Local Emergency Management Plan

November 2017

Murray River Council
PO Box 21, Mathoura NSW 2710
p 1300 087 004
f 03 5884 3417
e admin@murrayriver.nsw.gov.au
w www.murrayriver.nsw.gov.au

Table of Contents

Part 1 – Administration

Authority

The Murray River Council Local Emergency Management Plan (EMPLAN) has been prepared by the Murray River Council Local Emergency Management Committee in compliance with the State Emergency & Rescue Management Act 1989.

APPROVED

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Chair
Murray Local Emergency Management Committee
Dated: 12 October 2017

ENDORSED

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Chair

Riverina Murray Regional Emergency Management Committee

Dated: 22 November 2017

Purpose

The Murray River Council Local Emergency Management Plan (the Plan) details the arrangements for, prevention of, preparation for, response to and recovery from emergencies within the Murray River Council Local Government Area (LGA).

It encompasses arrangements for:

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

Objectives

The objectives of this Plan are to:

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

Scope

The Plan describes the arrangements at local level to prevent, prepare for, respond to and recover from emergencies and also provides policy direction for the preparation of sub-plans and supporting plans:

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

Principles

The following principles are applied in this Plan:

a) The Emergency Risk Management (ERM) process is to be used as the basis for emergency planning in New South Wales. This methodical approach to the planning process is to be applied by Emergency Management Committees at all levels.

b) Responsibility for preparation, response and recovery rests initially at local level. If local agencies and available resources are not sufficient they are augmented by those at regional level.

c) Control of emergency response and recovery operations is conducted at the lowest effective level.

d) Agencies may deploy their own resources from their own service from outside the affected local area or region if they are needed.

e) The Local Emergency Operations Controller (LEOCON) is responsible, when requested by a combat agency, to coordinate 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 Regional Emergency Operations Controller (REOCON) and agreement of the combat agency and the appropriate level of control.

f) Emergency preparation, response and recovery operations should be conducted with all agencies carrying out their normal functions wherever possible.

g) Prevention measures remain the responsibility of authorities/agencies charged by statute with the responsibility.

Test and Review Process

The Murray River Council Local Emergency Management Committee (LEMC) will review this Plan every three (3) years, or following any:

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

Part 2 – Community Context

Annexure A – Community Profile

General

The local government area of Murray River Council sweeps across an area of 11,865km^2, is home to approximately 11,500 residents and is located in the southern Riverina, at least 800km south west of Sydney and 205km north of Melbourne.

The main population centres include Barham, Mathoura, Moama, Moulamein, Tooleybuc and Wakool. Other settlements include Bunnaloo, Goodnight, Murray Downs, Koraleigh, Cummerangunja and Womboota.

Murray River Council has a wealth of physical features including majestic sweeping plains; magnificent stands of redgum forests and is almost totally surrounded by the mighty Murray River and its tributaries.

The area's natural assets prove to be a large attraction for locals and visitors alike and form the backdrop to many recreational activities. With tourism, industry and an idyllic rural lifestyle, Murray River Council is a growing region with much to offer.

In the eastern part of the Council, are the wards of Greater Murray and Moama with the largest ward of Greater Wakool found to the west.

Murray River Council is bordered by the New South Wales Councils of Balranald, Hay, Edward River and Berrigan and over the Murray in Victoria by the Moira, Campaspe, Gannawarra and the Swan Hill Rural City Council.

The village of Kyalite, in the Greater Wakool ward, straddles the border with Balranald Shire. By local arrangements, incidents and emergencies in the area are carried out by Balranald Shire rescue units.

The township is Moama, and together with her Victorian neighbour Echuca, they service a population of well over 20,000 people, as well as approximately two million visitors who travel to the area every year. The township of Deniliquin is an important community, servicing the residents of the Greater Murray ward with a range of services.

The Victorian city of Swan Hill, sits just over the state border from the village of Murray Downs and many of the residents of the Greater Wakool ward utilise the services Swan Hill provides.

In May 2016, the Wakool Shire and Murray Shire were merged to form the Murray River Council.

Landform and Topography

The area covered by the Murray River Council today is unique.

It is almost totally surrounded by the mighty Murray River and its tributaries. Council's southern border is formed by the Murray River, with the Edward, Wakool, Murrumbidgee and Niemur Rivers cross the landscape mainly in the northern parts. The Gulpa Creek is another important waterway which leaves the Murray and flows past Mathoura. The Cadell Fault, which changed the course of the Murray River about 30,000 years ago, traverses the area from north to south.

Murray River Council's terrain is largely flat flood plain country, consisting predominately of agricultural land. The Council boasts wetlands of international significance and includes part of the largest river red gum forest in Australia. In addition there are a number of National Parks within the LGA with one of the largest being Yanga in the far north-west.

The soil types vary within Murray River Council, however, the dominant types are red brown earths, grey, brown and red clays and soil complex associated with ancestral streams.

Climate

The climate of the Murray River Council can be described as temperate, boasting more hours of sunshine than the Gold Coast.

The Riverina Murray region has a strong seasonal cycle, with cool to cold winters and warm to hot summers. It is considered likely to be one of the regions of New South Wales most severely impacted by climate change because of increasing temperatures, changes in the volume and distribution of rainfall, reduced snowfalls, and decreases in river flows.

The *Impacts of Climate Change on Natural Hazards Profile-State Overview* 2010 report identifies that:

> Daily maximum temperatures are projected to rise across all seasons by an average of 1.5–3°C, with the greatest increase in winter and spring (2–3°C). Nights are also projected to be warmer by an average 0.5–2°C, with the greatest increase in spring (1–2°C).
>
> Rainfall is projected to shift from winter to summer dominance with overall total falls declining, especially in the winter growing season. This decline is projected to be 20–50%, with the greatest reduction in southern parts of the region.
>
> Spring and autumn are projected to be similar to winter with rainfall decreasing by up to 50%, and the largest decreases occurring in the south and west. Evaporation is projected to increase in these seasons, exacerbating the dry conditions. Projected increases in the severity of short, medium and longer term droughts are likely to lead to a decrease of up to 15% in total runoff. El Niño years experienced in the region are likely to continue to result in an increased probability of lower than average rainfall and become hotter. La Niña years experienced in the region are likely to continue to result in an increased probability of higher than average rainfall and become warmer, with storms producing heavy downpours likely to become more frequent.
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> Projections indicate that despite water stress overall becoming more intense, there is a risk that flood-producing rainfall events are likely to become more frequent and more intense with increased summer rainfall in La Niña years in the Riverina Murray region which includes extensive floodplains and wetlands.

Land Use

The main form of land use in the LGA is agriculture.

The region boasts a rich agriculture based on irrigation including rice, livestock, citrus, cereal crops, dairy, walnuts, olives and vineyards.

Land Use Zone / Type / Classification	Area (sq km)	% of LGA
RU1 Primary Production	10,080.08	85.00%
RU3 Forestry	413.06	3.48%
RU5 Villages	4.86	0.04%
R1 General Residential	7.83	0.07%
R2 Low Density Residential	0.83	0.01%
R5 Large Lot Residential	5.276	0.04%
B2 Local Centre	0.32	0.00%
B6 Enterprise Corridor	0.40	0.00%
IN1 General Industrial	4.19	0.04%
SP1 Special Activities	1.40	0.01%
SP2 Infrastructure	16.82	0.14%
SP3 Tourist	1.13	0.01%
RE1 Public Recreation	1.19	0.01%
RE2 Private Recreation	3.88	0.03%
E1 National Parks and Nature Reserves	1,215.86	10.25%
E3 Environmental Management	21.93	0.18%
W1 Natural Waterways	72.70	0.61%
W2 Recreational Waterways	6.962	0.06%

Population and People

Population (based on 2015 ABS information)

Total persons (excluding overseas visitors)	11,594
Males	5,930
Females	5,656
Medium age (years)	49.15

Age

0-4 years	5%	611
5-14 years	11%	1265
15-24 years	10%	1167
25-54 years	32%	3719
55-64 years	16%	1820
65 years and over	26%	3004

Household Type

Family household	2,982
Lone Person household	1,153
Group Household	87

Income (population aged 15 years and over)

Median individual income (annual)	$38,072

Language

Throughout Murray River Council - 92.5% of people only spoke English at home.

Other languages spoken at home included Italian 0.6%, Dutch 0.3%, Filipino 0.3%, Punjabi 0.3%, Cantonese 0.2%, German 0.2%, Welsh 0.1%, Russian 0.1% and Japanese 0.1%.

Employment

There were 5028 people who reported being in the labour force in the week before Census night in 2011. Of these, 60.1% were employed full time, 29.2% were employed part-time and 4.1% were unemployed.

In 2011, when the census was completed the following employment details were gathered for two of the towns in the Council area and the results showed the area's diversity.

Most Common Occupations	Moama	Wakool
Managers	19.9%	32.3%
Technicians and Trades Workers	14.9%	10.8%
Professionals	14.4%	10.8%
Clerical and Administrative Workers	11.3%	9.6%
Sales Workers	10.8%.	
Labourers		13.8%

Transport Routes and Facilities

Murray River Council has the following highways traversing the Council area:

- Cobb Highway running north-south through it from Deniliquin to Echuca
- Stuart Highway running east-west through it from Hay to Balranald

Other main roads include

- Barmah
- Perricoota from Moama
- Deniliquin to Barham,
- Moulamein to Swan Hill
- Moulamein to Barham
- Moulamein to Balranald

Murray River Council also has a number of bridges over the Murray River, linking

- Echuca and Moama - A narrow two-lane bridge between carries up to 24,000 traffic movements per day in peak season. Average daily movements are 20,000 vehicles.
- Barham and Koondrook
- Murray Downs and Swan Hill
- Tooleybuc and Piangil

Convenient transport options are available, including a passenger bus service running several times a day to Melbourne and many regional centres. Train services between Echuca/Bendigo/Melbourne and Swan Hill/Kerang/Bendigo/Melbourne operate daily.

Residents also benefit from advanced highway infrastructure and an all-weather airport located in Echuca. There is also a good system of local area buses in Moama and taxis operating in Moama and Barham.

Victorian Railways run freight only rail lines through the Murray River from Echuca to Deniliquin.

Mobility, Vehicles Per Dwelling/Travel to Work

On the day of the 2011 Census, the method of travel to work for employed people was predominately by car with a massive 87% of those attending work when by car.

Economy and Industry

Murray River Council has a strong and diverse business base. Key industries include agriculture, accommodation and food services, manufacturing, construction and retail and health care.

Tourism is strong, with the mighty Murray River and its tributaries, red gum forests, the historic port of Echuca (which has recently undergone a $14m redevelopment), an abundance of supporting tourism product, major events and a wonderful climate which ensures the destination is consistently popular with visitors.

During holiday season, the population of Murray River Council can increase up to five times the normal due to the popularity of the area as a holiday destination. Golf and other sporting events, river activities, including water skiing, camping, fishing and riding the mighty paddle steamers attract large volumes of people.

Waterways, Water storages and Lakes

The main bodies of water in the local area are:

- Murray River
- Edward River
- Wakool River
- Murrumbidgee River and (separate catchment)
- Niemur River

Water storages in the Council area include:

- Barham Potable Water reservoir Punt Road
- Barham Raw Water reservoir Gonn Street
- Wakool Potable water plant Burraboi Road
- Perricoota – James Street Mathoura
- Moulamein – Pretty Pine Road
- Murray Downs Potable & Raw water reservoirs Murray Downs Drive

- Tooleybuc Potable water plant Grant Street
- Koraleigh Potable water plant Koraleigh Road
- Moulamein Potable water reservoir Barrata Street

Annexure B – Hazards and Risks Summary

A Local Emergency Risk Management (ERM) Report has been undertaken by the Murray River Council Local Emergency Management Committee (LEMC) identifying the following hazards as having risk of causing loss of life, property, utilities, services and/or the community's ability to function within its normal capacity.

These hazards have been identified as having the potential to create an emergency.

(Echelon Australia – February 2008 (Updated 23 July 2012)

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Agricultural Disease (Animal/Plant)	An agriculture/horticulture incident that results, or has potential to result, in the spread of a communicable disease or infestation.	Likely	Major	High	Department of Primary Industries
Bridge Collapse	Failure of a major bridge structure with or without warning owing to structural failure or as a result of external/ internal events or other hazards/ incidents.	Unlikely	Extreme	High	LEOCON
Bridge Collapse	Failure of a Council controlled bridge structure with or without warning owing to structural failure or as a result of external/ internal events or other hazards/ incidents.	Possible	Extreme	High	LEOCON
Communicable Disease (Human)	Pandemic illness that affects, or has potential to affect, large portions of the human population.	Possible	Extreme	High	Department of Health
Earthquake	Earthquake of significant strength that results in localised or widespread damage.	Rare	Moderate	Medium	LEOCON
Fire (Bush or Grass)	Major fires in areas of bush or grasslands.	Possible	Moderate	Medium	NSW RFS
Fire (Infrastructure)	Major fires in areas of residential and industrial.	Possible	Major	Medium	FRNSW
Flood (Flash)	Heavy rainfall causes excessive localised flooding with minimal warning time.	Unlikely	Major	Medium	NSW SES
Flood (Riverine)	River flows exceed the capacity of normal river systems resulting in flood waters escaping and inundating river plains.	Possible	Major	Medium	NSW SES

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Hazardous Release	Hazardous material released as a result of an incident or accident.	Unlikely	Moderate	Medium	FRNSW
Heatwave	A sequence of abnormally hot conditions having the potential to affect a community adversely.	Possible	Major	Medium	SEOCON
Storm	Severe storm with accompanying lightning, hail, wind, and/or rain that causes severe damage and/or localised flooding (includes tornado).	Possible	Moderate	Medium	NSW SES
Storm	Severe storm with accompanying wind causing damage to building containing asbestos.	Possible	Moderate	Medium	NSW SES NSW EPA
Transport Emergency (Road) (Rail)	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.	Rare	Major	Medium	LEOCON
Transport Emergency (Air)	Aircraft crashes in LGA resulting in fatalities, injuries and/or damage to property.	Rare	Major	Medium	LEOCON
Transport Emergency (Waterways)	A major accident that results in environmental damage and major recovery operation.	Rare	Major	Medium	Maritime Rescue
Utilities Failure	Major failure of essential utility for unreasonable periods of time as a result of a natural or man-made occurrence.	Possible	Moderate	Medium	LEOCON
Utilities Failure	Major failure of water supply utility for unreasonable periods of time as a result of a natural or man-made occurrence.	Possible	Major	Medium	NSW Dept. of Health

Annexure C – Local Sub Plans, Supporting Plans and Policies

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

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

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

These plans are retained by the LEMO on behalf of the LEMC and public release versions are available on the Murray River Council Website.

Plan/Policy	Purpose	Combat / Responsible Agency
Murray River Emergency Risk Management (ERM) Report (July 2012)	Addresses Natural, Technological and Biological risks that may affect the Murray River community.	Local Emergency Operations Controller
Murray River Bush Fire Management Plan	Covers preparedness measures, the conduct of response operations and the coordination of immediate recovery measures from bush fire within the Murray River Council area.	NSW Rural Fire Service
Murray River Flood Emergency Sub Plan	Covers preparedness measures, the conduct of response operations and the coordination of immediate recovery measures from flooding within the Murray River Council area.	NSW State Emergency Service
Murray River Crossings – Incident Response Sub-Plan of the Murray District	To assist in the management of traffic in the event of a closure of one of the RMS (RTA) managed Murray River crossings (Echuca- Moama, Tooleybuc-Piangil, Swan Hill-Murray Downs, Barham-Koondrook Bridges)	Roads & Maritime Services