Supporting Plans			
Plan	Purpose	Combat / Responsible Agency	Next Review Date
Bush Fire Risk Management Plan approved 10 October 2018 – D20/94196	To minimise the risk of adverse impact of bush fires on life, property and the environment	Bega Valley Bush Fire Management Committee	October 2023
Bega Valley Local Flood Plan V1 July 2013 – D20/94197	Preparedness measures, the conduct of response operations and the coordination of immediate recovery measures from flooding. Covers operations for all levels of flooding and arrangements for the management of coastal erosion in the Bega Valley Council area.	NSW State Emergency Service	Awaiting confirmation from SES
Bega Valley Local Flood Plan V2 January 2017 – D20/94198	As above	NSW State Emergency Service	Awaiting confirmation from SES

Local Sub and Supporting Plans			
Plan	Purpose	Combat / Responsible Agency	Next Review Date
New South Wales State Tsunami plan September 2018 – D20/94199	Outline how SLSNSW as a “support agency” supports the NSW SES during Tsunami response operations on the NSW coastline	Surf Life Saving NSW, Australian Lifeguard Service and NSW SES Office of Emergency Management?	September 2023
Welfare Services Functional Area Supporting Plan June 2018 – D20/94200	Preparedness measures and arrangements for the provision of welfare services during response to and recovery from emergencies in NSW.	Department of Family and Community Services	June 2023
NSW South Coast Marine Oil and Chemical Spill Contingency Plan January 2017 – D20/94201	Outline the arrangements to deal with oil or chemical spills and maritime incidents that could lead to an oil or chemical spill within the NSW South Coast and the adjacent coastal waters seaward to three nautical miles	Roads & Maritime Services	Awaiting confirmation from TfNSW
Merimbula Airport Emergency Plan September 2020 – D20/94202	To provide a timely and coordinated response to, and initial recovery from, an emergency at Merimbula Airport	Airport Agencies Pty Ltd	September 2021

Local Sub and Supporting Plans			
Plan	Purpose	Combat / Responsible Agency	Next Review Date
Roy Wotton Gardens Bushfire Evacuation Plan October 2015 – D20/94203	Increase the preparedness of managers, employees and occupants to ensure a rapid and safe evacuation either within or from the Village during a bushfire	RSL Life Care	Awaiting confirmation from the facility
BUPA Eden Business Continuity Plan July 2015 – D20/94204	Outlines the actions to manage an event and the measures to be taken to “continue to do business”	BUPA	Awaiting confirmation from the facility
Dam Safety Emergency Plan Ben Boyd January 2019 – D20/94205	Outlines safety measures in place and action plan for any incidents	BVSC	Nov 2020
Dam Safety Emergency Plan Cochrane Dam February 2020 – D20/94206	Outlines safety measures in place and action plan for any incidents	Auercon	2021
Dam Safety Emergency plan Tilba Dam January 2019 - D20/94207	Outlines safety measures in place and action plan for any incidents	BVSC	Nov 2020
Dam Safety Emergency Plan Yellow Pinch January 2019 - D20/94208	Outlines safety measures in place and action plan for any incidents	BVSC	Nov 2020
Traffic Incident Response Plan (diversion maps) – February 2012 D20/94209	Provide alternate routes for any main highway closures due to traffic incidents	RMS	Awaiting confirmation from TfNSW Live traffic website/app being developed

Local Sub and Supporting Plans			
Plan	Purpose	Combat / Responsible Agency	Next Review Date
Essential Energy Network Operations and Recovery Plan June 2018 – D19/94210	To list contacts, supplier and stakeholders in the event of a major incident	Essential Energy	Awaiting confirmation from Darren Basterfield
Port of Eden Marine Oil and Chemical Spill Contingency Plan September 2016 – D20/94211	Outline the arrangements to deal with oil or chemical spills and maritime incidents that could lead to an oil or chemical spill within the Port of Eden.	Port Authority of NSW?	
Thales EO Depot Twofold Bay Emergency Plan August 2019 – D20/94213	Detail the agreed arrangements, procedures and instructions for response to and recovery from all emergencies that could occur at the facility	THALES EO Services	Andrew confirmed review will be finalised by the end of Nov 2020 and then annually
DRAFT Emergency Disease Outbreak Management Plan 2013 – D20/94214	The plan outlines the actions needed to be taken and the resources needed if an emergency disease is detected at the Bega saleyard, or there has been a trace-back of an emergency disease to the saleyard at a time stock are being held, or a NSW stock standstill is announced while cattle are in the yards.	Local Land Services?	Advised from Bronty LLS - document was created pre LLS and would need a complete overhaul, as it was written to the previous Biosecurity Act.

Local Sub and Supporting Plans			
Plan	Purpose	Combat / Responsible Agency	Next Review Date
<p>Emergency Response Plan for the Eden Cruise Berth Snug Cove - Twofold Bay - September 2019 – D20/94215</p> <p>Under this plan: Eden Cruise Ship Facility - Operational Environmental Management Plan - June 2019</p> <p>Eden Cruise Ship Facility: Traffic Transport and Access OEMP Sub - Plan - September 2019</p> <p>Noise OEMP Sub-Plan - June 2019</p> <p>Air Quality OEMP Sub Plan September 2019</p> <p>Operation Compliance Tracking Program August 2019</p>	<p>The plan outlines preparation for the Breakwater Wharf/Cruise Berth in Snug Cove, Eden. It is to cover potential emergencies arising from commercial shipping operations at the wharf. This emergency response plan aims to detail the immediate actions required should an emergency situation arise at the wharf.</p>	<p>Port Authority of NSW</p>	

Evacuation Centres

There are four primary evacuation centres in the Bega Valley”

- Bega Showground, Upper Street Bega
- Bermagui Surf Club, 1 Lamont Street Bermagui
- Club Sapphire, 115-127 Main Street, Merimbula
- Eden Fishermens Club – 215-217 Imlay Street, Eden