

**Central West
Regional Emergency
Management Plan
March 2019**

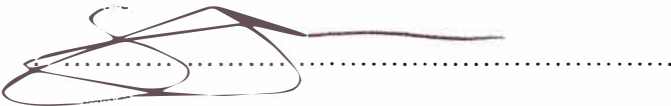


Part 1 – Administration

Authority

The Central West Regional Emergency Management Plan (EMPLAN) has been prepared by the Central West Regional Emergency Management Committee in compliance with the State Emergency & Rescue Management Act 1989.

APPROVED



Geoff McKechnie APM

Regional Emergency Operations Controller

Central West Regional Emergency Management Committee Chair

Dated: 11-3-19.

ENDORSED

Endorsed by the State Emergency Management Committee December 2018

Document Control and Amendment Record

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Central West Regional Emergency Management Plan

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Amendments:

Any proposal for amendment to this document should be submitted to:

The Chairperson,
 Central West Regional Emergency Management Committee
 c/- NSW Police Force - Western Region
 Level 2, 143 Brisbane St
 Dubbo NSW 2830

Amendment Table:

Version Number	Description	Date	Approved/ Endorsed
1.0	Original Document	September 2018	06/09/2018
1.1	Changes to NSW SES organisation structure and definitions	March 2019	07/03/2019

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Purpose

Details arrangements for, prevention of, preparation for, response to and recovery from emergencies within the Central West Emergency Management Region covered by this plan.

It encompasses arrangements for:

- emergencies controlled by combat agencies;
- emergencies controlled by combat agencies and supported by the Regional Emergency Operations Controller (REOCON);
- emergency operations for which there is no combat agency;
- circumstances where a combat agency has passed control to the REOCON; and,
- demobilisation and transition of control from response to recovery.

Objectives

The objectives of this plan are to:

- support Local Emergency Management Plans (EMPLANs) and augment them when required;
- identify trigger points for regional level activation, escalation and demobilisation;
- define participating organisation and Functional Area roles and responsibilities in preparation for, response to and recovery from emergencies;
- set out the control, co-ordination, support and liaison arrangements at the Regional level;
- detail activation and alerting arrangements for involved agencies at the Regional level; and
- detail arrangements for the acquisition and co-ordination of resources at the Regional level.

Scope

The plan describes the arrangements at Regional 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. Further:

- This plan relies on effective implementation of the Governance framework for Emergency Management;
- 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.

This document is to be read in conjunction with the State Emergency and Rescue Management Act 1989 (as amended), the NSW State Emergency Management Plan and other state level emergency management sub-plans, supporting plans and policy documents.

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 Region if they are needed.
- e) The Regional Emergency Operations Controller (REOCON) is responsible, when requested by a combat agency, to co-ordinate the provision of resources support. EOCONs 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 State Emergency Operations Controller (SEOCON) 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.
Prevention measures remain the responsibility of authorities/agencies charged by statute with the responsibility.

Activation, Escalation & Demobilisation

There are a number of Activation, Escalation and Demobilisation triggers that initiate and conclude this Regional EMPLAN or elevation of the emergency to a State level.

Activation Triggers:

Support

- Designated Combat Agency has a regional level plan for emergency response;
- Whenever there is an impending or unforeseen emergency operation and Regional level support resources may be required;

Control

- Where there is no designated Combat Agency and a regional level response is required;
- Where it is necessary to coordinate two or more local level operations which are controlled by Emergency Operations Controllers;
- When the REOCON considers it necessary;
- When directed by the SEOCON to take control of an emergency response.

Escalation Triggers:

Local to Regional

- When an emergency grows beyond the capability of a Local EOC;
- When the emergency crosses two or more local emergency management boundaries and the change in control / support level may improve the situation, or ensure more appropriate use of limited resources;
- When significant Political, Environmental, Social, Technological or Economic impacts are foreseen;
- When directed by the SEOCON.

Regional to State

- When an emergency grows beyond the capability of a Regional EOC;
- When the emergency crosses two or more Regional emergency management boundaries and the change in control level may improve the situation;
- When significant Political, Environmental, Social, Technological or Economic impacts are foreseen;
- When directed by the SEOCON.

Demobilisation Triggers:

- When it is determined that the incident has scaled back to the extent a regional level response is no longer required;
- When the response has transitioned into a longer-term recovery process and an appropriate handover to a recovery coordinator or committee occurs;
- When it is determined that no further control or support is required for the emergency.

Control, Command and Coordination Structure

The Control, Command and Coordination (CCC) structure will vary according to the role that the Regional level response is taking. There are three standard structures that typically arise according to the role taken by the REOCON and REMC:

1. The Region acting as a support mechanism to a Local emergency;
2. The Region supporting a Combat Agency for a Regional emergency;
3. The Region controlling a Regional emergency.

Note: the specific CCC structure can vary according to the type of emergency and should be confirmed on each occasion between stakeholders with the standard arrangements considered.

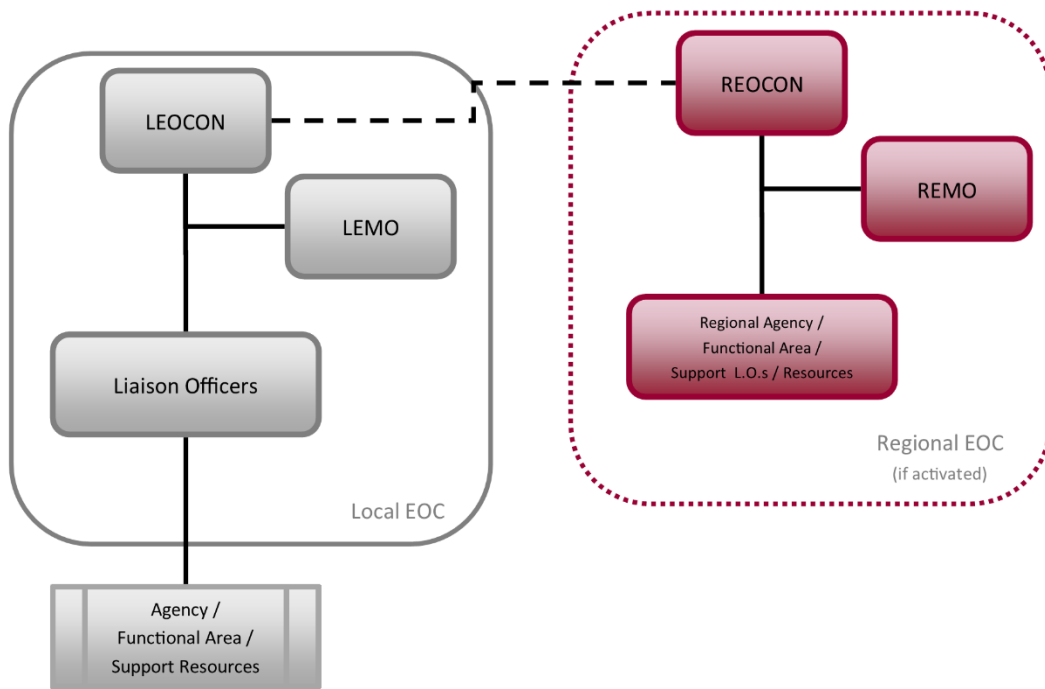
All LEOCONS in the Central West Emergency Management Region are to consult with the REOCON before any Local Emergency Operation Centre is fully activated.

Availability, number required and location of appropriate liaison officers to support multiple LEOCs is an operational factor and needs to be considered in the specific CCC structure for each event.

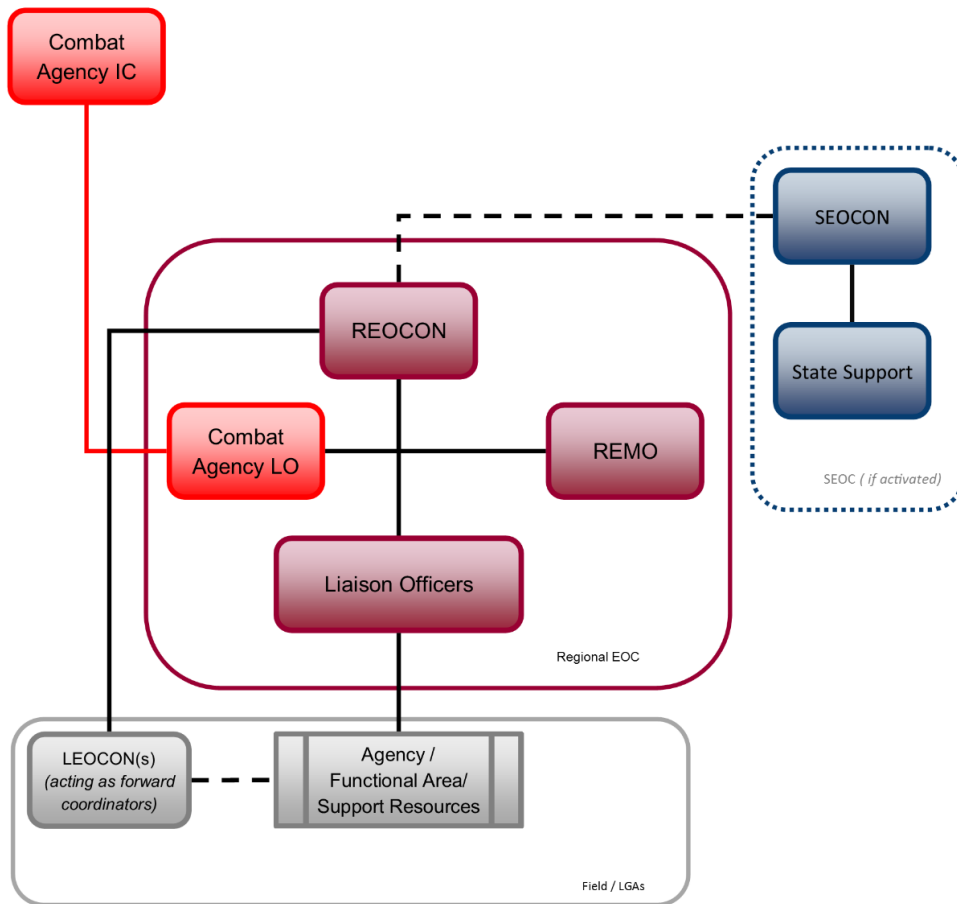
The following diagrams represent the standard structures.

- State level resources – Blue
- Region level resources - Maroon
- Local level resources – Grey
- Directive and reporting flow – solid line
- Information / reporting flow only – dashed line

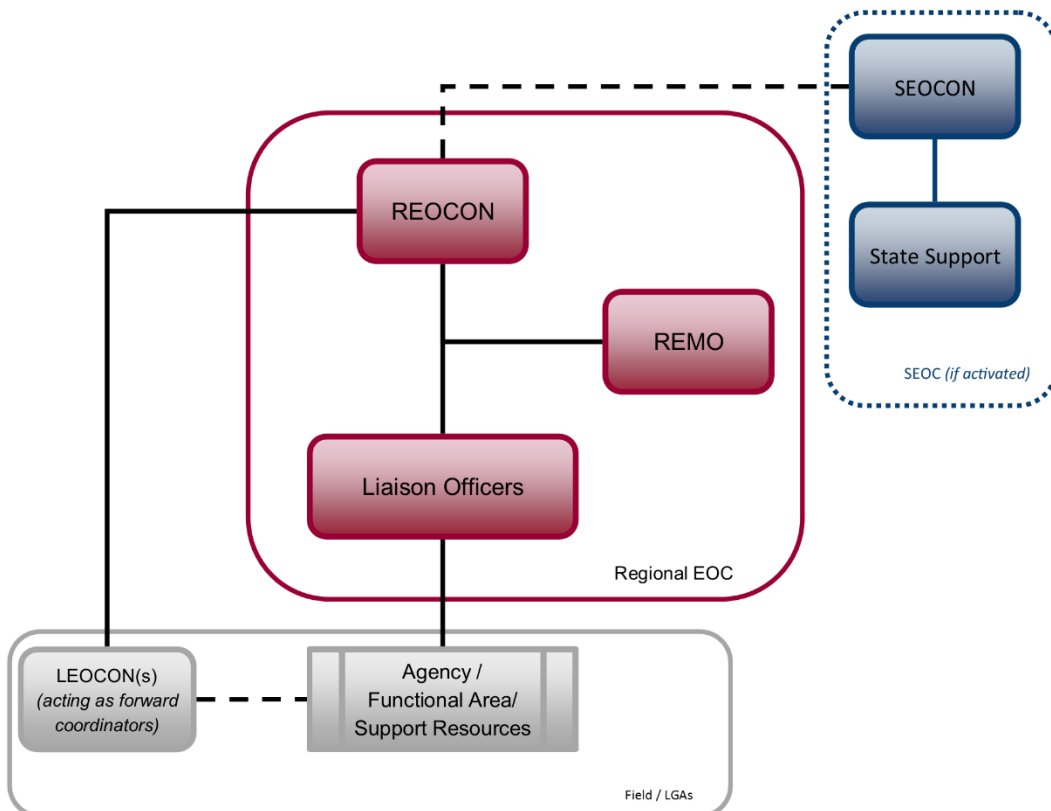
The Region acting as a support mechanism to a Local emergency;



The Region supporting a Combat Agency for a Regional emergency depicted below;



Region controlling a Regional emergency depicted below;



Test and Review Process

The Central West Regional Emergency Management Committee (REMC) will review this Plan every three (3) years as a part of the continuous improvement cycle, or following any:

- Significant Regional change such as boundary changes, Agency/Functional Area/Supporting organisation changes, facilities, etc;
- activation of the Plan in response to an emergency;
- legislative changes affecting the Plan;
- reviews, inquiries and lessons learned that are relevant to the purpose of the plan;
- exercises conducted to test all or part of the Plan.

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Part 2 – Context & Risk Assessment

Annexure A – Regional Profile

General

The Central West Emergency Management Region is characterised by a concentrated settlement pattern of regional centres, small towns and villages. It comprises of 18 Local Government Areas, and covers some 122,560sq. km with a population of approximately 280 000 people.

The Great Dividing Range and Central Tablelands defines the south east of the region, with the landscape flattening out through to the Central West Slopes and Plains distinguishing the west and north-west parts of the Region. Rich volcanic soils and major river systems, including the Macquarie, Castlereagh, Bogan, Namoi, Barwon-Darling and Lachlan Rivers, support a diverse and productive agricultural industry, whilst some areas are being developed and utilised for mining.

The regional cities and their supporting regional centres provide services and high level commercial, residential, cultural and industrial opportunities to their surrounding rural communities. Other smaller towns and villages rely primarily on agribusiness and are also highly reliant on the services and facilities provided in Dubbo Orange & Bathurst. It is of note that there is a strong influence of “communities of association” with some communities aligning with particular regional centres.

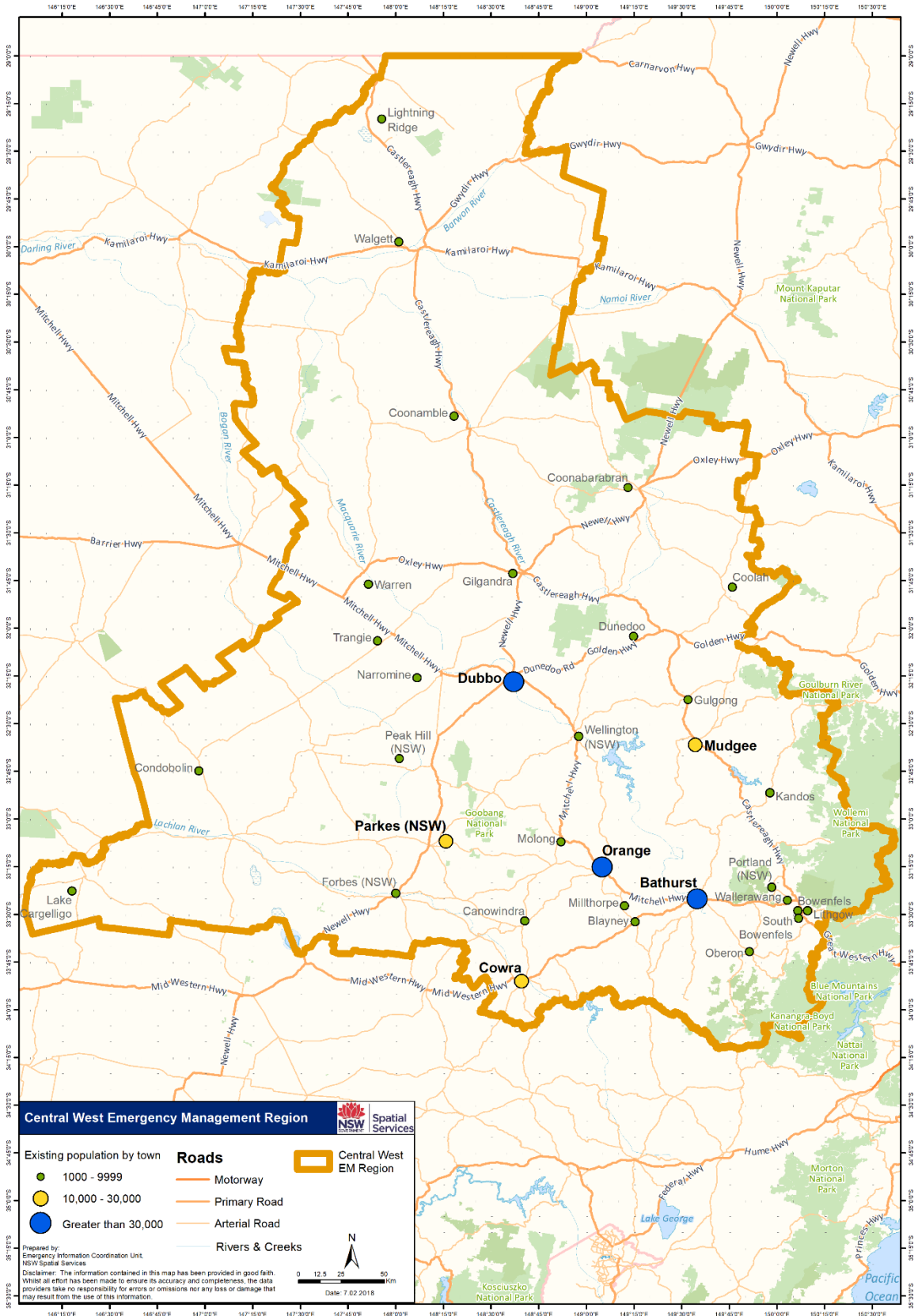
The southern section is home to the regional cities of Orange and Bathurst which are in close proximity to each other, as well as the dispersed local government centres of Lithgow, Oberon, Blayney, Cowra, Molong, Forbes, Condobolin and Parkes.

The northern section is home to the significant regional city of Dubbo. Dubbo is a principal provider of goods, commercial and government services and specialist medical facilities for the rural and remote, western part of NSW. It services towns and villages out to Broken Hill in Far West NSW, as well as the local government centres of Coonamble, Gilgandra, Mudgee, Narromine, Walgett, Warren and Coonabarabran.

Home to a number of tourist destinations including Taronga-Western Plains Zoo and Mount Panorama motor racing circuit, it has diverse landscapes from wetlands to vineyards, grazing to broad-acre farming, alpine to sweeping plains. There are large areas of National Parks and plantation forests.

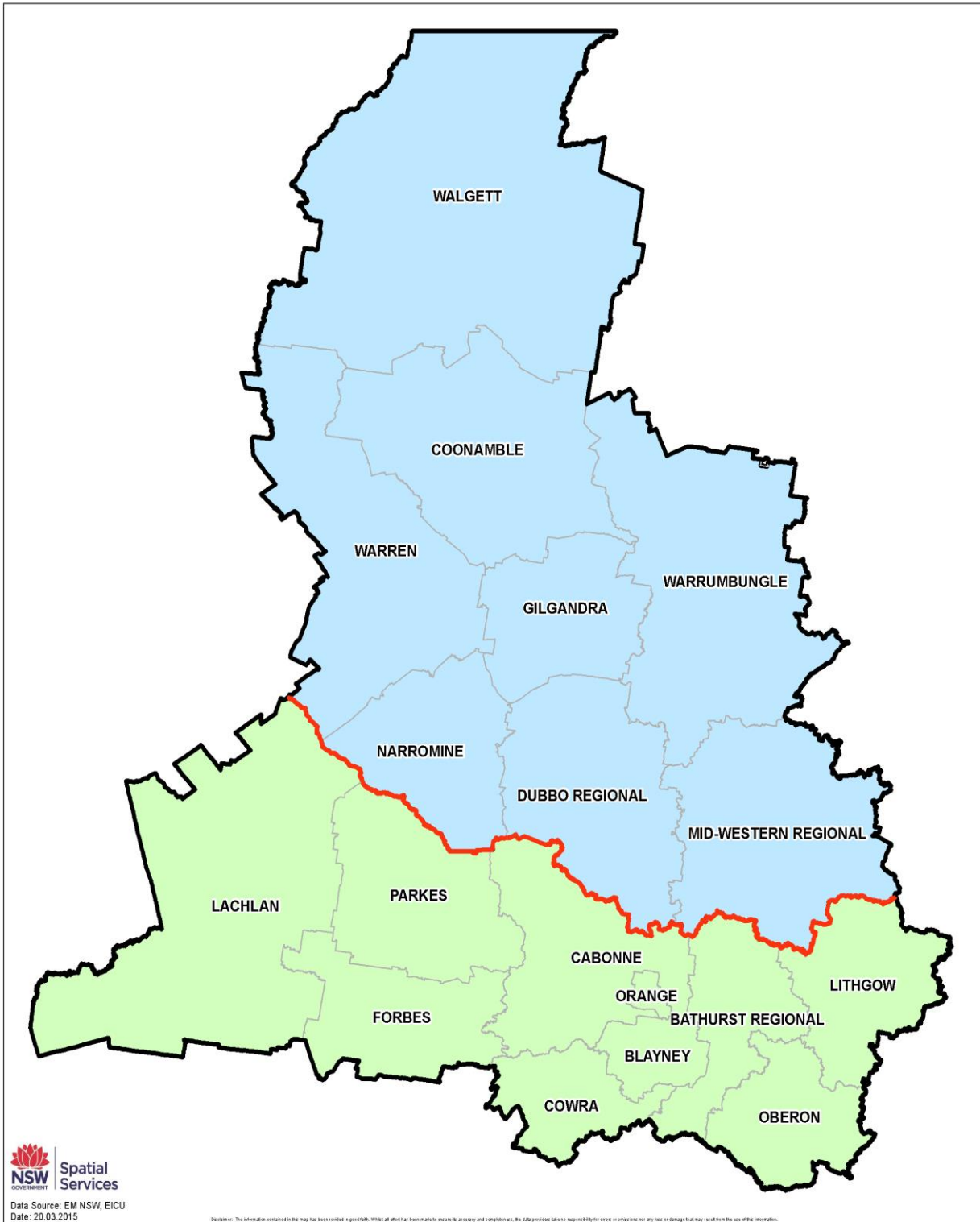
The Central West has strong inter-regional and interstate transport connections and is one of the key ‘gateways’ for freight and passenger transport from and to Western NSW as well as the vital link of the Newell Highway from Victoria to Queensland. It contains the key road networks of the Newell Highway, Mitchell Highway, Castlereagh Highway and Mid-Western Highway, along with the western railway to Broken Hill.

Major Centres and Towns in the Central West Region.



Central West Emergency Management Region Boundaries

The region is divided into 2 sections for the provision of region support via the REMOs. Local Government areas in the Northern section (shaded blue) are supported from Dubbo. Local Government areas in the Southern section (shaded green) are supported from Bathurst.



Boundary Alignments / Weather Forecast Areas / Operational Areas

CENTRAL WEST – Boundary alignments / Forecast areas & Operational areas									
LGA	Towns / Villages	BoM Weather Forecast Area	Fire Weather Districts	RFS FCC	BoM Flood Watch Area	SES Region	Local Land Service Region	Health Districts	Police District
Bathurst	Bathurst, Hill End, Sofala	Central Tablelands	10-Central Ranges	Chifley	37-Macquarie River to Bathurst	Central West	Central Tablelands	Central West 1	Chifley
Blayney	Blayney, Millthorpe, Carcoar, Lyndhurst	Central Tablelands	10-Central Ranges	Canobolas	30-Belubula River	Central West	Central Tablelands	Central West 1	Chifley
Cabonne	Molong, Canowindra, Cudal, Eugowra, Yeoval, Manildra	Central West Slopes & Plains	10-Central Ranges	Canobolas	31-Orange, Molong & Bell River 30-Belubula River 26-Mandagery Creek,	Central West	Central Tablelands	Central West 1	Central West
Coonamble	Coonamble, Quambone, Gulargambone	Central West Slopes & Plains	14-Upper Central West Plains	North West	28-Castlereagh River,	Macquarie	Central West	Central & Far West 2	Orana Mid-Western
Cowra	Cowra, Darbys Falls, Woodstock, Wyangala Gooloogong	Central Tablelands	10-Central Ranges	Canobolas	29-Lachlan River to Cotton's Weir	Lachlan	Central Tablelands	Central West 1	Chifley

CENTRAL WEST – Boundary alignments / Forecast areas & Operational areas									
LGA	Towns / Villages	BoM Weather Forecast Area	Fire Weather Districts	RFS FCC	BoM Flood Watch Area	SES Region	Local Land Service Region	Health Districts	Police District
Dubbo Regional	Dubbo, Wongarbron, Geurie, Wellington	Central West Slopes & Plains	15-Lower Central West Plains	Orana	25-Macquarie River, downstream of Burrendong 31-Orange, Molong & Bell River	Macquarie	Central West	Central & Far West 2	Orana Mid-Western
Forbes	Forbes, Bedgerabong, Ootha, Jemalong	Central West Slopes & Plains	15-Lower Central West Plains	Mid Lachlan Valley	29-Lachlan River to Cotton's Weir 14-Lower Lachlan River	Lachlan	Central West	Central West 1	Central West
Gilgandra	Gilgandra, Tooraweenah, Armatree, Balladoran, Biddon.	Central West Slopes & Plains	14-Upper Central West Plains	Castlereagh	28-Castlereagh River, 25-Macquarie River, downstream of Burrendong	Macquarie	Central West	Central & Far West 2	Orana Mid-Western
Lachlan	Condobolin, Tottenham, Lake Cargellico	Central West Slopes & Plains	15-Lower Central West Plains	Mid Lachlan Valley	14-Lower Lachlan River 19-Bogan River	Lachlan	Central West	Central West 1	Central West
Lithgow	Lithgow, Wallerawang, Portland, Bowenfels	Central Tablelands	10-Central Ranges	Chifley	44-Upper Cocks River	Central West	Central Tablelands	Central West 1	Chifley
Mid-Western	Mudgee, Gulgong, Lue, Kandos, Rylstone, Ulan.	Central Tablelands	10-Central Ranges	Cudgegong	25-Macquarie River, downstream of Burrendong	Macquarie	Central Tablelands	Central & Far West 2	Orana Mid-Western

CENTRAL WEST – Boundary alignments / Forecast areas & Operational areas									
LGA	Towns / Villages	BoM Weather Forecast Area	Fire Weather Districts	RFS FCC	BoM Flood Watch Area	SES Region	Local Land Service Region	Health Districts	Police District
Narromine	Narromine, Trangie, Tomingley	Central West Slopes & Plains	15-Lower Central West Plains	Orana	25-Macquarie River, downstream of Burrendong 19-Bogan River	Macquarie	Central West	Central & Far West 2	Orana Mid-Western
Oberon	Oberon, Black Springs, Jenolan Caves	Central Tablelands	10-Central Ranges	Chifley	37-Macquarie River to Bathurst	Central West	Central Tablelands	Central West 1	Chifley
Orange	Orange City	Central Tablelands	10-Central Ranges	Canobolas	31-Orange, Molong & Bell River	Central West	Central Tablelands	Central West 1	Central West
Parkes	Parkes, Peak Hill, Trundle, Tullamore, Alectown, Bogan Gate	Central West Slopes & Plains	15-Lower Central West Plains	Mid Lachlan Valley	14-Lower Lachlan River 19-Bogan River	Lachlan	Central West	Central West 1	Central West
Walgett	Walgett, Collarenebri, Lightening Ridge	North West Slopes & Plains	13-North Western	North West	45-Gwydir River, 40-Namoi River, 18-Culgoa, Birrie, Bokara, & Narran Rivers, 21-Barwon River 22-The Big Warrambool River,	Macquarie	North West	Central & Far West 2	Central North
Warren	Warren, Nevertire, Collie	Central West Slopes & Plains	14-Upper Central West Plains	North West	25-Macquarie River, downstream of Burrendong	Macquarie	Central West	Central & Far West 2	Orana Mid-Western

CENTRAL WEST – Boundary alignments / Forecast areas & Operational areas									
LGA	Towns / Villages	BoM Weather Forecast Area	Fire Weather Districts	RFS FCC	BoM Flood Watch Area	SES Region	Local Land Service Region	Health Districts	Police District
Warrumbungle	Coonabarabran, Coolah, Baradine, Dunedoo, Mendooran	Central West Slopes & Plains	13-North Western	Castlereagh	28-Castlereagh River, 40-Namoi River, 25-Macquarie River, downstream of Burrendong	Macquarie	Central West	Central & Far West 2	Orana Mid-West

Landform and Topography

Lying entirely within the Murray–Darling Basin, the Central West Emergency Management Region extends from Oberon & Lithgow in the south to Walgett & Lightning Ridge in the north and west as far as Condobolin & Warren and east to Coonabarabran & Mudgee.

The region is characterised by wide valleys and floodplains, with several major Darling River tributaries running through the region. The Great Dividing Range provides the headwaters to Lachlan River and several Darling River tributaries, including the Macintyre, Gwydir, Barwon, Macquarie, Castlereagh, Namoi and Bogan Rivers.

A large proportion of the vegetation in this region has been cleared and modified for agriculture, ranging from pastoralist to broad-acre cropping and irrigation.

Natural ecosystems

This region supports a diverse range of flora and fauna due to its inclusion of the western edge of the Great Dividing Range and extension onto the semi-arid floodplains of western NSW. As such, environmental concerns can become paramount in certain types of emergencies.

Of note, the Macquarie Marshes (Warren LGA) are listed under the Ramsar Convention on Wetlands of International Importance. The site comprises the Macquarie Marshes Nature Reserve and privately-owned wetlands on the property of Wilgara, 20 km east of the reserve between Warren and Carinda. When fully flooded the marsh, area covers more than 150,000 hectares and is one of the most important colonial nesting waterbird breeding sites in Australia. It contains a wide range of vegetation types including river red gum woodland, water couch grasslands, coolibah and black box woodlands, lignum swamps, reed swamps, cumbungi and river cooba. The diversity of vegetation communities within the marshes provides habitat for an array of wildlife including 211 bird species, eight species of native mammal, 15 frog species, 56 reptile species and 24 native fish species.

There are other significant wetlands within the Lachlan catchment, particularly as waterbird habitats, including Lake Cowal near Forbes (Forbes & Lachlan LGAs).

Natural Forests

The Pilliga Scrub between Coonabarabran and Narrabri is the largest remaining dry sclerophyll forest west of the Great Dividing Range in NSW. Pilliga Nature Reserve and Pilliga State Conservation Area together protect over 1,800 square kilometres of this semi-arid woodland. There are other nature reserves in parts of Wollemi, Blue Mountains, Kanangra-Boyd and Gardens of Stone national parks.

National Parks, Nature Reserves & State Conservation Areas

LGA/s	Name	Location	(ha)	Administered by	Considerations [Cultural & Heritage]
Bathurst Regional	Copperhannia Nature Reserve	15kms west of Trunkey	3,497	National Parks and Wildlife	Five Aboriginal sites have been recorded within Nature Reserve
	Eusdale Nature Reserve	30 kilometres south-east of Bathurst	1,238	National Parks and Wildlife	There is an adjoining area of 642ha that is vested in the Minister for the Environment pending its reservation.
	Evans Crown Nature Reserve	40 kilometres south-east of Bathurst.	425	National Parks and Wildlife	Area traditionally occupied by the Wiradjuri Aboriginal people. There are more than 120 bolted climbs in the reserve.
	Wambool Nature Reserve	20 kilometres east of Bathurst near Sofala, Hill End and the Turon River	194	National Parks and Wildlife	Eight historic sites have been recorded within Wambool Nature Reserve consisting of one mining complex, five mines and two modified survey trees.
	Winburndale Nature Reserve	30 kilometres north-east of Bathurst	10,718	National Parks and Wildlife	22 Aboriginal sites have been recorded within Winburndale Nature Reserve, made up of ten modified (scarred) trees, seven isolated artefact finds, three stone arrangements, one artefact open scatter site and one re-burial. 54 historic sites have been recorded within Winburndale Nature Reserve made up of four mining complexes, forty mining elements, one building complex, eight buildings elements (includes fences/yards) and two survey trees.
Cabonne	Nangar National Park	70 kilometres south-west of Orange, 40 kilometres east of Forbes		National Parks and Wildlife	The park is within the Wiradjuri country and administered through the Cowra Local Aboriginal Lands Council

LGAs	Name	Location	(ha)	Administered by	Considerations [Cultural & Heritage]
Cowra	Conimbla National Park	Between Grenfell, Canowindra and Cowra	7,590	National Parks and Wildlife	Wiradjuri country and the Cowra Local Aboriginal Land Council.
Cowra	Dananbilla, Koorawatha, Gungewalla and Illunie Nature Reserves	Between Young, Boorowa and Cowra.	5,385	National Parks and Wildlife	Wiradjuri country and the Young and Cowra Local Aboriginal Land Council
Dubbo Regional	Wongarbon Nature Reserve	1km north of Wongarbon and 15kms south-east of Dubbo	99	National Parks and Wildlife	Was reserved in September 1965 and is significant for its biological and landscape values.
Gilgandra	Biddon State Conservation Area	15kms north-west of Gilgandra.	3,352	National Parks and Wildlife	In the Pilliga sub-region of the Brigalow Belt South Bioregion Weilwan country & Gilgandra Local Aboriginal Land Council
	Breelong National Park	42kms north-north-east of Dubbo, 13kms south-west of Gilgandra	6,969	National Parks and Wildlife	
	Coolbaggie Nature Reserve	30kilometres north-east of Dubbo	1775	National Parks and Wildlife	Tubba-Gah Wiradjuri country
	Drillwarrina National Park	40 kilometres north of Dubbo	1,077	National Parks and Wildlife	It falls within the Brigalow Belt South Bioregion
Lithgow	Gardens of Stone National Park	35 kilometres north of Lithgow	15,010	National Parks and Wildlife	The park adjoins the western boundary of Wollemi National Park.
Mid-Western	Avisford Nature Reserve	5kms south west of Mudgee	2,437	National Parks and Wildlife	
	Goulburn River National Park	Between Mudgee and Sandy Hollow	70,161	National Parks and Wildlife	It lies partly within the local government areas of Mudgee, Merriwa, Rylstone and Muswellbrook.

LGAs	Name	Location	(ha)	Administered by	Considerations [Cultural & Heritage]
Oberon	Abercrombie River National Park	40kms south-west of Oberon and 60kms north of Goulburn. Located within the Oberon, Upper Lachlan and Greater Bathurst Region LGA's	19,000	National Parks and Wildlife	Included in Abercrombie National Park are Silent Creek, Retreat River, and a 42 km stretch of the Abercrombie River.
Orange	Mount Canobolas State Conservation Area	15km south west of Orange	1,672	National Parks and Wildlife	Comprises of the area previously known as Mount Canobolas Park and Mount Canobolas State Recreation Area. The second highest visitor destination in the central west after the Western Plains Zoo. Six Aboriginal sites have been recorded in the SCA, four of these are open campsites, one is a grinding groove stone and the sixth is a rock carving.
	Mullion Range State Conservation Area and Girralang Nature Reserve	North-east of Orange	1,665	National Parks and Wildlife	Not all the old mine shafts have been located or recorded.
Parkes	Goobang National Park	30kms north-east of Parkes	42,080	National Parks and Wildlife	Previously known as Wanda Wandong, Hervey and Bumberry State Forests and Curumbenya Nature Reserve.
	Snake Rock Aboriginal Area	West of Peak Hill	61	National Parks and Wildlife	On the semi-arid plains of central west New South Wales in Wiradjuri Country .
Warren	Macquarie Marshes Nature Reserve	100km north of Warren	150,000	National Parks and Wildlife	Ramsar Convention protected wetlands
Warrumbungle	Binnaway Nature Reserves	30kms south east of Coonabarabran and 10kms north west of Binnaway	3,699	National Parks and Wildlife	Kamilaroi country and is covered by the Gilgandra Local Aboriginal Land Council

LGA/s	Name	Location	(ha)	Administered by	Considerations [Cultural & Heritage]
	Weetalibah Nature Reserves	20kms north west of Coolah and 50kms south east of Coonabarabran	613	National Parks and Wildlife	Wiradjuri country is covered by the Gilgandra Local Aboriginal Land Council
Warrumbungle	Warrumbungle National Park	Between the towns of Coonabarabran, Gilgandra and Coonamble	23,312	National Parks and Wildlife	National Heritage listed in 2006. Approx. 35,000 visitors per annum. Home of the Siding Springs Observatory which is a major tourist attraction. Contains heritage items of local and regional significance, including the Tara Woolshed, Strathmore Homestead, and walking tracks dating from the 1950s. It also contains a range of Aboriginal sites, including rock shelters and sites of cultural significance to the Gamilaraay and Weilwan Aboriginal people.
	Goonoo National Park and	25 kilometres north-east of Dubbo	9,066	National Parks and Wildlife	Tubba-Gah country. They fall within the Pilliga subregion of the
	Goonoo State Conservation Area	25 kilometres north-east of Dubbo	54,522	National Parks and Wildlife	Brigalow Belt South Bioregion and are part of the Brigalow and Nandewar Community Conservation Area.
	Tinkrameanah National Park	south-east of Coonabarabran	969	National Parks and Wildlife	Located in the Brigalow Belt South Bioregion. Gamilaraay (also spelt as Gamileroi, Gomeroi and Kamileroi) country and the Coonabarabran Local Aboriginal Land Council.

Water catchment areas for the Central West

Macquarie-Bogan Catchment

Within the Murray-Darling Basin, the Macquarie-Bogan catchment is regulated by two major storages – Burrendong Dam and Windamere Dam.



The Macquarie-Bogan catchment is in the central-west of NSW. Elevations across the catchment range from 1,300 metres in the mountains south of Bathurst, to less than 100 metres near Brewarrina in the catchment's far north. Below Dubbo, the valley mainly comprises flat alluvial plains with elevations less than 300 metres.

Macquarie-Bogan catchment is 74,800 square kilometres.

The headwaters of the Macquarie River originate in the Great Dividing Range south of Bathurst, with the river flowing north-westerly until it joins the Barwon River near Brewarrina.

Major cities and towns relying on the rivers in the Macquarie-Bogan catchment include Bathurst, Orange and Oberon upstream of Burrendong Dam, and Dubbo, Wellington and Nyngan on the Macquarie River below Burrendong Dam. Mudgee, Peak Hill, Narromine, Warren, Lithgow, and Brewarrina also draw their water from rivers in the catchment.

Macquarie rivers and tributaries

The Fish and Campbells Rivers join to form the Macquarie River near Bathurst, then extends north-west to the Barwon River upstream of Bourke. At Burrendong Dam the Macquarie River is joined by the Cudgegong River, which rises in the Great Dividing Range above Rylstone. Other tributaries include the Turon, Bell, Little and Talbragar Rivers.

The Bogan River rises in the Harvey Ranges near Peak Hill and flows north-west through Nyngan to join the Darling River near Bourke. Near Warren, a series of effluent creeks break away from the Macquarie River, connecting with the Bogan River.

Macquarie major water storage

Burrendong Dam, located on the Macquarie River, is the largest storage in the catchment with a capacity of 1,190,110 megalitres. It provides storage for irrigation, town water, stock and domestic use. Windemere Dam – 353,000 megalitres, provides town water, as well as water for irrigators and other water users. In addition, there are several smaller dams within the catchment area providing town water supplies.

Lachlan Catchment

The Lachlan catchment features a broad geographic diversity that includes the temperate forests, woodlands and grasslands of the east, and the semi-arid woodlands, mallee and shrublands of the west. A large range of native vegetation makes up 40 per cent of the catchment.



Located in central NSW and west of the Great Dividing Range, the Lachlan catchment borders the Murrumbidgee catchment to the south and the Darling catchment to the north.

The Lachlan catchment occupies an area of around 90,000 square kilometres. Its landscape varies markedly from east to west as it moves from the headwaters and tablelands through the slope of the middle catchment to the flat western plains.

Major rural centres drawing their water from the Lachlan catchment are Cowra, Parkes, Forbes and Young. Smaller towns in the catchment include Crookwell, Grenfell, West Wyalong, Condobolin, Hillston and Lake Cargelligo.

Lachlan rivers and tributaries

The Lachlan River rises near Gunning and travels approximately 1,400 kilometres to its junction with the Murrumbidgee River. Nearly 1,300 kilometres of its total length is regulated. Very little water from the Lachlan River reaches the Murrumbidgee except during major floods. Most is taken up by water users or provides inflows to the wetlands in the lower Lachlan, particularly the Great Cumbung Swamp.

Lachlan major water storages

With a capacity of 1.22 million megalitres, the Wyangala Dam is the main regulating storage in the Lachlan catchment. It provides a regulated water source for irrigators and towns along the Lachlan River. Several natural lakes have also been modified for use as storages, the largest of these being Lake Cargelligo at 36,000 megalitres, and Lake Brewster at 154,000 megalitres. Carcoar Dam, at 35,800 megalitres, is a relatively small storage on the Belubula River and supplies water for irrigation, stock and domestic use within the Belubula valley.

Castlereagh Catchment

The Castlereagh catchment is part of the Murray-Darling Basin in central-western NSW. The Castlereagh is an unregulated river that has no major storages.



Streamflow's are highly variable, and the large sandy bed of the river often dry. The Castlereagh River begins in the Warrumbungle Ranges near Coonabarabran, and flows north-west for 549 kilometres to its confluence with the lower Macquarie River. The Castlereagh catchment is bordered by the Namoi catchment to the east and the Macquarie-Bogan catchment to the west.

The Castlereagh catchment drains an area of 17,400 square kilometres with elevations ranging from 850 metres in the east, to less than 200 metres on the floodplains north-west of the catchment.

The majority of the catchment's population lives in the major towns of Coonabarabran, Gilgandra and Coonamble, along the river. Smaller villages include Binnaway, Gulargambone and Mendooran.

Castlereagh Rivers and tributaries

The Castlereagh River rises in the Warrumbungle Range and flows east to Coonabarabran, then south to Binnaway, before sweeping around to the north-west where it enters the Macquarie River north of Carinda. Downstream of Gulargambone, many smaller creeks and streams join the Castlereagh River, forming a floodplain that carries flows between the Castlereagh and Barwon Rivers during floods.

Namoi Catchment

The Namoi River is one of the Murray-Darling Basin's major sub-catchments in New South Wales. The Peel River is a major regulated tributary to the Namoi. The town of Tamworth on the Peel River, is the largest urban centre in the catchment.



Located in north-western NSW, the Namoi catchment borders the Gwydir and Castlereagh catchments and is bound by the Great Dividing Range in the east, the Liverpool Ranges and Warrumbungle Ranges in the south, and the Nandewar Ranges and Mount Kaputar to the north. Elevations range from over 1,500 metres to the south and east, to just 100 metres on the alluvial floodplain of the lower catchment west of Narrabri.

The Namoi catchment includes its major regulated tributary the Peel River. Catchment area is about 42,000 square kilometres from the Great Dividing Range near Tamworth, to the Barwon River near Walgett. It is over 350 kilometres long, stretching from Bendemeer in the east to Walgett on the western boundary.

The Peel River has a catchment area of around 4,700 square kilometres and contributes an average annual volume of approximately 280,000 megalitres to the Namoi River.

Tamworth, on the Peel River, is the largest urban centre. The smaller towns, Gunnedah and Narrabri are on the Namoi River. There are a number of additional smaller towns throughout the catchment, such as Barraba, Boggabri, Manilla, Quirindi, Walgett, Wee Waa and Werris Creek.

Namoi rivers and tributaries

The Namoi River rises in rugged ranges near Tamworth, forming a complex pattern of creeks and streams before joining the Barwon River at Walgett. Its main tributaries are the Manilla and Peel rivers, joining the Namoi upstream of Boggabri, and Coxs, Pian, Narrabri, Baradine and Bohena creeks joining below Boggabri. The river has developed an extensive floodplain, with around a quarter of the basin prone to flooding.

Major tributaries of the Peel River are Goonoo Goonoo Creek, Cockburn River, and Dungowan Creek.

Namoi major water storages

Keepit Dam, with a capacity of 426,000 megalitres, is the major irrigation storage for the Namoi catchment. Split Rock Dam – 397,000 megalitres, augments the supply from Keepit Dam as well as supplying users along the Manilla River. Chaffey Dam, with a 62,000 megalitres capacity, regulates the flow of the Peel River and augments water supply to Tamworth.

Source: Water NSW

Climate

Temperature

Days Per Year Above 35°C

Currently the region experiences fewer than 10 hot days per year in the Central Tablelands weather district. Parkes and Forbes, in the Central West Slopes and Plains, experience an average of 20–30 hot days each year, and the western plains have over 50 hot days each year.

Days Per Year below 2°C

The number of nights per year where minimum temperatures reach below 2°C also varies greatly across the region. In the Tablelands, up to 130 cold nights are recorded per year, while the number of cold nights reduces sharply moving west, with fewer than 20 per year recorded west of Nyngan.

Snowfalls in the Central Tablelands have the potential to close roads around Orange, Bathurst, Oberon and surrounds.

Rainfall

Rainfall varies considerably across the region, with the annual average rainfall in the range of 400–800 mm. The Central Tablelands typically receive rainfall of 800-1200 mm per year, whereas the western plains receive only around 400 mm per year.

Fire weather by Fire Weather Districts

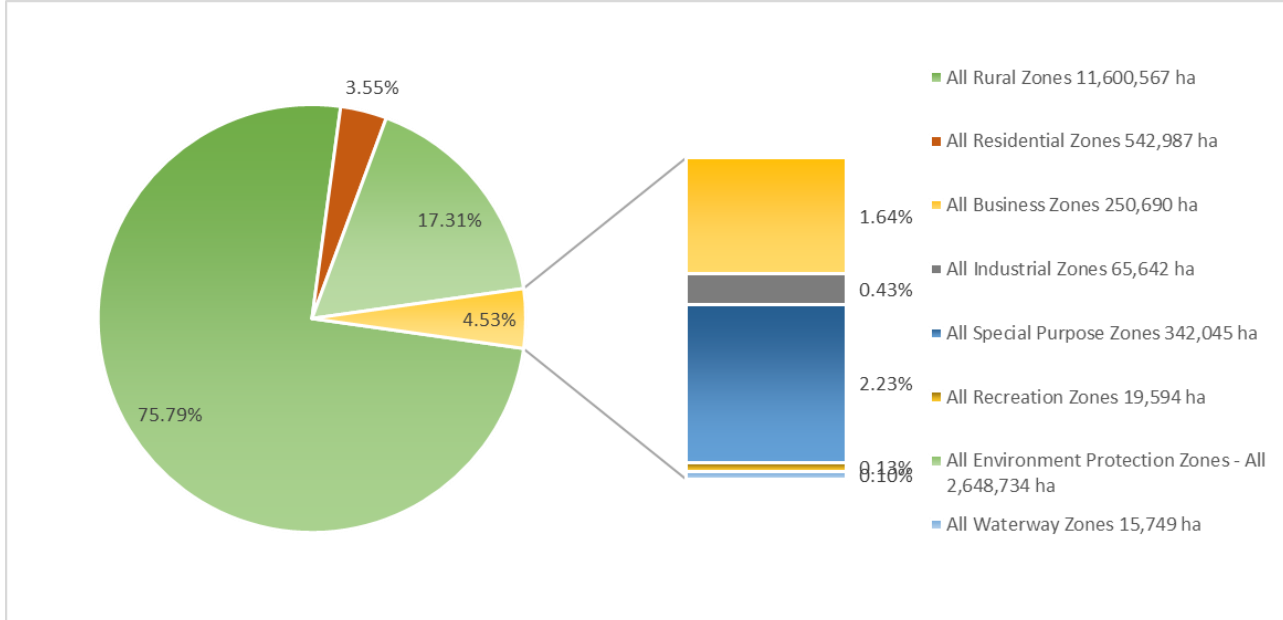
This table gives the number of days per year that a fire weather area had a rating of Severe or higher.

Year	Central Ranges	Lower Central West Plains	Upper Central West Plains	Far West
2017	5	7	2	6
2016	0	6	4	1
2015	0	2	2	0
2014	5	9	7	0
2013	8	11	6	2
2012	0	0	0	2

Land Use

Land use in the region is dominated by primary production, both in grazing and broadacre cropping, and national parks/environmentally managed areas.

Local Environment Plans Combined Zones



The table below depicts detail of land usage particularly relating to primary production. Of note is the variance between the western parts of the Emergency Management Region (listed as Central West in the table) and the eastern parts (Central Tablelands). The Central west is approximately 3 times the size of the Central Tablelands.

Land Use	Central West	Central Tablelands	Total	%
Grazing Modified Pastures	4,687,663	1,754,389	6,442,052	52.39%
Dryland Cropping	2,339,930	171,201	2,511,131	20.42%
Other minimal use	608,050	425,321	1,033,371	8.40%
Grazing native vegetation	563,672	0	563,672	4.58%
Production Forestry	284,925	102,111	387,036	3.15%
Nature Conservation	173,442	431,794	605,236	4.92%
Irrigated Cropping	133,309	3,881	137,190	1.12%
Water	109,257	26,293	135,550	1.10%
Urban Intensive uses	105,396	38,138	143,534	1.17%
Land in transition	52,939	5,755	58,694	0.48%
Rural Residential and Farm Infrastructure	35,785	32,903	68,688	0.56%
Other Protected areas including indigenous uses	23,834	20,660	44,494	0.36%
Plantation Forestry	20,891	94,819	115,710	0.94%
Irrigated Pastures	14,980	8,597	23,577	0.19%
Mining & Waste	4,242	4,293	8,535	0.07%
Irrigated Horticulture	2,469	9,939	12,408	0.10%
Intensive Animal & Plant Production	965	1,269	2,234	0.02%
Dry land Horticulture	298	3,386	3,684	0.03%

Source: Natural Resources Commission

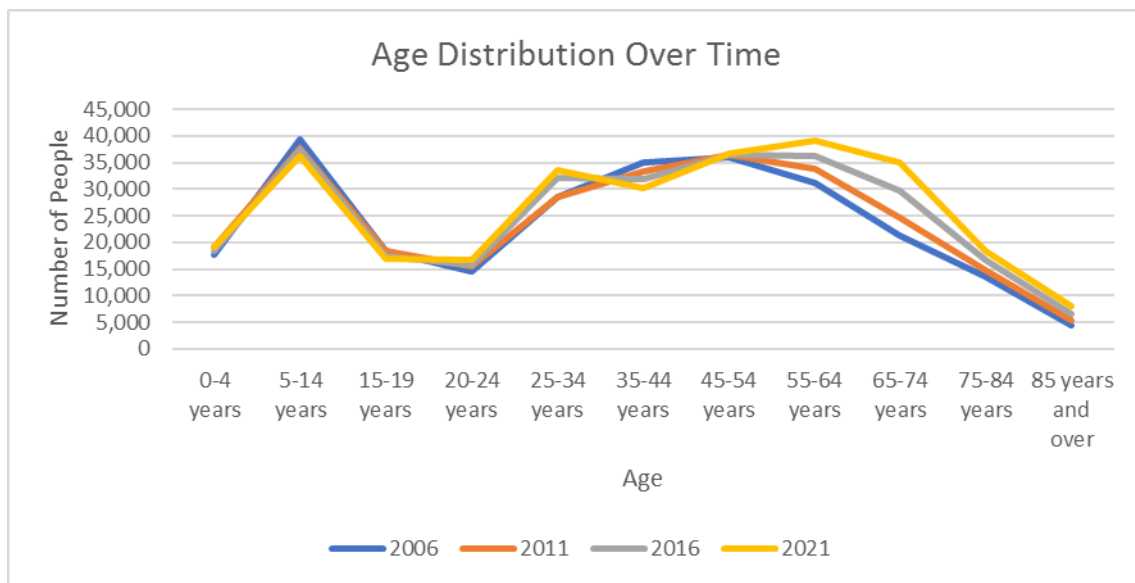
Land Use Zone / Type / Classification	Area (ha)	Land Use Zone / Type / Classification	Area (ha)
Rural Zones		Industrial Zones	
Rural Zone- <i>Not further described by LGA</i>	1647123.6	Industrial Zone – <i>Not further described by LGA</i>	61739.655
RU1 Primary Production	9665756.8	IN1 General Industrial	1527.02
RU2 Rural Landscape	93460.23	IN2 Light Industrial	913.21
RU3 Forestry	157900.78	IN3 Heavy Industrial	1461.92
RU4 Primary Production Small Lots	26212.61	Special Purpose Zones	
RU5 Village	5113.07	Special Purpose Zone– <i>Not further described by LGA</i>	7738.05
RU6 Transition	5000	SP1 Special Activities	289095.47
Residential Zones		SP2 Infrastructure	43458.91
Residential Zone – <i>Not further described by LGA</i>	471718.5	SP3 Tourist	1752.4
R1 General Residential	7819	Recreation Zones	
R2 Low Density Residential	4589.43	Recreation Zone – <i>Not further described by LGA</i>	15476.1
R3 Medium Density Residential	162.02	RE1 Public Recreation	3235.36
R5 Large Lot Residential	58698.22	RE2 Private Recreation	882.31
Business Zones		Environment Protection Zones	
Business Zone – <i>Not further described by LGA</i>	249732.3	Environment Protection Zone – <i>Not further described by LGA</i>	2038945
B1 Neighbourhood Centre	35.98	E1 National Parks and Nature Reserves	508841.88
B2 Local Centre	175.86	E2 Environmental Conservation	4454.01

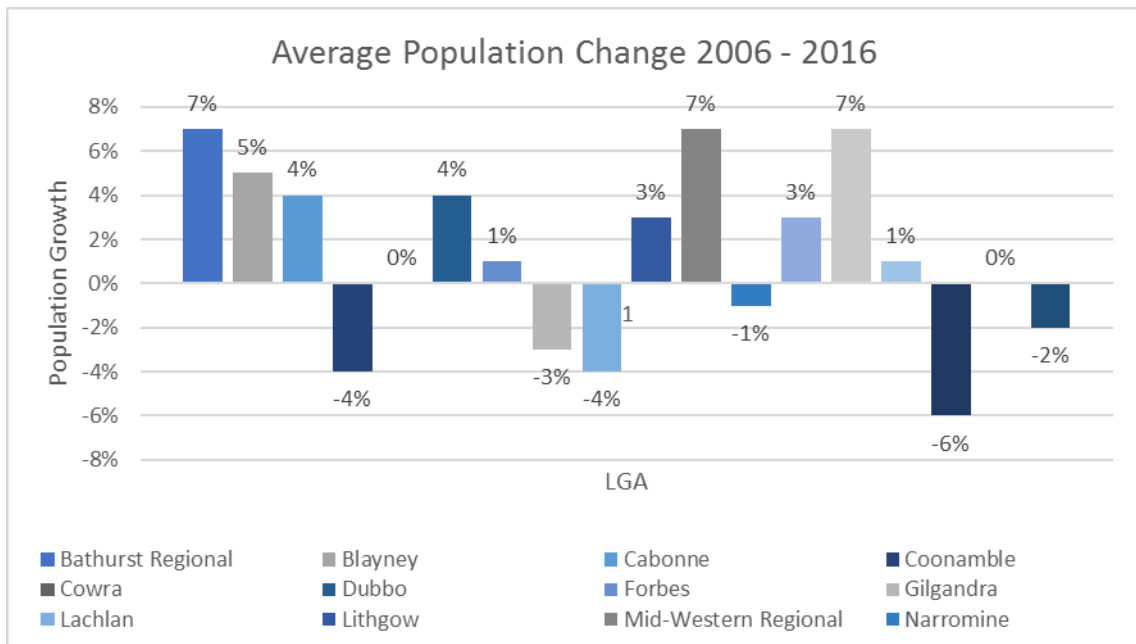
Land Use Zone / Type / Classification	Area (ha)	Land Use Zone / Type / Classification	Area (ha)
B3 Commercial Core	177.13	E3 Environmental Management	95012.49
B4 Mixed Use	95.97	E4 Environmental Living	1480.39
B5 Business Development	241.15	Waterway Zones	
B6 Enterprise Corridor	101.87	Waterway Zone – Not further described by LGA	12339
B7 Business Park	129.33	W1 Natural Waterways	1153.71
		W2 Recreational Waterways	2255.85
		Unclassified	9692

Population and People

The region has an overall population of approximately 278 501 as at the 2016 census, with the major population centres being Dubbo (37 125), Bathurst (36 013), Orange (39 755), and Parkes (11 258). These centres are the principal service centres for the region.

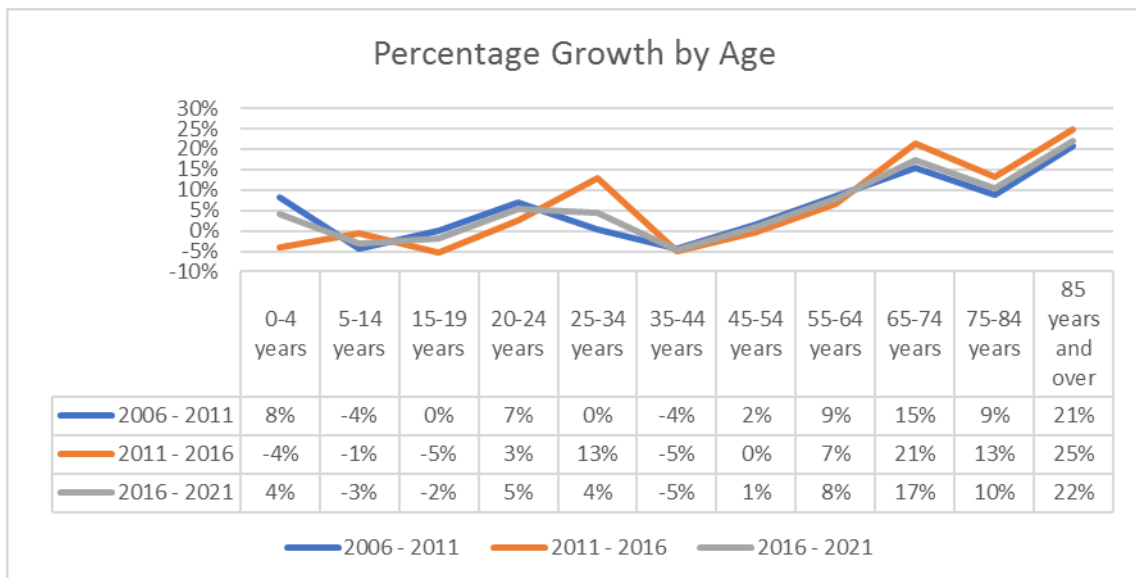
The population in the region is growing at an average of approximately 5% over the last 12 years, which is above the national average population growth of 1.4%. However, this growth is centred around the larger population centres, with populations in smaller LGAs declining.





Age Distribution

Age distribution in the region has remained largely unchanged in the past 12 years with the greatest numbers of people in 25 to 64-year-old categories. Census data shows substantial growth of 16% in the number of persons over 65 years of age. This is well above the 5% average growth of the Region.



Aboriginal and/or Torres Strait Islander persons

Aboriginal	26 004 persons
Torres Strait Islander	367 persons
Both Aboriginal and Torres Strait Islander	432 persons
Total	26 778 persons

This represents an average of 10% of our population with representation highest in Coonamble LGA (30%), Walgett LGA (29%) and Narromine LGA (20%)

Language Spoken at Home

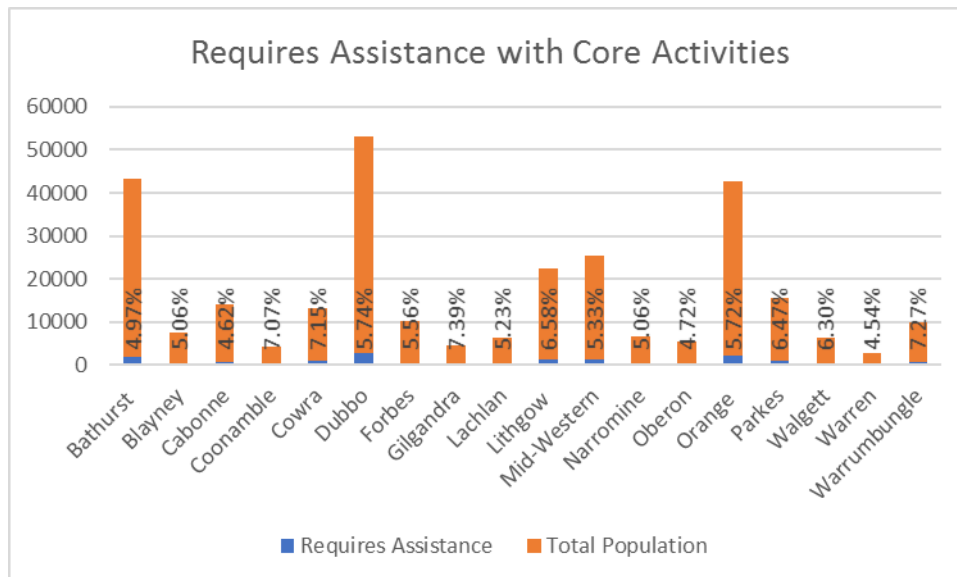
English Only	243 212 persons
Other language	10 254 persons

96% of our population speaks only English at home.

Core Activity Need for Assistance

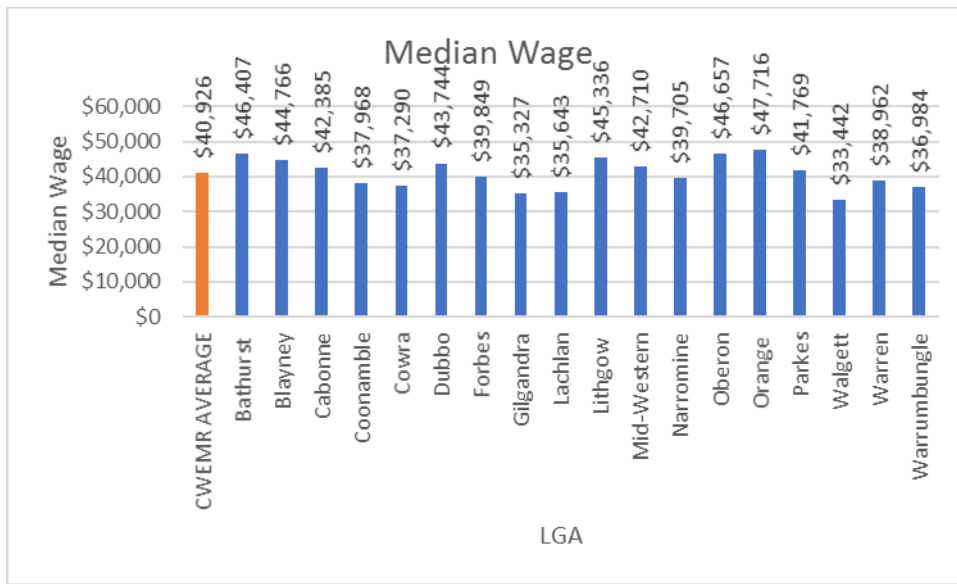
This statistic from the ABS measures the number of people with a profound or severe disability.

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.



The combined total of persons requiring assistance for the Central West EMR is 15 937. This represents 5.72% of our total population.

Median Wage

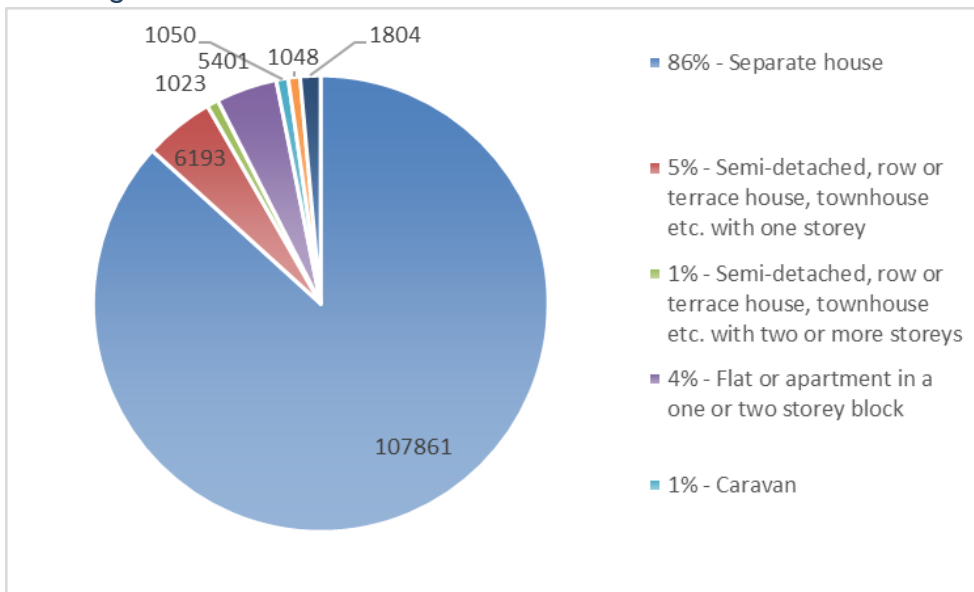


The median wage in the Central West is \$40,926.

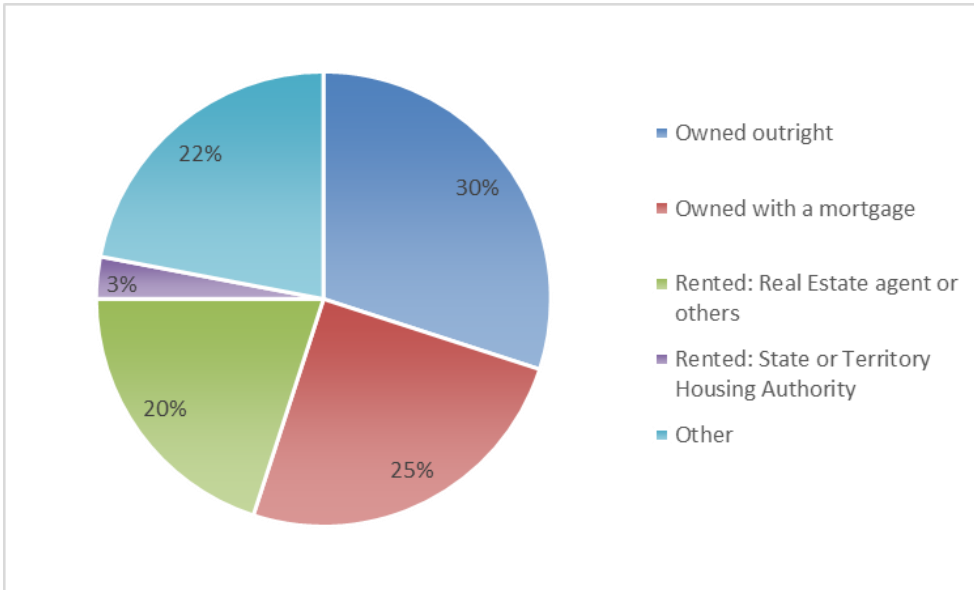
Housing

Housing in the Central West emergency management Region comprises largely of single dwellings. The small amount of medium density housing occurs in Bathurst, Orange and Dubbo, with these predominately being heritage properties. Rental properties equate to approximately 45% of the total housing in the Central West.

Dwelling Structures

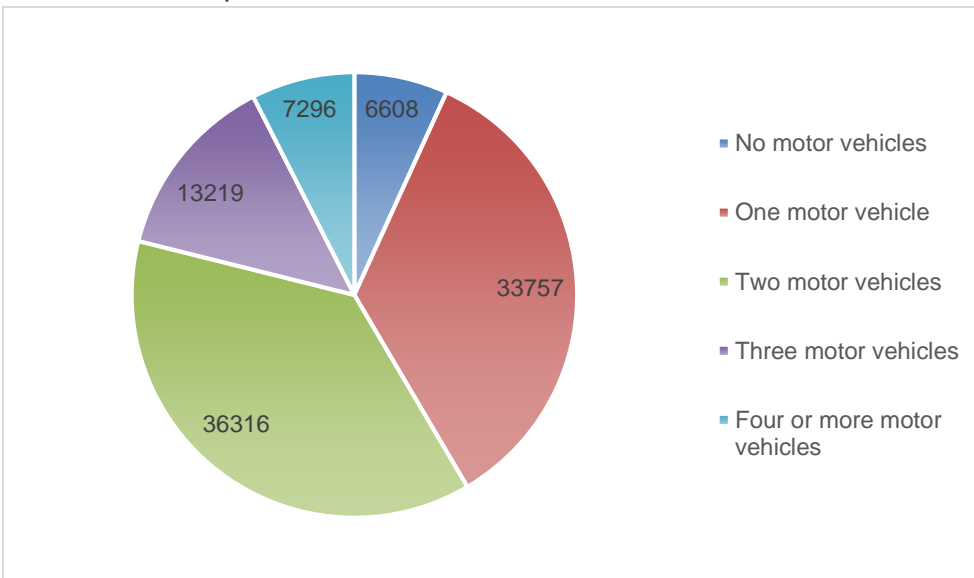


Tenure



Motor Vehicles

Motor Vehicles per household



Employment

At the 2016 Census, 116 516 persons indicated their industry of employment in the Central West EM Region.

The top ten employment fields are listed below.



Across the Central West EM Region, 8.97% of the workforce is employed in Agriculture. LGAs with more than 20% of their workforce in this field include Coonamble, Gilgandra, Lachlan, Narromine Walgett, Warren and Warrumbungle.

Preschool and School Education (Kindergarten to Year 12) industries, across both public and private, are significant employers in LGAs with some LGAs registering up to 10% of their working population in this industry.

In Orange LGA, hospitals, public administration and education facilities are the greatest employers. Whilst food product manufacturing in Bathurst, Blayney, Cabonne and Cowra LGAs is above the region average.

Social aspects of the Central West

Towns and Local Government Areas in the Central West have a strong sense of community, and there are strong ties with communities of association. Smaller towns and villages naturally associate with larger towns and regional centres. As such, levels of service providers and government departments are at higher levels in Dubbo, Bathurst, Orange and Parkes.

Experience has shown that throughout the Central West, there is a strong desire for members of communities to be supported and led, by locals, both elected and statutorily appointed. Whilst volunteering in general is declining in the area, anecdotal evidence shows that levels of community service rise during and after emergencies.

Regular organised sporting activities and clubs are an important part of many families lives in the Central West with good participation levels across all ages and sports.

Mass Gatherings and Events

Many local governments actively organise and/or promote events and festivals and these are well supported by communities and businesses in the area. These occur alongside some of the larger and more widely recognised events such as the annual Bathurst 1000 motor race and are scattered across the year

- Parkes Elvis Festival
- Trundle ABBA Festival
- Trundle Bush Tucker Festival
- Australian National Agricultural Field Days (Boronore near Orange)
- Mudgee Small Farm Field Days
- Ironfest – Lithgow
- Various Sporting Carnivals
- Picnic races
- Anzac Day Ceremonies
- Australia Day Ceremonies

Transport Routes and Facilities

Road Networks

The Region is traversed by several National Highways including:

Highway	To & From	Daily Movements	Trucks	Cars	Direction	Station Id	Year
Great Western	Lithgow, Bathurst.	8,320	18%	82%	E-W	6105	2017
Newell	Coonabarabran, Dubbo.	3,211	30%	70%	N-S	6146	2017
	Dubbo, Forbes.	2,786	35%	65%	N-S	6152	2017
Mitchell	Bathurst, Dubbo.	2,565	22%	78%	N-S	6169	2017
	Dubbo, Nyngan.	1,281	23%	77%	E-W	TO242	2017
Golden	Cassilis, Dunedoo, Dubbo.	2,086	21%	79%	E-W	6163	2017
Castlereagh	Lithgow, Mudgee, Dunedoo.	1951	10%	90%	N-S	99274	2009
	Dunedoo, Mendooran, Gilgandra.	875	13%	87%	E-W	99824	2009
	Gilgandra, Coonamble, Walgett.	783	16%	84%	N-S	93153	2009
Mid-Western	Bathurst, Blayney, Cowra, Grenfell.	1646	17%	83%	E-W	93101	2009
Oxley	Gunnedah, Coonabarabran.	620	15%	85%	E-W	92055	2011
	Gilgandra, Warren, Nevertire.	554	19%	81%	E-W	96047	2009
Gwydir	Moree, Collarenebri, Walgett.	361	29%	71%	E-W	96123	2009
Kamilaroi	Narrabri, Wee Waa, Walgett.	263	38%	62%	E-W	96524	2009
	Walgett, Brewarrina.	250	39%	61%	E-W	96070	2009

Source: Transport, Roads & Maritime Services – Traffic Volume Viewer.

Road Freight estimates

- 3 Million Tonnes of freight is transported north along the Newell Highway per annum
- 3 Million Tonnes of freight is transported east along the Great Western Highway per annum

Source: Regional Development, NSW Central West Freight Study

Rail Networks

Passenger Rail

Passenger rail services connect the major centres of the Central West region. NSW TrainLink trains operate daily from Dubbo via Orange, Bathurst and Lithgow to Sydney and return. The electric InterCity train network runs as far as Lithgow, and since the introduction of the Bathurst Bullet express service in October 2012, daily return services now operate between Sydney and Bathurst.

The Broken Hill Outback Xplorer train operates once a week from Sydney via Lithgow, Bathurst, Blayney and Parkes. A private coach service (Australia Wide Coaches) also provides a daily

return service from Orange and Bathurst to Central Sydney and Sydney Airport. An extensive network of NSW TrainLink coaches connects smaller communities of the Central West region with rail services at Dubbo, Bathurst, Orange and Lithgow.

The Great Southern Rail service also transverse the Central West with the Indian Pacific travelling from Sydney to Perth weekly, during the Wildflower Season in Western Australia the Indian Pacific sometimes doubles the amount of carriages taking the capacity to approx. 400 passengers.

Rail Freight

Train services across the Central West are a mixture of general freight, grain, minerals, coal and passenger. General freight is a broad category that includes interstate intermodal services, regional container shuttles and a steel train that runs through the Central West from Whyalla in South Australia to Newcastle, as a general rule of thumb have a payload of approx. 5,000 tonnes of which 25% is hazardous materials. Mineral services carry containerised mineral concentrates to Port Kembla and the Port of Newcastle, coal is carried from the Lithgow LGA to Port Kembla.

Rail Freight estimates;

- 3 Million Tonnes of freight moves west to east through the Central West
- 1 Million Tonnes of freight moves from Dubbo Region to Sydney and Port Kembla
- 5 Million Tonnes moves east through Lithgow to Sydney and Port Kembla

Source: Regional Development, NSW Central West Freight Study

Air Transport

Key Airports

Regional flight slots at Sydney Airport determine the convenience of air travel for regional communities accessing Sydney by air.

The Aircraft Classification Number/Pavement Classification Number (ACN/PCN) are systems of classification of pavement load carrying capacity is a procedure whereby the loading characteristics of an aircraft are compared with the supporting capacity of a pavement.

Dubbo City Regional Airport

Dubbo is a 'Certified Aerodrome' and one of the leading regional airports in Australia, with four major airlines providing around 200 flights per week to and from Dubbo, Sydney, Brisbane, Melbourne, Canberra, Newcastle, Cobar and Broken Hill, which service more than 200,000 passengers per year.

The pavement of Runway 05/23 is rated in the Airservices Australia publication 'En-Route Supplement Australia' (ERSA) as having an overall Pavement Concession Number of 14.

The runway surface and subgrade strength category are flexible A and B respectively with a maximum aircraft tyre pressure of 700 kPa.

The runway is classified by the Civil Aviation Safety Authority as a Code 3 non-precision instrument runway.

NOTE: A pavement overlay will be conducted early 2018 once completed the expected PCN should be 19.

<http://www.dubboairport.com/Airport/home>

Parkes Regional Airport

The Parkes Regional Airport is a major gateway to the region and is located 5 kilometres east of Parkes off the Henry Parkes Way (Orange Road). The airport is serviced by Regional Express (REX) which provides regular passenger services between Parkes and Sydney. REX transports some 35,000 passengers annually.

<https://www.parkes.nsw.gov.au/living-here/your-community/airport/>

Orange Airport

The airport is owned, operated and maintained by Orange City Council. The airport is located 15 kilometres south east of Orange. By car, the airport is 15 minutes' drive from the centre of Orange.

Regional Express Airlines provides regular passenger services between Orange and Sydney. The annual passenger numbers are between 55,000 and 60,000. The airport services a large regional area with 25 return flights to Sydney each week.

<http://www.orange.nsw.gov.au/site/index.cfm?display=147100>

Bathurst Regional Airport

Bathurst Regional Council owns and operates the Bathurst Aerodrome which provides a full range of aviation facilities for the benefit of the community, corporate and professional sectors. Regional Express Airlines (REX) provide daily services to Sydney, currently flying 24,000 passengers per year.

Common aircraft in use include light single engine, helicopters, large twin engine, turbo-prop 35-seater passenger, and business jets; totalling 8,000 landings per year.

Aircraft fuelling facilities for aviation gas and jet aircraft.

Provision and co-ordination of aircraft parking for Mount Panorama race events.

<https://www.bathurst.nsw.gov.au/community/facilities/bathurst-regional-airport.html>

Air Freight

Regular Public Transport (RPT) flights operate between Sydney Airport (Mascot) and Bathurst, Orange and Parkes. These are operated by Regional Express Airlines (REX) utilising 34 seat Saab340 aircraft. Each flight carries on average approximately 25 kilograms of freight. With 61 flights per week in the Central West this amounts to 1.5 tonnes of freight per week or approximately 80 tonnes per year.

Toll Aviation operates air freight on behalf of Toll Priority. Toll Aviation has bases in Brisbane, Bankstown and Adelaide. A number of aircraft operate out of Bankstown for regional ports during weekdays. These include two Piper Chieftain twin-engine aircraft owned by AFS/Parkes Aviation and running to Bathurst, Orange, Parkes and Dubbo. Each Piper Chieftain carries on average 300 kg out of Bankstown per day and returning to Bankstown five days per week. This approximates 9 tonnes of freight per week and 450 tonnes per year.

Source: NSW Central West Freight Study 2014.

Figure 5 Major corridors to and from the Central West region



Source: Central West Regional Transport Plan

Economic & Industry

Primary Production and Agriculture

The Central West region has a strong and diverse agriculture sector with major crops, fruits and livestock including wheat, cotton, apples, grapes, beef and lamb. Significant broadacre crops in the region include wheat, barley, oats, canola, sorghum, maize, lupins and triticale. Dairy cattle and meat cattle are prominent types of livestock with a dominance in sheep production. The Central West is also a producer of poultry, with a focus on egg rather than chicken meat production. The number of livestock in the region contributed 16.6% to total NSW production and 5.3% to total Australian production.

The region produces significant quantities of fruit. Overall, the NSW Central West produced 12.2% of Australia's nectarines (and 82.7% of New South Wales' nectarines), 6.4% of Australia's apples and 4.4% of Australia's cherries. Organic agriculture and alternative fruit crops such as hazelnuts, figs and feijoas are currently being evaluated as alternative crops for the tablelands and to provide a source of varietal propagation material which could present opportunities for diversification.

The timber industry in the region contributes significantly to the local economies centred around Orange, Lithgow, Oberon and Bathurst. The Forestry Corporation manages 70,000 hectares of plantation grown Radiata pine, which is used extensively for housing, medium density fibre boards and laminated timbers. Forestry continues to be an evolving industry supplying timber to meet new housing markets, energy production, carbon storage, and traditional crop and meat based agriculture through farm forestry.

Source: NSW Central West Region Export/Import Contribution Study, 2014, A.P.Sheere Consulting – Investment Opportunities 2013, Forestry Corporation, World Forestry Day highlights importance of forests in the Central West, 19 Mar 2013.

- The Agriculture and Forestry sector continues to be an important industry within the Central West region. The Gross Regional Product Contribution is \$709.52 million, accounting for 7.3% of the region's GRP, higher than the State average (1.6%).
- The Agriculture, Forestry and Fishing sector employed approximately 6,842 residents in 2011 representing 9.3% of the region's resident workforce.
- The Agriculture and Forestry sector accounted for 7.3% of the region's GRP, higher than the State average (1.6%). **\$709.52 million**
- The import value of the Agriculture and Forestry sector is \$173.3 million, representing 4.1% of total imports. **\$173.3 million**
- The export value of the Agriculture and Forestry sector is \$1.3 billion, representing approximately 20% of total exports. **\$1.3 billion**

<http://www.investnswcentralwest.com.au/industries/agriculture-and-forestry/>

Mining

Other economic strengths of this part of the region lie in manufacturing and mining, including coal mining concentrated around Lithgow and Mudgee, as well as rare earth products such as opals, zirconia, gold, silver and copper mining in other parts of the region.

The Central West has a strong mining industry which is an important contributor to the regional economy in terms of GRP and employment. Prospects for the sector are bright given excellent prospective geology, quality infrastructure, a highly skilled local workforce and anticipated increased future demand for minerals.

The Mining Sector's Gross Regional Product Contribution is \$2.1 billion, accounting for 21.9% of the region's GRP, significantly higher than the State average (3.1%).

The Mining sector employed approximately 3,620 residents in 2011 representing 4.9% of the total workforce.

- Industry Gross Regional Product Contribution \$2.1 billion the Mining sector accounted for 21.9% of the region's GRP, significantly higher than the State (3.1%) average.
- Import Value \$282 million the import value of the Mining sector represented 6.7% of total imports.
- Export Value \$2.6 billion the export value of the Mining sector represented 38.8% of total exports.

Gold and Copper Mining

Cadia Valley Operations (CVO), is one of Australia's largest gold mining operations, located near Orange. The site contains 3 mines producing predominantly gold and copper. CVO is wholly owned and operated by Newcrest Mining Limited. The majority of production from CVO mines is transported by rail to Port Kembla for shipment to smelters in the East Asia region, primarily Japan and South Korea. For further information visit: <http://www.newcrest.com.au/our-business/operations/cadia-nsw/>

The Northparkes mine is located 27 kilometres north west of Parkes and is a joint venture between China Molybdenum Co., Ltd (CMOC) (80%) and the Sumitomo Groups (20%). Northparkes high-grade copper concentrate is transported by road train and rail to Port Kembla where it is primarily shipped to Japan, China and India. For further information visit: <http://www.northparkes.com/about.aspx>

The McPhillamys Gold Project, located near Blayney is owned by Regis Resources Ltd, an Australian gold production and exploration company. This project is currently awaiting a final investment decision for the construction phase. For further information visit: <http://www.regisresources.com.au/General/about-regis-test.html>

Coal production

The majority of coal mining is situated in the Lithgow LGA with a significant presence from Centennial Coal and other major producers including Coalpac, Xstrata and Energy Australia. Japan is the largest export destination for coal from the Lithgow region, followed by China, Korea and Taiwan.

Source: NSW Central West Region Export/Import Contribution Study, 2014

Ulan Coal Mines Limited (UCML) is a joint venture between Glencore Coal Assets Australia Pty Limited (Glencore) (90%) and Mitsubishi Development (10%). The Ulan Underground Mine, the Ulan West Underground mine, the Open Cut mine and land holdings including the Bobadeen Irrigation Scheme, as a collective, are referred to within as the Ulan Complex. The Ulan Complex is located approximately 1.5 kilometres from Ulan Village, within the Mid-Western Regional Council (MWRC) Local Government Area (LGA). The project area is located approximately 38 kilometres north-north-east of Mudgee and 19 kilometres north-east of Gulgong in New South Wales. The UCML landholdings are comprised of approximately 13000 Hectares, straddling the Great Dividing Range and are located at the headwaters of the Goulburn and Talbragar River Catchments.

- Twenty-one years of mining operations;
- Longwall mining of the Ulan Underground Mine (Ulan Underground);
- Longwall mining of the Ulan West Underground Mine (Ulan West);
- Open cut mining over a 239-hectare area;
- Coal Handling and Preparation Plant (CHPP) and rail loadout facilities with total coal production capacity of up to 20 million tonnes per annum (Mtpa) product coal; and
- Surface facilities and ancillary activities to support the abovementioned operations.

Rare Earth

The Dubbo Project (DP) is a large in-ground resource of zirconium, hafnium, niobium, yttrium and rare earth elements. It is the most advanced poly-metallic project of its kind outside China, making it a potential strategic and independent supply of critical minerals for a range of sustainable technologies and future industries. It has a potential mine life of 70+ years.

Located at Toongi, 25 kilometres south of Dubbo in central western NSW, the Dubbo Project is owned by Australian Strategic Materials Limited (ASM), a wholly owned subsidiary of Alkane.

The project is construction-ready, subject to financing, with the mineral deposit and surrounding land acquired. All State and Federal approvals are in place, and the project has a well-established flowsheet. ASM is now consulting with the market to refine product specifications.

Opals

Although White Cliffs is Australia's oldest commercial opal field, Lightning Ridge black opals are the most valuable in the world. Lightning Ridge is one of the few places in the world where the precious and highly prized black opal is found. Unlike other opal, the black opal contains carbon and iron oxide trace elements, producing a very dark stone which has hints of blue, green and red play of colour.

Lightning Ridge, 770 kilometres north-west of Sydney and 72 km north of Walgett, has a population of about 1200 which is supplemented by over 80 000 visitors who arrive every year to either try their luck at fossicking or to see what an outback mining town is really like. This influx of tourists means that this once rough-and-ready town now boasts several good quality motels, an array of souvenir and gift shops, good restaurants, and a degree of civilisation.

The Narran–Warrambool Reserve was established over the Lightning Ridge Mineral Claims District in 1993, covering approximately 5000 square kilometres of land surrounding the Lightning Ridge opal fields. The reserve was designed to protect the heritage of the small miner by preventing the granting of large exploration licences and mining leases, effectively limiting operations to small scale mining.

Service Industries

Health

The Western NSW LHD is a significant employer across the Central West and Far West Emergency Management Regions, employing approximately 7000 personnel.

Western NSW Local Health District aims to provide good experiences for people using public health services by making sure these services are of high quality, appropriate, safe, available when and where needed, and coordinated to meet each individual's needs.

Our health services include facilities in more than 40 geographical locations. These facilities offer an extensive range of services for both in hospital and community based care that includes mental health, dental, allied health, public health, Aboriginal health, multicultural health and aged care services.

The Western NSW LHD has undertaken extensive development in the use of alternate technologies to minimise the travel requirements for the community members with Telehealth services now providing a variety of consultation services across the region.

Education

Education facilities play a strong part in both employment and social aspects of the Central West. There are several boarding schools and private schools in the region as well as a large public education system. This generates a significant number of sporting carnivals and competitions with families travelling extensive distances to support children's activities. These schools also have linked to them extensive local school bus runs.

Tertiary education includes:

- Charles Sturt University (CSU), the largest regionally based university in Australia has campuses in Bathurst and Orange.
- University of Sydney's School of Rural Health is located in Orange
- University of Western Sydney has a campus in Lithgow as does Notre Dame University with the Lithgow Rural Clinical School
- There are a number of TAFE facilities in the region as well.

Retail

Retail activities also play a significant role in the central west with major shopping centres located at Bathurst, Orange and Dubbo. national brand retailers are prominent in these centres, whilst general retailing is declining in less populated areas.

Tourism

Taronga Western Plains Zoo

Over 260,000 people visit per annum to see the Dubbo Zoo that is home to over 700 animals including exotic and endangered species such as Black Rhinoceros, Sumatran Tigers, Elephants and Giraffe which roam wide open spaces across 300 hectares of bushland.

Dubbo's open range Zoo is widely recognised as Australia's greatest which means you won't notice the moats or barriers that keep you separate from our magnificent wildlife. As you travel the Zoo's 6km circuit by bike, electric cart, private car or on foot you will encounter animals hailing from each corner of the globe, however you will also find yourself immersed in the great Australian bush, teaming with native wildlife.

Source: Taronga 2017 TCSA Annual Report

Warrumbungle National Park

Is an iconic national park in central western New South Wales. Visitation to the park has stabilised over the last 10 years at approximately 35,000 visitors per year, with peak visitation during the Spring and Easter school holidays. Bushwalking, camping and rock climbing are the main recreational opportunities sought by visitors to the park.

The Siding Spring Observatory, officially opened in 1965, was constructed on the boundary of the park partly because the park provided a light-free environment. This high-profile scientific facility consists of several internationally important telescopes and has significant socio-economic importance to the local Coonabarabran community.

Visitors primarily enter the park from Coonabarabran via the John Renshaw Parkway, or from Gilgandra via Tooraweenah. Both routes are sealed and form a tourist drive off the Newell Highway between Coonabarabran and Gilgandra. Visitors can also enter the park via unsealed roads from Coonamble and Baradine.

Source: Office of Environment & Heritage, Warrumbungle National Park, Plan of Management.

Growth Industries and Significant Future Projects

Renewable Energy

Renewable energy opportunities are growing, with wind farming around Blayney and Lithgow. High levels of annual solar exposure in the northwest make it attractive for solar energy generation – the largest solar farm in the southern hemisphere is located in Nyngan.

Inland Rail Link

Inland Rail is a once-in-a-generation project connecting regional Australia to global markets, transforming the way we move freight around the country. It will complete the ‘spine’ of the national freight network between Melbourne and Brisbane via regional Victoria, New South Wales and Queensland.

This new 1,700km line is the largest freight rail infrastructure project in Australia. The Australian Government, through the Australian Rail Track Corporation (ARTC), is delivering the multi-billion dollar infrastructure in partnership with the private sector. The Government has committed a total of \$9.3 billion to plan and deliver Inland Rail.

Historical Events

What	Where	Duration	IMPACT				Additional Resources Required	REMC / REOC Involved
			Social	Built	Economic	Natural		
Wuuluman Fire S44	Fire wholly within Dubbo regional Council area (formally Wellington). Burned area North of Ungulla Creek and Wuuluman Road. 2830ha burned with a perimeter of 35.218 km.	From 11/01/2017 to 20/01/2017. Recovery was some months with Blaze-aid and other volunteers helping with fence replacement. Funded recover officially ceased on 20/01/2017 with revocation of S44 declaration.	People were directly affected by the fire for around 10 days with road closures and stock escaping through downed fences. There were 2 injuries reported and no fatalities. No evacuations.	No homes lost. Main losses were fencing and water infrastructure for grazing enterprises. One firefighting appliance was lost (burned) on the first day.	Cost of lost grazing country feed value is not obtainable. 10km of fencing would be around \$30 - \$50K. Fire appliance would be circa \$120K.	Open grazing country and lightly timbered.	A total of 6 Strike Teams from outside Local Government Area. Incident management teams made up of Out of Area personnel.	REOC was not officially opened but consultation took place locally and from State Operations Controller
Kains Flat Fire	Fire wholly within Mid-Western Council area. Burned from Kains Flat Rd to Wollar. 6960 ha 67 km perimeter.	From 12/02/2017 until 20/02/2017 as a Class 3 fire (S44) with recovery of "make safe" earthworks and patrol until 6/03/2017.	There was 1 injury. No evacuations or moving because of damage.	1 house was lost. 4 outbuildings destroyed. Fire impacted on Munghorn Nature Reserve and private property.	Cost of lost grazing country feed value is not obtainable. With National Parks closed, some loss occurred. House was not inhabited and not insured. Little value. Out buildings value unknown.	Over 2000ha of Munghorn Nature Reserve burned. Balance was private grazing country.	Strike Teams from Region East and South. Incident Management Teams from Out of Area personnel.	REOC was not officially opened but consultation took place locally and from State Operations Controller
Wambelong WNP Fire	Started in the far East of Coonamble Shire but the vast majority was in Warrumbungle Shire. 56,280 ha burned Perimeter of 420 km	From 12/01/2013 to 21/02/2013. Recovery started 26/01/2013 and was in place for many months.	There were 29 recorded injuries both agency personnel and civilians. Some evacuations along Siding Springs Rd.	53 houses were destroyed and 113 outbuildings lost. Some damage to Siding Springs observatory.	Substantial housing loss costs plus out buildings. Fencing, roadways, National Park and other public areas with an unsubstantiated cost.	Majority of burned area within Wambalong National Park.	Strike Teams from Region East, South and West brought in. Building Impact Analysis (BIA) crews brought in from Region East. Incident Management Team staff from across NSW.	REOCON would have been notified by activation of S44 declaration from State Operations. IMT was dealing directly with LEOCON in EOC. LEOCON would presumably brief REOCON.

What	Where	Duration	IMPACT				Additional Resources Required	REMC / REOC Involved
			Social	Built	Economic	Natural		
Sir Ivan Fire	Started just South of Leadville in Warrumbungle Shire and burned to the East into Mid- Western and Upper Hunter LGA areas.	Fromm 11/02/2017 to 6/03/2017. Recovery was started around the 14/02/2017 and continued for many months with Blaze-aid fixing fencing.	There was only one reported injury that was documented. No doubt there were more that were not reported. Many self-evacuations after Emergency Alerts (EA).	Officially 45 houses lost and 153 outbuildings. Circa 100km of fencing and substantial livestock losses.	Vast cost of grazing country and associated costs with fencing, livestock replacement. Substantial housing and building costs.	Areas of natural timber in rural land. Local Government and Local Land Services (Crown Lands) had some natural timber and grazing land destroyed.	Strike Teams from Region East, South and West brought in. Building Impact Analysis (BIA) crews brought in from Region East. Incident Management Team staff from across NSW.	REOC in stand-by. Actively monitored activity and liaised with LEOCONS for Warrumbungle & Mid-Western LGAs.
Moderate Riverine Flooding (Macquarie River 2010)	Wellington Dubbo Narromine Warren	Response - 48 days Recovery – 6 months	15 persons evacuated Widespread isolations – 40 properties	Physical damage to homes, community assets, essential services, infrastructure and roads	Unknown. Major transport routes closed, Isolations and closure of some commercial businesses	Unknown	Yes. Interstate SES Personnel	Yes. Formal engagement of the REMC. REOC opened in support of combat agency.
Major Riverine Flooding (Barwon River 2012)	Collarenebri Walgett Lightning Ridge	Response - 32 days Recovery – 3 months	30 persons evacuated Widespread isolations – 100 properties. School children unable to go to school.	Physical damage to homes, community assets, essential services, infrastructure and roads	Unknown. Major transport routes closed, Isolations and closure of some commercial businesses	Unknown	Yes. Interstate SES Personnel, Defence Force	Yes. Formal engagement of the REMC. REOC opened in support of combat agency.
Pandemic H1N1 (Swine Flu) Low illness impact compared with the historical impacts of similar events.	Global	Monitoring is continuous. Response lasted 9 months	Death, debilitating illness for at risk populations resulting in implementation of enforceable Quarantine and Isolation. High levels of welfare support.	Not quantified but unlikely for this disease	Not quantified. Isolation and quarantine enforced for 10 days, with subsequent workforce and economic losses.	Unlikely, however a zoonotic process may result in destruction of livestock or animals.	Yes, this was a national event requiring high level support and expert advice.	Managed at State level with flow down effects locally. REMC briefings. NO REOC. EMPlan not activated

What	Where	Duration	IMPACT				Additional Resources	REMC / REOC
			<i>Social</i>	<i>Built</i>	<i>Economic</i>	<i>Natural</i>	Required	Involved
Equine Influenza	National (NSW/Qld infected properties)	24/8/2007 - 28/2/2008. 30/6/2008- Declared free of the disease	Equine standstill and movement restrictions. 5943 infected properties. Major impacts on livelihood and lifestyle of horse owners and related industry workers. Emergency financial assistance (more than \$227.9 million paid out). Isolation of individuals. Social activities suspended. Impact on tourism.	Not quantified, minimal	Substantial. Loss of revenue due to restrictions on movements for breeding and competition. Cost of control - \$100 Million, \$3.35 million/day forgone income by equine business including racing, farming, recreational businesses*. TAB estimated \$327 million loss in turnover. Loss of employment Activities of economic significance cancelled. Suspension of horse exports for 6 months.	Not quantified, there were some reported deaths of horses.	Yes, this was a National event requiring high level support and expert advice	Managed at the State level with flow down effects regionally and locally. Oversight at National level.

Flood Characteristics of the Central West

Floods – Central West Region NSW SES

Flooding within Central West Region is usually as a result of a number of weather patterns, including Cyclonic depressions, well developed low-pressure troughs, low pressure systems and high-intensity, short duration convective thunderstorms.

The effects of flooding within the region can be varied.

- Within the Lithgow Council area, the flooding issue can be classed as “flash flooding” in nature, with very short warning times.
- Within the Bathurst Regional Council Area warning times are short, in the order of hours rather than days. Historically floods have been usually of a short duration with flood waters receding in less than one day. Flash flooding can also occur within the Council area.
- Within the Cabonne Council area in summer, low-pressure (cyclonic) troughs migrating southwards into NSW from northern parts of the continent can cause intense short-period rainfall leading to flooding. Such intrusions are not annual events, however, and summer flooding is sporadic. Winter floods tend to be the result of sequences of troughs associated with southern influences crossing the region from west to east. These rarely produce high daily falls but can bring substantial falls over longer periods. Periodically, high-intensity, short-duration convective thunderstorms cause flooding over limited areas. These are summer events concentrated in the months between November and March.
- Within the Orange City the flooding issue can be classed as “flash flooding” in nature, with very short warning times.
- Major flooding has occurred throughout the region, including Bathurst, Canowindra, Eugowra and Molong which has caused significant damage and disruption in the past. Major population centres are located near to or adjacent to various river systems. These have been impacted from flooding in the past.
- Bathurst and Orange have undertaken flood mitigation works to reduce the effects from flooding.

Floods - Lachlan Region NSW SES

The Lachlan River which runs through upper Lachlan Region, comes from a high rainfall area in the east to a low rainfall area to the west. As a consequence, the Lachlan River and its upper tributaries produce most of the source of flood water in the region. The tributaries include the Abercrombie River which flows into Wyangala Dam, the Boorowa River which enters below the dam, the Belubula River which joins the river north of Gooloogong, Mandagery Creek which joins the river between Gooloogong and Forbes.

Other river and creek systems that can influence flooding in the Lachlan Region are the Bogan River that sits in the Parkes LGA and covers a small part of the catchment west of Peak Hill, Goobang Creek system also known as Billabong Creek comprises of several small tributaries that runs north, east and south of Parkes, Yarrabandi Creek rises north east of Trundle, Ooma Creek which rises in the Piney range upstream of Garema.

The creek systems in the Bland and Weddin Shire LGAs influence riverine flooding in the southern parts of the Lachlan Region, the town of Ungarie is situated on the Humbug Creek which rises west of West Wyalong flowing northwards to meet the Wallaroi creek south of Condobolin. Flooding can be experienced in Ungarie when there have been high rainfalls in the Humbug Creek catchment area causing widespread flooding and evacuations within the township. The township of Bimbi is known for flash flooding during high rainfalls in the Weddin ranges, this rainfall causes rises in the Burrangong Creek system resulting in flash flooding within the township. Flooding in and around Lake Cowal is influenced by several tributaries such as the Bland Creek, Barmedman Creek and Caragabal Creek just a name a few, during major flooding in these tributaries it can cause widespread riverine and rural flooding resulting in major road closures on the Newell and Mid-Western Highways for several weeks.

Floods - Macquarie Region NSW SES

Flooding within the Macquarie Region is usually the result of consistent cumulative weather patterns producing significant cumulative rainfall on a saturated catchment. The most significant floods have all been the result of this type of weather pattern.

The flood of record for the Macquarie Region is the 1955 flood which saw significant areas of inundation across the region. This flood should not be considered the highest flood likely to be experienced in the region. Typically flooding occurs in the region during the warmer months of the year.

Significant river systems within Macquarie Region include the Macquarie, Castlereagh, Bogan, Namoi and Barwon river systems.

The Macquarie River system includes the minor tributaries of the Bell, Little and Talbragar

Rivers which can have a significant impact on the level and duration of flooding within the Macquarie River system.

Major population and service centres are located on the floodplain of the Macquarie River including Wellington, Dubbo, Narromine and Warren, which can all be impacted by flooding. The significant environmental area of the Macquarie Marshes, downstream of Warren relies heavily on flows in the Macquarie River and is an important part of the ecology of the river system.

The Bogan River which flows from near Peak Hill through significant tracts of rural land to Nyngan is perhaps one of the most well-known river systems, following the devastating floods of April 1990. Floods along the Bogan River system have the potential to inundate large areas of rural land, isolate rural residents and be of significant duration.

The Castlereagh River system begins in the Warrumbungle ranges near Coonabarabran, winding down through steep valleys, onto a broad floodplain near Mendooran, before heading in a generally northerly direction through the more populated locations of Gilgandra and Coonamble.

The Namoi and Barwon river systems flow into the Macquarie Region from adjoining regions, meeting at Walgett. Of significance for these river systems is the potential for large volumes of ungauged water to enter the systems. The major township and service centre of Walgett can be impacted in major flooding. Large areas of rural agricultural land can be inundated for lengthy periods of time, causing isolation.

The Cudgegong River system which flows through the popular town of Mudgee is ungauged and unclassified. Within Mudgee township there is the potential for flash flooding to occur along Redbank Creek in residential areas, whilst low level causeways along the Cudgegong River can become inundated at very short notice.

Floods in the region can cause significant damage and disruption, with major population centres located adjacent to various river systems. Dubbo, the major service centre for the Macquarie Region, straddles the Macquarie River, with major transport routes, residential and industrial buildings and public and private infrastructure located on the flood plain.

Flood mitigation measures within the region include Burrendong Dam, (*whilst primarily a water conservation facility, it does have a flood mitigation capacity of 489,000ML, on top of a storage capacity of 1,118,000ML*) and several leveed communities including Nyngan, Warren, Coonamble and Walgett. Remedial works on the levees at Walgett and Coonamble have been undertaken in recent years. These mitigation measures do not prevent floods from occurring. It should also be noted that levees are a means of protecting property, not protecting life.

Flooding within the Macquarie Region is typically characterised by long lead times, with advance warning of an approaching flood. Flood waters are typically slow moving, reaching out across wide flat floodplains. Significant isolation and inundation is a typical outcome from moderate and major floods. Whilst not particularly deep, the level of inundation does prevent vehicular access. Due to the geographic nature and extent of the region, resupply operations form a significant part of extended campaign flood events.

The river systems within the NSW SES Macquarie Region are significant contributors to the Darling River with all the rivers eventually draining into this particular river. It is not uncommon for several of the river systems within Macquarie region to be in flood concurrently, which can have an impact on resource availability, evacuation plans, accessibility and length of operations.

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Annexure B – Hazards and Risks Summary

A Regional Emergency Risk Management (ERM) Study has been undertaken by the Central West Regional Emergency Management Committee Working Group 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 within Local EMPLANs (which have been endorsed by the REMC) as having the potential to create an emergency. The table below provides a Regional level summation and priority for identified hazards and risks.

Hazard	Risk Description	Risk Controls	Residual 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 with broad community impacts.	<ul style="list-style-type: none"> • Import restrictions and quarantine to reduce probability of disease being introduced. • Disease surveillance and early detection • Minimise risk of spread through biosecurity measures, e.g. PPE, cleaning & disinfection of people, clothing, vehicles and equipment • Vaccination • Movement restrictions • Livestock standstill of all susceptible livestock, may also apply to products, vehicles, equipment, and other things: may be controls on people movement involving live stock or crop (including horticulture) • Quarantine of infected property(ies) • Control of feral animals (disease vectors) 	Medium	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.	<ul style="list-style-type: none"> • All major bridge structure integrity monitored by RMS. Adequately engineered to requirements • Pre-existing traffic management plans for incidents closing bridges 	Low	LEOCON

Hazard	Risk Description	Risk Controls	Residual Risk Priority	Combat / Responsible Agency
Building Collapse	Collapse of building owing to structural failure or impact from external/internal event of other hazards /incidents.	<ul style="list-style-type: none"> No significant risk identified requiring regional response 	Low	FRNSW (USAR) LEOCON
Communicable Disease (Human)	Pandemic illness that affects, or has potential to affect, large portions of the human population	<ul style="list-style-type: none"> Public awareness of respiratory hygiene and infection control mechanisms. Hand Hygiene Minimise risk of spread through Infection prevention and control measures – cleaning and disinfection, PPE, isolation, quarantine Disease surveillance and early detection – Pathology Laboratories, and Emergency Departments Mandatory reporting of Communicable Disease Contact and point source tracing Prophylactic medication measures Immunisation programs are in place, for those illnesses likely to result in Pandemic illness; however not all potential illness outbreaks have immunisation control. Existing Business Continuity for critical service provision 	Critical	Department of Health
Dam Failure	A dam is compromised that results in localised or widespread flooding.	<ul style="list-style-type: none"> Regulated Construction Methods Operating regulations for prescribed dams Oversight by NSW Dam Safety Committee including planning for failures 	Low	Dam Owners NSW SES

Hazard	Risk Description	Risk Controls	Residual Risk Priority	Combat / Responsible Agency
Earthquake	Earthquake of significant strength that results in localised or widespread damage.	<ul style="list-style-type: none"> No significant risk identified requiring regional response 	Low	LEOCON
Fire (Bush or Grass)	Major fires in areas of bush or grasslands.	<ul style="list-style-type: none"> Bushfire Risk Management Plans in each BFMC detailing, prioritising and implementing hazard reductions in each area. Section 52 Plan(s) of operations Annual checklists and IMX(s) Local & District PIPs and operational response codes ensuring adequate assets and weight of response in place for given FDR 	High	NSW RFS
Fire (Industrial)	Serious industrial fire in office complexes and/or warehouses within industrial estates.	<ul style="list-style-type: none"> Building and environmental regulation and controls in place. Safe Work NSW regulation and controls in place. Fire Safety Inspections, PIP's, MAA's & MOU's and appropriate resourcing 	Low	FRNSW NSW RFS
Fire (Commercial)	Serious commercial fires in shopping centres, aged persons units, nursing homes and hospitals.	<ul style="list-style-type: none"> Building and environmental regulation and controls in place. Fire Safety Inspections, PIP's, MAA's & MOU's and appropriate resourcing 	Low	FRNSW NSW RFS
Fire (Residential)	Serious residential fire in medium/high rise apartments.	<ul style="list-style-type: none"> Building and environmental regulation and controls in place. Fire Safety Inspections, PIP's, MAA's & MOU's and appropriate resourcing 	Low	FRNSW NSW RFS

Hazard	Risk Description	Risk Controls	Residual Risk Priority	Combat / Responsible Agency
Flash Flooding	Sudden short duration flooding occurring less than six hours after heavy rainfall.	<ul style="list-style-type: none"> • Land use management strategies by LGAs • Development controls by LGAs • Storm water controls in populated areas • Retention Basins by LGAs • LGA Flood Plans & planning 	Medium	NSW SES
Flooding	High water level which overtops the natural or artificial banks and/or local overland flooding associated with drainage before entering a watercourse.	<ul style="list-style-type: none"> • Land use management strategies by LGAs • Development controls by LGAs • Levees by LGAs and State Water • Retention Basins by LGAs • LGA Flood Plans & planning 	High	NSW SES
Hazardous Release	Hazardous material released as a result of an incident or accident.	<ul style="list-style-type: none"> • Building and environmental regulation and controls in place. • Fire Safety Inspections, PIP's, MAA's & MOU's and appropriate resourcing 	Low	FRNSW
Heatwave	A sequence of abnormally hot conditions having the potential to affect a community adversely.	<ul style="list-style-type: none"> • Public information / awareness campaigns • Monitoring impacts • Risk control managed at a State level. Region provides resources and support to State priorities. 	Low	REOCON
Landslip	Landslip/landslide resulting in localised or widespread damage.	<ul style="list-style-type: none"> • No significant risk identified requiring regional response 	Low	LEOCON

Hazard	Risk Description	Risk Controls	Residual Risk Priority	Combat / Responsible Agency
Major Hazard Facility (MHF)	Major Hazard Facility within area creates potential for large scale/ long duration hazmat due to large volumes of dangerous goods storage.	<ul style="list-style-type: none"> • Toll Depot in Dubbo Hazardous Chemicals Local CMG to detail activities required and own Safe Work NSW compliance plan. • Bogan Gate Depot Hazardous Chemicals • WoodChem Oberon Timber processing plant. Local CMG to detail activities required and own Safe Work NSW compliance plan. 	Medium	REOCON
Storm	Severe storm with accompanying lightning, hail, wind, and/or rain that causes severe damage and/or localised flooding. (includes tornado)	<ul style="list-style-type: none"> • Building and environmental regulation and controls in place • Storm water controls in populated areas • Storm Plan 	Low	NSW SES
Transport Emergency (Air)	Aircraft crashes in LGA resulting in large number of fatalities, injuries and/or damage to property.	<ul style="list-style-type: none"> • Highly regulated at commercial level. • CASA regulated Airport Emergency Plans, • Local CMG 	Low	LEOCON
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.	<ul style="list-style-type: none"> • No significant risk identified requiring regional response. • Alternate routes for major roads/highways identified in Traffic Management Plans 	Low	LEOCON
Transport Emergency (Rail)	A major rail accident that disrupts one or more major rail routes that can result in risk to restriction of supply routes and/or protracted loss of access to or from the area.	<ul style="list-style-type: none"> • No significant risk identified requiring regional response 	Low	LEOCON

Hazard	Risk Description	Risk Controls	Residual Risk Priority	Combat / Responsible Agency
Transport Emergency (Maritime)	A major accident that results in environmental damage and major recovery operation	<ul style="list-style-type: none"> No significant risk identified requiring regional response 	Low	Relevant Port / Maritime / FRNSW
Tsunami	A tsunami wave of magnitude that presents a risk to land and marine elements.	<ul style="list-style-type: none"> No significant risk identified requiring regional response 	Low	NSW SES
Utilities Failure	Major failure of essential utility for unreasonable periods of time as a result of a natural or man-made occurrence.	<ul style="list-style-type: none"> Service replication / rerouting where available Building and environmental regulation and controls in place. 	Medium	LEOCON

Part 3 – Local Emergency Management Plans

It is inherent that the Regional EMPLAN have a strong link to the Local EMPLANS to ensure that the community requirements and major hazards and risks identified are catered for. The REMC have clear Governance responsibilities to ensure that the standard of all Local EMPLANS meet the prescribed standard and enable the Region to prepare for and provide support to LEMCs as anticipated. Annexure C provides a summary of all endorsed Local EMPLANS.

Annexure C – Local EMPLAN Inventory

The following table notes key regional planning considerations identified from an analysis of Local EMPLANS and Consequence Management Guides within the Region. The Central West Regional Emergency Management Committee acknowledges the following key principles that are generic to all local emergency management arrangements within the region:

1. Normal internal escalation processes apply for acquiring addition resources within an agency, as required;
2. All agencies will provide support to local emergency operations from a Regional Emergency Management level where there is a gap in that agencies local capability;
3. All agencies will consider provision of Liaison Officers to Local Emergency Operations Centres where there is a gap in that agencies local capability;
4. Where a functional area is not represented at regional level, i.e. Energy and Utilities Services, Telecommunications Services and Public Information Services, these services are accessed through the Regional Emergency Operations Controller or their representative, whether or not a Regional Emergency Operations Centre is in operation.
5. Combat Agency control of an event may be exercised from a location outside the affected Local Government Area.

LEMC	Endorsed Date	Review Date	Key Regional Planning Considerations	References
Bathurst	2/3/2016	2/3/2018	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Dam Failure - Chifley Dam. – A PMF would inundate 650 houses. At amber or red alert phase, regional support will be required for evacuations.	
Blayney	2/6/2016	2/6/2018	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Dam Failure - Carcoar Dam. – Failure will result in widespread flooding of properties up to 300 metres from the Belubula River. This includes almost all the village of Carcoar, with a population of 200+. At amber or red alert phase, regional support will be required for evacuations.	
Cowra	2/6/2016	2/6/2018	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Dam Failure - Wyangala Dam. – Travel time from Wyangala to Cowra is approximately 7 hours. The persons at risk, exceeds 8000. These are located between Wyangala and Forbes, including Wyangala village, Gooloogong, the majority of Cowra and West Cowra and a large number of rural residents between the towns. At amber or red alert phase, regional support will be required for evacuations.	
Forbes	2/3/2017	2/3/2019	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP

LEMC	Endorsed Date	Review Date	Key Regional Planning Considerations	References
			Dam Failure - Wyangala Dam. – Travel time from Wyangala to Forbes is approximately 76 hours. The effects of this are difficult to predict. At amber or red alert phase, regional support will be required for evacuations.	
Lachlan	1/6/2017	1/6/2019	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
Lithgow	1/9/2016	1/9/2018	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Dam Failure - There is a risk that local dams (Oberon Dam – Oberon LGA, Lake Lyell, Farmers Creek, Thompson’s Creek, Lake Wallace, Piper’s Flat ash dam at Sawyers Swamp) could fail causing immediate flooding and erosion downstream and loss of bridges and property, resulting in possible fatalities. Failure of Oberon Dam or Farmers Creek Dam would impact on supply of water.	
			Mine Accident – Lithgow and its surrounds have a long history in mining. Due to the considerable interest in any significant mine accident, Regional support will likely be required around Coordination and Public Information.	
Oberon	13/9/2017	13/9/2020	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Dam Failure – Oberon Dam – In the event of a dam failure at least 9 homes between Oberon and Tarana would be inundated with a majority of damage occurring in the Bathurst LGA downstream.	

LEMC	Endorsed Date	Review Date	Key Regional Planning Considerations	References
Orange & Cabonne	2/3/2016	2/3/2018	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Mine Accident – Mining operations at Cadia are a significant operation that encroaches on 3 LGAs Orange, Cabonne and Blayney. Due to the considerable interest in any significant mine accident, Regional support will likely be required around Coordination and Public Information. The REOCON has made a determination that incidents requiring the support of the EM arrangements will be controlled by the LEOCON for Orange LGA.	NSWPF File D2015/655727
Parkes	2/3/2016	2/3/2018	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Mine Accident – North Parkes Mine. Due to the considerable interest in any significant mine accident, Regional support will likely be required around Coordination and Public Information.	
Coonamble	13/9/17	13/9/20	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Flood - When a possible maximum flood occurs, Coonamble will be totally isolated and may require an evacuation of approx. 3500 people and will require assistance with planning and execution including the transition to recovery.	

LEMC	Endorsed Date	Review Date	Key Regional Planning Considerations	References
Dubbo	3/12/2015	3/12/2017	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Flood - When a possible maximum flood occurs, parts of Dubbo will be affected and may require an evacuation of approx. 1000 people and will require assistance with planning and execution including the transition to recovery.	
			Major Hazard Facility – Identified in the Local EMPlan, when this CMG is triggered, region level Environmental Services Functional Area Coordinator will be required to facilitate recovery strategies.	
Gilgandra	2/3/2016	2/3/2018	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Flood - When a possible maximum flood occurs, parts of Gilgandra will be affected and may require an evacuation of approx. 300 houses plus commercial business and will require assistance with planning and execution including the transition to recovery.	
Mid – Western (Mudgee)	3/12/2015	3/12/2017	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Flood - If a Dam Failure Alert, Amber or Red that triggers any level of evacuation. Regional planning, coordination and support will be required given the short time frame of 90 minutes. Including the transition to recovery.	

LEMC	Endorsed Date	Review Date	Key Regional Planning Considerations	References
Narromine	3/12/2015	3/12/2017	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Flood - When a possible maximum flood occurs, parts of Narromine will be affected and may require an evacuation of approx. 1500 houses plus commercial business and will require assistance with planning and execution including the transition to recovery. In a Dam Failure event Narromine has 12 hours' notice.	
Walgett	2/3/2016	2/3/2018	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Flood - When a possible maximum flood occurs, parts of Walgett will be affected and may require an evacuation of approx. 3500 houses plus commercial business and will require assistance with planning and execution including the transition to recovery.	
Warren	3/12/2015	3/12/2017	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP
			Flood - When a possible maximum flood occurs, parts of Warren will be affected and may require an evacuation of approx. 500 houses plus commercial business and will require assistance with planning and execution including the transition to recovery.	
Warrumbungle (Coonabarabran & Coolah)	2/3/2016	2/3/2018	Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.	CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP

LEMC	Endorsed Date	Review Date	Key Regional Planning Considerations	References
<p>Wellington</p> <p>Note: Dubbo Regional LEMC acknowledges the difference in communities and maintains the Wellington EMPlan as a separate document.</p>	<p>4/6/2015</p>	<p>4/6/2018</p>	<p>Bushfire - Where a Catastrophic Fire Danger Rating has been declared by the BoM or significant bush fire activity, whether potential or actual, occurring in within the Central West Emergency Management Region, the NSW Police Force Western Region Operations Centre (ROC) will be activated.</p>	<p>CWEMR - ConOps EM Support to NSW RFS 2017-18 BFDP</p>
			<p>Flood - When a possible maximum flood occurs, Wellington will be affected and may require an evacuation of approx. 30-50 people and will require assistance with planning and execution including the transition to recovery. If a Dam Failure Alert, Amber or Red that triggers any level of evacuation. Regional planning, coordination and support will be required given the short time frame of 2 hours.</p>	

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Part 4 – Sub Plans and Supporting Plans

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. They form a critical element that outlines the arrangements that are in place to deliver support or control at a Regional and Local level as emergencies arise.

These arrangements are clearly defined in the relevant State Level Sub Plans and Supporting Plans, and are applied within the Central West Emergency Management Region through the normal application of control, coordination and command elements in an emergency operation.

The plans listed in Annexure D, are complementary to this EMPLAN.

These plans are retained by the REMO on behalf of the REMC and public release versions are available on the NSW Emergency Website.

Matrices Description

- *Combat Agency/Functional Area* – The entity that is responsible for sub plan or supporting plan.
- *Sub-Supporting Plan* – The name/title of the plan.
- *Triggers* – Events or occurrences will result in the activation of the plan.
- *Area(s)* – Geographic area that the supporting plan covers.
- *Access* – who from the agency or area will be the contact for activating and maintaining the plan.

Annexure D – Regional Sub Plan and Supporting Plan Matrices

Combat Agency	Sub Plan	Triggers	Access
Fire & Rescue NSW	NSW State Asbestos Emergency Sub Plan	An event involving the release or disturbance of significant amounts of asbestos containing materials requiring a multi-agency coordinated response utilising specialised resources such as occupational hygienists, and licensed asbestos assessors and/or appropriately licensed asbestos removalists.	FRNSW EnvSFAC
EOCON	NSW State Aviation Emergency Sub Plan (NB Paragraph 110 states "It is not necessary for separate District Aviation Emergency Sub plans to be developed, as the principles detailed in this plan, and the roles and responsibilities of the responding agencies, do not change at this level.")	An aviation incident requiring application of the special arrangements for the control and co-ordination of the response within the boundaries of New South Wales (including New South Wales waters).	REOCON
NSW Department of Primary Industries	Biosecurity (Animal & Plant) Emergency Sub Plan – Version 5 – 2017.	An event which threatens Animal, Aquatic or Plant Biosecurity or invertebrate and invasive species.	NSW DPI
NSW Rural Fire Service	Bush Fire Plan	Any Class 2 or 3 Bushfire or grassfire.	NSW RFS
NSW State Emergency Service	Flood Sub Plan	State level Flood, Storm and Tsunami Plans are active at all times. Specific triggers for activation of the plans are not identified.	NSW SES

Combat Agency	Sub Plan	Triggers	Access
NSW Food Authority	Food Industry Emergency Sub Plan	Any event which threatens a food industry emergency such as: <ul style="list-style-type: none"> • Microbial, chemical or physical contamination of food deemed to pose a high risk to consumers; • Unsafe levels of natural toxins in food; • Contagious zoonotic disease outbreak in animals used for the production of food for human consumption; • Bioterrorism, sabotage or extortion involving food products; • Food supply shortage due to widespread disruption (eg pandemic influenza). 	NSWDPI
Fire & Rescue NSW	Hazardous Materials/Chemical, Biological, Radiological and Nuclear Sub Plan	Any imminent or actual, accidental or deliberate release of a hazardous material.	FRNSW
EOCON	Heatwave Sub Plan	Any heatwave events, or periods of extreme heat where SEOCAN considers that activation of this subplan is appropriate and deals specifically with the coordination of information between agencies and to the public in relation to these events.	REOCAN

Combat Agency	Sub Plan	Triggers	Access
NSW Health	Human Influenza Pandemic Plan	Any threat or actual human influenza pandemic requiring measures and mitigating strategies to protect the community and minimise the impact of an influenza pandemic on NSW. It encompasses government, non-government services, business and the community.	NSW Health
Fire & Rescue NSW	Major Structure Collapse Sub Plan	Any event where the collapse of a building(s) or structure(s) requires a coordinated multi-agency response for search & rescue purposes or to control further collapse / damage and is beyond the capability of the local resources.	REOCON
EOCON	Mine Sub Plan	Any event at a mine where the arrangements detailed in the individual Mine Emergency Plan are inadequate to deal with the event.	REOCON
NSW State Emergency Service	NSW Storm Plan	State level Flood, Storm and Tsunami Plans are active at all times. Specific triggers for activation of the plans are not identified.	NSW SES

Functional Area	Supporting Plan	Area(s)	Access
Agriculture and Animal Services	NSW State Agriculture and Animal Services Area Supporting Plan, Ver. 2 - 2017	All LGA's in Central West Emergency Management Region	Regional AASFAC
Engineering Services	NSW State Engineering Services Supporting Plan	All LGA's in Central West Emergency Management Region	Regional ESFAC
Environmental Services	NSW State Environmental Services (ENVIROPLAN) Supporting Plan	All LGA's in Central West Emergency Management Region	Regional EnvSFAC
Health Services	NSW State Health Services (HEALTHPLAN) Supporting Plan	All LGA's in Central West Emergency Management Region	Regional HSFAC
Public Information Services	NSW State Public Information Services Supporting Plan	All LGA's in Central West Emergency Management Region	REOCON or Police Commander
Transport Services	NSW State Transport Services Supporting Plan	All LGA's in Central West Emergency Management Region	Regional TSFAC
Welfare Services	NSW State Welfare Services Functional Area Supporting Plan	All LGA's in Central West Emergency Management Region	Regional WELFAC
Energy and Utilities Services	NSW State Energy and Utilities Services Supporting Plan	All LGA's in Central West Emergency Management Region	REOCON
Maritime Services			Not required in the Central West Emergency Management Region
Telecommunications Services	Telecommunication Services (TELCOPLAN) Supporting Plan	All LGA's in Central West Emergency Management Region	REOCON

