

**Coonamble Shire**

# Local Flood Plan



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# COONAMBLE SHIRE FLOOD EMERGENCY SUB PLAN

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**A Sub-Plan of the Coonamble Shire Council Local Emergency  
Management Plan (EMPLAN)**

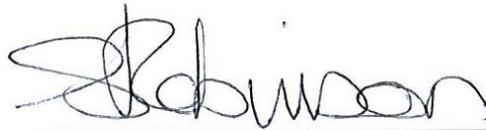
**Volume 1 of the Coonamble Shire Local Flood Plan**



## AUTHORISATION

The Coonamble Shire Flood Emergency Sub Plan is a sub plan of the Coonamble Shire Local Emergency Management Plan (EMPLAN). It has been prepared in accordance with the provisions of the **State Emergency Service Act 1989 (NSW)** and is authorised by the Local Emergency Management Committee in accordance with the provisions of the **State Emergency and Rescue Management Act 1989 (NSW)**.

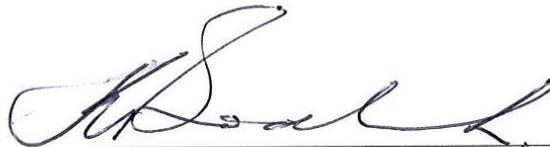
Recommended



NSW SES Local Controller

Date: 26 July 2013

Approved



Chair, Local Emergency Management Committee

Date: 25/7/2013

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## DISTRIBUTION LIST

Recipient	Number of copies
NSW SES Local Controller	1
NSW SES Coonamble Unit	1
NSW SES Macquarie Region Headquarters	1
NSW SES State Headquarters	1
Coonamble Shire Council, Local Emergency Operations Controller	1
NSW Police Force, Castlereagh Local Area Command	1
Coonamble Shire Council, Local Emergency Management Committee Members	4
Coonamble Shire Council, Local Emergency Management Officer	1
Coonamble Shire Council, Local Emergency Operations Centre	1
Coonamble Shire Council, Mayor	1
Coonamble Shire Council, General Manager	1
Coonamble Shire Council, Technical Services Department	1
Fire and Rescue NSW, Coonamble	1
Rural Fire Service, Coonamble	1
Ambulance Service of NSW, Coonamble	1
Office of Environment and Heritage	1
Evacuation Centres	1 each
Hospitals	1 each
Schools	1 each
Caravan Parks	1 each
Council Libraries	1 each

## VERSION HISTORY

The following table lists all previously endorsed versions of this plan.

Description	Date
Coonamble Local Flood Plan	2000

## AMENDMENT LIST

Suggestions for amendments to this plan should be forwarded to:

The NSW SES Coonamble Local Controller  
 NSW State Emergency Service  
 PO Box 14, COONAMBLE, 2829

Amendments promulgated in the amendments list below have been entered in this plan.

Amendment Number	Description	Updated by	Date

*Document Issue: V28112012*

## LIST OF ABBREVIATIONS

The following abbreviations have been used in this plan:

<b>AEP</b>	Annual Exceedance Probability
<b>AHD</b>	Australian Height Datum
<b>AIIMS</b>	Australasian Inter-service Incident Management System
<b>ARI</b>	Average Recurrence Interval (Years)
<b>ALERT</b>	Automated Local Evaluation in Real Time
<b>AWRC</b>	Australian Water Resources Council
<b>BUREAU</b>	Australian Government Bureau of Meteorology
<b>CBR</b>	Chemical, Biological or Radiation
<b>DCF</b>	Dam Crest Flood
<b>DSC</b>	Dams Safety Committee
<b>DSEP</b>	Dam Safety Emergency Plan
<b>DVR</b>	Disaster Victim Registration
<b>EMPLAN</b>	Emergency Management Plan
<b>FRNSW</b>	Fire and Rescue NSW
<b>GIS</b>	Geographic Information System
<b>GRN</b>	Government Radio Network
<b>IAP</b>	Incident Action Plan
<b>IFF</b>	Imminent Failure Flood
<b>LEMC</b>	Local Emergency Management Committee
<b>LEOCON</b>	Local Emergency Operations Controller
<b>LGA</b>	Local Government Area
<b>MHL</b>	Manly Hydraulics Laboratory
<b>NOW</b>	NSW Office of Water
<b>NSW SES</b>	NSW State Emergency Service

<b>OEH</b>	Office of Environment and Heritage (previously DECCW)
<b>PMF</b>	Probable Maximum Flood
<b>PMR</b>	Private Mobile Radio
<b>PMP</b>	Probable Maximum Precipitation
<b>RFS</b>	NSW Rural Fire Service
<b>RMS</b>	Roads and Maritime Services
<b>SECON</b>	State Emergency Operations Controller
<b>SERCON</b>	State Emergency Recovery Controller
<b>SEWS</b>	Standard Emergency Warning Signal
<b>VRA</b>	Volunteer Rescue Association

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## GLOSSARY

**Annual Exceedance Probability (AEP).** The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. For example, if a peak flood level (height) has an AEP of 5%, there is a 5% chance (that is, a one-in-20 chance) of such a level or higher occurring in any one year (see also Average Recurrence Interval).

**Assistance Animal.** A guide dog, a hearing assistance dog or any other animal trained to assist a person to alleviate the effect of a disability (Refer to Section 9 of the Disability Discrimination Act 1992).

**Australian Height Datum (AHD).** A common national surface level datum approximately corresponding to mean sea level.

**Average Recurrence Interval (ARI).** The long-term **average** number of years between the occurrence of a flood as big as, or larger than, the selected event. For example, floods reaching a height as great as, or greater than, the 20 year ARI flood event will occur **on average** once every 20 years.

**Catchment (river basin).** The land area draining through the main stream, as well as tributary streams, to a particular site. It always relates to an area above a specific location.

**Coastal Erosion.** The loss of land along the shoreline predominantly by the offshore movement of sand during storms.

**Dambreak Study.** A Dambreak Study is undertaken to determine the likely downstream inundation areas in case of a dam failure. Modelling is undertaken for a range of dam breach possibilities and design floods. The dambreak study includes information such as the extent of flooding, flood travel times and flood water velocities. The study can assist dam owners, regulators, and emergency agencies in the preparations of evacuation plans, dam break and other flood warning systems, and hazard classification of affected areas.

**Dam Failure.** The uncontrolled release of a water storage. The failure may consist of the collapse of the dam or some part of it, or excessive seepage or discharges. The most likely causes of dam failure are:

**Flood Induced Dam Failure:** Dam failure caused by flood, either due to overtopping erosion or by subsequent structural failure.

**Sunny Day Dam Failure:** Dam Failure as a result of factors other than flood i.e. other than flood flow into the reservoir. Causes of "Sunny Day" dam failure can include internal erosion, landslide, piping, earthquake or sabotage.

**Dam Safety Emergency Plan (DSEP).** A DSEP outlines the required actions of owners and their personnel at dams in response to a range of possible emergency situations. The NSW Dam Safety Committee requires a quality controlled DSEP, with associated dambreak warning procedures to be prepared for prescribed dams where persons may be at risk downstream, if the dam failed.

**Design flood (or flood standard).** A flood of specified magnitude that is adopted for planning purposes. Selections should be based on an understanding of flood behaviour and the associated flood risk, and take account of social, economic and environmental considerations. There may be several design floods for an individual area.

**EMPLAN (Emergency Management Plan).** The object of an EMPLAN is to ensure the coordinated response by all agencies having responsibilities and functions in emergencies.

**Emergency Alert.** A national telephony based alerting system available for use by emergency service agencies to send SMS and voice messages to landlines and/or mobile telephones (by billing address) in times of emergency.

**Essential services.** Those services, often provided by local government authorities, that are considered essential to the life of organised communities. Such services include power, lighting, water, gas, sewerage and sanitation clearance.

**Evacuation.** The temporary movement of people from a dangerous or potentially dangerous place to a safe location, and their eventual return. It is a safety strategy which uses distance to separate people from the danger created by the hazard.

**Evacuation Order.** Notification to the community, authorised by the NSW SES, when the intent of an Incident Controller is to instruct a community to immediately evacuate in response to an imminent threat.

**Evacuation Warning.** Notification to the community, authorised by the NSW SES, when the intent of an Incident Controller is to warn a community of the need to prepare for a possible evacuation

**Flash flooding.** Flooding which is sudden and often unexpected because it is caused by sudden local or nearby heavy rainfall. It is sometimes defined as flooding which occurs within six hours of the rain that causes it.

**Flood** Relatively high water level which overtops the natural or artificial banks in any part of a stream, river, estuary, lake or dam, and/or local overland flooding associated with drainage before entering a watercourse, and/or coastal inundation resulting from super-elevated sea levels and/or waves overtopping coastline defences, including Tsunami.

**Flood classifications.** Locally defined flood levels used in flood warnings to give an indication of the severity of flooding (minor, moderate or major) expected. These levels are used by the State Emergency Service and the Australian Government Bureau of Meteorology in flood bulletins and flood warnings.

**Flood intelligence.** The product of collecting, collating, analysing and interpreting flood-related data to produce meaningful information (intelligence) to allow for the timely preparation, planning and warning for and response to a flood.

**Flood fringe.** The remaining area of flood prone land after floodway and flood storage have been defined.

**Flood liable land (also referred to as flood prone land).** Land susceptible to flooding by the Probable Maximum Flood (PMF) event. This term also describes the maximum extent of a **floodplain** which is an area of a river valley, adjacent to the river channel, which is subject to inundation in floods up to this event.

**Flood of record.** Maximum observed historical flood.

**Floodplain Management Plan.** A plan developed in accordance with the principles and guidelines in the New South Wales Floodplain Development Manual. Such a plan usually includes both written and diagrammatic information describing how particular areas of flood prone land can be used and managed to achieve defined objectives.

**Flood Plan.** A response strategy plan that deals specifically with flooding and is a sub-plan of an Emergency Management Plan. Flood plans describe agreed roles, responsibilities, functions, strategies and management arrangements for the conduct of flood operations and for preparing for them. A flood plan contains information and arrangements for all floods whereas an IAP is for a specific flood/event.

**Flood Rescue.** The rescue or retrieval of persons trapped by floodwaters.

**Flood storage areas.** Those parts of the floodplain that are important for the temporary storage of floodwaters during the passage of a flood. The extent and behaviour of flood storage areas may change with flood severity, and loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation.

**Floodway.** An area where a significant volume of water flows during floods. Such areas are often aligned with obvious naturally-defined channels and are areas that, if partially blocked, would cause a significant redistribution of flood flow which may in turn adversely affect other areas. They are often, but not necessarily, the areas of deeper flow or the areas where higher velocities occur.

**Flood Watch.** A Flood Watch is a notification of the potential for a flood to occur as a result of a developing weather situation and consists of short generalised statements about the developing weather including forecast rainfall totals, description of catchment conditions and indicates streams at risk. The Bureau will also attempt to estimate the magnitude of likely flooding in terms of the adopted flood classifications. Flood Watches are normally issued 24 to 36 hours in advance of likely flooding. Flood watches are issued on a catchment wide basis.

**Flood Warning.** A Flood Warning is a gauge specific forecast of actual or imminent flooding. Flood Warnings specify the river valley, the locations expected to be flooded, the likely severity of flooding and when it will occur.

**Functional Area.** Means a category of services involved in the preparations for an emergency, including the following:

Agriculture and Animal Services;

Energy and Utility Services;

Engineering Services;

Environmental Services;

Health Services;

Public Information Services;

Telecommunication Services;

Transport Services; and

Welfare Services.

**Geographic Information System (GIS).** A geographic information system (GIS) integrates hardware, software, and data for capturing, managing, analysing, and displaying all forms of geographically referenced information.

**Incident Action Plan (IAP).** An action plan for managing a specific event. Information from the Local Flood Plan is used to develop the flood IAP.

**Indirect Effect.** Indirect effects are generally a consequence of infrastructure damage or interruption of services and can affect communities distant from the actual flood footprint i.e. floodplain. Indirect effects can also refer to indirect losses due to disruption of economic activity, both in areas which are inundated or isolated. Indirect effects are one of the three primary sources of risk in the context of flooding (the other two are inundation and isolation).

**Inundation.** See definition for Flood.

**Isolation.** Properties and/or communities where flooding cuts access to essential services or means of supply. Isolation is one of the three primary sources of risk in the context of flooding (the other two are inundation and indirect effects).

**Local overland flooding.** Inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.

**Major flooding.** Flooding which causes inundation of extensive rural areas, with properties, villages and towns isolated and/or appreciable urban areas flooded.

**Minor flooding.** Flooding which causes inconvenience such as closing of minor roads and the submergence of low-level bridges. The lower limit of this class of flooding, on the reference gauge, is the initial flood level at which landholders and/or townspeople begin to be affected in a significant manner that necessitates the issuing of a public flood warning by the Australian Government Bureau of Meteorology.

**Moderate flooding.** Flooding which inundates low-lying areas, requiring removal of stock and/or evacuation of some houses. Main traffic routes may be covered.

**Peak height.** The highest level reached, at a nominated gauging station, during a particular flood event.

**Prescribed Dam.** "Prescribed" dams are those listed in Schedule 1 of the Dams Safety Act 1978. The NSW Dam Safety Committee will prescribe those dams with the potential for a failure which could have a significant adverse effect on community interests.

**Probable Maximum Flood (PMF).** The largest flood that could conceivably be expected to occur at a particular location, usually estimated from probable maximum precipitation. The PMF defines the maximum extent of flood prone land, that is, the floodplain. It is difficult to define a meaningful Annual Exceedance Probability for the PMF, but it is commonly assumed to be of the order of  $10^4$  to  $10^7$  (once in 10,000 to 10,000,000 years).

**Runoff.** The amount of rainfall which ends up as stream flow, also known as 'rainfall excess' since it is the amount remaining after accounting for other processes such as evaporation and infiltration.

**Stage height.** A level reached, at a nominated gauging station, during the development of a particular flood event.

**Stream gauging station.** A place on a river or stream at which the stage height is routinely measured, either daily or continuously, and where the discharge is measured from time to time so as to develop a relationship between stage and discharge or rating curve.

## **PART 1 - INTRODUCTION**

### **1.1 PURPOSE**

- 1.1.1 This plan covers preparedness measures, the conduct of response operations and the coordination of immediate recovery measures from flooding within the Coonamble Shire Council area. It covers operations for all levels of flooding within the council area.

### **1.2 AUTHORITY**

- 1.2.1 This plan is issued under the authority of the State Emergency and Rescue Management Act 1989 and the State Emergency Service Act 1989. It has been approved by the NSW SES Local Controller and the NSW SES Macquarie Region Controller as a NSW SES plan and endorsed by the Coonamble Shire Council Local Emergency Management Committee as a sub plan of the Local EMPLAN.

### **1.3 AREA COVERED BY THE PLAN**

- 1.3.1 The area covered by the plan is the Coonamble Shire Council area which includes: the town of Coonamble, the villages of Gulargambone, Combara, and Quambone as well as large tracts of rural land.
- 1.3.2 The council area and its principal rivers and creeks are shown in Attachment 3.
- 1.3.3 The council area includes:
- a. The Castlereagh River from about five kilometres upstream of Gulargambone to about 60 kilometres downstream of Coonamble.
  - b. Numerous effluent and tributary creeks of the Castlereagh system (Gulargambone, Balonne, Warrena, Oaky, Magometon, Noonbah, Gunyillah, Merrimbah, Terridgerie, Nedgera and Mowlma Creeks).
  - c. Part of Marthaguy Creek and the tributary Merri Merri Creek.
  - d. A short reach of the Macquarie River (which forms part of the western boundary of the council area) and a section of the Macquarie Marshes.
  - e. Part of the catchment area of Baradine Creek.
- 1.3.4 The council area is in the NSW SES Macquarie Region and for emergency management purposes is part of the Central West Emergency Management Region.

### **1.4 DESCRIPTION OF FLOODING AND ITS EFFECTS**

- 1.4.1 The NSW SES maintains information on the nature of flooding and effects of flooding on the community in the Coonamble Shire Council area.

## 1.5 RESPONSIBILITIES

1.5.1 The general responsibilities of emergency service organisations and supporting services (functional areas) are listed in the Local and State Emergency Management Plans (EMPLAN). Some specific responsibilities are expanded upon in the following paragraphs. The extent of their implementation will depend on the severity of the flooding.

1.5.2 **NSW SES Local Controller.** The NSW SES Local Controller is responsible for dealing with floods as detailed in the State Flood Plan, and will:

### Preparedness

- a. Maintain a Local Headquarters at 18 Aberford Street, Coonamble in accordance with the NSW SES Controllers' Guide and the NSW SES Operations Manual.
- b. Ensure that NSW SES members are trained to undertake operations in accordance with current policy as laid down in the NSW SES Controllers' Guide and the NSW SES Operations Manual.
- c. Coordinate the development and operation of a flood warning service for the community.
- d. Participate in floodplain risk management initiatives organised by the Coonamble Shire Council.
- e. Coordinate a public education program.
- f. Identify and monitor people and/or communities at risk of flooding.
- g. Maintain an adequate supply of sandbags.
- h. Ensure that the currency of this plan is maintained.

### Response

- i. Appoint an appropriate Local Incident Controller to undertake response roles. The Incident Controller will:
- j. Control flood and storm response operations. This includes:
  - Directing the activities of the NSW SES units operating within the council area.
  - Coordinating the activities of supporting agencies and organisations and ensuring that liaison is established with them.
  - Contribute to preparation of Region OAP.
- k. Provide an information service in relation to:
  - Flood heights and flood behaviour.
  - Road conditions and closures for internal use only.
  - Advice on methods of limiting property damage.
  - Confirmation of evacuation warnings and evacuation orders.

- l. Direct the conduct of flood rescue operations.
- m. Direct the evacuation of people and/or communities.
- n. Provide immediate welfare support for evacuated people.
- o. Coordinate the provision of emergency food and medical supplies to isolated people and/or communities.
- p. Coordinate operations to protect property, for example by:
  - Arranging resources for sandbagging operations.
  - Arranging resources for the lifting or moving household furniture.
  - Arranging resources for the lifting or moving commercial stock and equipment.
- q. On receipt of a flood warning for the Coonamble gauge, the NSW SES Local Controller will liaise with the Engineering Services Functional Area to arrange for the integrity of the levee to be checked. If necessary, assist the Coonamble Shire Council to organise temporary repairs or improvements to levees.
- r. Arrange support (e.g., accommodation and meals) for emergency service organisation members and volunteers assisting them.
- s. Ensure the managers of caravan parks are advised of flood warnings and the details of any evacuation order.
- t. If NSW SES resources are available, assist with emergency fodder supply operations conducted by Agriculture and Animal Services.
- u. If NSW SES resources are available, assist the NSW Police Force, RMS and Council with road closure and traffic control operations.
- v. Exercise financial delegations relating to the use of emergency orders as laid down in the NSW SES Controllers' Guide.
- w. Coordinate the collection of flood information for development of intelligence.
- x. Submit Situation Reports to the NSW SES Region Headquarters and agencies assisting within the council area. These will contain information on:
  - Current flood behaviour.
  - Road conditions and closures as provided by RMS, Council or NSW Police Force.
  - Current operational activities.
  - Likely future flood behaviour.
  - Likely future operational activities.
  - Probable resource needs.

- y. Keep the Local Emergency Operations Controller advised of the flood situation and the operational response being undertaken.
- z. Issue the 'All Clear' when flood operations have been completed.

### Recovery

- aa. Ensure that appropriate After Action Reviews are held after floods.
- bb. Provide appropriate representation to the recovery committee for the duration of the response phase of an event and as agreed during the recovery phase.

#### 1.5.3 NSW SES Coonamble Unit Members:

- a. Undertake training in flood and storm response operations.
- b. Assist with preparedness activities.
- c. Carry out flood response tasks. These may include:
  - The management of the NSW SES Local Operations Centre.
  - Assist in the collection of flood information for the development of intelligence to be incorporated in plans.
  - Flood rescue.
  - Evacuation.
  - Providing immediate welfare for evacuated people.
  - Delivery of warnings and information.
  - Resupply.
  - Sandbagging.
  - Assist in the lifting and/or moving household furniture and commercial stock.
  - Domestic Animal rescue.
  - Assisting with road closure and traffic control operations.
  - Assisting with emergency fodder supply operations.
- d. Participate and contribute to After Action Reviews.

#### 1.5.4 Agriculture and Animal Services Functional Area:

- a. Activate the Agriculture and Animal Services Supporting Plan as required and coordinate the provision of required services which may include:
  - Supply and delivery of emergency fodder.
  - Coordinate the management of livestock and farm animals.
  - Provide advice on dealing with dead and injured farm animals.
  - Provide financial, welfare and damage assessment assistance to flood affected rural persons and/or communities.

- Operation of animal shelter compound facilities for domestic pets and companion animals of evacuees.

b. Forestry Corporation NSW:

- Close and evacuate at risk camping grounds managed by Forestry Corporation NSW.

1.5.5 **Ambulance Service of NSW:**

- a. Assist with the evacuation of at risk communities (in particular elderly and/or infirm people).
- b. Deploy ambulance resources to appropriate locations if access is expected to be lost.
- c. Assist the NSW SES with flood rescue operations.

1.5.6 **Australian Government Bureau of Meteorology (The Bureau):**

- a. Provide Flood Watches for the Castlereagh River Basin (Basin no. 420).
- b. Provide Flood Warnings, incorporating height-time predictions, for Coonamble (AWRC no. 420005), Gilgandra (AWRC no. 420001), and Mendooran (AWRC no. 420004) gauges.
- c. Provide severe weather warnings when flash flooding is likely to occur.

1.5.7 **Caravan Park Proprietor/s:**

- a. Prepare a Flood Management Plan for the Caravan Park.
- b. Install flood depth indicators and road alignment markers within their caravan parks.
- c. Ensure that owners and occupiers of caravans are aware that the caravan park is flood liable by:
  - Handing a printed notice to occupiers taking up residence. The notice will indicate the caravan park is liable to flooding and outline the evacuation and van relocation arrangements.
  - Displaying this notice prominently in each van.
- d. Ensure that owners and occupiers of caravans are aware that if they are expecting to be absent from their vans for extended periods, they must:
  - Provide the manager with a key; in a sealed envelope; to the van.
  - Provide a contact address and telephone number.
  - Inform the manager if a vehicle will be required to relocate the van during flood time.
  - Leave any mobile van in a condition allowing it to be towed in an emergency (i.e.: tyres inflated, jacks wound up, personal effects secured and annexes and lines for water, sewer, electricity and gas readily detachable).

- e. Ensure occupiers are informed of Flood Warnings and Flood Watches. At this time, occupiers should be advised to:
  - Ensure they have spare batteries for their radios.
  - Listen to a local radio station for updated flood information.
  - Prepare for evacuation and van relocation.
- f. Ensure owners and occupiers of caravans are aware of what they must do to facilitate evacuation and van relocation when flooding occurs. Owners of vans which are incapable of been relocated, should ensure they are securely anchored to their site to avoid been swept away.
- g. Coordinate the evacuation of people and the relocation of moveable vans when floods are rising and their return when flood waters have subsided. Vans will be towed back to the caravan park(s) by van owners or by vehicles and drivers arranged by the park managers.
- h. Inform the NSW SES of the progress of evacuation and/or van relocation operations and of any need for assistance in the conduct of these tasks.

#### 1.5.8 **Child Care Centres and Preschools:**

- a. Liaise with the NSW SES and arrange for the early release of children whose travel arrangements are likely to be disrupted by flooding and/or road closures (or where required, arrange for children to be moved to a suitable location until normal centre closing time).
- b. Pass information on to parents and provide advice on expected or actual impacts of flooding.
- c. Assist with coordinating the evacuation of preschools and childcare centres when flooding or isolation is expected to occur.

#### 1.5.9 **Coonamble Aboriginal Lands Council:**

- a. Act as the point of contact between the NSW SES Local Incident Controller and the Aboriginal community.
- b. Inform the NSW SES Local Incident Controller about flood conditions and response needs.
- c. Disseminate NSW SES flood information, including flood and evacuation warnings, to the Aboriginal community.

#### 1.5.10 **Coonamble Shire Council:**

##### **Preparedness**

- a. Establish and maintain floodplain risk management committees and ensure that key agencies are represented on such committees.
- b. Provide levee studies, flood studies, and floodplain management studies to the NSW SES.

- c. Provide information on the consequences of dam failure to the NSW SES for incorporation into planning and flood intelligence.
- d. Maintain a plant and equipment resource list for the council area.
- e. Contribute to the development and implementation of a public education program.

#### Response

- f. At the request of the Local NSW SES Controller, deploy personnel and resources for flood related activities.
- g. Close and reopen council roads (and other roads nominated by agreement with the RMS) and advise the NSW SES Local Controller and the Police.
- h. Provide information on the status of roads.
- i. Provide filled sandbags to urban and village areas in which flooding is expected.
- j. Assist with the removal of caravans from caravan parks.
- k. Provide back-up radio communications.
- l. In the event of evacuations, assist with making facilities available for the domestic pets and companion animals of evacuees.

#### Recovery

- m. Provide for the management of health hazards associated with flooding. This includes removing debris and waste.
- n. Ensure premises are fit and safe for reoccupation and assess any need for demolition.
- o. Arrange for storage of evacuees' furniture as required.

#### 1.5.11 Energy and Utility Services Functional Area:

- a. Implement the Energy and Utilities Services Functional Area Supporting Plan.
  - Where required, coordinate energy and utility services emergency management planning, preparation, response and recovery, including the restoration of services following a flood event.
  - Provide advice to the NSW SES Local Incident Controller of any need to disconnect electricity, gas, water or wastewater services.
  - Assist the NSW SES Local Incident Controller to identify infrastructure at risk of flooding for incorporation into planning and intelligence.
  - Identify interdependencies between flooding and utility services due to secondary impacts of flooding and advise the NSW SES.
  - Assist the NSW SES Local Incident Controller with advisory notices relating to hazards from utility services during flooding.

- Coordinate with utilities on restoration of services, including advisory notices relating to estimated time for restoration and mandatory safety checks prior to reconnection.
  - Advise the NSW SES Local Incident Controller and the relevant recovery committee coordinator of the timetable for restoration.
- b. Local Utility Service Distribution Providers (electricity, gas, water, waste water):
- Provide advice to the NSW SES Local Incident Controller of any need to disconnect power/gas/water/waste water supplies or of any timetable for reconnection.
  - Advise the NSW SES Local Incident Controller of any hazards from utility services during flooding.
  - Advise the public with regard to electrical hazards during flooding and to the availability or otherwise of the electricity supply.
  - Clear or make safe any hazard caused by power lines or electrical distribution equipment.
  - Reconnect customers' electrical/gas/water/waste water installations, when certified safe to do so and as conditions allow.
  - Assist the NSW SES to identify infrastructure at risk of flooding for incorporation into planning and intelligence.

#### 1.5.12 Engineering Services Functional Area:

- a. When requested by NSW SES:
- Provide engineering advice regarding the integrity of damaged structures.
  - Assist the NSW SES Local Incident Controller with damage assessment.
  - Acquire and/or provide specialist technical engineering expertise.
  - Assist the NSW SES Local Incident Controller and council with the assessment and operation of flood protection levees when requested.
  - Assist the NSW SES Local Incident Controller with property protection, including the construction or repair of levees.
  - Coordinate the restoration of critical public facilities.
  - Establish recovery centre facilities.

#### 1.5.13 Environmental Services Functional Area:

- a. When requested by NSW SES:

- Implement the Environmental Services Functional Area (Enviroplan) Supporting Plan if required.
- Activate the Hazmat/CBR Emergency Sub Plan if required.

#### 1.5.14 **Fire and Rescue NSW:**

- a. When requested by NSW SES:
  - Assist with the delivery of evacuation warnings and evacuation orders.
  - Assist with the conduct of evacuations.
  - Assist with the provision of equipment for pumping flood water out of buildings and from low-lying areas.
  - Assist with clean-up operations, including the hosing out of flood affected properties.
- b. Deploy fire resources to appropriate locations if access is expected to be lost.

#### 1.5.15 **Health Services Functional Area:**

- a. When requested by NSW SES:
  - Activate Healthplan if required.
  - Ensure that appropriate business continuity plans are developed for essential health infrastructure and are activated during floods.
  - Provide medical support to the NSW SES.
  - Establish health surveillance in affected areas.
  - Assess potential public health risks that either acutely endanger the health of human populations or are thought to have longer term consequences.
  - Provide environmental health advice.
  - Provide public health warnings and advice to affected communities.
  - Provide psychological counselling support to the community and emergency response workers impacted, via NSW Health Mental Health Division.
  - Assist the NSW SES with the warning and evacuation of public hospitals, private hospitals and residential aged care facilities.
  - Undertake vulnerable person assessment for Mental Health and Drug and Alcohol dependant persons, dialysis, frail and/or aged and oxygen dependant persons in the community, known to the health service.

**1.5.16 Local Emergency Operations Controller (LEOCON):**

- a. Monitor flood operations.
- b. Coordinate support to the NSW SES Incident Local Controller if requested to do so.

**1.5.17 Local Emergency Management Officer:**

- a. Provide executive support to the Local Emergency Operations Controller and Local Emergency Management Committee in accordance with the NSW State Emergency Management Plan (EMPLAN).
- b. At the request of the NSW SES Local Incident Controller, advise appropriate agencies and officers of the start of response operations.

**1.5.18 NSW Office of Water:**

- a. Collect and maintain flood data including data relating to flood heights, velocities and discharges.
- b. Provide the Bureau of Meteorology and NSW SES real-time or near real-time access to river height gauges and height data for the development of official flood warnings.
- c. Provide flow rating charts for river height gauges.
- d. Manage (with technical support from OEH) the approval process under the Water Act 1912 and Water Management Act 2000 for flood control works (earthworks, embankments and levees which can affect the distribution of floodwaters) including:
  - Assessment and approval of flood control works (including flood mitigation works) in rural areas designated under the Acts.
  - Use of floodplain management plans prepared by OEH in rural areas designated under the Acts to assess flood control work approvals.
  - Giving the NSW SES access to relevant studies regarding flooding and studies supporting floodplain management plans prepared by OEH including flood studies, floodplain risk management studies and flood behaviour investigations.

**1.5.19 NSW Police Force:**

- a. Assist the NSW SES Local Incident Controller with the delivery of evacuation warnings and evacuation orders.
- b. Assist the NSW SES Local Incident Controller with the conduct of evacuation operations.
- c. Conduct road and traffic control operations in conjunction with council and/or RMS.
- d. Coordinate and manage the registration of evacuees.

- e. Secure evacuated areas.

#### 1.5.20 **NSW Rural Fire Service:**

- a. When requested by NSW SES:  
Assist the NSW SES by providing personnel in rural areas and villages to:
  - inform the NSW SES Local Incident Controller about current flood conditions and response needs in their own communities, and
  - Disseminate NSW SES flood information.
- b. Assist the NSW SES by providing personnel and high-clearance vehicles for flood related activities.
- c. Assist the NSW SES with the delivery of evacuation warnings and evacuation orders.
- d. Assist the NSW SES with the conduct of evacuations.
- e. Assist the NSW SES with the provision of equipment for pumping flood water out of buildings and from low-lying areas.
- f. Assist the NSW SES with the removal of caravans.
- g. Assist the NSW SES by providing back-up radio communications where required.
- h. Assist the NSW SES with clean-up operations, including the hosing out of flood affected properties.
- i. Deploy fire resources to appropriate locations if access is expected to be lost.
- j. Provide fire protection for aircraft at established airbases managed by NSW SES.

#### 1.5.21 **Office of Environment and Heritage:**

- a. Provide specialist policy, engineering and scientific advice to councils and the NSW SES on flood related matters including assistance with:
  - The identification of flood problems.
  - The preparation of Floodplain Risk Management Plans and associated studies.
  - The implementation of floodplain risk management plans. This involves floodplain management projects which include flood mitigation works, flood warning, strategic land use planning and upgrade of evacuation routes.
  - The exercising of Local Flood Plans.
- b. Provide specialist advice on flood related matters as follows:

- Provide the NSW SES with access to relevant studies regarding flooding, including Flood Studies and Floodplain Risk Management Studies.
- Coordinate the collection of post event flood data, in consultation with the NSW SES.
- Provide data to the Bureau of Meteorology and NSW SES real-time or near real-time access to river height gauges and height data for the development of official flood warnings.

c. **National Parks and Wildlife Service:**

- Close and evacuate at risk camping grounds managed by the National Parks and Wildlife Service.

1.5.22 **Public Information Services Functional Area:**

a. When requested by NSW SES:

- Assist the NSW SES in the establishment and operation of a Joint Media Information Centre.

1.5.23 **Rail Corporation New South Wales (Railcorp)** will close and reopen urban and metropolitan railway lines affected by flood waters and advise the NSW SES of their status.

- a. **Australian Rail Track Corporation (ARTC)** will close and reopen rural and regional railway lines affected by flood waters and advise the NSW SES of their status.
- b. **John Holland Rail** will close and reopen grain transport, mining transport and heavy haul railway lines affected by flood waters and advise the NSW SES of their status.

1.5.24 **Roads and Maritime Services (RMS)** will:

- Close and reopen highways, and other RMS managed roads/highways when affected by flood waters and advise the NSW SES of their status.
- Facilitate the safe reliable access of emergency resources on RMS managed roads.
- Assist the NSW SES with identification of road infrastructure at risk of flooding.
- Manage traffic.
- Assist the NSW SES with the communication of warnings and road closure information to the public through variable message signs and the RMS Website.

**1.5.25 School Administration Offices (including Public Schools, Private Schools and Department of Education & Communities Offices):**

- a. Liaise with the NSW SES Local Incident Controller and arrange for the early release of students whose travel arrangements are likely to be disrupted by flooding and/or road closures (or where required, for students to be moved to a suitable location until normal school closing time).
- b. Pass information on to parents, school bus drivers/companies and/or other schools on expected or actual impacts of flooding.
- c. Assist with coordinating the evacuation of schools when flooding or isolation is expected to occur.
- d. Provide space in schools for evacuation centres where necessary.

**1.5.26 Service and Sporting Clubs:**

- a. When requested by NSW SES Local Incident Controller, assist with:
  - Delivery of evacuation warnings.
  - Conduct of evacuations.
  - Lifting and/or moving household furniture and commercial stock.
  - Sandbagging.
  - Relocation of caravans.

**1.5.27 Telecommunication Services Functional Area:**

- a. Assist the NSW SES Local Incident Controller to identify infrastructure at risk of flooding for incorporation into planning and intelligence.
- b. Coordinate additional telecommunications support to the NSW SES as required.
- c. Coordinate the restoration of telephone facilities damaged by flooding.

**1.5.28 Transport Services Functional Area:**

- a. When requested by NSW SES:
  - Assist with the coordination of transport for evacuation purposes.
  - Assist with the resupply of isolated communities and/or properties.

**1.5.29 Welfare Services Functional Area:**

- a. When requested by NSW SES:
  - Establish and manage evacuation centres, and provide disaster welfare services from recovery centres.

- Administer the Personal Hardship and Distress component of the NSW Disaster Relief Scheme established to provide financial assistance to people affected by emergencies.

1.5.30 **Mowlma Creek Farmer Network:**

- a. Provide flood information to the NSW SES Local Incident Controller.
- b. Distribute flood warnings and flood information provided by the NSW SES Local Controller to residents in the Mowlma Creek area.

## PART 2 - PREPAREDNESS

### 2.1 MAINTENANCE OF THIS PLAN

- 2.1.1 The NSW SES Local Controller will maintain the currency of this plan by:
- a. Ensuring all agencies, organisations and officers mentioned in it are aware of their roles and responsibilities.
  - b. Conducting exercises to test arrangements.
  - c. Reviewing the contents of the plan:
    - After each flood operation.
    - When significant changes in land-use or community characteristics occur.
    - When new information from flood studies become available.
    - When flood control or mitigation works are implemented or altered.
    - When there are changes that alter agreed plan arrangements.
- 2.1.2 The plan is to be reviewed no less frequently than every five years.

### 2.2 FLOODPLAIN RISK MANAGEMENT

- 2.2.1 The NSW SES Local Controller will ensure that:
- a. NSW SES participates in local floodplain risk management committee activities when those committees are formed, in accordance with the protocols outlined in the NSW SES Controllers Guide.
  - b. The NSW SES Region Headquarters is informed of involvement in floodplain risk management activities.

### 2.3 DEVELOPMENT OF FLOOD INTELLIGENCE

- 2.3.1 Flood intelligence describes flood behaviour and its effects on the community.
- 2.3.2 The NSW SES maintains a centralised flood intelligence system.

### 2.4 DEVELOPMENT OF WARNING SYSTEMS

- 2.4.1 The NSW SES may establish a total flood warning system for areas affected by flooding. This requires:
- a. An identification of the potential clients of flood warning information at different levels of flooding (i.e. who would be affected in floods of differing severities).
  - b. Available information about the estimated impacts of flooding at different heights.

- c. Identification of required actions and the amounts of time needed to carry them out.
- d. Appropriate means of disseminating warnings to different clients and at different flood levels.

## **2.5 PUBLIC EDUCATION**

2.5.1 The NSW SES Local Controller, with the assistance of the Coonamble Shire Council, the NSW SES Region Headquarters and NSW SES State Headquarters, is responsible for ensuring the residents of the council area are aware of the flood threat in their vicinity and how to protect themselves from it.

2.5.2 Specific strategies to be employed include:

- a. Dissemination of flood-related brochures and booklets in flood liable areas.
- b. Talks and displays orientated to community organisations, businesses and schools.
- c. Publicity given to this plan and to flood-orientated NSW SES activities through local media outlets, including articles in local newspapers about the flood threat and appropriate responses.

2.5.3 Throughout this document there are references to functions that must be carried out by the members of the NSW SES Local Unit. The NSW SES Local Controller is responsible for ensuring members are:

- a. Familiar with the contents of this plan.
- b. Trained in the skills necessary to carry out the tasks allocated to the NSW SES.

## **2.6 RESOURCES**

2.6.1 The NSW SES Local Controller is responsible for maintaining the condition and state of readiness of NSW SES equipment and the NSW SES Local Headquarters.

## PART 3 - RESPONSE

### CONTROL

#### 3.1 CONTROL ARRANGEMENTS

- 3.1.1 The NSW SES is the legislated Combat Agency for floods and is responsible for the control of flood operations. This includes the coordination of other agencies and organisations for flood management tasks.
- 3.1.2 The Local EMPLAN will operate to provide support as requested by the NSW SES Local Incident Controller.

#### 3.2 OPERATIONAL MANAGEMENT

- 3.2.1 NSW SES utilises the Australasian Inter-service Incident Management System (AIIMS), which is based on three principles:
- a. Functional management;
  - b. Management by objectives; and
  - c. Span of control.
- 3.2.2 AIIMS provides for different incident levels based on the complexity of management.
- 3.2.3 The Local Government Area may be divided into sectors and divisions to manage the flood event (divisions are usually a group of sectors).
- 3.2.4 Sectors and divisions may be based on floodplain classifications, geographical, physical or functional boundaries. A town, city or suburb may be one sector or split into several sectors and divisions.

#### 3.3 START OF RESPONSE OPERATIONS

- 3.3.1 This plan is always active to ensure that preparedness actions detailed in this plan are completed.
- 3.3.2 Response operations will begin:
- a. On receipt of a Bureau of Meteorology Preliminary Flood Warning, Flood Warning, Flood Watch, Severe Thunderstorm Warning or a Severe Weather Warning for flash flooding.
  - b. On receipt of a dam failure alert.
  - c. When other evidence leads to an expectation of flooding within the council area.
- 3.3.3 Contact with the Bureau of Meteorology to discuss the development of flood warnings will normally be through the NSW SES Region Headquarters and/or NSW SES State Headquarters.

- 3.3.4 The following persons and organisations will be advised of the start of response operations regardless of the location and severity of the flooding anticipated:
- a. NSW SES Macquarie Region Headquarters.
  - b. NSW SES Local Headquarters.
  - c. Coonamble Shire Council Local Emergency Operations Controller (for transmission to the NSW Police Force Local Area Command Headquarters).
  - d. Coonamble Shire Council Local Emergency Management Officer (for transmission to appropriate council officers and departments).
  - e. Shire Council Mayor.
  - f. Other agencies listed in this plan will be advised by the Local Emergency Management Officer on the request of the NSW SES Local Incident Controller and as appropriate to the location and nature of the threat.

### 3.4 RESPONSE STRATEGIES

- 3.4.1 The main response strategies for NSW SES flood operations include:
- a. Information Provision and Warning
    - Provision of warnings, information and advice to communities.
    - Inform the community regarding the potential impacts of a flood and what actions to undertake in preparation for flooding.
    - Provide timely and accurate information to the community.
  - b. Property protection
    - Protect the property of residents and businesses at risk of flood damage.
    - Assistance with property protection by way of sandbagging, lifting or transporting of furniture, personal effects, commercial stock and caravans.
    - Assistance with the protection of essential infrastructure.
  - c. Evacuation
    - The temporary movement of people from a dangerous or potentially dangerous place to a safe location, and their eventual return. It is a safety strategy which uses distance to separate people from the danger created by the hazard.
  - d. Rescue
    - The rescue or retrieval of persons trapped by floodwaters.

- e. Resupply
    - Minimise disruption upon the community by resupplying towns and villages which have become isolated as a consequence of flooding.
    - Ensure supplies are maintained to property owners by coordinating the resupply of properties which have become isolated as a consequence of flooding.
- 3.4.2 The NSW SES Local Incident Controller will select the appropriate response strategy to deal with the expected impact of the flood in each sector and/or community. The impact may vary so a number of different strategies may need to be selected and implemented across the whole operational area. The available strategies for each sector and/or community are maintained by the NSW SES.
- 3.4.3 Supporting strategies may include:
- a. Protect the community from incidents involving fire and hazardous materials
  - b. Maintain the welfare of communities and individuals affected by the impact of a flood.
  - c. Minimise disruption to the community by ensuring supply of essential energy and utility services.
  - d. Ensure coordinated health services are available to and accessible by the flood affected communities.
  - e. Maintain the welfare of animals affected by the impact of a flood.

### **3.5 OPERATIONS CENTRES**

- 3.5.1 The NSW SES Operations Centre is located at 18 Aberford Street, Coonamble.
- 3.5.2 Supporting EOCs are located at:
- a. Coonamble Shire Council Emergency Operations Centre, Coonamble Shire Council Offices, Castlereagh Street, Coonamble.

### **3.6 LIAISON**

- 3.6.1 Any agency with responsibilities identified in this plan may be requested by the NSW SES to provide liaison (including a liaison officer where necessary) to the NSW SES Local Operations Centre.
- 3.6.2 Liaison officers are to:
- a. Have the authority to deploy the resources of their parent organisations at the request of the NSW SES Local Incident Controller,
  - b. Advise the NSW SES Local Incident Controller on resource availability for their service, and
  - c. Be able to provide communications to their own organisations.

### 3.7 END OF RESPONSE OPERATIONS

- 3.7.1 When the immediate danger to life and property has passed, the NSW SES Region Incident Controller or the NSW SES Local Incident Controller will issue an 'all clear' message signifying that response operations have been completed.
- 3.7.2 The message will be distributed through the same media outlets as earlier evacuation messages. The relevant Incident Controller will also advise details of recovery coordination arrangements, arrangements made for clean-up operations prior to evacuees being allowed to return to their homes, and stand-down instructions for agencies not required for recovery operations.

## PLANNING

### 3.8 COLLATING SITUATIONAL INFORMATION

#### Strategy

- 3.8.1 The NSW SES maintains and records situational awareness of current impacts and response activities.

#### Actions

- 3.8.2 The NSW SES Local Headquarters collates information on the current situation in the Coonamble Shire Council LGA and incorporates this information in Situation Reports.
- 3.8.3 The NSW SES Region Headquarters collates Region-wide information for inclusion in Region NSW SES Situation Reports.
- 3.8.4 Sources of situational information during times of flooding are:
- a. **Agency Situation Reports.** Agencies and functional areas provide regular situation reports (SITREPs) to the NSW SES.
  - b. **Active Reconnaissance.** The NSW SES Local Incident Controller is responsible for coordinating the reconnaissance of impact areas, recording and communicating observations. Reconnaissance can be performed on the ground and using remote sensing (more commonly aerial). The NSW SES monitors the levee and the following problem areas:
    - The Castlereagh River at:
      - "The 9 Mile" (approximately 14 km south of Coonamble);
      - "The Cutting" (a causeway at the western end of Tooloon Street) and Pages Terrace;
      - Yuma/Nebea/Limerick Street area of Coonamble; and
      - The opposite side of Castlereagh River from the Coonamble Base Hospital in the vicinity of Reid Street.

- The Euronne Gully causeway, 10 km on the Coonamble to Quambone road.
  - The Eurimie Creek causeway on the Coonamble to Carinda road.
  - Warrena Creek.
  - Mowlma Creek.
- c. The **Bureau of Meteorology's Flood Warning Centre** provides river height and rainfall information, data is available on the website <http://www.bom.gov.au/nsw/flood/>.
- d. **NSW Office of Water.** This office advises flow rates and rates of rise for the Castlereagh River, its tributaries and Marthaguy Creek. Daily river reports containing information on gauge heights and river flows are available from the website: <http://waterinfo.nsw.gov.au/>.
- e. **NSW SES Region Headquarters.** The Region Headquarters provides information on flooding and its consequences, including those in nearby council areas (this information is documented in Bulletins and Situation Reports).
- f. **NSW SES Local Headquarters.** The NSW SES Coonamble Local Headquarters monitors a number of stream gauges on the Castlereagh River and its tributaries within and immediately upstream of the Coonamble Shire local government area.
- g. **Coonamble Shire Council.** The council provides information on the effects of flooding (including reports on road conditions and closures) and the status of the Coonamble levee.
- 3.8.5 During flood operations sources of information on roads closed by flooding include:
- a. Coonamble Shire Council
  - b. Castlereagh Police Local Area Command
  - c. Roads and Maritime Services
  - d. NSW SES Region Headquarters
  - e. NSW SES Local Headquarters.
- 3.8.6 Situational information relating to consequences of flooding should be used to verify and validate NSW SES Flood Intelligence records.

## 3.9 PROVISION OF FLOOD INFORMATION AND WARNINGS

### Strategy

- 3.9.1 The NSW SES Local Headquarters provides advice to the NSW SES Region Headquarters on current and expected impacts of flooding in the Coonamble Shire Council LGA.

- 3.9.2 The NSW SES Region Headquarters issues NSW SES Flood Bulletins, Evacuation Warnings and Evacuation Orders to media outlets and agencies on behalf of all NSW SES units in the Region. The NSW SES Local Incident Controller will also ensure such warnings are passed onto the Mowlma Creek Farmer Network and to the rural community via telephone, facsimile, internet and UHF radio.

#### Actions

- 3.9.3 The NSW SES Local Incident Controller will ensure the NSW SES Region Incident Controller is regularly briefed on the progress of operations.
- 3.9.4 The NSW SES Local Incident Controller will ensure that the NSW SES Local Headquarters operations staff are briefed regularly so they can provide information in response to inquiries received in person or by other means such as phone, fax or email.
- 3.9.5 **Bureau of Meteorology Severe Thunderstorm Warning.** These are issued direct to the NSW SES and media by the Bureau when severe thunderstorms are expected to produce dangerous or damaging conditions, including flash flooding. Severe thunderstorms are usually smaller in scale than events covered by Flood Watches and Severe Weather Warnings.
- 3.9.6 **Bureau of Meteorology Severe Weather Warnings for Flash Flooding.** These are issued direct to the NSW SES and media by the Bureau and provide a warning of the possibility for flash flooding as a result of intense rainfall. These warnings are issued when severe weather is expected to affect land based communities within 6 to 24 hours. Severe Weather Warnings may also include other conditions such as Damaging Winds.
- 3.9.7 **Bureau of Meteorology Flood Watches.** These are issued direct to the NSW SES and media by the Bureau to advise people of the potential for flooding in a catchment area based on predicted or actual rainfall. Flood Watches will be included in NSW SES Flood Bulletins issued by the NSW SES Region Headquarters.
- 3.9.8 **Bureau of Meteorology Flood Warnings.** These are issued direct to the NSW SES and media by the Bureau. The NSW SES Region Headquarters forwards a copy of Bureau issued Flood Warnings to the NSW SES Local Headquarters. On receipt, the NSW SES Local Headquarters will provide the NSW SES Region Headquarters with information on the estimated impacts of flooding expected at the predicted heights for inclusion in NSW SES Region Flood Bulletins.
- 3.9.9 **NSW SES Livestock and Equipment Warnings.** These are issued following heavy rain or when there are indications of significant creek or river rises (even to levels below Minor Flood heights). The NSW SES Local Headquarters will advise the NSW SES Region Headquarters who will then issue a NSW SES Livestock and Equipment Warning.
- 3.9.10 **NSW SES Local Flood Advices.** The NSW SES Local Incident Controller may issue Local Flood Advices for locations not covered by Bureau Flood Warnings following heavy rain or when there are indications of significant creek or river

- rises. These may be provided verbally in response to phone inquiries but will normally be incorporated into a NSW SES Region Flood Bulletin.
- 3.9.11 **NSW SES Flood Bulletins.** The NSW SES Region Headquarters will regularly issue NSW SES Flood Bulletins which describe information on the estimated impacts of flooding at the predicted heights using information from Bureau Flood Warnings and NSW SES Local Flood Advices. These are distributed to local media outlets, councils, emergency services, supporting agencies, information centres, caravan parks and surrounding NSW SES Units on behalf of the NSW SES Local Incident Controller.
- 3.9.12 **NSW SES Evacuation Warnings and Evacuation Orders.** These are usually issued to the media by the NSW SES Region Incident Controller on behalf of the NSW SES Local Incident Controller.
- a. Evacuation warnings issued in the Coonamble Shire Council area should be issued:
- To residents in the south-eastern part of Coonamble at any time from when it is predicted that the Castlereagh River will exceed 5.4 meters at the Coonamble gauge (the current IFL set for the Coonamble levee).
  - To residents of about 25 houses located in the area bounded by Calga, Limerick and Conimbia Streets if the river is predicted to exceed 5.5 metres,
  - Residents of Gulargambone if the river is predicted to reach or exceed 7.0 metres at the Gulargambone gauge.
- 3.9.13 **Standard Emergency Warning Signal (SEWS).** This signal may be played over radio and television stations to alert communities to Evacuation Warnings, Evacuation Orders, Special Warnings or Dam-Failure Warnings. Approval to use the signal is associated with who approves the warning/order message.
- 3.9.14 **The Public Information and Inquiry Centre (PIIC)** (operated by the NSW Police Force) will answer calls from the public regarding registered evacuees.
- 3.9.15 **The Disaster Welfare Assistance line** is a central support and contact point for disaster affected people inquiring about welfare services advice and assistance.
- 3.9.16 **The RMS Transport Information Line** will provide advice to callers on the status of roads. The RMS website also lists road closure information.
- 3.9.17 **Coonamble Shire Council** will provide information on the status of roads.
- 3.9.18 The collation and dissemination of main road information is actioned as follows:
- a. As part of Situation Reports, the NSW SES Local Incident Controller will provide road status reports for major roads in the council area to the NSW SES Region Headquarters.

- b. The NSW SES Region Headquarters will include this information in NSW SES Flood Bulletins.

## OPERATIONS

### 3.10 AIRCRAFT MANAGEMENT

- 3.10.1 Aircraft can be used for a variety of purposes during flood operations including evacuation, rescue, resupply, reconnaissance and emergency travel.
- 3.10.2 Air support operations will be conducted under the control of the NSW SES Region Headquarters, which may allocate aircraft to units if applicable.
- 3.10.3 NSW SES maintains the following information for the Coonamble Shire Council area:
  - a. Locations of suitable helicopter landing points.
  - b. Locations of suitable airports and records detailing aircraft size and type that can land at airports.
  - c. Intelligence on when access to these locations is expected to be lost.

### 3.11 ASSISTANCE FOR ANIMALS

- 3.11.1 Matters relating to the welfare of livestock, companion animals and wildlife are to be referred to Agriculture and Animal Services.
- 3.11.2 Requests for emergency supply and/or delivery of fodder to stranded livestock, or for livestock rescue, are to be referred to Agriculture and Animal Services.
- 3.11.3 Requests for domestic animal rescue should be referred to the NSW SES.

### 3.12 COMMUNICATION SYSTEMS

- 3.12.1 The primary means of communications between fixed locations is by telephone, email and facsimile.
- 3.12.2 The primary means of communication to and between deployed NSW SES resources is by GRN.
- 3.12.3 All liaison officers will provide their own communication links back to their parent agencies.
- 3.12.4 All other organisations will provide communications as necessary to their deployed field teams.
- 3.12.5 Back-up communications are provided as follows:
  - a. UHF Networks
    - Coonamble Police - Channel 10.

- Gulargambone Police - Channel 28.
- Coonamble Ambulance - Channel 10.
- Rural Fire Service - Channel 10.
- Coonamble Hospital - Channel 23.
- Telstra - Channel 40.
- Essential Energy - Channel 40.
- Department of Agriculture - Channel 22.
- Coonamble Fire Brigade - Channel 10.

b. The Coonamble Shire Council operates a Two-way Base System.

### **3.13 PRELIMINARY DEPLOYMENTS**

- 3.13.1 When flooding is expected to be severe enough to cut road access to towns, within towns and/or rural communities, the NSW SES Local Incident Controller will ensure that resources are in place for the distribution of foodstuffs and medical supplies to areas that could become isolated.
- 3.13.2 When access between locations is expected to be cut, the NSW SES Local Incident Controller will advise appropriate agencies so resources (including sandbags, fire fighting appliances, ambulances, etc.) are deployed to ensure that operational capability is maintained.

### **3.14 ROAD AND TRAFFIC CONTROL.**

- 3.14.1 A number of roads within the council area are affected by flooding. NSW SES maintains details of these roads.
- 3.14.2 The council closes and re-opens its own roads and, acting as an agent for the RMS, does the same for the Castlereagh Highway.
- 3.14.3 The NSW Police Force has the authority to close and re-open roads but will normally only do so (if the Council or the RMS have not already acted) if public safety requires such action.
- 3.14.4 Police, RMS or Council officers closing or re-opening roads or bridges affected by flooding are to advise the NSW SES Local Incident Controller. All such information must also be passed to Council for transmission to the RMS Transport Management Centre (TMC).
- 3.14.5 During flood events, the NSW SES Local Incident Controller may direct the imposition of traffic control measures. The entry into flood affected areas will be controlled in accordance with the provisions of the State Emergency Service Act, 1989 (Part 5, Sections 19, 20, 21 and 22) and the State Emergency Rescue Management Act, 1989 (Part 4, Sections 60KA, 60L and 61).
- 3.14.6 When resources permit, the NSW SES may assist Council, RMS or the Police by erecting road closure signs and barriers.

### 3.15 STRANDED TRAVELLERS

- 3.15.1 Flood waters can strand travellers. Travellers seeking assistance will be referred to the Welfare Services Functional Area for the arrangement of emergency accommodation if required.

### 3.16 MANAGING PROPERTY PROTECTION OPERATIONS

#### Strategy

- 3.16.1 Protect the property of residents and businesses at risk of flood damage.

#### Actions

- 3.16.2 The NSW SES is the responsible agency for the coordination of operations to protect property.
- 3.16.3 Property may be protected from floods by:
- Lifting or moving of household furniture.
  - Lifting or moving commercial stock and equipment.
  - Sandbagging to minimise entry of water into buildings.
- 3.16.4 The NSW SES maintains stocks of sandbags.
- 3.16.5 Property protection options are however very limited in the Coonamble Shire Council Area due to the large number of properties that can be affected.

### 3.17 MANAGING FLOOD RESCUE OPERATIONS

#### Strategy

- 3.17.1 Rescue of people from floods.

#### Actions

- 3.17.2 The NSW SES Local Incident Controller controls flood rescue in Coonamble Shire Council local government area.
- 3.17.3 Flood rescues, may be carried out by accredited rescue units in accordance with State Rescue Board policies and standards.
- 3.17.4 Additional flood boats and crews can be requested through the NSW SES Region Headquarters.
- 3.17.5 There may be some residual population which did not evacuate during the early stages of flooding and may require rescue.

### 3.18 MANAGING EVACUATION OPERATIONS

#### Strategy

- 3.18.1 When there is a risk to public safety, evacuation is the primary strategy. Circumstances may include:

- a. Evacuation of people when their homes or businesses are likely to be flooded.
- b. Evacuation of people who are unsuited to living in isolated circumstances, due to flood water closing access.
- c. Evacuation of people where essential energy and utility services are likely to fail, have failed or where buildings have been made uninhabitable.

### Actions

- 3.18.2 The evacuation operation will have the following stages:
- a. Decision to evacuate.
  - b. Mobilisation (mobilisation may begin prior to the decision to evacuate).
  - c. Evacuation Warning delivery.
  - d. Evacuation Order delivery.
  - e. Withdrawal.
  - f. Shelter.
  - g. Return.
- 3.18.3 During floods evacuations will be controlled by the NSW SES.
- 3.18.4 Small-scale evacuations will be controlled by the NSW SES Local Incident Controller.
- 3.18.5 Should the scale of evacuation operations be beyond the capabilities of local resources control may be escalated to the NSW SES Region Incident Controller.

### Decision to evacuate

- 3.18.6 In most cases the decision to evacuate rests with the NSW SES Local Incident Controller who exercises his/her authority in accordance with Section 22(1) of the State Emergency Service Act 1989. However, the decision to evacuate will usually be made after consultation with the NSW SES Region Incident Controller and the Local Emergency Operations Controller.
- 3.18.7 In events that require large scale evacuations, the decision to evacuate may be escalated to the NSW SES Region Incident Controller or the State Incident Controller.
- 3.18.8 Some people will make their own decision to evacuate earlier and move to alternate accommodation, using their own transport. This is referred to as self-motivated evacuation.

### Mobilisation

- 3.18.9 The NSW SES Local Incident Controller will mobilise the following to provide personnel for doorknock teams:

- a. NSW SES Local Unit members,
  - b. RFS Coonamble District members via the RFS Fire Control Officer,
  - c. Local Police Force officers.
- 3.18.10 The NSW SES Region Incident Controller will mobilise any additional personnel required to assist with doorknock teams using:
- a. NSW SES members from within the NSW SES Region and surrounding NSW SES Regions.
  - b. FRNSW personnel arranged via the FRNSW Liaison Officer.
  - c. RFS personnel arranged via the RFS Liaison Officer.
- 3.18.11 The NSW SES Local Incident Controller will request the Chairperson of the LEMC to provide Council personnel to assist with traffic coordination.
- 3.18.12 The NSW SES Local Incident Controller will arrange liaison officers for Sector Command Centres.
- 3.18.13 The NSW SES Region Incident Controller will mobilise the required number of buses for Sectors via the Transport Services Functional Area Coordination Centre.

### **Delivery of Evacuation Warnings and Evacuation Orders**

- 3.18.14 The NSW SES will advise the community of the requirements to evacuate. The NSW SES will issue an **Evacuation Warning** when the intent of an NSW SES Incident Controller is to warn the community of the need to prepare for a possible evacuation.
- 3.18.15 The NSW SES will issue an **Evacuation Order** when the intent of the NSW SES Incident Controller is to instruct a community to immediately evacuate in response to an imminent threat.
- 3.18.16 The NSW SES Local Incident Controller will distribute Evacuation Warnings and Evacuation Orders to:
- a. Sector/Division Command Centres (where established).
  - b. Coonamble Shire Council Local Emergency Operations Centre.
  - c. Coonamble Shire Council.
  - d. Castlereagh Police Local Area Command.
  - e. Coonamble Rural Fire Service Control Centre.
  - f. Radio Stations - 2CR ABC, 2 WAR FM, 2WEB (Bourke), 2DU (Dubbo).
  - g. Other local agencies and specified individuals.
- 3.18.17 The NSW SES Region Incident Controller will distribute Evacuation Warnings and Evacuation Orders to:
- a. The NSW SES State Operations Centre.
  - b. The NSW SES Local Incident Controller.

- c. Affected communities via dial-out warning systems where installed or applicable.
  - d. Relevant media outlets and agencies.
- 3.18.18 Evacuation Warnings and Evacuation Orders may be delivered through:
- a. Radio and television stations.
  - b. Doorknocking by emergency service personnel.
  - c. Public address systems (fixed or mobile).
  - d. Telephony-based systems (including Emergency Alert).
  - e. Two-way Radio.
  - f. Direct access to Radio Station ABC Western Plains.
- 3.18.19 The Standard Emergency Warning Signal (SEWS) may be used to precede all Evacuation Orders broadcast on Radio Stations.
- 3.18.20 Sector Command Centres, where established, will distribute Evacuation Orders via Emergency Service personnel in doorknock teams to areas under threat of inundation.
- 3.18.21 Doorknock teams will work at the direction of:
- a. The Sector Commander if a Sector Command Centre is established;
  - b. The relevant Division Commander where a Sector Command Centre has not been established; or
  - c. The Local Incident Controller.
- 3.18.22 Field teams conducting doorknocks will record and report back the following information to their Sector Commander/Division Commander/Local Incident Controller:
- a. Addresses and locations of houses doorknocked and/or evacuated.
  - b. The number of occupants.
  - c. Details of support required (such as transport, medical evacuation, assistance to secure house and/or property and raise or move belongings).
  - d. Details of residents who refuse to comply with the Evacuation Order.
- 3.18.23 Refusal to evacuate. Field teams cannot afford to waste time dealing with people who are reluctant or refuse to comply with any Evacuation Order. These cases are to be referred to the NSW Police Force.

## **Withdrawal**

- 3.18.24 Evacuations will generally be carried out in stages starting from the lowest areas, low flood islands and low trapped perimeters; and progressively to higher areas.

- 3.18.25 The most desirable method of evacuation is via road using private transport. This may be supplemented by buses for car-less people. However, other means of evacuation may also be used if available and as necessary (e.g. by foot, rail, air).
- 3.18.26 Evacuees who require emergency accommodation or disaster welfare assistance will be directed to designated evacuation centres.
- 3.18.27 Evacuees will:
- a. Move under local traffic arrangements from the relevant Sectors/Community;
  - b. Continue along the suburban/regional/rural road network to allocated Evacuation Centres.
- 3.18.28 **Health Services.** The Health Services Functional Area will coordinate the evacuation of hospitals, health centres, and aged care facilities (including nursing homes).
- 3.18.29 **Schools.** School administration offices (Department of Education and Training, Catholic Education Office and Private Schools) will coordinate the evacuation of schools if not already closed.
- 3.18.30 If there is sufficient time between the start of response operations and the evacuation of communities, the NSW SES Region Incident Controller will discuss the temporary closure of appropriate schools with the Regional Director, Western NSW Region, Department of Education and Training. This will enable pupils to stay at home or be returned home so they can be evacuated (if required) with their families.
- 3.18.31 Note that in the Coonamble Shire Council LGA, school principals may close some schools affected by flooding in the early stages of flooding.
- 3.18.32 **Caravan parks.** When an evacuation order is given occupiers of non-movable vans should:
- a. Secure their vans by tying them down to prevent flotation.
  - b. Isolate power to their vans.
  - c. Collect personal papers, medicines, a change of clothing, toiletries and bedclothes.
  - d. Lift the other contents of their vans as high as possible within the van.
  - e. Move to a designated evacuation centre if they have their own transport, or move to the caravan office to await transport.
- 3.18.33 Where possible, vans that can be moved will be relocated by their owners. Park managers will arrange for the relocation of mobile vans whose owners do not have a vehicle. Council and NSW SES personnel will assist if required and may be able to provide additional vehicles.
- 3.18.34 Caravan park managers will ensure that their caravan park is capable of being evacuated within the allocated time.

- 3.18.35 Advise the NSW SES Local Controller of:
- a. The number of people requiring transport.
  - b. Details of any medical evacuations required.
  - c. Whether additional assistance is required to effect the evacuation.
- 3.18.36 Check that no people remain in non-removable vans that are likely to be inundated.
- 3.18.37 Inform the NSW SES Local Incident Controller when the evacuation of the caravan park has been completed.
- 3.18.38 Provide the NSW SES Local Incident Controller with a register of people that have been evacuated.
- 3.18.39 **Assistance Animals, Pets and Companion Animals of Evacuees:** Assistance animals (guide dogs, hearing assistance animals, etc.) will remain in the care of their owners throughout the evacuation. This includes transport and access into evacuation centres etc. Due to safety restrictions, it may not be possible to allow companion animals to accompany their owners when being transported via aircraft or flood rescue boats. Agriculture and Animal Services will make separate arrangements for the evacuation and care of companion animals.
- 3.18.40 **Transport and storage:** Transport and storage of furniture from flood threatened properties will be arranged as time and resources permit.
- 3.18.41 **Security:** The NSW Police Force will provide security for evacuated areas.
- 3.18.42 The NSW SES Local Incident Controller is to provide the following reports to the NSW SES Region Headquarters:
- a. Advice of commencement of the evacuation of each Sector;
  - b. Half-hourly progress reports (by Sectors) during evacuations;
  - c. Advice of completion of the evacuation of each Sector.

## Shelter

- 3.18.43 **Evacuation centres / assembly areas.** The usual purpose of evacuation centres or assembly areas is to meet the immediate needs of disaster affected people following evacuation from an emergency situation, not to provide them with accommodation. Evacuees will be advised to go to or be taken to the nearest accessible evacuation centre, which may initially be established at the direction of the NSW SES Local Incident Controller, but managed as soon as possible by Welfare Services.
- 3.18.44 The following locations may be suitable for use as flood evacuation centres:
- a. Coonamble:
    - Coonamble Bowling Club, Aberford Street.
    - Coonamble Public School, Bertram Street.

- St. Bernard's School, Tooloon Street.
  - Coonamble High School, Aberford Street.
  - Coonamble RSL Club, Aberford Street.
  - Coonamble Golf Club, Caswell Street Coonamble.
- b. Gulargambone:
- Gulargambone Central School, Yalcogrin Street.
  - Gulargambone Memorial Hall, Bourbah Street.
  - Gulargambone Sportsground, Munnell Street.
  - Gulargambone Bowling Club, Coonamble Street.
- c. Quambone:
- Quambone Public School, Mungie Street.
  - Quambone Memorial Hall, Mungie Street.
- 3.18.45 **Registration:** The NSW Police Force will ensure that evacuees are registered on arrival at the designated evacuation centres.
- 3.18.46 **Animal shelter compounds:** Animal shelter compounds will be set up for the domestic pets and companion animals of evacuees if required. Facilities will be managed by Agriculture and Animal Services.

## Return

- 3.18.47 The NSW SES Local Incident Controller will advise when return to evacuated areas is safe after flood waters have receded and reliable access is available.
- 3.18.48 The NSW SES Local Incident Controller will determine when it is safe for evacuees to return to their homes in consultation with:
- a. The Recovery Coordinating Committee (if established),
  - b. Welfare Services Functional Area Coordinator (welfare of evacuees),
  - c. Engineering Services Functional Area Co-coordinator (electrical safety of buildings, structural integrity of levees/dams),
  - d. Health Service Functional Area Coordinator (public health),
  - e. Transport Services Functional Areas Coordinator (arrangement of transport),
  - f. The Coonamble Shire Council LEOCON,
  - g. The Coonamble Shire Council,
  - h. NSW SES Region Incident Controller,
  - i. Other appropriate agencies/functional areas as required (mitigation and advice regarding identified risks resulting from the flood event).

- 3.18.49 Once it is considered safe to do so, the NSW SES Incident Controller will authorise the return of evacuees.
- 3.18.50 The return will be controlled by the NSW SES Local Incident Controller and may be conducted, at their request, by the Recovery Coordinator.

### **3.19 MANAGING RESUPPLY OPERATIONS**

- 3.19.1 The NSW SES is responsible for the coordination of the resupply of isolated communities and properties.
- 3.19.2 If isolation is expected to occur, residents should be encouraged to consider their needs and suitability for an unknown period of isolation.
- 3.19.3 If properties/communities are going to remain in locations expected to become isolated, households/retailers should be encouraged to stock up on essential supplies.
- 3.19.4 Where practicable, once supplies are delivered to the NSW SES designated loading point, the NSW SES Local Incident Controller will arrange for the delivery of essential foodstuffs, fuels or urgent medical supplies required by an isolated property or community.
- 3.19.5 All reasonable effects will be made to deliver supplies, however where necessary the NSW SES will prioritise the delivery of items.

### **Resupply of Isolated Towns and Villages**

#### **Strategy**

- 3.19.6 Minimise disruption upon the community by resupplying towns and villages which have become isolated as a consequence of flooding.

#### **Actions**

- 3.19.7 The NSW SES is responsible for the coordination of the resupply of isolated communities.
- 3.19.8 If flood predictions indicate that areas are likely to become isolated, the NSW SES Local Incident Controller should advise retailers that they should stock up.
- 3.19.9 When isolation occurs, retailers will be expected to place orders with suppliers where they have a line of credit and to instruct those suppliers to package their goods and deliver them to loading points designated by the NSW SES.
- 3.19.10 The NSW SES is prepared to deliver mail to isolated communities but may not be able to do so according to normal Australia Post timetables.
- 3.19.11 The NSW SES will assist hospitals with resupply of linen and other consumables where able.

## Resupply of Isolated Properties

### Strategy

- 3.19.12 Ensure supplies are maintained to properties by coordinating the resupply of properties which have become isolated as a consequence of flooding.

### Actions

- 3.19.13 The resupply of isolated properties is a common requirement during floods and coordination can be difficult because requests can emanate from a variety of sources. Isolated properties may call their suppliers direct, place their orders through their own social networks or contact the NSW SES.
- 3.19.14 The principles to be applied when planning for the resupply of isolated properties are:
- a. The NSW SES will coordinate resupply and establish a schedule.
  - b. Some isolated households will not have the ability to purchase essential grocery items due to financial hardship. If an isolated household seeks resupply from the NSW SES and claims to be, or is considered to be, in dire circumstances, he/she is to be referred to Welfare Services for assessment of eligibility. Where financial eligibility criteria are met, Welfare Services will assist with the purchase of essential grocery items. Welfare Services will deliver the essential grocery items to the NSW SES designated loading point for transport.
  - c. Local suppliers will liaise with the NSW SES regarding delivery of resupply items to the designated loading point.
  - d. Local suppliers are responsible for packaging resupply items for delivery.
- 3.19.15 A flowchart illustrating the Resupply process is shown in Attachment 1. Please note that the flowchart outlines the resupply process but does not encompass all potential situations and/or outcomes.

## PART 4 - RECOVERY

### 4.1 RECOVERY COORDINATION AT THE LOCAL LEVEL

- 4.1.1 The NSW SES Local Controller will ensure that planning for long-term recovery operations begins at the earliest opportunity, initially through briefing the Local Emergency Management Committee (LEMC). As soon as possible the LEMC will meet to discuss recovery implications including the need for a Local Recovery Committee. The LEMC will consider any impact assessment in determining the need for recovery arrangements. This is conveyed in the first instance to the State Emergency Operations Controller (SEOC) for confirmation with the State Emergency Recovery Controller (SERCON).
- 4.1.2 Once the need for recovery has been identified, the SERCON, in consultation with the SEOC, may recommend the appointment of a Local Recovery Coordinator and nominate an appropriate candidate to the Minister for Police and Emergency Services.
- 4.1.3 The SERCON may send a representative to the LEMC and subsequent recovery meetings to provide expert recovery advice and guidance.
- 4.1.4 The NSW SES Local Controller and Local Emergency Operations Controller (LEOC) attend recovery meetings to provide an overview of the emergency response operation.
- 4.1.5 The NSW SES Region Incident Controller, the Region Emergency Management Officer (REMO) and appropriate Regional Functional Area Coordinators will be invited to the initial local meeting and to subsequent meetings as required.
- 4.1.6 The recovery committee will:
- a. Develop and maintain a Recovery Action Plan with an agreed exit strategy
  - b. Monitor and coordinate the activities of agencies with responsibility for the delivery of services during recovery
  - c. Ensure that relevant stakeholders, especially the communities affected, are involved in the development and implementation of recovery objectives and strategies and are informed of progress made
  - d. Provide the SERCON with an end of recovery report
  - e. Ensure the recovery is in line with the National Principles of Disaster Recovery and the NSW tenets

### 4.2 RECOVERY COORDINATION AT THE REGION AND STATE LEVEL

- 4.2.1 In the event that an emergency affects several local areas, a Region Emergency Management Committee (REMC) will meet to discuss recovery implications including the need for a Region Recovery Committee. This is

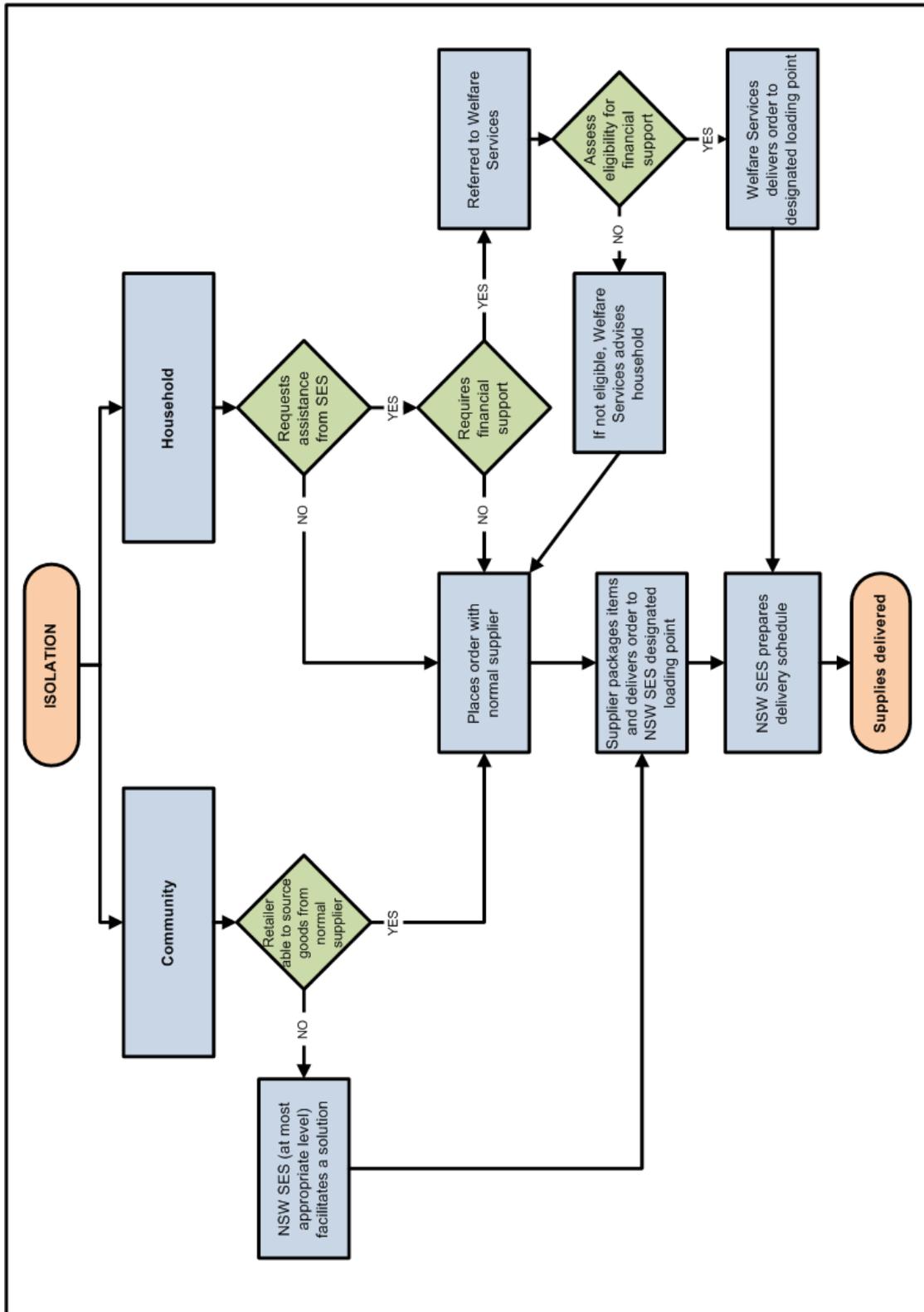
conveyed in the first instance to the SEOCON for confirmation with the SERCON.

- 4.2.2 In the event of an emergency which affects multiple regions, or is of state or national consequence, or where complex, long term recovery and reconstruction is required, it may be necessary to establish a State Recovery Committee and the appointment of a State Recovery Coordinator.

### **4.3 ARRANGEMENTS FOR DEBRIEFS / AFTER ACTION REVIEWS**

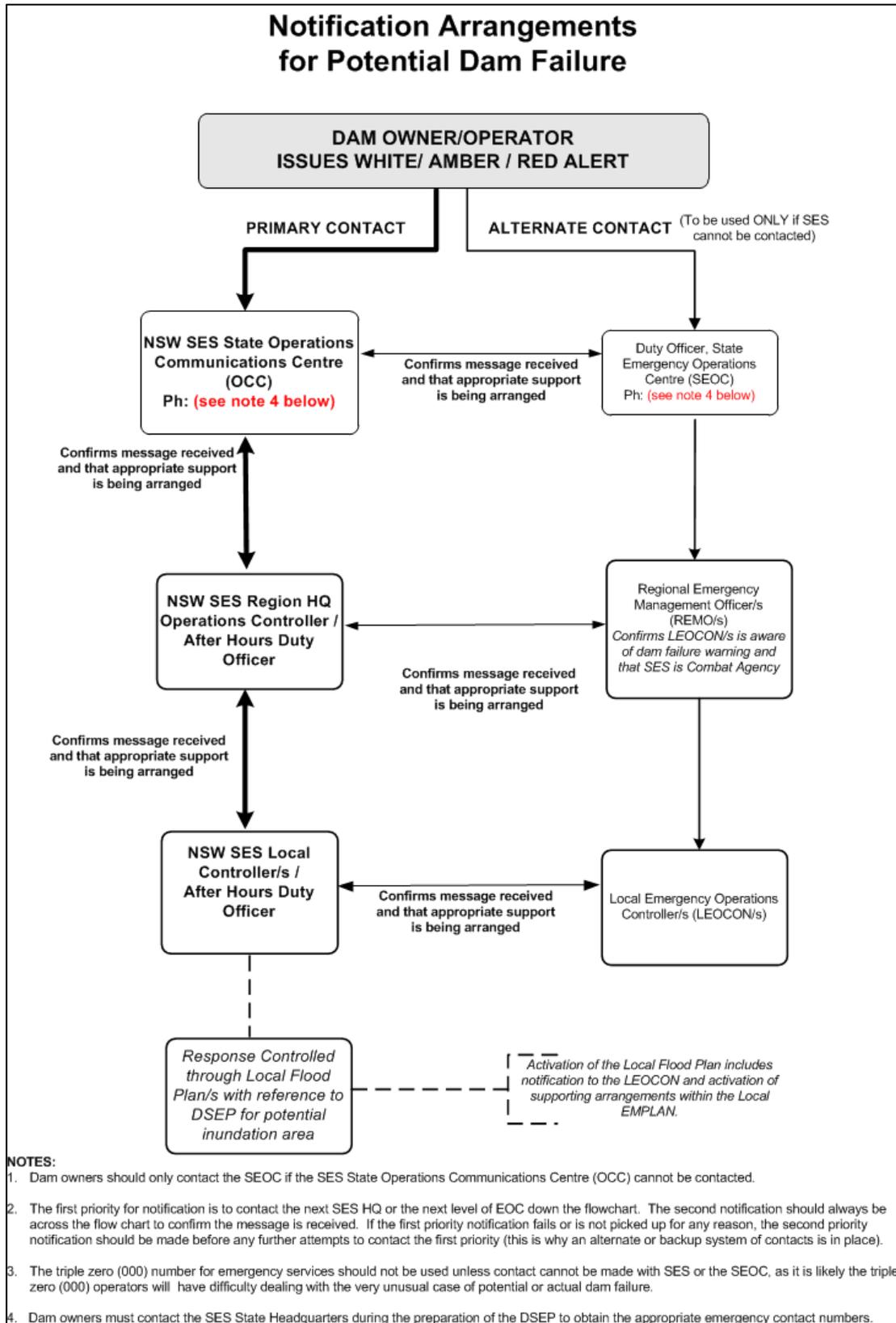
- 4.3.1 As soon as possible after flooding has abated, the NSW SES Local Controller will advise participating organisations of details of response operation after action review arrangements.
- 4.3.2 The NSW SES Local Controller will ensure that adequate arrangements are in place to record details of the after action review and each item requiring further action is delegated to an organisation or individual to implement.
- 4.3.3 Follow-up to ensure the satisfactory completion of these actions will be undertaken by the Coonamble Shire Council Local Emergency Management Committee.

# ATTACHMENT 1 - RESUPPLY FLOWCHART

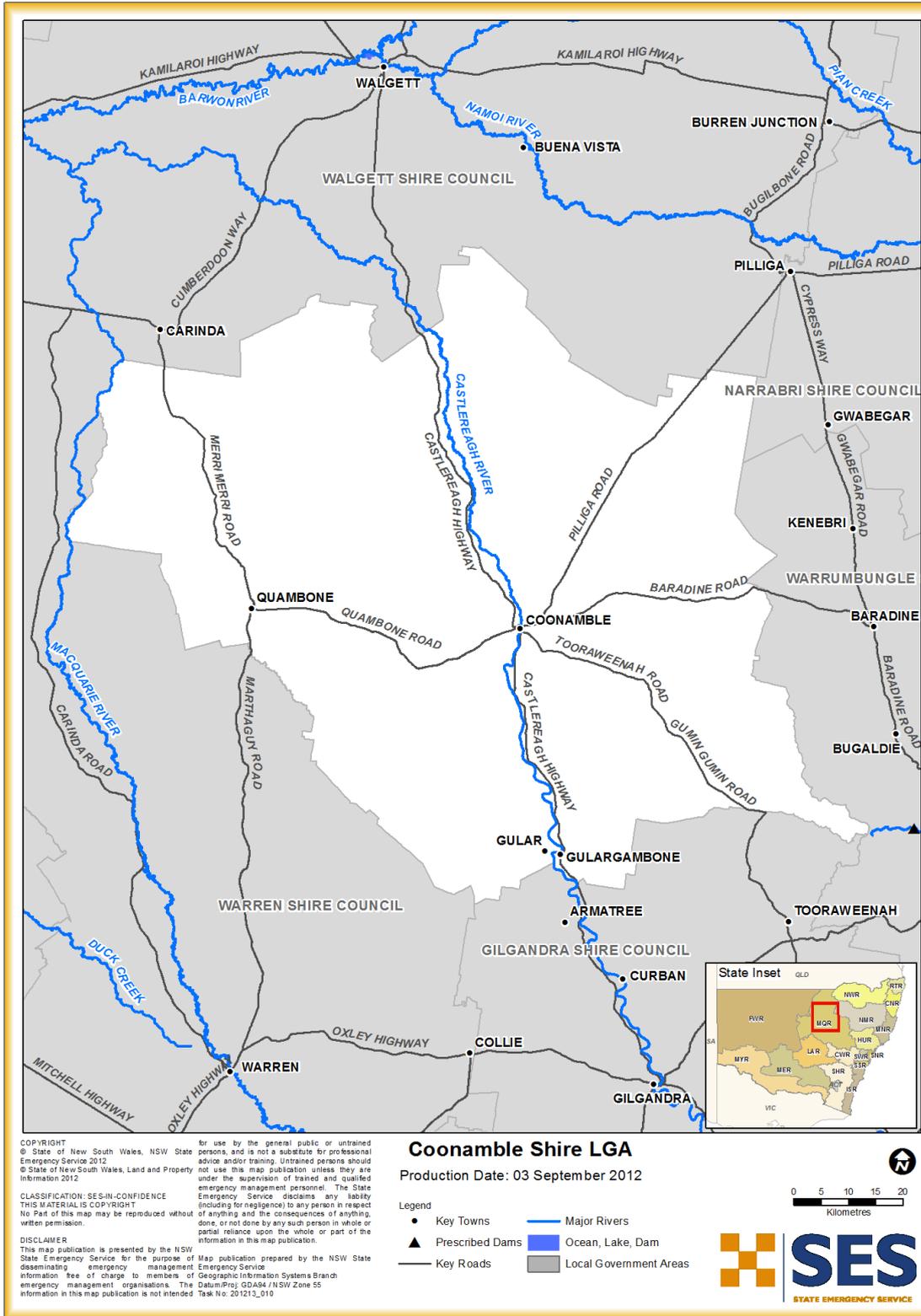


Please Note: The chart outlines the resupply process, but does not encompass all potential situations and outcomes.

# ATTACHMENT 2 - DAM FAILURE ALERT NOTIFICATION ARRANGEMENTS FLOWCHART



# ATTACHMENT 3 - COONAMBLE SHIRE COUNCIL LGA MAP



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# HAZARD AND RISK IN COONAMBLE SHIRE

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**Volume 2 of the Coonamble Shire Local Flood Plan**

Last Update: April 2000

## **ANNEX A - THE FLOOD THREAT**

### **The River Basin**

1. Most of the Coonamble Shire Council area is drained by the Castlereagh River, though the western portion lies within the catchment areas of the Macquarie River and Marthaguy Creek and a small area in the north-east drains to Baradine Creek. All these streams are within the Barwon-Darling river system. Almost all of the council area is flat and low-lying. The watercourses flow only intermittently and while most flooding tends to be of nuisance value, some very severe floods have been experienced.

### **The Castlereagh River**

2. The Castlereagh River rises on the rugged eastern slopes of the main section of the Warrumbungle Ranges, in the Coonabarabran and Gilgandra Council areas, at elevations of over 1,000 metres. The river flows initially in an easterly and then southerly direction though broken, hilly country, but near the town of Gilgandra the relief of the valley flattens considerably into a broad, flat plain. Major tributaries in the upper reaches include Baby, Terrawinda and Ulinda creeks (in the Coonabarabran Council area) and Binnia, Butheroo and Merrygoen creeks (in the Coolah Council area). In the Gilgandra Council area the principal tributaries are Yarragrinn, Wallumburrawang (Breelong), Terrabile, Ranters, Tooraweenah and Gulargambone creeks, the last of which enters the river within the Coonamble Council area.

3. The river system within the Coonamble Council area is complex, with numerous tributary and effluent creeks including Baronne, Warrena, Oaky, Magometon, Noonbar, Gunyilla, Merrimbah, Teridgerie (Terembowa), Nedgera, Eurimie and Mowlma creeks. Except for Eurimie, Nedgera and Mowlma creeks, these streams rise on the western slopes of the Warrumbungle Ranges and drain extensive lowland areas before joining the main river.

4. The main effluent creeks are Nedgera Creek (which takes overflows from the main river upstream of the town of Coonamble), Eurimie Creek (an anabranch which leaves the river at the town) and Mowlma Creek which leaves below it. All are complex watercourses with their own tributary and anabranch channels. Flood waters also flow east from the river at 'the 9 Mile', 14 km upstream of Coonamble, and join Warrena Creek. Warrena Creek enters the river at Coonamble itself.

### **Marthaguy and Other Creeks and The Macquarie River**

5. Marthaguy Creek rises near Balladoran in the Gilgandra Council area and flows north beside the Newell Highway, west beside the Oxley Highway and then north again, roughly parallel to the Warren-Quambone-Carinda road. Throughout its course this creek and its tributaries (Merrigal, Bullagreen, Wemabung and Boothaguy creeks) flow

through near-flat territory. The Marthaguy joins the Macquarie River in the Walgett Council area. For a short reach the Macquarie River forms the boundary of the Coonamble Council area with the Warren Council area. In this area the river flows through the Macquarie Marshes, a large wetland area.

6. The far north-eastern portion of the council area is drained by Baradine Creek, a tributary of the Namoi River.

### **Weather Systems and Flooding**

7. Most of the council area averages between 450 and 500 mm of rain annually, but totals rise to more than 700 mm outside the council area in the Warrumbungle Ranges, which produces an important orographic effect. The summer months, particularly January and February, tend to be the wettest, with the period between November and March regularly receiving more than half the annual rainfall. The majority of the floods to have reached or exceeded the 'moderate flood' level of 4.9 metres at Coonamble since 1950 have occurred in the months between October and April. Heavy rains can occur at other times of year, however.

8. Flooding in the council area usually results from one of three main mechanisms. These are:

- a. **Cyclonic Depressions.** Cyclonic depressions forming troughs extending from northern Australia and directing northerly streams of moist, unstable air into northern and central western NSW. Such systems, which occur during the warmer months, frequently produce intense short-period rainfalls leading to flooding. The flood of February 1955 was of this origin, as were most of the other serious flood events on the Castlereagh River.
- b. **Low-pressure Troughs.** Well-developed low-pressure troughs associated with depressions well to the south of the council area. Sequences of such troughs can produce high rainfall totals over a period of weeks, with falls being less intense than those experienced in summer and the floods generally being less severe. Such sequences tend to occur in the winter months.
- c. **Convective Thunderstorms.** High-intensity, short-duration convective thunderstorms bringing very heavy rain and causing local runoff, 'flash' flooding on minor tributaries and the surcharging of artificial drainage systems in built-up areas. Such storms are largely confined to the late spring, summer and early autumn months and do not create main-stream flooding.

### **Characteristics of Flooding**

9. Upstream of the town of Gilgandra the Castlereagh River is typified by rapid rises and falls, relatively short warning times when flooding occurs, and relatively high-velocity flood flows.

10. Downstream of Gilgandra the grade of the stream flattens considerably and there is a progressive reduction in the waterway area of the main channel, especially downstream of Gulargambone, with a consequent lowering of flow velocities and channel capacity.

On this reach the river is 'perched', its banks being higher in elevation than the adjacent land. Warning times are much longer.

11. Within the Coonamble Shire area the river is 'perched', the natural levees on its banks being higher in elevation than the adjacent land. Overbank flows inundate very large areas and contribute to flooding on Nedgera, Warrena, Marthaguy and other creeks. Flood waters in Warrena Creek and other creeks can also back up because of high flows on the main river. Equally, the Barwon River can hold up flows on the Castlereagh, lengthening the duration of inundation in the northern part of the council area.

12. In significant flood events within the council area, the northern portion is virtually completely flood-bound with all tributary streams and anabranches active. Durations of inundation are long, and flows travel very slowly. Inundation is usually shallow, and the direction of overland flow can be strongly influenced by the condition of crops and pastures, fence lines and local flood mitigation works carried out by farmers. A common occurrence if there is a vegetation build-up south of Coonamble is for the river to break out at 'the 9 Mile' and flow to Warrena Creek. When there is less grass, the break is at Eurimie Creek near Pages Terrace within Coonamble itself.

13. Flooding at Gulargambone can occur from the Castlereagh River and/or from Gulargambone and Muramain creeks.

14. Flow times on the river from Binnaway to Gilgandra are generally of the order of 25 hours and from Gilgandra to Coonamble about 20-26 hours. Flows from Coonamble to the river's confluence with the Macquarie River take about 3-7 days. Particularly in the more severe events, however, flow times could be markedly **shorter** than these. It has been estimated that in the 1% AEP (Annual Exceedance Probability) event, flow times from Binnaway to Gilgandra could be about 8 hours. In such a flood, travel times below Gilgandra would also be much faster than is normally experienced.

## **Flood History**

15. The highest floods recorded at Coonamble since European settlement were in 1950 and 1955, when both sides of the town suffered severe inundation. Other significant floods occurred in 1874, 1890, 1920, 1921, 1969, 1971, 1973, 1974, 1976 and 1990. Note that there were several significant events between 1969 and 1976 but that there has been little flooding since; largely because of drought conditions, which applied for much of the 1980s and 1990s. However, a significant flood did occur in 1990.

16. The table on the next page summarises the available flood information, as estimated for the present Castlereagh River gauge at Coonamble for the 1950 and 1955 events and those since 1960 which exceeded the moderate flood level of 4.9m. Some data for the town's Warrena Creek gauge is also provided. The correlation of peak heights at the two gauges is not perfect, but in general terms it can be assumed that the more serious the flooding is on the Castlereagh River the more serious it will be on Warrena Creek.

## Significant Floods at Coonamble

Event	Castlereagh River		AEP (%)	ARI (years)	Warrena Creek Peak Height (metres)
	Peak Height (metres)	Discharge (ML/day)			
1950 (Nov)	5.71	NA	0.5	200	NA
1955 (Feb)	5.65	NA	1.3	76	NA
1969 (Oct)	5.48	69,200	6.5	15	3.68
1971 (Feb)	5.53	73,900	3.3	30	4.26
1973 (Oct)	5.31	63,900	12.8	8	4.04
1974 (Jan)	5.44	69,800	9.7	10	4.72
1976 (Jan)	4.95	52,600	19.2	5	3.92
1990 (Apr)	5.10	58,900	16.0	6	NA
1998 (Jul)	5.29	Not known	12.8	8	NA

Figure 1 - Significant Floods Recorded At Coonamble

**Note:** A flood of a particular AEP has that percentage chance of occurring in any one year. In addition, the percentage value corresponds with the Average Recurrence Interval (ARI) which is the **average** length of time which is estimated to elapse between floods of a given magnitude or hither. A 1% AEP flood, for example, will be experienced **on average** once in a 100-year period. In a **particular** 100-year period it could occur on several occasions or not at all.

### Flood Mitigation

17. The most significant flood mitigation device in the council area is the levee, which protects the eastern portion of Coonamble from flooding. This structure, which was completed in 1976, is seven km long and constitutes a near-complete ring along the eastern bank of the river and the western bank of the creek. It was constructed of earth, with two reinforced concrete retaining wall sections, to a design level defined by a combination of the 1974 flood on Warrena Creek and the 1955 flood on the main river plus 0.6 metres freeboard. The levee is up to 5m in height above natural ground level, grading into the high bank of the river between the Council Chambers and a point just north of Taloon Street.

18. Since construction, the levee has suffered some settlement, cracks have developed in its upper portions, some slopes have eroded and evidence has accumulated of poor compaction in the lower levels. The consequence of these defects is that the levee might not hold out those floods against which it was designed to provide protection.

19. A recent audit suggests that the levee could fail at a flood height well below the existing crest level. The Imminent Failure Level (IFL) could be reached in a flood rising to about 5.4 metres at the Castlereagh Bridge gauge and 4.4 metres on the Warrena Creek gauge. Such a flood is believed to have an AEP of approximately 13% and represents the once-in-9-years flood event on the Castlereagh River at Coonamble. It is possible that any failure would occur at **higher** levels than those quoted here. However, it appears to be unlikely that the levee would remain intact until a flood reached the heights at which overtopping occurred (5.9 metres on the Castlereagh Bridge gauge and 5.2 metres on the Warrena Creek gauge). Were overtopping to occur from the Castlereagh River, it would be expected to begin in the vicinity of the hospital.

20. During the flood of July/August 1998, the levee experienced significant seepage at the corner of Macquarie and Castlereagh Streets, which caused about 5cm slumpage. Nine aged occupants of the nearby Towrie Units were evacuated as a precaution and temporary repairs were done using 450 tonnes of road base and gravel. Levels were taken to determine the levee freeboard during the flood and the results are shown in the table below:

Location	RL	Description	Above Peak
Caravan Park	181.700	Station 38	
	180.955	Flood Peak (5.3m)	
	181.846	Top of Levee	0.891m
Advance Energy	181.282	Station 50	
	180.664	Flood Peak	
	181.350	Top of Levee	0.686m
Tooloon Street West	181.300	Station 56	
	180.217	Flood Peak	
	180.932	Top of Levee	0.715m
Castlereagh Street North	180.293	Station 72	
	180.077	End of Concrete Levee	0.762m
	179.315	Flood Peak	
	179.862	Top Levee between gates	0.547m
	179.507	Floor level of Towrie Units	0.192m
Tuggy Pennell's	179.854	Station 81	

Location	RL	Description	Above Peak
	179.069	Flood Peak	
	179.850	Top of Levee	0.781m
Namoi Street North	179.953	Station 1	
	178.618	Flood Peak	
	179.436	Top of Levee	0.818m
Nebea Street East	179.854	Station 81	
	179.850	Top of Levee	
	178.924	Flood Peak at Grays	0.926m
	179.306	Floor level at Grays	0.544m
	178.811	Flood Peak at Pickerings	1.039m
	179.055	Floor level at Pickerings	0.795m

Figure 2 - Jul/Aug 98 Flood Peak - Levee Height Comparisons

21. Work has begun to design appropriate remedial action for the levee, but such action will take some time to complete once work actually begins.

### Extreme Floods

22. The worst floods ever experienced in the Coonamble Council area in living memory should not be regarded as the most severe which can occur there. **Worse floods than have been seen by present residents are possible.** Such floods will be rare, but they may reach **considerably** greater heights than have previously been experienced. In addition, they would be likely to be both faster to rise and more dangerous in terms of depth and velocity than previous events.

23. No calculation of the gauge heights that would be reached by floods of PMF (Probable Maximum Flood) proportions has been made for locations within the council area.

## **ANNEX B - EFFECTS OF FLOODING ON THE COMMUNITY**

### **General**

1. Substantial areas within the Coonamble Council area can be affected by flooding, whether by being cut off from road access or by inundation of property or buildings. Much of the flooding is of nuisance value, but on occasions floods can be severe enough to cause substantial damage to farm operations (including crop, stock and fence losses) and to necessitate evacuation from dwellings. Many roads can be cut, including in the more severe events the Castlereagh Highway, and especially in the north of the council area farm households could be isolated for some days or weeks. Flood impacts on Coonamble, the villages and the road network are described below.

### **Coonamble**

2. Coonamble (1996 census population 2,754) was periodically flooded severely from the Castlereagh River and Warrena Creek before the building of its protective levee in 1976. The eastern portion was inundated from Warrena Creek, which carries flows from its own large catchment as well as water from the break-out of the main river 14 kilometres south of the town. About 100 dwellings were affected in 1974, and flood depths of up to 1.2 metres were experienced near Warrena Creek. In 1950 and 1955, about half of the town was inundated, some dwellings to depths of more than a metre over their floorboards.

3. The system of concrete and earthen levees now provides some protection of the built-up area, which was inundated in the past. Were overtopping or failure of this levee to occur, the consequences would be very severe flooding, probably with high velocities near any overtopping or failure points. All of eastern Coonamble would be inundated. Much of the western portion of the town could be inundated as well.

4. The western side of the town has no levee, but the river has come close to breaking out opposite the hospital near Reid Street and earthen banks have had to be built at low points on the banks to contain it.

5. Coonamble's airport has not yet been flooded but could be flood liable in extreme events. Access from the town, two kilometres to the north-east, could be lost as a result of break-outs in such floods but the all-weather road normally allows unrestricted access. The airport has an all-weather (hard-topped) strip.

6. Flooding to the east of the town can extend for three kilometres.

7. Some of the older farmhouses outside the town have their own levees but the newer ones tend not to have such protection. South of the town a number of new dwellings on 100-acre blocks and between the Castlereagh River and the Castlereagh Highway are flood liable and may have to be sandbagged.

8. **Flood Intelligence – Coonamble Gauge.** The Coonamble SES maintains a detailed flood intelligence card for the Coonamble gauge (AWRC Number 420005). An abridged version of the card giving a brief description of the possible effects that may occur at various heights is shown below:

Height (Metres)	Consequences
1.00	Coonamble Shire Council to close stormwater floodgate No 2.
1.5	Coonamble Shire Council to close stormwater floodgate No 6.  Mowlma Creek commences to flow out of the Castlereagh River.
2.0	Extensive rural inundation of low-lying areas along Mowlma Creek. Issue warning to “Beanbah”, “Dumossa” and “Trewilga” to move livestock and pumps.
2.5	Coonamble Shire Council to close stormwater floodgates No 1, 4, 5 and 7.
3.0	Coonamble Shire Council to close stormwater floodgate No 3.
3.5	Castlereagh River breaks out at the Tahrone Bridge (about 31 km NNW of Coonamble). This normally puts about 0.25 metres of water over the Wingadee Road. This is an all-weather road and usually remains “Open with extreme caution”.
4.0	Water from Mowlma Creek crosses the Beanbah road (SR15) near the Bean Bah turn-off. This is an access road for property owners and if it closes there are no alternative routes.
4.27	Peak height 7 April 1999.
4.45	Castlereagh River breaks out at “the Cutting” and commences to flow into Eurimie Creek and over the Pages Terrace causeway.
4.50	Water continues to flow from the break-out at “the Cutting” and flows towards the Wingadee Street causeway. The Pages Terrace and Wingadee Street causeways may close at any time after this height.
5.00	Water breaks out of the Castlereagh River at the River end of Nebea Street and commences to flow west along Nebea Street. It then spreads out and commences to flow towards the western end of Yuma Street.
5.10	Water starts to break out over the east and west banks of the Castlereagh River about 14 km south of Coonamble at “Nine Pines”.  Water from the east bank break-out flows across the Castlereagh Hwy then cross country towards the north into the Warrana Creek and spreads cross a wide area. Livestock and machinery will need to be moved from this area.  Castlereagh Hwy may close at anytime from this height due to debris across the road and the wide expanse of flood water which makes the ill defined. The hwy normally remains open to emergency vehicles.  Water from the western break-out flows cross country in a north-west

Height (Metres)	Consequences
	direction and joins up with local creeks and runoff to inundates large expanses of land in the western part of the shire.  The Castlereagh Hwy to Walgett is normally closed to light traffic at several crossings between 18 km and 50 km north of Coonamble.  Coonamble to Carinda and Coonamble to Baradine roads may close at any height from this point on.
5.29	Peak height 29 July 1998.
5.40	Peak height 9 January 1974. During this flood, approximately 100 families were affected by flooding and many needed to be evacuated. The main area affected was the eastern portion of town in the areas closest to the Warrana Creek where flood depths reached 1.2 metres. This was before the construction of the current levee and the Warrana Creek Weir.  Estimated IFL of the levee.
5.50	About 25 houses in the area east of Limerick Street and to the north as far as Conimbia Creek at risk.
5.53	Peak height 2 February 1971.
5.65	Peak height 25 February 1955.
5.90	Crest height of the levee. Overtopping should occur vicinity of the hospital.

Figure 3 - Flood Intelligence for Coonamble

## Gulargambone

9. Gulargambone (1996 census population 490) was flooded severely in 1955, three quarters of the town being inundated, but the village has not been inundated on other occasions. Flood depths of up to a metre were recorded in 1955, with most streets inundated and extensive damage between Yoolundry Street and the Castlereagh River including the main street (Bourbah Street). Areas east of Mendooran Street were also flooded. About 50 families had to be evacuated to the school.

10. **Flood Intelligence – Gulargambone Gauge.** The Coonamble SES maintains a detailed flood intelligence card for the Coonamble gauge (AWRC Number 10168). An abridged version of the card giving a brief description of the possible effects that may occur at various heights is shown below:

Height (Metres)	Consequences
2.10	22 March 1999. The Gulargambone Creek backed up and put water over the deck of the 'Railway Bridge' closing the Gulargambone to Quambone road.
3.40	Road to the Gulargambone Railway Station closed.
3.51	Peak height 1976.
5.05	Peak height 1974.
5.79	Peak height 1971.
7.00	Water may break out near Bourban Street and start to inundate the area between the Castlereagh River and Yoolundry Street.

Height (Metres)	Consequences
8.50	Peak height 1955. The flood of 1955 caused extensive damages in Gulargambone, particularly in the area between Yoolundry Street and the Castlereagh River on the western side where houses were inundated by depths up to one metre. Streets affected were Yoolundry, Coonamble, Armitree, Yalcogrin, Munnell and Bourban.

Figure 4 - Flood Intelligence for Gulargambone

## Quambone

11. Quambone can be affected by Merri Merri Creek and a local tributary depression, though usually for only short periods. A small number of houses could be inundated in severe events.

## Rural Areas

12. Downstream of Gilgandra, the country flattens out and much of the Castlereagh River is perched, which means that overbank flows are able to inundate large tracts of land. During major flooding, much of the rural land within the Coonamble Shire is inundated and a large number of properties are isolated; particularly on the western side of the river. Flooding upstream of Coonamble can last for up to 3 or 4 days whereas flood waters can remain for considerably longer periods downstream. Even though the rural residents are generally accustomed to the conditions associated with flooding and prepare for it, they can be caught off guard due to the reduced warning times and the fact that many of the dirt roads close at short notice. Therefore, there are potential resupply problems as well as the need to affect medical evacuations or respond to medical emergencies on isolated properties during periods of flooding. Furthermore, there are also problems associated with the need for livestock removal, fodder distribution and the health of stranded livestock. Other problems include the scouring of pastures and the degradation of the road system. The Castlereagh Valley is shown in Map 2.

## Transport Disruption and Isolation

13. **Roads.** Most roads within the council area, including the Castlereagh Highway, are prone to closure as a result of flooding. Closure often lasts for two to three days or, in severe events, a week, and in past events severe damage has been caused rendering roads impassable for some time after the flood. The following table indicates which roads can be affected.

Road	Usual Point(s) of Closure	Comments/Implications
Coonamble – Gilgandra (Castlereagh Highway)	Various, including Gulargambone Creek and “The 9 Mile”, 14 km south of Coonamble.	Back-up from the river to Gulargambone Creek can close bridge, and flows from minor creeks can cause short-term closures.

Road	Usual Point(s) of Closure	Comments/Implications
		A flood more frequent than the 20% AEP event could cut the highway at "The 9 Mile".
Coonamble-Walgett (Castlereagh Hwy)	Many; most stretches can be inundated	Coonamble cut off from Walgett for several days (weeks if Walgett has severe flooding).
Coonamble-Pilliga	Teridgerie Creek crossing	Black soil sections can be closed by heavy rain.
Coonamble-Quambone	Several gully and floodway crossings, including Euronne Gully (10 km west of Coonamble).	Black soil sections closed by heavy rain. When this road and the Quambone-Carinda road are closed, the only access to Quambone is via Warren.
Coonamble-Carinda	Eurimie Creek, 6 km NW of Coonamble, and other locations.	Black soil road.
Coonamble-Baradine	Teridgerie Creek bridge.	All weather road; has had 300 mm water covering it and been closed for 2 days.
Gulargambone-Quambone road	At low-level bridge over Castlereagh River at Gulargambone.	Black soil road.
Quambone-Carinda	Various low points.	Black soil road; can be cut for long periods.
Castlereagh Highway-Come by Chance	Various low points.	Black soil road; can be cut for long periods.

**Figure 5 - Road Closures**

14. **Railway.** The Coonamble-Dubbo railway line has frequently been subject to closure as a result of washaways during floods. This happened in 1955, 1971 and 1974. The railway line cannot be guaranteed to last longer than the main roads, and if the roads are closed air resupply is likely to be necessary.

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# **SES RESPONSE ARRANGEMENTS FOR COONAMBLE SHIRE**

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**Volume 3 of the Coonamble Shire Local Flood Plan**

Last Update: April 2000

## ANNEX C - GAUGES MONITORED BY COONAMBLE SES

Station	AWRC No	Stream	Flood Classification			Type
			Min	Mod	Maj	
Mendooran *	420004	Castlereagh River	2.4	5.0	9.0	Manual
Gilgandra *	420001	Castlereagh River	5.0	6.4	7.9	Manual
Gulargambone	10168	Castlereagh River				Manual
Coonamble *	420005	Castlereagh River	N/A	4.9	5.2	Manual
Near Coonamble	420014	Magometon Creek				Manual
Warrana	420015	Warrena Creek				Telemetric
Collie	10097	Marthaguy Creek				Manual
Quambone	421062	Marthaguy Creek				Manual

Note:

1. The Bureau of Meteorology provides flood warnings for the gauges marked with an asterisk (\*).

## ANNEX D - DISSEMINATION OF SES FLOOD BULLETINS

The Macquarie SES Division Headquarters distributes SES Flood Bulletins and other flood related information (including Flood Warnings) to the following regional media outlets:

### Television Stations:

Station	Location
WIN	Dubbo
Prime	Dubbo
Capital	Dubbo
ABC	Sydney

### Radio Stations:

Station	Location
2DU	Dubbo
NOW FM	Moree
2WEB	Bourke
2 WAR FM	Coonamble
2 CR (ABC)	Orange

### Newspapers:

Name	Location
Coonamble Times	Coonamble
Daily Liberal	Dubbo

### Other Agencies:

- Orana Police District Headquarters; Dubbo.
- Australia Post; Dubbo.
- RTA; Dubbo.
- NRMA; Dubbo.
- NSW Ambulance Coordination Centre; Dubbo.
- NSW Fire Brigades; Dubbo.

- Rural Fire Service; Castlereagh Region, Narrabri.
- Coonamble Shire Council.
- Coonamble SES.

### **Local Dissemination**

The Coonamble SES Local Controller arranges further dissemination of SES Flood Bulletins to other organisations within the council area (including agencies listed in Part 1 of this plan) and provides additional information on flooding.

## **ANNEX E - EVACUATION ARRANGEMENTS FOR THE COONAMBLE SHIRE**

### **Situation**

1. For most floods in the Coonamble Shire, no evacuations are necessary. However, serious floods may require some evacuations from Coonamble, Gulargambone, Quambone or outlying rural properties.
2. It is possible that Gulargambone could require significant evacuations as the result of a major flood from between 7.0 and 8.5 metres on the Gulargambone gauge. In an extreme event, it is possible that Gulargambone would have to be evacuated in its entirety.
3. The biggest threat within the Coonamble Shire is the failure of the protective levee at Coonamble. Should it fail or be overtopped, a large part of the south-eastern side of town could be at risk of being inundated and up to 100 dwellings may have to be evacuated.
4. At river heights of 5.5 metres and above; the area bounded by the Castlereagh River, Limerick Street and Conimbia Street would be progressively inundated and up to 25 dwellings may have to be evacuated.

### **Aim**

5. The aim of this document is to detail the evacuation arrangements during flooding within the Coonamble Shire.

### **Execution**

#### **General Outline**

6. During floods, evacuations will be controlled by the Coonamble SES Local Controller (or, at the Local Controller's request, the LEOCON) and conducted in four phases:
  - a. Phase 1 - Warning.
  - b. Phase 2 – Withdrawal.
  - c. Phase 3 – Shelter.
  - d. Phase 4 – Return.

## The Decision to Evacuate

7. **Responsibility.** Responsibility for issuing any general evacuation order during flooding rests with the Coonamble SES Local Controller who exercises his/her authority in accordance with Section 22(1) of The State Emergency Service Act 1989. However, the decision to evacuate would normally be taken after consultation with the:

- a. Coonamble LEOCON;
- b. Coonamble LEMO;
- c. Director of Works Services, Coonamble;
- d. Mayor, Coonamble Shire; and
- e. Macquarie SES Division Controller.

8. Where possible, evacuation will be carried out before inundation occurs.

9. **Self-Evacuation.** Some residents may make their own decision to evacuate earlier and move to alternative accommodation using their own transport. It is important that such evacuees inform the NSW Police or the SES of their evacuation and their temporary address.

10. **Evacuation Triggers.**

- a. **Levee Failure – Coonamble.** The most likely event to trigger the decision to undertake a large-scale evacuation in Coonamble would be evidence of a possible failure or overtopping of the levee. As the result of a recent levee audit, the IFL of the levee was set at 5.4 metres (in relation to the Coonamble gauge) and 4.4 metres on the Coonamble (Warrena Creek) gauge. During the flood of August 1998 the levee leaked before the river peaked at 5.3 metres. The main leakage occurred at the corner of Castlereagh and Macquarie Streets. Several aged occupants of the nearby Towrie Units were evacuated as a precaution and the Coonamble Shire Council carried out temporary repairs. The Coonamble levee is shown in Map 3.
- b. **Over the Bank Flooding – Coonamble.** At about 5.5 metres and above, approximately 25 houses located in the area bounded by Calga, Limerick and Conimbia Streets in Coonamble may experience over the floor flooding and have to be evacuated.
- c. **Over the Bank Flooding – Gulargambone.** The most likely event to cause a large-scale evacuation in Gulargambone would be when the Castlereagh River reaches 7.0 metres at the Gulargambone gauge. From this height to 8.5 metres (1955) a number of houses in the area between the Castlereagh River and Yoolundry Street may be inundated. In 1955 about 50 families had to be evacuated to the school. The area at risk of flooding is shown in Map 4.

## Phase 1 - Warning

11. **Evacuation Warnings.** On the receipt of flood warnings predicting peak heights of 5.0 metres and above at the Coonamble gauge; the Coonamble SES Local Controller will consult with the aforementioned appointments to determine the level of the threat and the need to consider evacuations. As soon as possible after the decision to evacuate is made, the Coonamble SES Local Controller will issue evacuation warnings to the 'at risk' residents. The warnings will be as accurate as possible and contain a high level of certainty about the events taking place and the protective measures people should take.

12. **Content of Evacuation Warnings.** A guide to the content of evacuation warning messages is at Annex F. These are disseminated via:

- a. public address systems from Police and other emergency service vehicles,
- b. door-knocks by Police and other emergency service personnel,
- c. telephone,
- d. two-way radio,
- e. direct access to Radio 2 WAR,
- f. the radio and TV stations listed in Annex D, and/or
- g. SES Flood Bulletins.

## Phase 2 – Withdrawal

13. **Introduction.** Withdrawal involves the actual removal of the community/individuals from dangerous or potentially dangerous areas to safer areas.

14. **Control.** Evacuations will be controlled by the SES Local Controller (or, at the Local Controller's request, the LEOCON) and conducted by SES, Police, Council, Rural Fire Service and NSW Fire Brigade personnel.

15. **Movement.** Evacuees are to be moved using their own transport where possible. The Coonamble SES Local Controller will arrange transport for those people without their own vehicles. Bus companies are listed in the Coonamble DISPLAN.

16. **Evacuation Routes.** As a leveed town, Coonamble is in a situation in which the normal evacuation routes are usually lost before the threat of levee failure or overtopping is apparent. Coonamble can become completely isolated by road when the river reaches 5.1 metres on the Coonamble gauge whereas the IFL of the Coonamble levee is currently set at 5.4 metres. In the unlikely event that the levee was to fail, about 100 (plus) houses in the south-eastern side of town would have to be initially evacuated to evacuation centres established in the non-affected areas of the town.

17. **Large Scale Evacuations.**

- a. **Gulargambone and Quambone.** Arrangements for large-scale evacuations from Gulargambone and Quambone will depend upon the situation at Coonamble. Normally, evacuees from these areas will be evacuated into Coonamble. Because of road closures this will have to be conducted utilising helicopters. In the event that Coonamble is unable to accommodate the evacuees, they will be staged into Coonamble then moved by fixed wing aircraft to Dubbo.
- b. **Coonamble.** In the unlikely event that large-scale evacuations from Coonamble were required, evacuees would be staged through evacuation centres and moved to Dubbo by fixed wing aircraft.

18. **Special Needs Groups.** Special needs groups are listed in the Coonamble DISPLAN.

19. **Doorknocking.** Field teams conducting doorknocks will record and report back the following information back to the Operations Centre:

- a. Addresses and locations of houses doorknocked and/or evacuated.
- b. The number of occupants.
- c. Details of support required (such as transport, medical evacuation, assistance to secure house and/or property and raise or move belongings).
- d. Details of residents who refuse to comply with the evacuation order.

20. **Refusal to Evacuate.** Field teams should not waste time dealing with people who are reluctant or refuse to comply with the evacuation order. These cases should be referred to the LEOCON who will arrange for Police to visit them.

21. **Security.** The NSW Police will provide security for evacuated premises.

22. **Helicopter Landing Pads (LPs).**

- a. Coonamble. Besides the airport, suitable LPs in Coonamble are at the:
  - showground (S30° 58' 05.1" E148° 23' 13.1");
  - sportsground (S30° 57' 37.9" E148° 23' 30.5"); and
  - racecourse cricket ground (S30° 57' 01.0" E148° 22' 19.5").

23. **Airport.** Access to the Coonamble airport remains open during all but extreme floods. The airport is capable of handling commercial and military aircraft up to, and including, the Hercules C130.

### Phase 3 - Shelter

24. **Evacuation Centres.** The purpose of evacuation centres is to meet the immediate needs of victims. Evacuees will be advised to go to or be taken to the nearest accessible evacuation centre, which may be initially be established at the direction of the Coonamble SES Local Controller but managed as soon as possible by the Department of Community Services. Any of the following sites may be used as evacuation centres:

a. Coonamble:

- Coonamble Public School, Bertram Street.
- St. Bernard's School, Tooloon Street.
- Coonamble High School, Aberford Street.
- Coonamble RSL Club, Aberford Street.
- Coonamble Bowling Club, Aberford Street.
- Coonamble Golf Club, Caswell Street Coonamble.

b. Gulargambone:

- Gulargambone Central School, Yalcogrin Street.
- Gulargambone Memorial Hall, Bourbah Street.
- Gulargambone Sportsground, Munnell Street.
- Gulargambone Bowling Club, Coonamble Street.
- Gulargambone Golf Club, Muraiman Street.

c. Quambone:

- Quambone Public School, Mungie Street.
- Quambone Memorial Hall, Mungie Street.
- Quambone Medical Centre.

25. **Facilities Available.** Details of the capacities, contacts and facilities available at each of the above centres are listed in the Coonamble DISPLAN.

26. **Action on Arrival.** On arrival, evacuees will be:

- a. registered as a disaster victim;
- b. medically checked, if necessary; and

c. provided with their immediate welfare needs.

27. **Registration.** NSW Police will ensure that all evacuees are registered on arrival at the designated evacuation centres and details of the registrations are to be sent to the Orana Police District Headquarters by the quickest means available.

28. **Support Provided At Evacuation Centres.** The expected duration of the evacuation will dictate the need for and level of facilities and support at the evacuation centres. If evacuations are expected to be of a short duration, evacuees may be provided with short-term accommodation at the centres. However, if they are expected to last for longer than 24 hours, evacuees will be encouraged to go to alternative accommodation or stay with friends where possible. Alternatively, accommodation will be arranged for them in hotels, motels or by billeting.

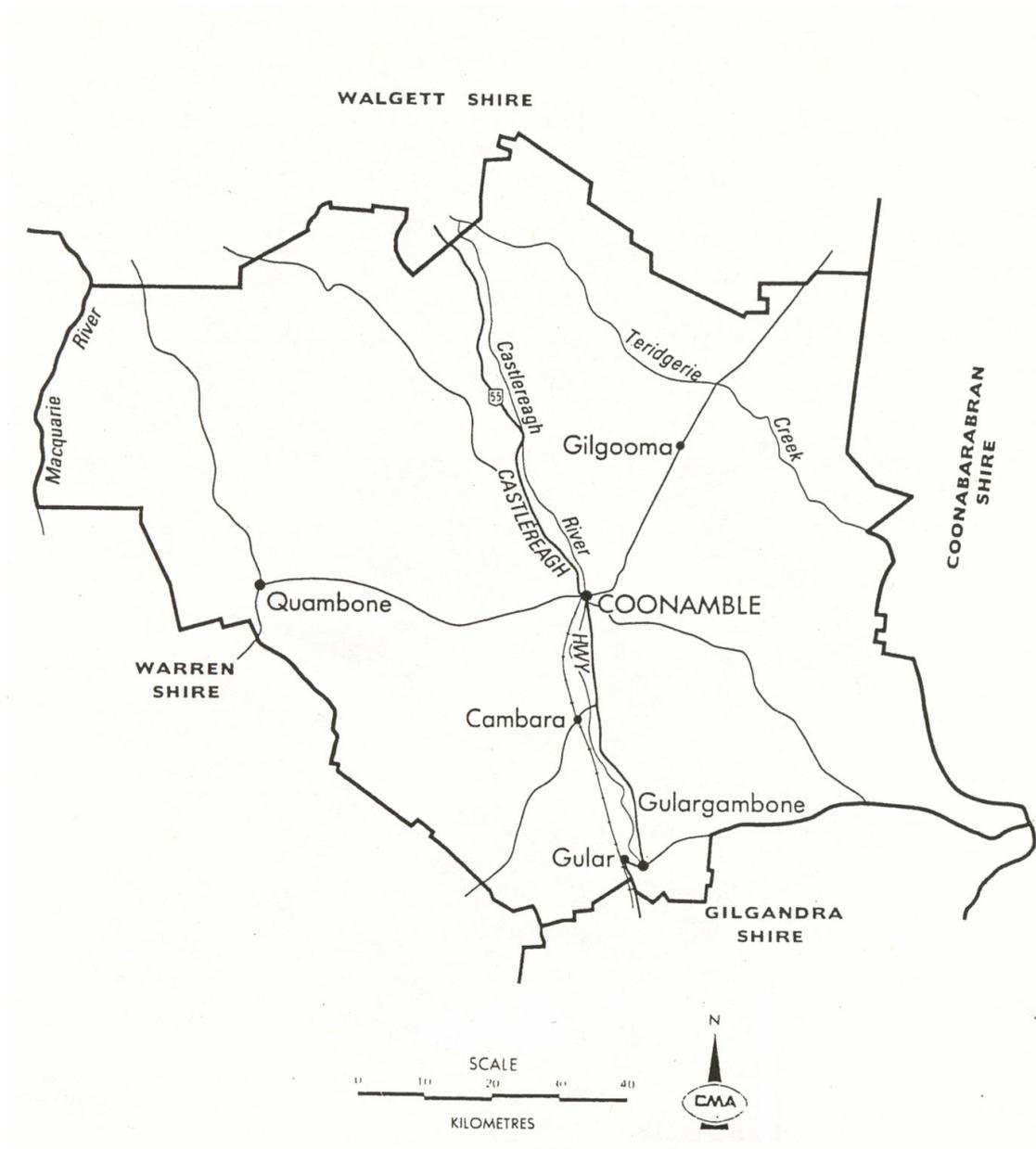
#### **Phase 4 - Return**

29. Once it is considered safe to do so, the Coonamble SES Local Controller will authorise the return of evacuees to their normal or alternative place of residence. This decision will be made after consulting with the LEOCON, Director of Works, LEMO, Mayor, DOCS and Macquarie SES Division Controller.

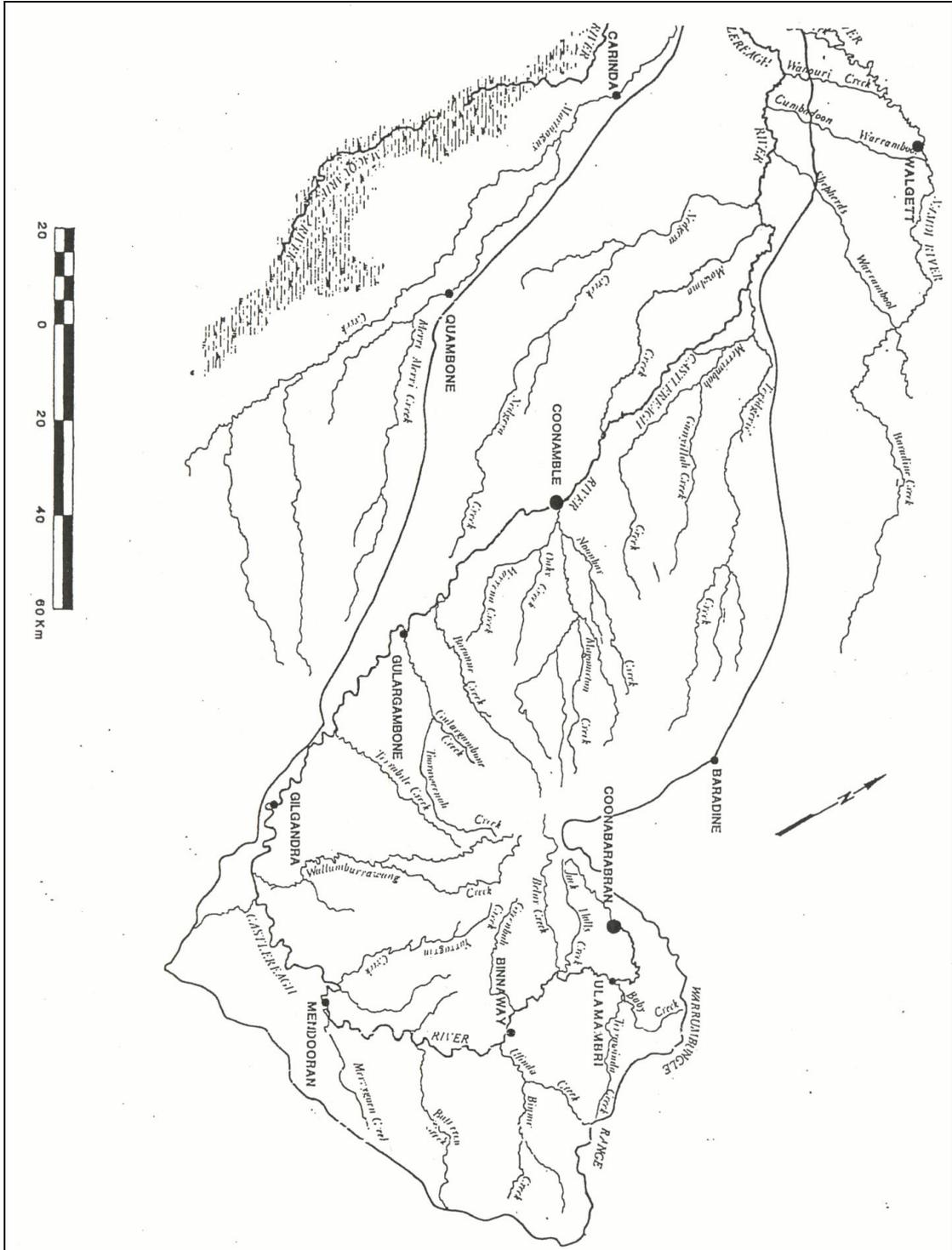
30. The return will be controlled by the Coonamble SES Local Controller and may be conducted, at his/her request, by DOCS (DWS).



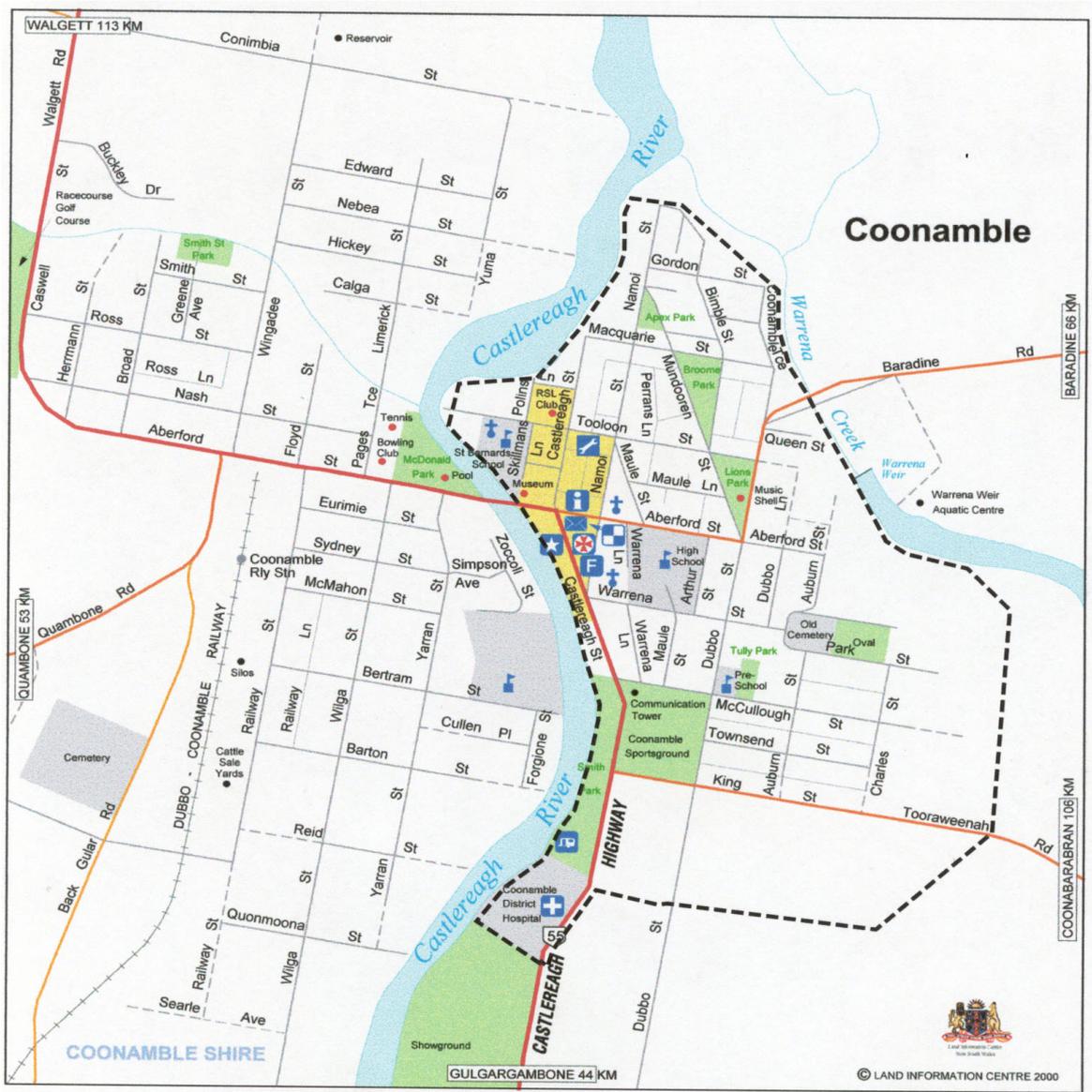
# MAP 1 – COONAMBLE SHIRE



# MAP 2 – THE CASTLEREAGH VALLEY



MAP 3 –COONAMBLE LEVEE



# MAP 4 – APPROXIMATE FLOOD EXTENT AT GULARGAMBONE (1955)

