

Mid-Western Regional

Local Flood Plan



MID-WESTERN REGIONAL FLOOD EMERGENCY SUB PLAN

**A Sub-Plan of the Mid-Western Regional Council Local Emergency Management Plan
(EMPLAN)**

Volume 1 of the Mid-Western Regional Local Flood Plan



AUTHORISATION

The Mid-Western Regional Flood Emergency Sub Plan is a sub plan of the Mid-Western Regional Council 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)**.

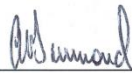
Recommended



NSW SES Mid-Western Regional Local Controller

Date: 24/2/13

Approved



Chair, Local Emergency Management Committee

Date: 24/2/13

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DISTRIBUTION LIST

Recipient	Number of copies
NSW SES Local Controller	1
NSW SES Rylstone Unit Controller	1
NSW SES Mudgee and Rylstone Units	1
NSW SES Macquarie Region Headquarters	1
NSW SES State Headquarters	1
Mid-Western Regional Council, Local Emergency Operations Controller	1
NSW Police Force, Mudgee Local Area Command	1
Mid-Western Regional Council, Local Emergency Management Committee Members	4
Mid-Western Regional Council, Local Emergency Management Officer	1
Mid-Western Regional Council, Local Emergency Operations Centre	1
Mid-Western Regional Council, Mayor	1
Mid-Western Regional Council, General Manager	1
Mid-Western Regional Council, Technical Services Department	1
Fire and Rescue NSW, Mudgee	1
NSW Rural Fire Service, Region West	1
Ambulance Service of NSW, Gulgong, Mudgee, Rylstone	1
Volunteer Rescue Association, Gulong, Mudgee, Rylstone Rescue Squad	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
State Water, Burrendong Dam	1
Mid-Western Regional Council, Redbank Creek Dam	1

VERSION HISTORY

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

Description	Date
Mid-Western Regional Local Flood Plan	2007

AMENDMENT LIST

Suggestions for amendments to this plan should be forwarded to:

The Mid-Western Regional Local Controller
 NSW State Emergency Service
 PO Box 944
 Mudgee NSW 2850

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:

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

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

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 a 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 a 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. 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 Mid-Western Regional 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* (NSW) and the *State Emergency Service Act 1989* (NSW). It has been approved by the NSW SES Local Controller and the NSW SES Region Controller as a NSW SES plan and endorsed by the Mid-Western Regional 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 Mid-Western Regional Council area which includes: the townships of Rylstone, Kandos, Gulgong and Mudgee and many village settlements throughout the area including Birriwa, Bylong, Cooyal, Clandulla, Glen Alice, Glen Davis, Goolma, Grattai, Hargraves, Ilford, Running Stream, Lue, Tambaroora, Turill, Ulan, Windeyer, Wollar, and intervening rural areas.
- 1.3.2 The council area and its principal rivers and creeks are shown in Attachment 3.
- 1.3.3 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 Mid-Western Regional 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 Depot Rd Mudgee , 2850 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 Mid-Western Regional Council.
- e. Coordinate a public education program.
- f. Identify and monitor people and/or communities at risk of flooding
- g. Ensure that the currency of this plan is maintained.

Response

- h. Appoint an appropriate Local Incident Controller to undertake response roles. The Incident Controller will:
- i. 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 IAP.
- j. Provide an information service in relation to:
 - Flood heights and flood behaviour.
 - Road conditions and closures for internal use.
 - Advice on methods of limiting property damage.
 - Confirmation of evacuation warnings and evacuation orders.
- k. Direct the conduct of flood rescue operations.
- l. Direct the evacuation of people and/or communities.
- m. Provide immediate welfare support for evacuated people.
- n. Coordinate the provision of emergency food and medical supplies to isolated people and/or communities.

- o. Coordinate operations to protect property, for example by:
 - Arranging resources for sandbagging operations.
 - Lifting or moving household furniture.
 - Lifting or moving commercial stock and equipment.
- p. Arrange for support (for example, accommodation and meals) for emergency service organisation members and volunteers assisting them.
- q. Ensure that the managers of caravan parks are advised of flood warnings and the details of any evacuation order.
- r. If NSW SES resources are available, assist with emergency fodder supply operations conducted by Agriculture and Animal Services.
- s. If NSW SES resources are available, assist the NSW Police Force, RMS and Council with road closure and traffic control operations.
- t. Exercise financial delegations relating to the use of emergency orders as laid down in the NSW SES Controllers' Guide.
- u. Coordinate the collection of flood information for development of intelligence.
- v. 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.
- w. Keep the Local Emergency Operations Controller advised of the flood situation and the operational response.
- x. Issue the 'All Clear' when flood operations have been completed.

Recovery

- y. Ensure that appropriate After Action Reviews are held after floods.
- z. 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 Rylstone Unit Controller:

- a. Assist the NSW SES Local Controller with flood preparedness activities, including:
 - Flood planning.
 - Training of unit members.
 - The development of flood intelligence.
 - The development of warning services.
 - Floodplain risk management initiatives.
 - Public education.
- b. Conduct flood operations within the Mid-Western Regional Council area as directed by the NSW SES Local Incident Controller.
- c. Submit Situation Reports to the NSW SES Local Headquarters, the NSW SES Region Headquarters and agencies assisting within the local area.

1.5.4 NSW SES Local Unit Members:

- a. Carry out flood response tasks. These may include:
 - The management of the NSW SES Local and Unit Headquarters Operations Centres.
 - Assist in the collection of flood information for the development of intelligence.
 - Flood rescue.
 - Evacuation.
 - Providing immediate welfare for evacuated people.
 - Delivery of warnings and information.
 - Resupply.
 - Sandbagging.
 - Lifting and/or moving household furniture and commercial stock.
 - Animal rescue.
 - Assisting with road closure and traffic control operations.
 - Assisting with emergency fodder supply operations.
- b. Assist with preparedness activities.
- c. Undertake training in flood and storm response operations.

1.5.5 Agriculture and Animal Services Functional Area:

- a. When requested by NSW SES:

- 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.
 - Advice on dealing with dead and injured farm animals.
 - Financial, welfare and damage assessment assistance to flood affected farmers.
 - Operation of animal shelter compound facilities for the domestic pets and companion animals of evacuees.

b. Forestry Corporation NSW:

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

1.5.6 The **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.

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

- a. Provide Flood Watches for the Cudgegong River Basin.
- b. Provide Flood Warnings, incorporating height-time predictions.
- c. Provide severe weather warnings when flash flooding is likely to occur.

1.5.8 **Caravan Park Proprietors**

- 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 that 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 that occupiers are informed of Flood Warnings and Flood Watches. At this time, occupiers should be advised to:
- Ensure that 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 that 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 being relocated, should ensure they are securely anchored to their site to avoid being 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.

1.5.9 Child Care Centres and Preschools:

- a. Childcare Centres are to be contacted by the NSW SES in the event of possible flooding or isolation.
- b. When notified the child care centres and preschools should:
- 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.
 - Assist with coordinating the evacuation of preschools and child care centres.

1.5.10 Mid Western Regional 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. Maintain a plant and equipment resource list for the council area.

- d. Contribute to the development and implementation of a public education program.

Response

- e. At the request of the NSW SES Local Incident Controller, deploy personnel and resources for flood related activities.
- f. Close and reopen council managed roads (and other roads nominated by agreement with the RMS) and advise the NSW SES Local Incident Controller, RMS Transport Management Centre (TMC) and the Police of their status.
- g. Provide information to the public on the status of roads using council's website and/or a 24Hr telephone service.
- h. Provide and maintain temporary sand dumps in urban and village areas in which flooding is expected in consultation with the NSW SES Local Incident Controller. The NSW SES Local Incident Controller will arrange for the deployment of sandbags and/or the unit sandbagging machine.
- i. Assist with the removal of caravans from caravan parks where required.
- j. Provide back-up radio communications where required.
- k. Arrange for the removal of waste bins from river side parks and ovals when flooding is predicted.
- l. In the event of evacuations, assist by making facilities available for domestic pets and companion animals of evacuees.
- m. Close and evacuate at risk camping grounds, sporting grounds and recreational areas managed by Council.

Recovery

- n. Provide for the management of health hazards associated with flooding. This includes removing debris and waste.
- o. Ensure premises are fit and safe for reoccupation and assess any need for demolition.
- p. 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 electricity 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 Volunteer Rescue Association (VRA):

- a. When requested by NSW SES:
 - Assist the NSW SES with flood operations, where equipment and training are suitable at the direction of the NSW SES Local Incident Controller.

1.5.31 Owners of Prescribed Dams within or upstream of Mid-Western Regional Council area:

Dam	Owner
Windamere	State Water
Burrendong	State Water
Redbank Creek	Mid-Western Regional Council
Rylstone	Mid-Western Regional Council

- a. Maintain and operate the Dam Failure Warning System for their Dam(s).
- b. Contribute to the development and implementation of a public education program on flooding within the council area.
- c. Consult with NSW SES on the determination of dam failure alert levels and notification arrangements when developing Dam Safety Emergency Plans.
- d. Maintain a Dam Safety Emergency Plan and provide copies to the NSW SES.
- e. Provide information on the consequences of dam failure to the NSW SES for incorporation into planning and flood intelligence.
- f. Close and evacuate at risk camping grounds/recreational areas within their managed areas.

1.6 CROSS-BORDER ASSISTANCE ARRANGEMENTS

- 1.6.1 A local cross-border mutual assistance arrangement exists in which the NSW SES Mudgee and the Rylstone VRA will deploy resources to support each other.
- 1.6.2 A local cross-border mutual assistance arrangement exists in which the Mudgee SES and the Wellington SES in the event of evacuation of Wellington to Mudgee due to the Burrendong Dam failing or an Extreme PMF event.

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 that 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 Mid-Western Regional Council, the NSW SES Region Headquarters and NSW SES State Headquarters, is responsible for ensuring that 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.

2.6 TRAINING

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

2.7 RESOURCES

- 2.7.1 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.
- 2.7.2 The NSW SES Rylstone Unit Controller has similar responsibilities in relation to the NSW SES Rylstone Unit Headquarters and equipment.

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 Region Headquarters.
 - b. NSW SES Rylstone Unit Controller.
 - c. NSW SES Mudgee and Rylstone Units.
 - d. Mid-Western Regional Council Local Emergency Operations Controller (for transmission to the NSW Police Force Local Area Command Headquarters).
 - e. Mid-Western Regional Council Chair of Local Emergency Management Committee (for transmission to appropriate council officers and departments).
 - f. Mid-Western Regional Council Mayor.
 - g. Other agencies listed in this plan will be advised by the Chair of the Local Emergency Management Committee on the request of the NSW SES Mid-Western Regional 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 and the 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 Mid-Western Regional Operations Centre is located at Depot Rd, Mudgee, NSW 2850.
- 3.5.2 The NSW SES Rylstone Unit Operations Centres is located at Cox Street, Rylstone, NSW 2848.
- 3.5.3 The Mid-Western Regional Council Emergency Operations Centre is located at Mudgee Rural Fire Control Centre, Depot Rd, Mudgee.

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 Mid-Western Regional Operations Centre.

- 3.6.2 Liaison officers are to:
- Have the authority to deploy the resources of their parent organisations at the request of the NSW SES Local Incident Controller,
 - Advise the NSW SES Local Incident Controller on resource availability for their service, and
 - 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 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 Mid-Western Regional Council LGA and incorporates 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:
- Agency Situation Reports.** Agencies and functional areas provide regular situation reports (SITREPs) to the NSW SES.
 - 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 following problem areas:

- **Mudgee – Town Area:**
 - Mulgoa Way,
 - Court Street (northern end), and
 - Short Street (eastern end).
 - Lang Street
 - Saleyards Road
 - Putta Bucca Road
 - **Gulgong – Town Area**
 - Flash flooding can cause isolated problems in various streets of the township
 - **Rural Areas:**
 - Beryl (a locality on the Gulgong – Dunedoo road);
 - Pitts Lane;
 - Lue Road;
 - Rocky Waterhole Road;
 - Tinja Road; and
 - Wilbertree Road.
 - **Redbank Creek Area:**
 - Mountain View Road,
 - Waterworks Road,
 - Robertson Road, and
 - Sydney Road
 - **Local Creeks & Watercourses**
 - Oakley Creek
 - Lawson Creek
 - Burrendulla 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/>. However there is no specific flood information for the Mid-Western Regional Council LGA as there is no rainfall / river gauge system on the Cudgegong River within the LGA to provide information to the Bureau.
- d. **NSW Office of Water.** Daily river reports containing information on gauge heights and river flows are available from the website: <http://waterinfo.nsw.gov.au/>.
- e. **Windamere Dam Storage Monitoring System.** This system provides information on Windamere Dam.
- f. **Burrendong Dam Storage Monitoring System.** This system provides information on Burrendong Dam.

- g. **Redbank Creek Dam Storage Monitoring System.** This system provides information on Redbank Creek Dam.
 - h. **Rylstone Dam Storage Monitoring System.** This system provides information on Rylstone Dam.
 - i. **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).
 - j. **Mid-Western Regional Council.** Provides information on the status of roads and impacts of flooding within the Council area.
- 3.8.5 During flood operations sources of information on roads closed by flooding include:
- a. Mid-Western Regional Council.
 - b. Mudgee Police Force 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 Mid-Western Regional Council LGA.
- 3.9.2 The NSW SES Region Headquarters issues NSW SES Flood Bulletins, NSW SES Livestock and Equipment Warnings, Evacuation Warnings and Evacuation Orders to media outlets and agencies on behalf of all NSW SES units in the Region.

Actions

- 3.9.3 The NSW SES Local Incident Controller will ensure that the NSW SES Region Incident Controller is regularly briefed on the progress of operations.
- 3.9.4 NSW SES Local Headquarters operations staff will be briefed regularly so that they can provide information in response to inquiries received in person or by other means such as phone or fax.
- 3.9.5 **Bureau of Meteorology Severe Thunderstorm Warning.** These are issued direct to the 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 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 with 6 to 24 hours. Severe Weather Warnings may also include other conditions such as Damaging Winds.
- 3.9.7 **Bureau of Meteorology Flood Watches.** Flood Watches are issued 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.** The NSW SES Region Headquarters will send a copy of Bureau Flood Warnings to the NSW SES Unit. On receipt the NSW SES Local Incident Controller will provide the NSW SES Region Headquarters with information on the estimated impacts of flooding at the predicted heights for inclusion in NSW SES Region Flood Bulletins.
- 3.9.9 **NSW SES Livestock and Equipment Warnings.** 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 Incident Controller will advise the NSW SES Region Headquarters which will issue NSW SES Livestock and Equipment Warnings.
- 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. They may be provided verbally in response to phone inquiries but will normally be incorporated into NSW SES Region Flood Bulletins.
- 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) to NSW SES units, media outlets and agencies on behalf of all NSW SES units in the Region.
- 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.
- 3.9.13 **Dam Failure Alerts.** Dam failure alerts are issued to NSW SES by the dam owner, in accordance with arrangements in the Dam Safety Emergency Plan (DSEP), the system involves the Dam Owner notifying NSW SES State Headquarters Operations Communications Centre, who in turn distribute the warning to the NSW SES Region Headquarters and NSW SES Unit Headquarters.
- 3.9.14 A flow chart illustrating the notification arrangements for potential dam failure is shown in Attachment 2.

- 3.9.15 Dam failure alert levels are set in consultation with the NSW SES and are used to trigger appropriate response actions. The conditions that define each of the alert levels are listed in the relevant DSEP. Responses escalate as the alert level migrates from white to amber to red. Table 1 briefly outlines example defining conditions and appropriate NSW SES responses associated with each alert.

Alert Level	Example Defining Condition	NSW SES Response	NSW SES Warning Product
White	May be a structural anomaly. May be increased monitoring in response to a heavy rainfall event	Implements notification flowchart. Check operational readiness.	This is a preliminary alert to assist the NSW SES in its preparation. This is not a public alert.
Amber	Failure possible if storage level continues to rise or structural anomaly not fixed	Implements notification flowchart. Warn downstream population at risk to prepare to evacuate	NSW SES Evacuation Warning
Red	Failure imminent or occurred	Implements notification flowchart. Evacuation of downstream populations	NSW SES Evacuation Order

Table 1: Dam Failure Alert Levels

Note: Some DSEPs will have alert levels that proceed directly from White to Red. This is the case if adequate time does not exist between the three alert levels to evacuate the downstream population at risk. The decision to omit the Amber Alert level, and the general setting of Alert levels should be undertaken in consultation with the NSW SES.

- 3.9.16 The NSW SES / Dam Owner will disseminate warnings to the population at risk of dam failure (these arrangements are specific to each dam, are negotiated between the Dam Owner and NSW SES, and are documented in the DSEP).
- 3.9.17 Special arrangements apply in the case of severe flooding that may have the potential to cause the failure of Redbank Creek and Burrendong Dams. Details of these arrangements are maintained by the NSW SES.
- 3.9.18 **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.
- 3.9.19 **The Public Information and Inquiry Centre (PIIC)** (operated by the NSW Police Force) will answer calls from the public regarding registered evacuees.

- 3.9.20 **The Disaster Welfare Assistance line** is a central support and contact point for disaster affected people inquiring about welfare services advice and assistance.
- 3.9.21 **The RMS Transport Information Line** will provide advice to callers on the status of roads. The RMS website also lists road closure information.
- 3.9.22 **Mid-Western Regional Council** will provide information on the status of roads.
- 3.9.23 Collation and dissemination of road information is actioned as follows:
- a. As part of Situation Reports, the NSW SES Local Incident Controller provides road status reports for main roads in the council area to the NSW SES Region Headquarters.
 - b. The NSW SES Region Headquarters distributes information on main roads to NSW SES units, media outlets and agencies as part of 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 Mid-Western Regional 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 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 radio.
- 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. RFS - GRN and UHF radio networks.
 - b. The Mudgee/Rylstone/Gulgong VRA operates on UHF radio network.
 - c. Mid-Western Regional Council UHF radio network.

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 the 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 that 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.
- 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 When resources permit, the NSW SES assists Council, RMS or the Police by erecting road closure signs and barriers.
- 3.14.5 In 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 Police, RMS or Council officers closing or re-opening roads or bridges affected by flooding are to advise the NSW SES Local Headquarters, which will then provide a road information service to local emergency services, the public and the NSW SES Region Headquarters. All such information will also be passed to the Police, RMS and the Council.

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.

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:
- a. Lifting or moving of household furniture.
 - b. Lifting or moving commercial stock and equipment.
 - c. Sandbagging to minimise entry of water into buildings.
- 3.16.4 The NSW SES maintains stocks of sandbags.

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 Mid-Western Regional Council local government area.
- 3.17.3 Flood rescues, may be carried out by accredited units in accordance with appropriate 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 which 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:
- Evacuation of people when their homes or businesses are likely to flood.
 - Evacuation of people who are unsuited to living in isolated circumstances, due to flood water closing access.
 - 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:
- Decision to evacuate.
 - Mobilisation (mobilisation may begin prior to the decision to evacuate).
 - Evacuation Warning delivery.
 - Evacuation Order delivery.
 - Withdrawal.
 - Shelter.
 - Return.
- 3.18.3 During floods evacuations will be controlled by the NSW SES. Small-scale evacuations will be controlled by the NSW SES Local Incident Controller. 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

- 3.18.4 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.
- 3.18.5 In events that require large scale evacuations, the decision to evacuate may be escalated to the Region or the State Incident Controller.
- 3.18.6 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

- 3.18.7 The NSW SES Local Incident Controller will mobilise the following to provide personnel for doorknock teams for designated Sectors/locations:
- NSW SES Unit members.
 - RFS Region members via the RFS Fire Control Officer.
 - Local Police Force officers.
- 3.18.8 The NSW SES Region Incident Controller will mobilise any additional personnel required to assist with doorknock teams using:
- NSW SES members from the NSW SES Region and surrounding NSW SES Regions.
 - FRNSW personnel arranged via the FRNSW Liaison Officer.
 - RFS personnel arranged via the RFS Liaison Officer.
- 3.18.9 The NSW SES Local Incident Controller will request the Chairperson of the LEMC to provide Council personnel to assist with traffic coordination within Sector(s)/Community.
- 3.18.10 The NSW SES Local Incident Controller will arrange liaison officers for Sector Command Centres.
- 3.18.11 The NSW SES Region Operations 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

- 3.18.12 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.
- 3.18.13 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.
- 3.18.14 The NSW SES Local Incident Controller will distribute Evacuation Warnings and Evacuation Orders to:
- Sector/Division Command Centres (where established).
 - Mid-Western Regional Council Local Emergency Operations Centre.
 - Mid-Western Regional Council.
 - Mudgee Police Force Local Area Command.
 - Region West Rural Fire Service Control Centre.
 - Radio Stations.
 - Other local agencies and specified individuals.

- 3.18.15 The NSW SES Macquarie Region Incident Controller will distribute Evacuation Warnings and Evacuation Orders to:
- The NSW SES State Operations Centre.
 - The NSW SES Local Incident Controller.
 - Affected communities via dial-out warning systems where installed or applicable.
 - Relevant media outlets and agencies.
- 3.18.16 Evacuation Warnings and Evacuation Orders may be delivered through:
- Radio and television stations.
 - Doorknocking by emergency service personnel.
 - Public address systems (fixed or mobile).
 - Telephony-based systems (including Emergency Alert).
 - Two-way Radio.
- 3.18.17 The Standard Emergency Warning Signal (SEWS) may be used to precede all Evacuation Orders broadcast on Radio Stations.
- 3.18.18 Sector Command Centres, where established, will distribute Evacuation Orders via Emergency Service personnel in doorknock teams to areas under threat of inundation.
- 3.18.19 Doorknock teams will work at the direction of:
- The Sector Commander if a Sector Command Centre is established.
 - The relevant Division Commander where a Sector Command Centre has not been established; or
 - The Local Incident Controller.
- 3.18.20 Field teams conducting doorknocks will record and report back the following information to their Sector Commander/Division Commander/Local Incident Controller:
- Addresses and locations of houses doorknocked and/or evacuated.
 - The number of occupants.
 - Details of support required (such as transport, medical evacuation, assistance to secure house and/or property and raise or move belongings).
 - Details of residents who refuse to comply with the Evacuation Order.
- 3.18.21 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

- 3.18.22 Evacuations will generally be carried out in stages starting from the lowest areas, low flood islands and low trapped perimeters; and progressively from higher areas.
- 3.18.23 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).
- 3.18.24 Evacuees who require emergency accommodation or disaster welfare assistance will be directed to designated evacuation centres. Evacuees who have made their own accommodation arrangements will not be directed to evacuation centres. It is not possible to determine in advance how many will fall into this category.
- 3.18.25 Evacuees will:
- a. Move under local traffic arrangements from the relevant Sectors/Community via managed evacuation routes;
 - b. Continue along the suburban/regional/rural road network to allocated Evacuation Centres.
- 3.18.26 **Health Services.** The Health Services Functional Area will coordinate the evacuation of hospitals, health centres and aged care facilities (including nursing homes).
- 3.18.27 **Schools.** School administration offices (Department of Education and Communities, Catholic Education Office and Private Schools) will coordinate the evacuation of schools if not already closed.
- 3.18.28 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, Department of Education and Communities. This will enable pupils to stay at home or be returned home so they can be evacuated (if required) with their families.
- 3.18.29 Note that in the Mid-Western Regional Council LGA, school principals may close some schools affected by flooding in the early stages of flooding.
- 3.18.30 **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.
- 3.18.31 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.
- 3.18.32 Caravan park managers will ensure that their caravan park is capable of being evacuated within the allocated time.
- 3.18.33 Advise the NSW SES Local Incident 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.
- 3.18.34 Check that no people remain in non-removable vans that are likely to be inundated.
- 3.18.35 Inform the NSW SES Local Incident Controller when the evacuation of the caravan park has been completed.
- 3.18.36 Provide the NSW SES Local Incident Controller with a register of people that have been evacuated.
- 3.18.37 **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.
- 3.18.38 **Transport and storage:** Transport and storage of furniture from flood threatened properties will be arranged as time and resources permit.
- 3.18.39 **Security:** The NSW Police Force will provide security for evacuated areas.
- 3.18.40 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; and
 - c. Advice of completion of the evacuation of each Sector.

Shelter

- 3.18.41 **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.

3.18.42 The following locations are suitable for use as flood evacuation centres:

- a. Gulgong RSL
- b. Gulgong High School
- c. Gulgong Public School
- d. Mudgee Solders Club
- e. PCYC
- f. A.R.E.C Site
- g. Kandos High
- h. Parklands Resort
- i. Mudgee High
- j. Cudgegong Valley Public School
- k. Rylstone Club
- l. Rylstone High School
- m. Kandos High School
- n. Wollar Public School
- o. Hargraves Public School
- p. Lue Public School
- q. Ulan Public School
- r. Goolma Public School
- s. Bylong Upper Public School

3.18.43 **Registration:** The NSW Police Force will ensure that evacuees are registered on arrival at the designated evacuation centres.

3.18.44 **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

3.18.45 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.

3.18.46 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 Mid-Western Regional Council LEOCON,
 - g. The Mid-Western Regional 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).
- 3.18.47 Once it is considered safe to do so, the NSW SES Incident Controller will authorise the return of evacuees.
- 3.18.48 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 (SEOCON) 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 SEOCON, 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 (LEOCON) attend recovery meetings to provide an overview of the emergency response operation.
- 4.1.5 The NSW SES Region Incident Controller, the Regional Emergency Management Officer 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

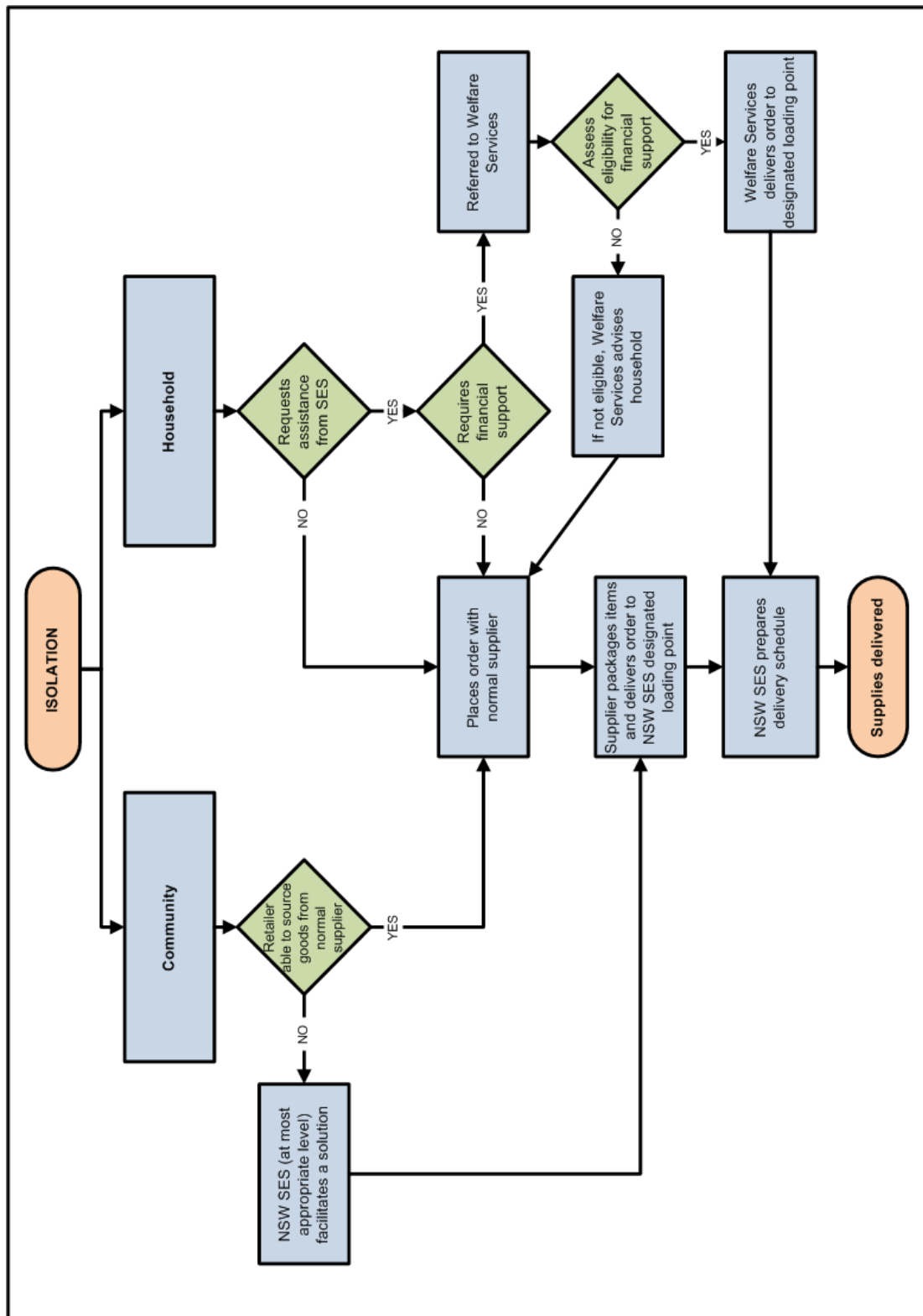
conveyed in the first instance to the SEOCON for confirmation with the SERCON.

- 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

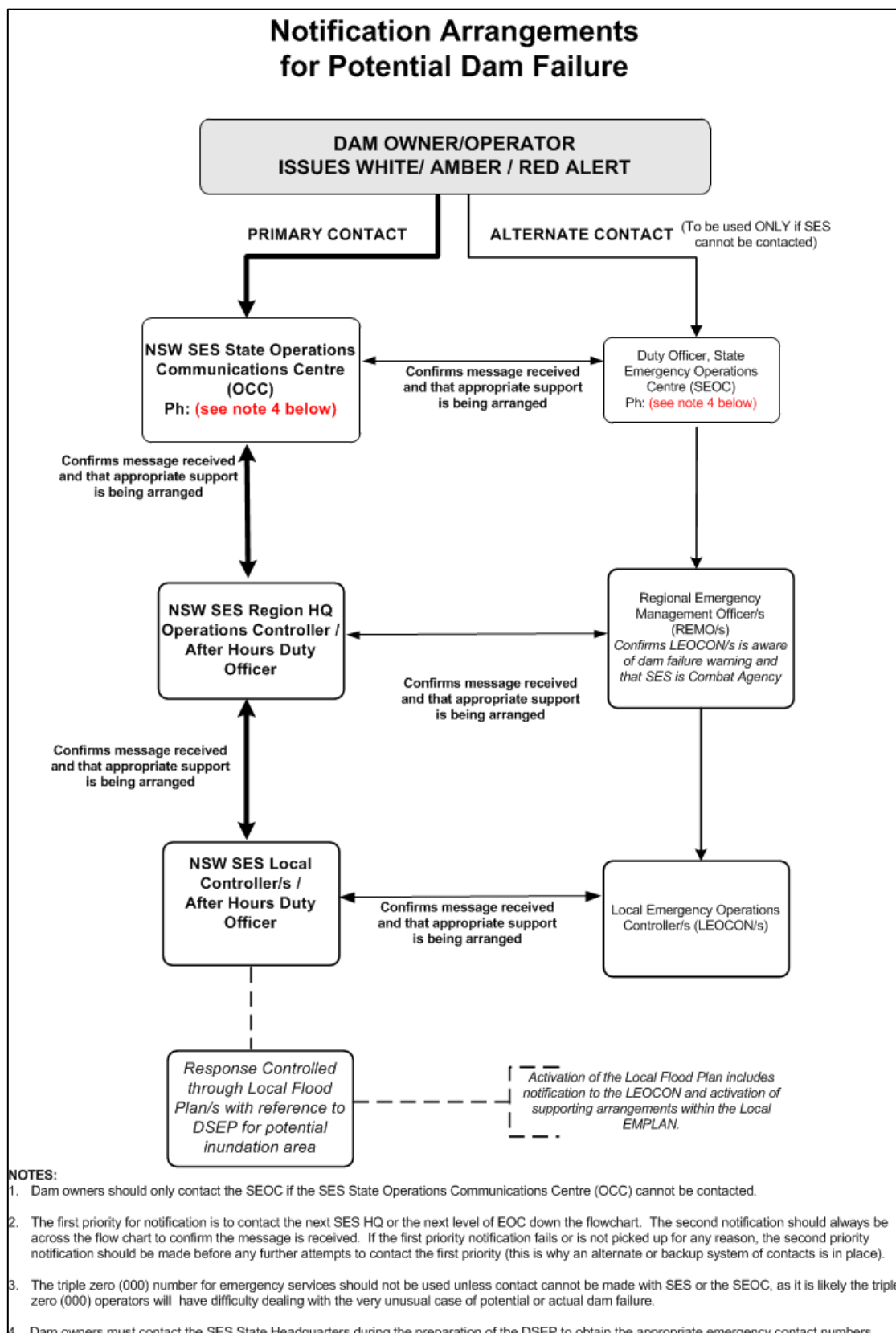
- 4.3.1 As soon as possible after flooding has abated, the NSW SES Local Controller will advise participating organisations of details of response operation after action review arrangements.
- 4.3.2 The NSW SES Local Controller will ensure that adequate arrangements are in place to record details of 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 Mid-Western Regional Council Local Emergency Management Committee.

ATTACHMENT 1 - RESUPPLY FLOWCHART

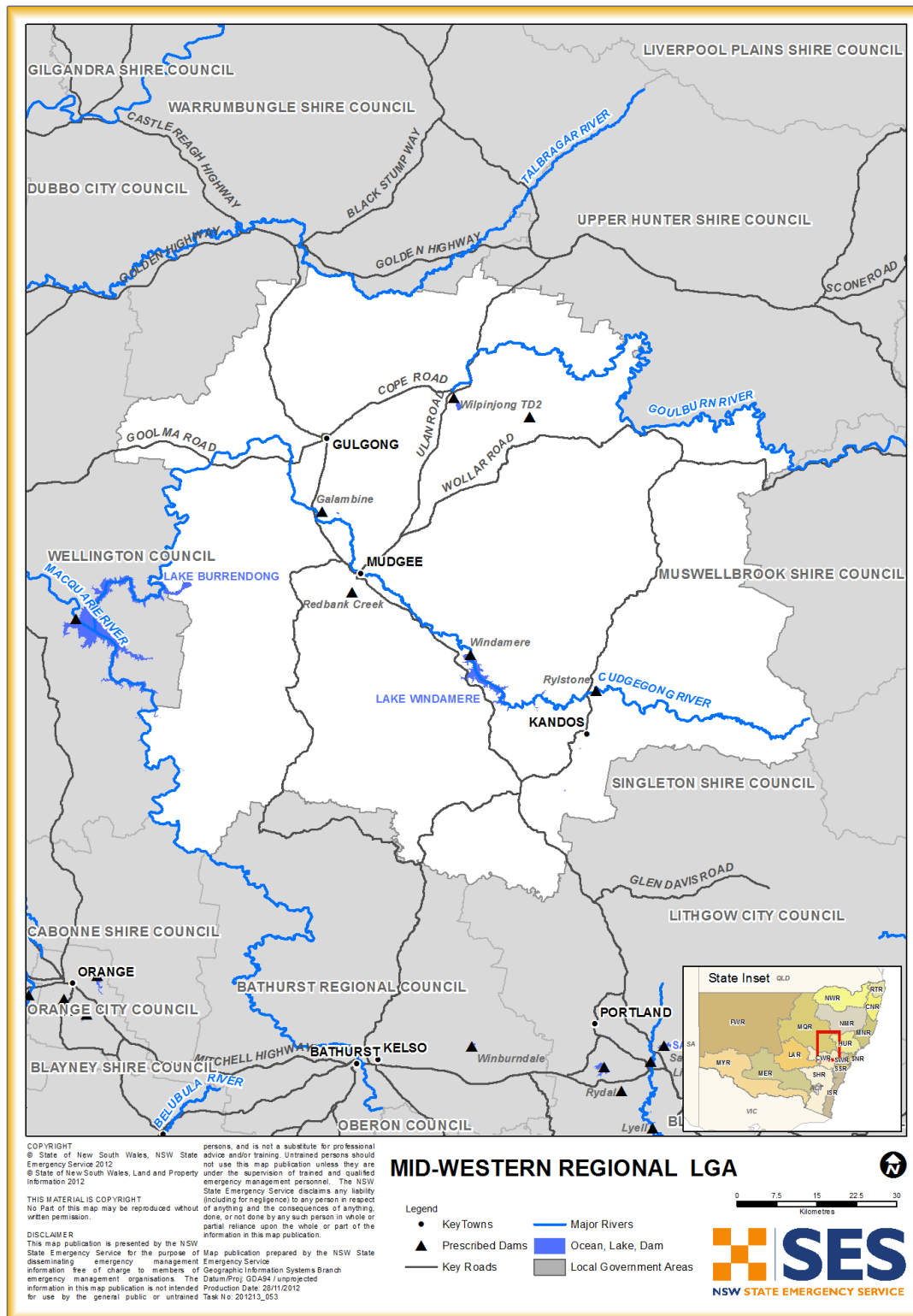


Please Note: The chart outlines the resupply process, but does not encompass all potential situations and outcomes.

ATTACHMENT 2 - DAM FAILURE ALERT NOTIFICATION ARRANGEMENTS FLOWCHART



ATTACHMENT 3 - MID-WESTERN REGIONAL COUNCIL LGA MAP



HAZARD AND RISK IN MID-WESTERN REGIONAL

Volume 2 of the Mid-Western Regional Local Flood Plan

Last Update: July 2007

ANNEX A - THE FLOOD THREAT

Landforms and River Systems

1. Most of the western part of the Council area is drained by the Cudgegong River system, although the northern portion falls within the Talbragar River catchment and the south is drained by Pyramul Creek and other minor tributaries of the Macquarie. These main drainage lines flow in a generally east-west direction to the main stem of the Macquarie River.
2. The Cudgegong River, an important tributary of the Macquarie, rises east of Rylstone and Kandos in the Great Dividing Range at Mt Coricudgy (1,274 metres). In its upper reaches the river passes through comparatively rugged country until it reaches the section downstream from the site of Windamere Dam.
3. Around Mudgee, extensive river flats have been developed along both the Cudgegong River and Lawson Creek upstream from their confluence with Pipeclay Creek. The valley floor then narrows as the river flows in a loop, north, west and then south through undulating country en route to Burrendong Dam, being joined by major tributaries Wyaldra and Merroo creeks on the way. The lower portion of the Cudgegong River valley forms a sizeable arm of Lake Burrendong.
4. Rylstone area is located in mountainous and undulating country mainly to the west of the Great Dividing Range. Its numerous creeks and streams are fast flowing and steep, and flooding occurs with little warning. Floodplain areas are narrow and of limited extent, and floods tend to be of short duration and cover relatively small areas. Few records exist of flooding within the council area.
5. Except for a small and lightly-populated area in the north-west which drains to the Talbragar River, the council area is drained by the Goulburn River and tributaries entering it from the north. The principal tributaries are the Munmurra, Krui, Bow and Merriwa rivers, Worondi Rivulet and Halls Creek, which together drain the Warrumbungle and Liverpool ranges of the Great Dividing Range and flow through wide valleys across the Merriwa Plateau.

Storage Dams

6. **Windamere Dam**, is a 69 metre high, earth and rock fill embankment dam on the Cudgegong River. It is located about 19 km south-west of Rylstone and was completed in 1984 for the purposes of supplementing Burrendong Dam storage as well as meeting the growing demand of water for Mudgee, vegetable production and sheep and cattle grazing between Cudgegong Village and Burrendong storage. Windamere Dam is located 22 kilometres upstream of Mudgee and has a catchment of 1,030 square kilometres, and a limited ability to mitigate floods. The reservoir is ungated, however, and

once it is filled its overflow is uncontrolled. It was not designed for mitigation purposes and can only pond floods of minor severity and then only when it is below full supply level. The Dam Wall is constructed of Rock fill with clay core and has been assessed and has no threats. The Dams storage capacity is 368,000 megalitres at 552 meters. It is believed that the dam can safely pass flows of up to about 4,801 cubic metres per second. The dam is not deemed deficient by the Dams Safety Committee.

- a. **Rylstone Dam**, a concrete arch dam with earth fill embankments at each end, and located on the Cudgegong River about 1.5 kilometres above Rylstone. The dam can safely pass flows of up to about 1,280 cubic metres per second which represents no more than 22% of the flow in the Probable Maximum Flood (PMF) at the site. If the dam were to fail, a large volume of water would be released and would travel down the valley as a flood wave inundating large areas to close to the river. The dam is not deemed deficient by the Dams Safety Committee.
- b. **Redbank Dam** is a concrete arch dam with earth fill embankments at each end, and located two kilometres south of Mudgee, has been assessed as being incapable of withstanding a very severe flood on Redbank Creek or a very strong earthquake. The Dam is monitored by council and kept drained. If the dam would fail there would be little notice time and approximately 80 homes would be affected. The dam is deemed deficient by the Dams Safety Committee. Arrangements for dam failure of Redbank Dam are detailed in Annex H.

Weather Systems and Flooding

7. Flooding can occur at any time of year in the Mudgee Council area, but different mechanisms are responsible for producing floods at different times of year. Three main types of weather system cause floods within the council area:
 - a. **Well-developed low-pressure troughs** crossing southern Australia from west to east. Sequences of such troughs can produce high rainfall totals over a period of weeks, the flooding resulting not from individual rain events but from a cumulation of them. The August 1990 flood on the Cudgegong River was preceded by significant rainfalls in April and July.
 - b. **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 record flood of February 1955 on the Cudgegong, Talbragar and Goulburn rivers was of this origin.
 - c. **High-intensity, short-duration convective thunderstorms** bringing very heavy rain causing 'flash' flooding on minor tributaries and the surcharging of artificial drainage systems in built-up areas. Such storms affect small areas, are largely confined to the late spring, summer and early autumn months and do not create mainstream flooding

Characteristics of Flooding

8. Most of the land in the east and south of the council area is undulating or hilly in nature, creek gradients are relatively steep and flood warning times and durations of inundation are short. In the west and north the terrain is flatter, floodplain areas are more extensive and warning times and duration of inundation are longer.
9. The Cudgegong first breaks its bank on the southern side near Mullamuddy. As the river rises, the bank is overtopped on the northern side further upstream and on the northern side downstream near Burrendulla. Most of the flow is carried in depressions through these areas, but virtually all of the flats are inundated in a major flood.
10. The most extensive and frequent flooding occurs on the southern side of the river, where about 40 floods have been noted in the last 30 years. The northern side is flooded on average of about once in every five years although up to three floods have been experienced in a single year.
11. Flood flows break both banks of Lawson Creek when it emerges from the hills and such breakouts occur roughly every couple of years. Flooding is most extensive on the northern bank, but is confined to a fairly narrow strip on the southern bank. However, just upstream from Mudgee, the creek approaches to within a few hundred metres of the Cudgegong, and roughly parallels it for about four kilometres until the junction downstream from Mudgee. Over this reach the flood waters mingle on the shared floodplain and form a continuous strip of water over a kilometre wide.
12. Downstream from Mudgee the flood waters break out principally on the western side and extend up to a kilometre from the river. Along the eastern side, the flats are generally only a couple of hundred metres wide or less, before rising to a range of low hills.
13. The floodplain narrows near the Pipeclay Creek confluence and then broadens over Wilbertree Flat. Pipeclay Creek can be a major contributor to flooding in this area breaking out just above the confluence and sending a torrent across the flats to the north. A strip a few hundred metres wide is also flooded on the southern side of the river before the valley narrows again.

Flood History

14. The highest recorded flood on the Cudgegong River occurred in February, 1955, although the flood of March 1956 was almost as high. Another flood (the third highest on record) occurred in November, 1969. In these serious events, the Cudgegong River and Lawson Creek were in flood together. Generally, in the Mudgee area, the extent of inundation in major floods is little different from that in lesser events.

15. The history of flooding in and around Mudgee dates back to 1870. Significant floods have occurred in
 - a. 1955 / Feb
 - b. 1956 / Mar
 - c. 1969 / Nov
 - d. 1971 / Jan
 - e. 1974 / Jan
 - f. 1990 / Aug

Flood Mitigation Systems

16. Between the Windamere Dam and Mudgee there are a number of properties that have their own rural levees which provide protection for farmlands from minor flooding. There are no other known systems in place.

Extreme Flooding

17. The worst floods ever experienced in the Mid-Western Regional Council area in living memory, such as the 1955 flood on the Cudgegong River, should not be regarded as the most severe which can occur there. Worst 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
18. Extreme flooding would also occur if Redbank Creek Dam were to fail. This small dam, a 16-metre high concrete structure which was constructed in 1898 and which has withstood all flooding since then, is in relatively poor condition. It is possible that it could fail in a very severe flood or perhaps in a serious earthquake. It must be stressed, however, that failure would be likely only in floods or earthquakes much worse than those previously experienced at the site of the dam

ANNEX B - EFFECTS OF FLOODING ON THE COMMUNITY

Community Profile

Census Description	Mudgee	Rylstone	Gulgong	Kandos
Total Persons	8619	654	2018	1339
Total Dwellings	3607	312	846	677
Total persons aged 65 years and over	1297	107	321	274
Total persons aged below 15 years	2016	142	505	271
Total persons of indigenous origin	235	9	53	35
Total persons using Internet	2256	167	482	217
Single parent families	367	39	86	77
Persons living alone	925	67	198	189
Total persons who do not speak English well	48	0	3	5
Total persons who lived at a different address 5 years ago	3826	200	749	405
Households without vehicles	323	15	63	60
Total persons residing in caravans, cabins or houseboats	252	0	36	0
Mean household size	2.5	2.4	2.6	2.3

Table B-1: Census of Housing and Population data (2001)

Specific Risk Areas

Mudgee

1. Mudgee itself is located on the southern bank of the Cudgegong River, most of it above the floodplain. Some low-lying residential areas in the north and east of the town could experience flooding, however, and there are six residential properties and a commercial one just outside the town which

could be inundated. In very severe events, the north western part of the town can be cut off for some days.

2. Areas needing specific attention during periods of flooding include the Putta Bucca roads area, Radio Station 2MG building and the Riverside Caravan Park..
3. Only a small extent of urban land in Mudgee is located within the 1% AEP floodplain. This includes several residential allotments, parts of special use zoned lands,
 - a. Riverside Caravan Park;
 - b. Walkers Sports Complex;
 - c. Lawson's Park;
 - d. Swimming pool;
 - e. Approximately 100 residential allotments (of which 21 are built on);
 - f. Approximately three hectares of commercially zoned land and 221 residential properties are located within the boundary of a PMF.
4. Various public buildings are also located within the PMF boundary including
 - a. Town Hall,
 - b. Public library,
 - c. Police station and
 - d. Courthouse
5. About 21 residential homes are subjected to inundation above floor level in a 1% AEP flood event. In the event of a PMF the number of homes affected grows to 221. The following table from the study depicts the number of homes subject to flooding during the 5%, 2%, 1% AEP flood probabilities and PMF.

Area	Number of residential homes inundated above floor level			
	5% AEP	2% AEP	1% AEP	PMF
Town	0	1	4	116
Rural	2	8	12	29
Redbank Creek	4	5	5	76
Total	6	14	21	221

Table B-2: Residential homes subject to flooding (Source: Mudgee Floodplain Management Study and Plan, 2002)

6. Were Redbank Dam to fail, there would be very severe flooding down the Mudgee Golf Course and 84 dwellings would be inundated between the dam

and the golf course. A small number downstream of the golf course in Mulgoa Way could also be affected.

Rylstone

7. Rylstone, lies on the Cudgegong River which commands a catchment area of 580 square kilometres above the town. Flooding there periodically covers the public reserves and playing fields located on the narrow floodplain, but houses have not so far been directly affected although the record flood of 1955 (which reached a gauge height of 4.0 metres on the bridge over the Cudgegong River) came close to several dwellings.
8. There are no large flood prone areas within the Rylstone area. Numerous small areas can be affected by flooding. Such areas occur on all the river systems within Rylstone, and in genuinely severe flood events the number of houses affected and needing to be evacuated could number several dozen. The Glen Davies, Glen Alice, Running Stream, Ilford and Warrangunia areas can all be flood affected, and a small number of dwellings in the town of Rylstone could experience inundation in a severe flood event. Some areas of rural land can be flooded, especially in the valleys of the Cudgegong River and Lawson's Creek in the western parts of the council area but also along the Turon, Bylong, Growee, Goulburn and Capertee rivers and the Nile and Crudine creeks.
9. Most flooding in the Rylstone area is of nuisance value. Isolation is generally a short-term problem, which on occasions can lead to a need for medical evacuations or for resupply.
10. Numerous causeways within the Rylstone area can be cut during periods of flooding, though the communication difficulties experienced tend to last for only a few hours. Problems of access mean that outside help for flood-bound people cannot always be guaranteed, and responses must often take place on a self-help basis. The roads within the council area which are liable to be closed during periods of flooding are identified in the table at the end of this annex.
11. There is a remote chance that such an event could cause the failure of Rylstone Dam. Flow equivalent to a 1 in 20 AEP flood will trigger a red alert to the SES. Should failure take place, the council's Water Treatment Plant and nine dwellings within the town would be inundated to beyond floor level by fast flowing water. Of these buildings, the Water Treatment Plant and two dwellings would be inundated by flooding before dam failure. A further two houses could also be inundated by a dam-failure flood. The risk to life from such a flood would be high, and for this reason a Special Rylstone Dam Warning and Alarm System has been installed. The operation of this system is described in Annex H.

Rural Areas

12. Numerous roads can be cut, at low causeways and bridges, and in the more serious events bridges have been damaged as has the railway line. Little urban property damage has been recorded.
13. Flooding within the Mid-Western Council area rarely has severe implications except for market gardeners upstream and downstream of Mudgee who sometimes sustain expensive crop damage. Up to 800 hectares of farmland near the town of Mudgee can be inundated in severe floods, and farmland away from the main river and Lawson Creek can also be flooded.
14. The river flat area near Mudgee is used primarily for irrigated vegetable crop production and the commercial production of lucerne hay. The major vegetable crops grown are asparagus, gherkins, capsicums, tomatoes, zucchinis and pumpkins. Smaller areas of wheat and maize are under irrigation. Irrigated pasture and dry-land crops are grown on the more undulating country with dry-land pastures on the steeper country slopes.
15. It is estimated that a minor flood (such as the historic 1969 flood) inundates about 400 hectares of vegetables and about 400 hectares of lucerne used for commercial hay production. The area of irrigated lucerne is increasing at the expense of vegetables on the river flats. The area of irrigated wheat grown on the river flats is also increasing and it is estimated that a minor flood would inundate about 100 hectares of irrigated wheat.

Road Closures

16. Roads can be closed at numerous locations through out the region. In some cases, these closures can cause houses to be isolated

Road	Usual point of closures	Comments/Implications
Lue-Mudgee Rd	At Grey Gum Bridge	
Gulgong Rd	adjacent to Mudgee Valley Tourist Park	
Wilbertree Rd	At Mudgee Abattoir	
Ulan Rd	At Cooyal Creek and Lawson Creek	
Mulgoa Way, Mudgee.	Mulgoa Way,	
Yarrabin Rd	At low-lying creek crossings	30-40 houses may be isolated
Sydney Rd	At Redbank Creek crossing	
Riverlea Rd	Cudgegong River crossings	30 houses may be isolated
Melrose Rd	Cudgegong River crossings	15 houses may be isolated
MR 55 Sydney to Mudgee	Jack Halls Creek (major floods).	No practical detour exists.
	Running Stream culvert	(major floods).
	Ilford near Post Office from	(major floods).

Road	Usual point of closures	Comments/Implications
	Cunningham's Creek	(major floods). (major floods). (major floods).
	Old Westwood	
	Crudine Turnoff from Crudine Creek	
	Harding's Corner from Tabrabucca Creek	
Cudgegong Road (Rylstone to Cudgegong)	Coomber Causeway (moderate floods).	Access may be available via Kandos until flooding of MR 215 occurs outside Kandos.
MR 215 Ilford to Bylong	Road cut outside Kandos (moderate floods).	No practical alternate.
	Tongbong Creek, Rylstone (minor floods).	Detour via Tongbong Road and Windles Lane
	Talooby Causeway, Bylong Creek (major floods).	No practical detour.
	100 m north of Taylors Road (moderate floods).	
	100 m north of Killen's Road (moderate floods).	
MR 215 Ilford to Bylong Cooper Drive	Budden Causeway (major floods). Growee Bridge (major floods).	
	Road cut at 2 causeways	When cut Kandos - Ilford Road is also cut.
	Reedy Creek (moderate floods)	
Crudine Road	Cunningham's Creek Bridge (major floods)	No alternative access.
	Butter factory Bridge (major floods).	
	1 km south of Giles Hill natural causeway overtopped (moderate floods).	
	Concrete causeway near Burgess (minor floods).	
	Mudgee Bridge (major floods).	
	Rylstone Bridge (major floods).	
	Several causeways Crudine end (moderate floods).	
	Hundy's Flat (major floods).	
Glen Alice Road (Rylstone to Glen Davis)	Baby Culvert (moderate floods).	No alternative access.
	Causeway eastern side Kildare (major floods).	

Road	Usual point of closures	Comments/Implications
	500 m south Bowles Lane (major floods).	
	Thornes Hill (major floods).	
	Major Box Culvert 2 km north Shire boundary (major floods).	
	Near Shire boundary floods from Capertee River (major floods).	
Narrango Road Glen Alice - Olinda	Brown's lane (major floods)	No alternative access.
	Windmill Creek (major floods).	
Glen Alice - Olinda (cont'd)	3 causeways past Falcon (major floods).	
Cox's Creek Road MR 215, Nullo Mountain	Flat past Cox's Crown Road (major floods).	No alternative access.
	Adjacent to Clarke's Road (major floods).	
	Flat and Causeway Mills (major floods).	
	1.5 km adjacent Hicksons (major floods).	
	1 km past Merretts (major floods).	
	500 m from Nullo Mountain turnoff (major floods).	
Reedy Creek Road	Various creeks and low areas.	No alternative access.
Growee Road	Low lying areas adjacent to Growee Creek (major floods).	No alternative access.
Genowlan Road	Genowlan Bridge (major floods).	No alternative access.
	Past Watervale (major floods).	
Ginghi Road	Ginghi Culvert (major floods).	No alternative access.
Wooley's Road	Flat area (moderate floods).	No alternative access.
	Creek Crossing Bylong Creek (moderate floods).	
Upper Bylong	Upper Bylong, Bridge Bylong Creek (major floods).	No alternative access.
Lee Creek, Bylong, MR 215	Various creek crossings - flat areas adjacent to creeks.	No alternative access.
Breakfast Creek Road MR 215, Pyangle Road	0.5 km from MR 215 creek crossing (moderate floods)	No alternative access.
	Adjacent to T Croom's (moderate floods).	
Pyangle Road	Low lying areas and creek	No alternative access.

Road	Usual point of closures	Comments/Implications
	crossings including Lawson's Creek (major floods) and Bingaman's Crossings (major floods)	
Bara Road, Pyangle, Mudgee Shire	Cut at low lying areas and creeks (major floods).	No alternative access.
Powell's Road	Cut at low lying areas and creek crossings (major floods).	No alternative access.
Nevells Road	Major creek crossing - Hawkins Creek (major floods).	No alternative access.
	Various creek crossings.	
Lue Road	Hamilton's Bridge (major floods).	No alternative access.
	Pitts corner (major floods).	
Tongbong Road, Rylstone, Lue	All creek crossings.	Via Lue Road until bridges flood.
Windles Lane	Overtopping of tributary of Tongbong Creek (major floods).	No alternative detour.
White Rock	Various creek crossings (major floods).	No alternative access.
Nullo Mountain Road, Olinda - Dead End	Box culvert (major floods)	No alternative access
	Low areas adjacent to Hidden Valley (major floods).	
	Low areas - Spring Gully and J Foodey's.	
Kelgoola Road	Low area near Eames, low area near Kirks, Sampson's causeway, Rotten River Bridge (all major floods).	No alternative access.
Flatland's Road	Various creek crossings (major floods).	No alternative access.
Ilford Hall Road	Creek near Mostyn entrance and Cunningham's Creek near Hall (major floods).	No alternative access.
Warrangunia Road MR 54 - Crudine Road	Various creeks and causeways (major floods)	No alternative access.
Evans Road	Ryan's Creek Crossing (major floods).	No alternative access.
Mt Vincent Road	Adjacent to Winery Road (major floods).	Access via Running Stream end.
Oliver's Road	Creek and causeway crossings (major floods).	No alternative access.
Hans Road	Creek crossing (major floods).	No alternative access.
Tara Loop	Various causeways and low lying	No alternative access.

Road	Usual point of closures	Comments/Implications
	areas.	
Upper Turon Road	Green point, Nuggetty, Gorman's and Ben's causeways, all low lying areas of road (flooded by Turon River).	No alternative access.
MR 54	Sofala Bridge (major floods).	No alternative access.
Upper Nile Road	Flat areas (major floods).	No alternative access.
Nile Road	Flat area past intersection (moderate floods).	No alternative access.
Dunville Loop	Various creeks and causeways (moderate floods).	No alternative access.
Port Macquarie Road	Various creeks (major floods).	No alternative access.
Glencoe Road	Causeway (major floods).	No alternative access.
Browns Lane	All low lying areas (moderate floods).	No alternative access.
Dabee Road	Kandos side of mine (major floods).	No alternative access.
Quarry Road	Creek crossing and low lying areas adjacent.	No alternative access.
Killens Road	Various creeks and causeways (major floods).	No alternative access.
Cafes Road	Creek crossings and low areas (major floods).	No alternative access.
Cox's Crown Road	Various creeks and low lying areas (moderate floods).	No alternative access.
Clarke's Road	Adjacent to Cox's Creek Bridge. Adjacent to all flat areas (major floods).	No alternative access.
Rylstone Dam Road	At creek crossing (moderate floods).	No alternative access.
Coomber and Carwell Streets, Rylstone	Major floods.	No alternative access.

Table B-3: Road closures

Effects on Utilities and Infrastructure

17. Rylstone Water Treatment Plant; will only be affected in the case of the Rylstone dam failing. The warning system in place allows time for the council to manage this facility.
18. Mudgee Water Pumping Stations; as a general rule these facilities are managed by the council in a PMF, alternative facilities are available if those along the river system fail.

SES RESPONSE ARRANGEMENTS FOR MID-WESTERN REGIONAL

Volume 3 of the Mid-Western Regional Local Flood Plan

Last Update: July 2007

ANNEX C - GAUGES MONITORED BY THE MUDGEE SES LOCAL HEADQUARTERS

Gauge Name	Type	AWRC No	Stream	Flood Classification			Reading Arrangements	Owner
				Min	Mod	Maj		
Wilbertree Rd	Telemeter	421150	Cudgegong River	none	none	none	SES	DWE
Windamere Dam D/S	Telemeter	421079	Cudgegong River	none	none	none		DWE
Windamere Dam	Telemeter	421148	Cudgegong River	none	none	none		DWE
Yamble Bridge	Telemeter	421019	Cudgegong River	none	none	none	SES	DWE
Rocky Water Hole	Telemeter	421149	Cudgegong River	none	none	none	SES	DWE
Yamble Br	Telemeter	421019	Cudgegong River	none	none	none		DWE
Rylstone Bridge ‡	Manual	421038	Cudgegong River	none	none	none		DWE

Notes:

1. The Bureau of Meteorology does not provide flood warnings for gauges within the Mid-Western Regional area
2. SES Local Flood Advices are currently not provided for any gauges within the local government area.
3. The SES holds a Flood Intelligence Card for the gauges marked with a double cross (‡).

ANNEX D - DISSEMINATION OF SES FLOOD BULLETINS

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

Television Stations:

Station	Location
WIN TV	Orange
Prime TV	Orange
Southern Cross 10 TV	Canberra
ABC TV	Sydney

Radio Stations:

Station	Location	Frequency	Modulation
2DU	Dubbo.	1251	AM
2CR	Orange (ABC, for transmission to 2WPR FM Dubbo)	99.5	FM
2GZ	Orange	105.1	FM
2LT	Lithgow	900	AM
2NM	Muswellbrook	981	AM
Real FM	Mudgee	93.1	FM
2MG	Mudgee	1449	AM
KRR	Mudgee	98.7	FM

Newspapers:

Name	Location
Daily Liberal	216 Macquarie Street DUBBO
Mudgee Guardian	9 Perry Street Mudgee
The Mudgee Weekly	9 Perry Street Mudgee

Other Agencies:

Flood bulletins will be issued to all agencies with responsibilities listed in this plan and DISPLAN

ANNEX E - TEMPLATE EVACUATION WARNING MESSAGE FOR [ENTER NAME OF AREA]

Evacuation Warning for []

Date/Time of Issue: []

Authorised By: []

The Bureau of Meteorology has predicted a flood level of [] metres at [] (*place*) at [] (*time*). This means that the following area(s) may be inundated [].

It is recommended that you prepare to evacuate/for evacuation within the next [] hours. If you leave it later, the roads may be congested or closed.

To prepare for evacuation, you should:

- Raise belongings by placing them on tables, beds and benches. Put electrical items on top. Some items may be able to be placed in ceilings.
- Gather medicines, personal and financial documents and mementos together to take with you.
- Listen to radio stations [enter station] for further information and to confirm this warning.
- If possible, check to see whether your neighbours need help.
- Make arrangements for care of pets or companion animals.

If evacuation is necessary:

- Turn off the electricity, gas and water.
- Take three days' supply of clothes with you.
- If you have a car, drive to the evacuation centre at [] (*specify route if appropriate*).
- If you don't have a car, buses will operate on normal routes. Special transport can also be provided on request if necessary, telephone [].
- So that you can be accounted for, it is important that you register at the evacuation centre.
- After registering, you may go to the house of a friend or relative. Alternatively, accommodation will be arranged for you.
- The Police will provide security for your property while you are away.

ANNEX F - EVACUATION ARRANGEMENTS FOR THE MID-WESTERN REGIONAL COUNCIL AREA

Background

1. In most floods, few evacuations are required. Most that are necessary are from rural areas on the floodplain of the Cudgegong River and Lawson Creek above and below Mudgee. In very severe events, some evacuations may be necessary from the northern and eastern parts of Mudgee including the valley of Redbank Creek in the case of dam failure.

Arrangements

2. **Control.** During floods evacuations will be controlled by the NSW SES. Small-scale evacuations will be controlled by the Mudgee SES Local Controller. Should the evacuations operations escalate beyond the capabilities of local resources control may be handed over to the Macquarie SES Region Controller.
3. **Conduct.** Evacuations will be controlled by the SES and conducted in four phases:
 - a. Phase 1 - Warning.
 - b. Phase 2 – Withdrawal.
 - c. Phase 3 – Shelter.
 - d. Phase 4 – Return.

Decision to Evacuate

4. **The decision to evacuate.** The responsibility for issuing any general evacuation order during flooding rests with the Mudgee 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 will usually be made after consultation with the Local Emergency Operations Controller and the Macquarie SES Region Controller.
5. **When evacuation should occur.** As far as possible, evacuation will be carried out before inundation occurs.
6. **What to consider.** When deciding to evacuate the following should be considered
 - a. Predicted flood level and rate of rise.

- b. Rainfall situation and rainfall predictions.
 - c. Condition of evacuation routes.
 - d. Characteristics of the at risk population.
 - e. Time of day.
 - f. Likely duration of evacuation operations and time available to conduct evacuations.
 - g. Likely duration of any isolation and preparedness of the community to cope with isolation.
 - h. Condition of essential services
7. **Self-motivated evacuation.** Some people will make their own decision to evacuate earlier and move to alternative accommodation using their own transport. These evacuees will be advised, via the media, to inform the Police or SES of their evacuation and their temporary address.
8. **Evacuation triggers.**
- a. **Failure of Essential Services.** The failure of public utilities such as sewerage, power, telephones and water pose a significant health risk to residents on the floodplain or in flood affected areas. In the event of any or all of these systems failing or potentially failing, the need for evacuations will be discussed with the members of the LEMC.
 - b. **Flooding affecting properties.** Evacuations are to occur, if it is likely properties will be flooded.
 - c. **Isolation of properties.** Persons who are not prepared for isolation or unsuited due to medical conditions etc, should be encouraged to evacuate.
 - d. **Dam Failure.** Evacuations are to occur when advised by State Water of Imminent Dam failure. **See annex H**

9. **Operations Management of Evacuations.** To assist with the Operational management of the Mudgee. Sub Sectors have been identified and will be established

Mudgee Sectors	Boundaries
A	North Cudgegong River South – Railway Line. East – Cudgegong River. West – Douro Street
B	North Railway Line South – Town limit East – Industrial Ave and Burrundulla Rd West - Eastern Side of golf Course and Broad head Rd.
C	North – Railway Line South – Bruce Rd including Macquarie Estate East – Golf Club, along to Yarrawonga Estate West – Church St/ Douro Strd
D	North – Madeira Rd South – Water works Rd Including Redbank Dam East – church St West –Henry Baily Drive to foot of hills
E	North – railway Line South – Rifle Range Road East – Douro St West –Bellevue Estate
F	North – Cudgegong River South – Railway Line East – Douro St West –Town Limit/ Putta Bucca rd
G	North – Putta Bucca Estate across to Bumberra Estate South – Lawson Creek East – End of Robert Hoddle Grove West –Putta Bucca rd & Tinga lane
Table F-1: Mudgee Operational Sectors	

Phase 1 – Warning

10. **Evacuation warnings.** On the receipt of flood warnings predicting peak heights; the Mudgee SES Local Controller will consult as necessary 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 Mudgee SES Local Controller will issue evacuation warnings to the ‘at risk’ residents, indicating what people should do before evacuating and when actually doing so.
11. **Content of Evacuation Warnings.** A template guide to the content of evacuation warning messages is at Annex E. These are disseminated via:
- The radio and TV stations listed in Annex D.
 - Door-knocks by emergency service personnel.

- Public address systems from emergency service vehicles.
- Telephone.
- Two-way radio.
- SES Flood Bulletins.

Phase 2 – Withdrawal

12. **Introduction.** Withdrawal involves the actual removal of the community/individuals from dangerous or potentially dangerous areas to safer areas.
13. **Movement.** Evacuees are to be encouraged to move using their own transport where possible. The Mudgee SES Local Controller will arrange transport for those people without their own vehicles.
14. **Phasing.** Area along flood affected area will have priority over non effected area, starting with properties north of Windamere dam along the Cudgegong River followed by the area affected in the township of Mudgee.

Triggers	Priority 1	Priority 2	Priority 3	Priority 4
Flood Warning	Schools and Child Care Centres, Special needs/home care patients	Elderly and infirm		
Failure of Essential Services	Hospitals Special needs/home care patients	Aged Care Facilities	Identified at risk home residents	Other residents and pets as possible.
Flooding affecting properties	Special needs/home care patients	Ground Level residents/Caravan Parks	Other residents and pets when possible	
Isolation of properties	Elderly and infirm	Single Parent families	Resupply	
Imminent Dam Failure	Identified at risk residents immediately downstream	Schools and Child Care Centres, Special needs/home care patients	Elderly and infirm	All Ground Level residents Caravan Parks

Table F-2: Evacuation triggers and priorities

15. **Evacuation routes.** Redbank Dam Failure - Residents from Mudgee South should proceed towards Douro St and then head in a Northerly direction to

the Mortimer St. Residents in the Eastern side of Mudgee should head along Mortimer St towards the club.

16. **Large-scale evacuations.** there should be no need for the evacuation of any towns within the Mid Western Area.
17. **Animals.** 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. Department of Primary Industries will make separate arrangements for the evacuation and care of companion animals.
18. **Doorknocking.** Field teams conducting doorknocks will record and report back the following information back to the Operations Centre:
 - Addresses and locations of houses doorknocked and/or evacuated.
 - The number of occupants.
 - Details of support required (such as transport, medical evacuation, assistance to secure house and/or property and raise or move belongings).
 - Details of residents who refuse to comply with the evacuation order.
19. **Refusal to evacuate.** Field teams should not waste time dealing with people who are reluctant or refuse to comply with any evacuation order. These cases should be referred to the Local Emergency Management Operations Controller who will arrange for Police to ensure their evacuation.
20. **Security.** The NSW Police Force will provide security for evacuated areas.
21. **Transport and storage.** Transport and storage of furniture from flood threatened properties will be arranged as time and resources permit.

Phase 3 – Shelter

22. **Evacuation centres.** The usual purpose of evacuation centres is to meet the immediate needs of victims, 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 Mudgee SES Local Controller but managed as soon as possible by the Department of Community Services. Any or all of the following sites may be used as evacuation centres:

Gulgong	Mudgee	Rylstone	Villages
Preferred/Primary Evacuation centres			
Gulgong RSL	Mudgee Soldiers Club	Rylstone Club	Wollar Public School
Gulgong High School	PCYC	Rylstone High School	Hargraves Public School
Gulgong Public School	A.R.E.C Site	Kandos High School	Lue Public School
	Parklands Resort		Ulan Public School
	Mudgee High		Goolma Public School
	Cudgegong Valley Public School		Bylong Upper Public School

Table F-1: Evacuation Centres

23. **Action on arrival.** On arrival, evacuees will be:

- a. registered;
- b. medically checked, if necessary; and
- c. provided with their immediate welfare needs.

24. **Registration.** The NSW Police Force will ensure that all evacuees are registered on arrival at the designated evacuation centres.

25. **Animal shelter compounds.**

- a. In the event of a large-scale evacuation of Mudgee, animal shelter compound facilities will be set up for domestic animals and companion animals. These facilities will operate at the Mudgee Showground and be operated by Department of Primary Industries.
- b. In the event of a large-scale evacuation of Rylstone, animal shelter compound facilities will be set up for domestic animals and companion animals. These facilities will operate at the Rylstone pound and be operated by Department of Primary Industries.
- c. Assistance animals are to accompany and/or remain in the care of their owners at all times. This includes transport and access into evacuation centres etc.

Phase 4 – Return

26. Once it is considered safe to do so, the Mudgee SES Local Controller will authorise the return of evacuees to their normal or alternative place of residence. This decision will be made in consultation with appropriate officers in regard to matters such as the electrical safety of buildings.
27. The return will be controlled by the Mudgee SES Local Controller and may be conducted, at his/her request, by DoCS.

ANNEX G - ARRANGEMENTS FOR THE EVACUATION OF CARAVAN PARKS AND THE RELOCATION OF CARAVANS

General

1. The following caravan parks are flood liable:
 - a. Riverside Caravan Park at 22 Short Street
 - b. the low-lying area of the Mudgee Tourist Caravan Park in Bell Street

Advising Procedures

2. Caravan Park proprietors are encouraged to ensure that the owners and occupiers of caravans are:
 - a. Made aware that the caravan park is flood liable by:
 - Handing a printed notice to occupiers taking up residence. The notice will indicate that the caravan park is liable to flooding and outline the evacuation and van relocation arrangements as detailed in this Annex.
 - Displaying this notice prominently in each van.
 - b. Made 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).
 - c. Informed when a flood is rising. At this time, occupiers will be advised to:
 - Ensure that they have spare batteries for their radios.
 - Listen to a local radio station for updated flood information.
 - Prepare for evacuation and van relocation.

3. The Mudgee SES Local Controller will ensure that the managers of caravan parks are advised of flood warnings and the details of any evacuation order.

Evacuation of Occupants and Relocation of Vans

4. Caravan park proprietors will install flood depth indicators and road alignment markers within their caravan parks.
5. When an evacuation order is given:
 - a. Occupiers of non-movable vans should:
 - Secure their vans by tying them down to prevent flotation.
 - Isolate power to their vans.
 - Collect personal papers, medicines, a change of clothing, toiletries and bedclothes.
 - Lift the other contents of their vans as high as possible within the van.
 - Move to a designated evacuation centre in Mudgee Showgrounds at the corner of Douro/Nicholson streets if they have their own transport, or move to the caravan office to await transport.
 - b. 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 SES personnel will assist if required and may be able to provide additional vehicles. Vans are to be moved to the following locations:
 - Mudgee Showgrounds at the corner of Douro/Nicholson streets
6. Caravan park managers are encouraged to:
 - a. Ensure that their caravan park is capable of being evacuated within six hours.
 - b. Advise the Mudgee SES Local Controller of:
 - The number of people requiring transport.
 - Details of any medical evacuations required.
 - Whether additional assistance is required to effect the evacuation.
 - c. Check that no people remain in non-removable vans that are likely to be inundated.
 - d. Inform the Mudgee SES Local Controller when the evacuation of the caravan park has been completed.

- e. Provide the Mudgee SES Local Controller with a register of people that have been evacuated.

	Assembly/Evacuation Point	Access route	When Inundation Begins	Time to Evacuate park
Mudgee Tourist Park	Front of Reception	Bell Rd	Unknown	35 mins
Riverside caravan Park	Front of Reception	Short St	Unknown	25 mins

Table G-1: Evacuation of Caravan Parks

Return of Occupants and Vans

7. The Mudgee SES Local Controller, using council resources as necessary, will advise when it is safe for the caravan parks to be re-occupied.
8. Vans will be towed back to the caravan park(s) by van owners or by vehicles and drivers arranged by the park managers. Again, Council and SES personnel will assist if available.

ANNEX H - DETAILS OF THE DAM-FAILURE WARNING AND EVACUATION SYSTEM FOR REDBANK CREEK DAM

Purpose of System

1. The Dam-Failure Warning System for Redbank Creek Dam has been devised to protect residents at threat by facilitating their evacuation should failure become possible. The dam, located two kilometres south of Mudgee, has been assessed as being incapable of withstanding a very severe flood on Redbank Creek or a very strong earthquake.
2. Some 80 houses located between the dam, the Sydney Rd and Mogola Way would be flooded if failure occurred, and it is possible that some additional houses located downstream of the bridge would also be affected.
3. Under normal conditions, the dam is unmanned and has no operational equipment. The principle storage level indicator is a water level transducer telemetered to Mid-Western Regional Council.
4. The Dam-Failure Warning System consists of a gauge at the dam, alarm-generating mechanisms to alert Mid-Western Regional Council and SES, and a set of arrangements to ensure that warnings are passed to the occupants of the houses which could be threatened.

Operation and Procedures

5. The system operates as follows:
 - a. The dam and the level of the water behind it are monitored regularly by Mid-Western Regional Council.
 - b. Key council personnel are alerted who advise SES.
 - c. Physical surveillance of the dam and downstream areas is initiated by Council.
 - d. Procedures are set in train to warn the occupants of the threatened houses and to advise them of appropriate actions, including evacuation if necessary
6. Notification, surveillance, warning and evacuation arrangements are detailed in the table H-2. Note that:
 - a. Actions indicated as occurring at particular Alert Levels may be brought forward if the development of a flood event warrants.
 - b. The 'Elapsed Times' are estimates of the worst possible case based upon PMF (Probable Maximum Flood) hydrographs. In real events which

threaten to cause the dam to fail it is likely that much more time would elapse between the White and Red Alert levels than is indicated in the table. Assessments of the speed of onset of developing events would be made at the time and advice given to residents would reflect these assessments

7. If a significant earthquake is felt by the occupants of the threatened houses, they have been asked to leave immediately on foot or by car, moving away from Redbank Creek and not returning to their homes for a period of 30 minutes. Council staff will immediately inspect the dam and advise the occupants on any further action which is necessary

Prior Advice to People Potentially at Threat

8. Residents of the dwellings which could be inundated have been issued with laminated 'advice sheets' intended to be placed in a prominent location in the house and summarising:
 - a. The circumstances under which dam failure could occur.
 - b. Arrangements governing the issue of warnings.
 - c. What to do when advised to prepare to evacuate or actually to do so.
 - d. What to do if an earthquake is felt.
9. The written summaries, headed 'Notice to Occupants of this Dwelling' are appended to this annex.
10. The Table H-1 lists the streets at risk of inundation following a failure of Redbank Creek Dam:

Mudgee South	Mudgee East	Mudgee North
Mountain View Road	Sydney Rd	Short St
Waterworks Road	Mulgoa Way	Court St
Robertson Road	Clarendon Pl	Pitts Lane
Trefusis Ave		
Spring Rd		
Redbank Rd		
Darren Rd		
Scenic Close		
Abernethy Close		

Table H-1: Dambreak affected roads

Table H-2 Notification Procedures and Actions In Relation To Water Levels At Redbank Creek Dam

CONDITION	ALERT LEVEL	ELAPSED TIME IN WORST CASE	FLOOD EFFECTS	ACTIONS		
				MID-WESTERN REGIONAL COUNCIL	MUDGEES	PEOPLE IN HOUSES AT RISK
Water level 5.5m below spillway.	GREEN		None: this is the normal water level at the dam.	<ul style="list-style-type: none"> Inspects dam after significant rain. Advises Mudgee SES if rise occurs above this level. 	<ul style="list-style-type: none"> Notes rise when advised. 	<ul style="list-style-type: none"> No action required.
Water level 1.0m below spillway.	WHITE		No flooding from dam.	<ul style="list-style-type: none"> On-call operator alerted by auto dialler, advises: <ul style="list-style-type: none"> Manager Water Supply and Sewerage. SES After Hours Duty Officer. Local Emergency Operations Controller. Opens outlet valve. Establishes regular contact with Mudgee SES LHQ. 	<ul style="list-style-type: none"> Activates Local Flood Plan. Ensures that Evacuation Centre (Mudgee Soldiers Club) is made ready. Advises agencies assisting with dissemination of warnings to make doorknockers ready. Advises houses immediately downstream of dam to “prepare to evacuate” or to actually do so. 	<ul style="list-style-type: none"> No action required; no short-term threat to dam.
Significant earthquake felt by people in at-risk houses.	ORANGE	NA	None unless failure occurs; failure would produce significant flooding in creek.	<ul style="list-style-type: none"> Inspects dam SES After Hours Duty Officer Advises people in at-risk houses on results of inspection and on further actions. 	<ul style="list-style-type: none"> Await further notice from council Engineer 	<ul style="list-style-type: none"> Evacuate immediately, by car or on foot, away from Redbank Creek. Stay away for 30 minutes before returning.
Water level 0.2m above spillway.	RED	1 hour from WHITE ALERT	Flooding occurring in creek.	<ul style="list-style-type: none"> Continues surveillance of dam and downstream area. Seals roads off with barriers. Maintains regular contact with 	<ul style="list-style-type: none"> Advises residents by telephone and doorknock to prepare to evacuate or to actually do so. Advises Radio Station 2MG/RealFM Mudgee and 	<ul style="list-style-type: none"> Act on advice, evacuating if required by pre-determined route to evacuation centre.

CONDITION		ALERT LEVEL	ELAPSED TIME IN WORST CASE	FLOOD EFFECTS	ACTIONS		
					MID-WESTERN REGIONAL COUNCIL	MUDGEES	PEOPLE IN HOUSES AT RISK
					Mudgee SES LHQ.	requests urgent message to be broadcast	
Water level 1.0m above spillway		ASSUMED DAM FAILURE	1.5 hours from WHITE ALERT	Extreme flooding in creek; houses flooded.			
Danger assessed as being over (Note that this condition could be reached at any time after WHITE ALERT level is reached).		ALL CLEAR	NA	NA	•Advises Mudgee SES and residents of intended further actions.	•ALL CLEAR issued by phone, doorknock and/or at evacuation centre and over Radio Station 2MG/RealFM Mudgee.	•Stay at home, return home or await further advice.

NOTICE TO OCCUPANTS OF THIS DWELLING

The purpose of this notice is to help you know what to do and where to go if Redbank Dam is threatened with failure. The **chance of failure is extremely remote** - but if it should occur this property could be severely flooded with dangerously fast-flowing and deep water. To ensure your safety it is vital that you read this card carefully, keep it in a visible indoors location and refer to it periodically.

If you feel an earthquake which causes windows or dishes to break, books to fall off shelves or pictures to fall from walls, you should leave immediately, by car or on foot, moving **away from Redbank Creek**. You should not return for a period of 30 minutes. Council staff will inspect the dam and advise you as soon as possible on the condition of the dam and on any further action which you should take. Listen to 2MG or Real FM.

If there is very heavy rain and you are advised by emergency services personnel **to prepare to evacuate**, you should gather together your medicines, personal valuables and papers, photograph albums and family mementoes and be ready to take them with you.

If you are advised to **evacuate**, you should:

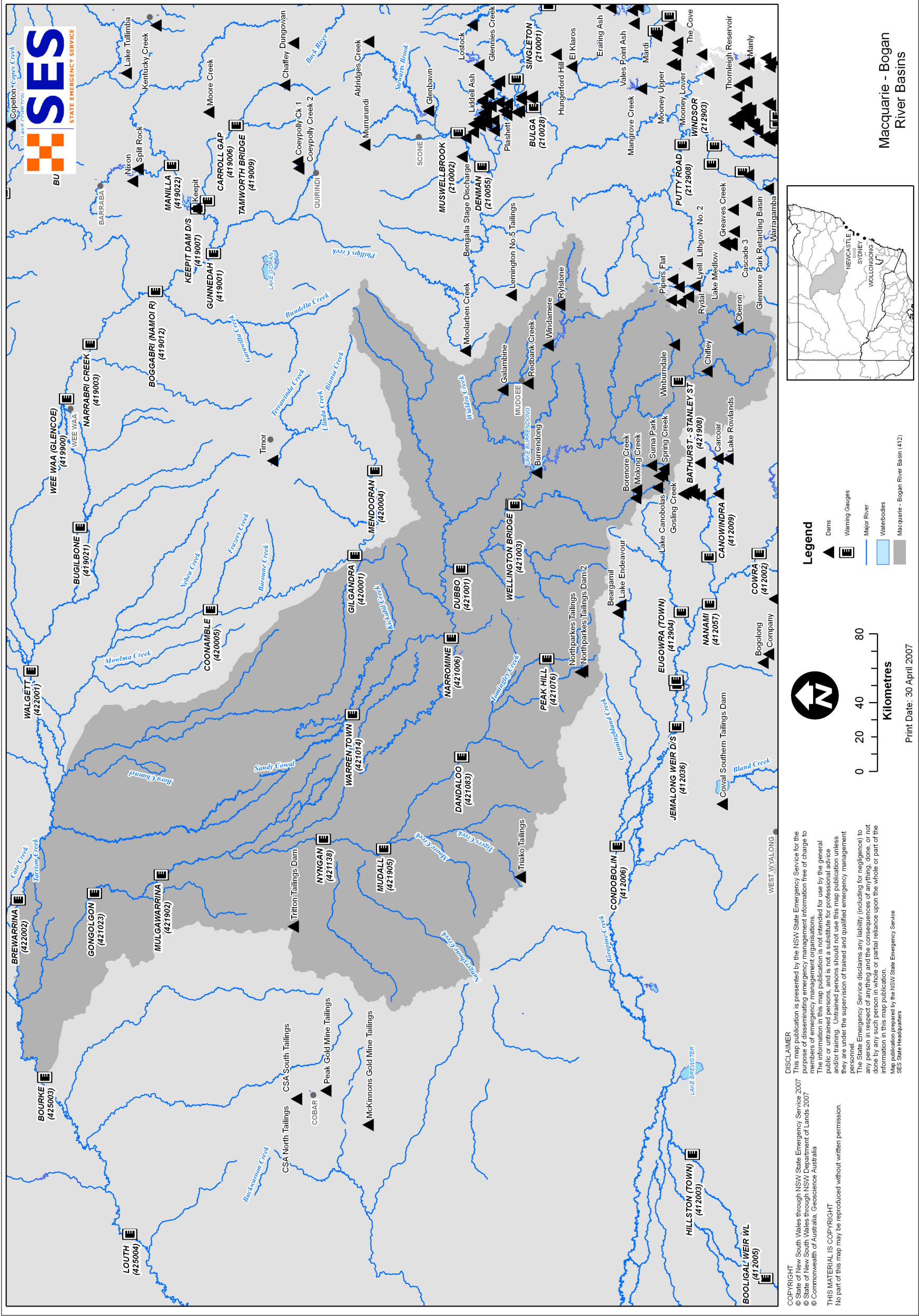
- a. Collect your medicines, personal valuables and papers, money, photograph albums and family mementoes and other belongings that can be fitted within your vehicle or in a suitcase.
- b. Move to the house of a friend or relative well above the level of your own house, or go to the Evacuation Centre at the **Mudgee Soldiers Club**.
- c. If you need help to evacuate, please call the State Emergency Service on **132 500** or tell the person who has advised you to leave the house.

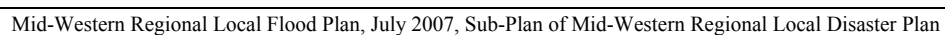
Assistance will be provided, should you need it, to help you evacuate and temporary accommodation will be available. The Police will provide security for your property while you are away and any pets will be cared for by the Mid-Western Regional Council.

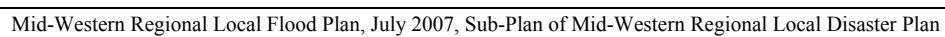
It is important that you evacuate when advised to do so. If you do not, flood water may make it extremely difficult or dangerous to leave.

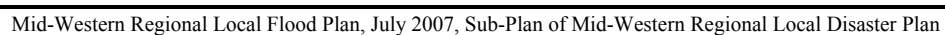
When the danger has passed, you will be advised as soon as possible, you will be visited by an employee of the Council or a member of the State Emergency Service to ensure that you are safe and to explain what has happened and what is likely in the future.

MAP 1 - MACQUARIE-BOGAN RIVER BASIN

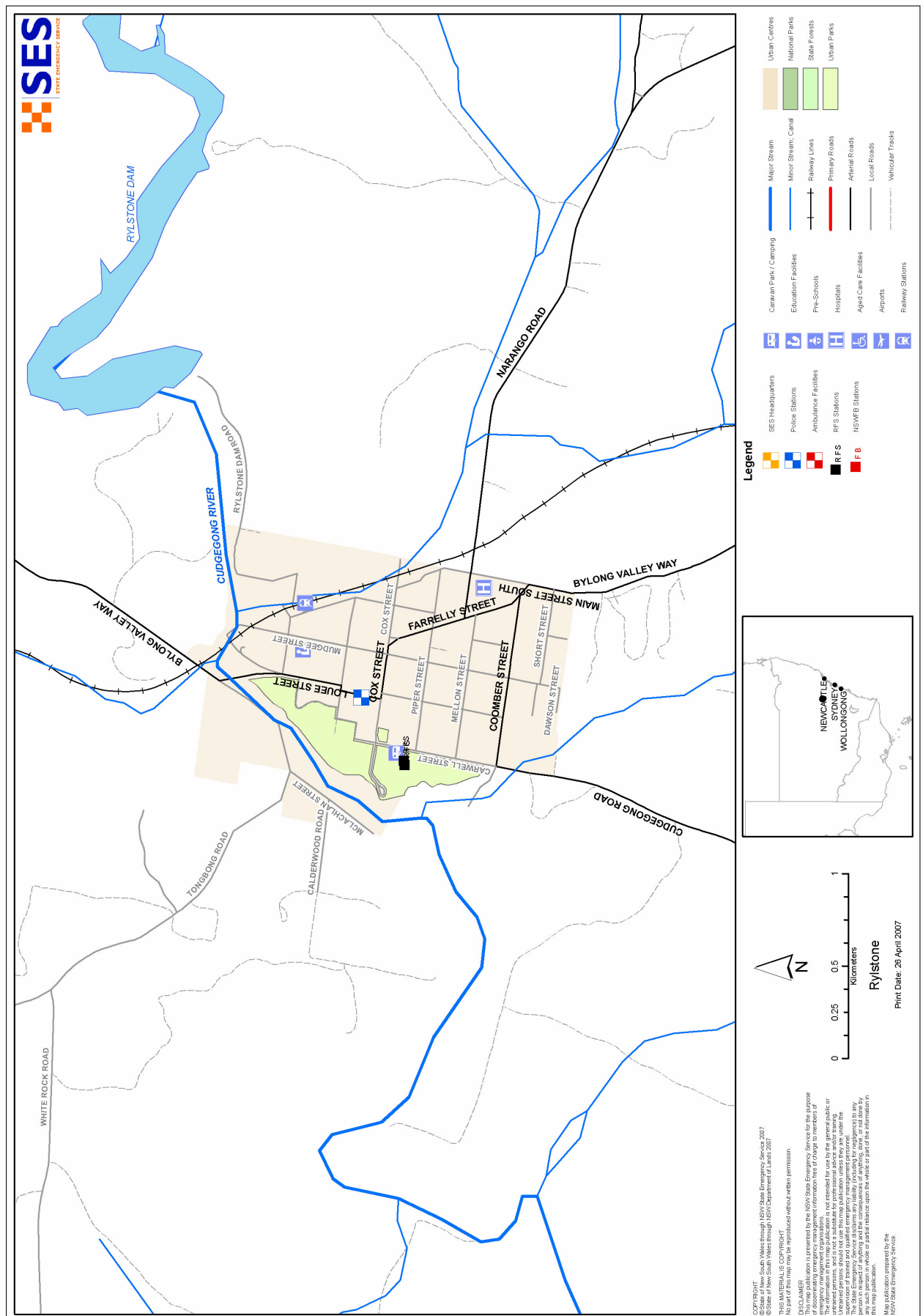




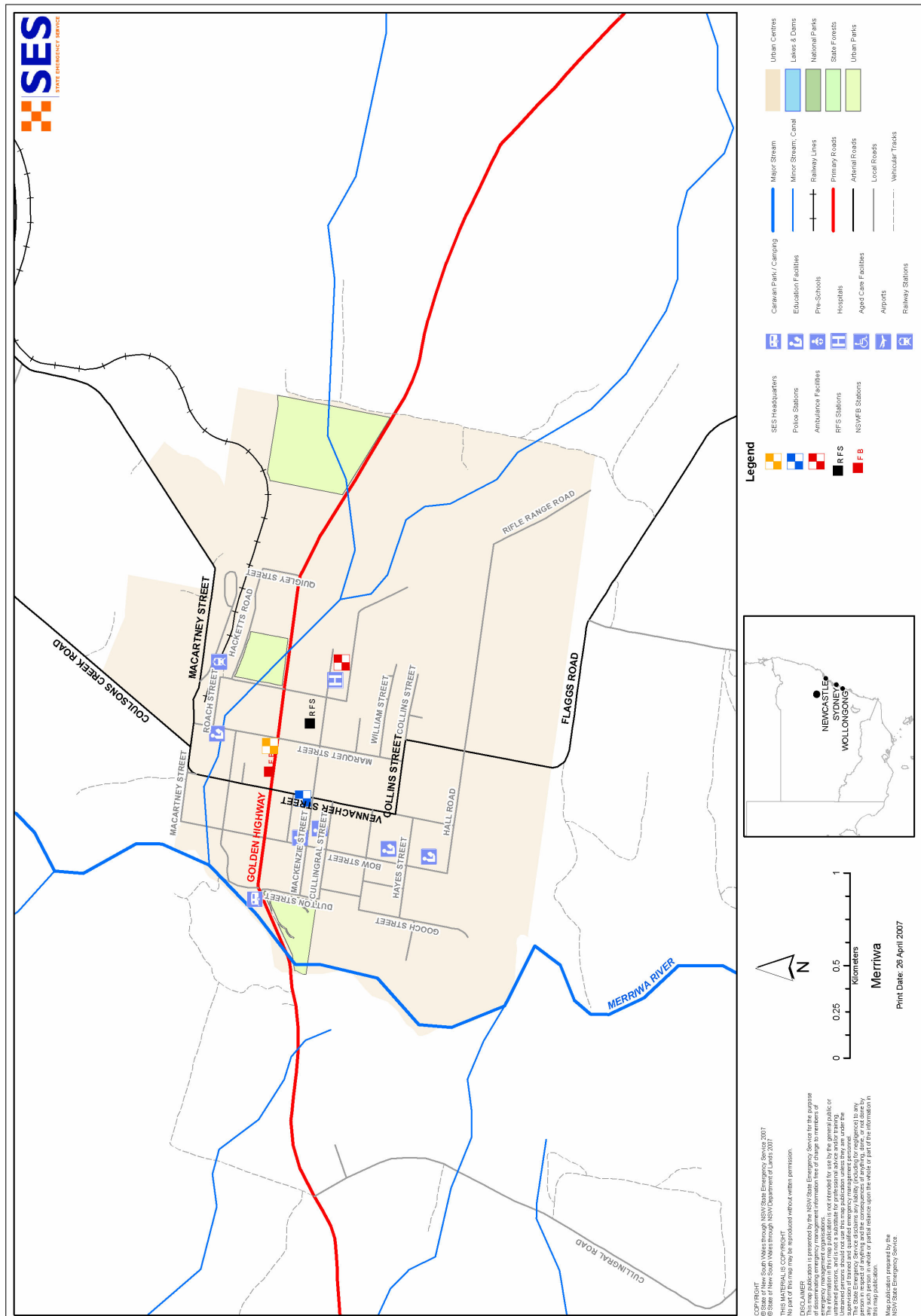




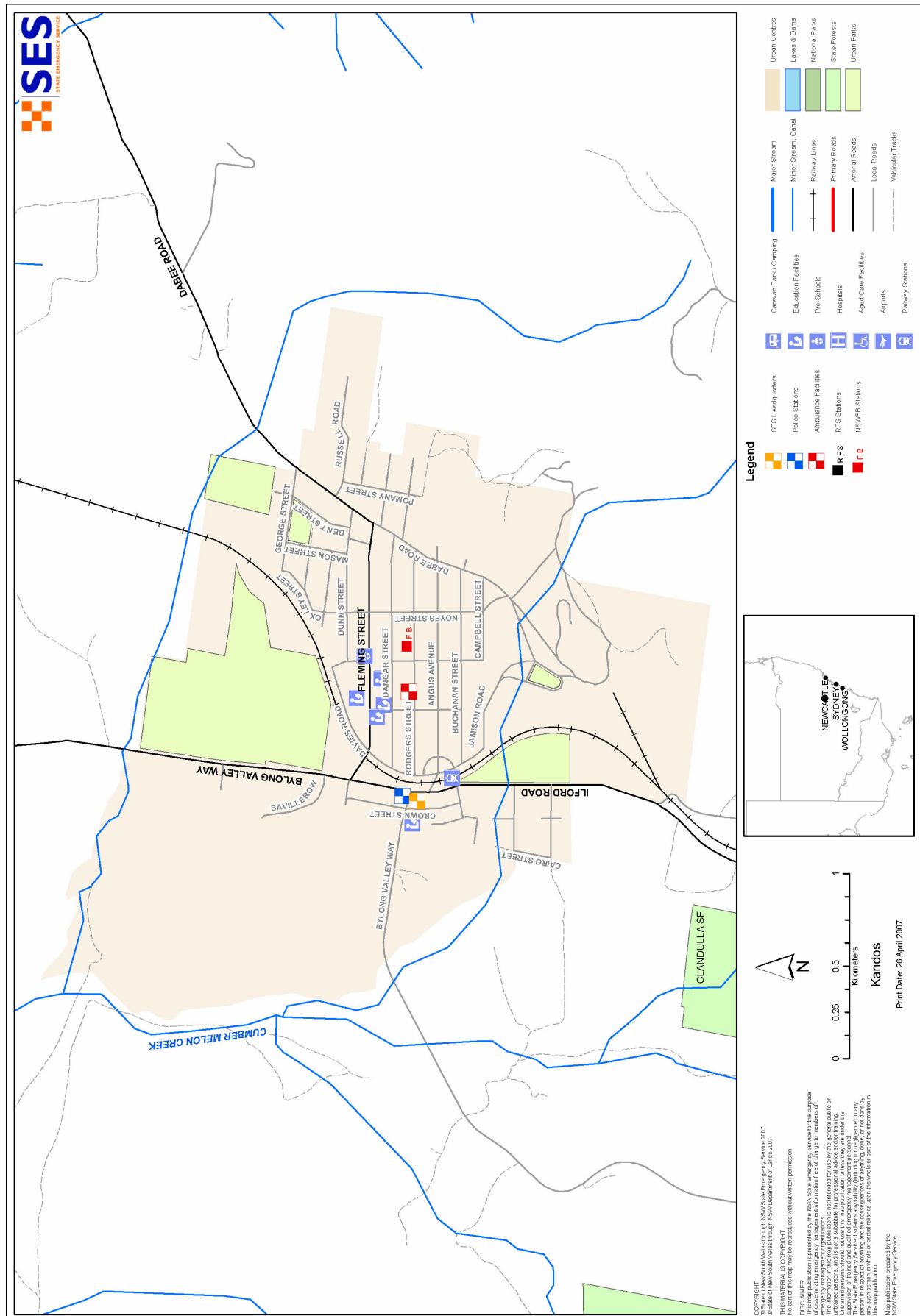
MAP 5 - RYLSTONE



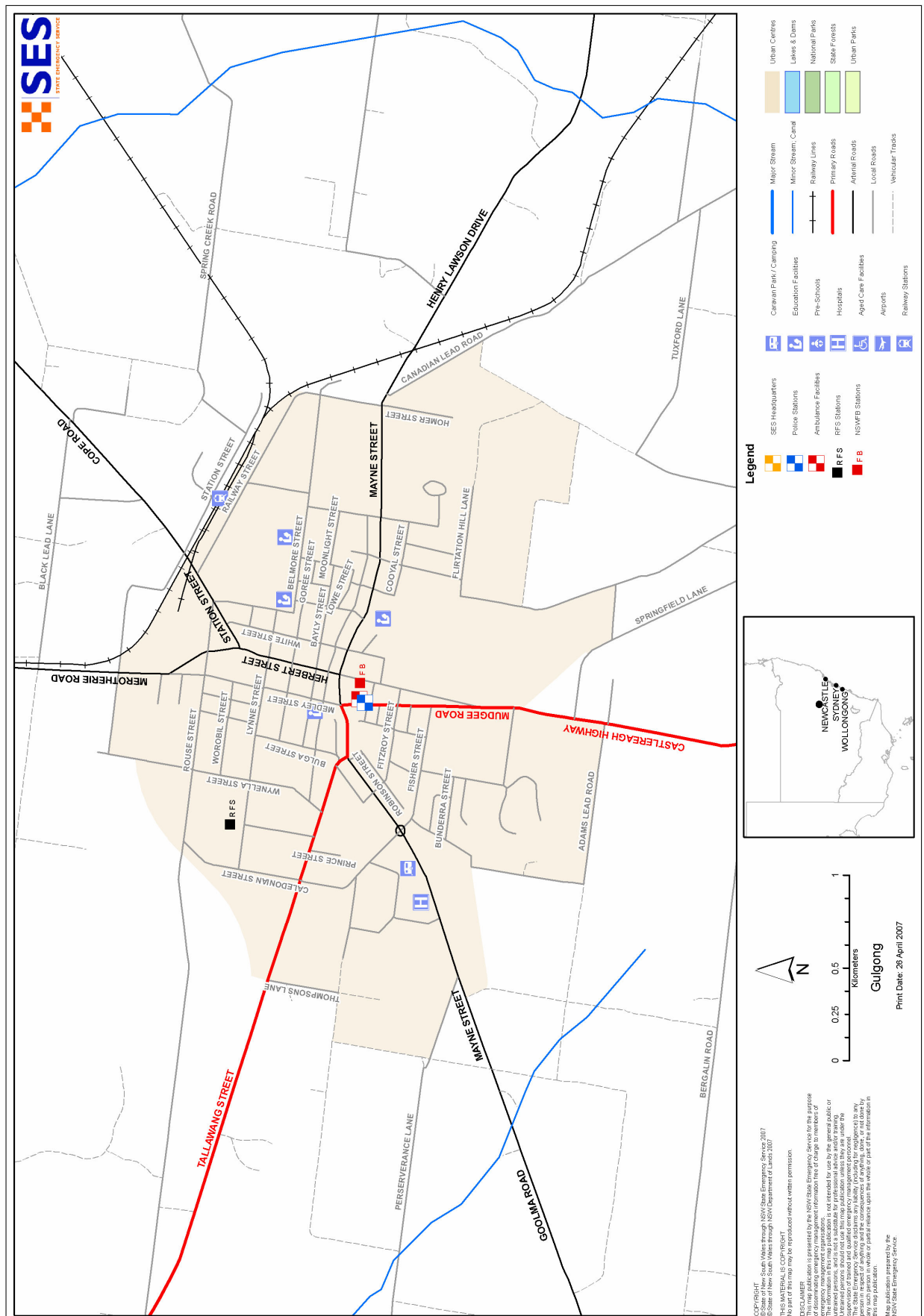
MAP 6 - MERRIWA



MAP 7 - KANDOS



MAP 8 - GULGONG



MAP 9 - MUDGEE TOWN SECTORS

