

Blayney Shire

Local Flood Emergency Sub Plan



BLAYNEY SHIRE FLOOD EMERGENCY SUB PLAN

A Sub Plan of the Local Emergency Management Plan (EMPLAN)

Volume 1 of the Blayney Shire Flood Emergency Sub Plan

Endorsed by the Blayney Local Emergency Management Committee

**20 February 2024
Version 3.0**

AUTHORISATION

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

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Date: 20.02.24

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Date: 20.2.2024

VERSION HISTORY

| Version Number | Description | Date |
|----------------|--------------------------------|---------------|
| 1.0 | Blayney Shire Local Flood Plan | November 2009 |
| 2.0 | Blayney Shire Local Flood Plan | August 2015 |

AMENDMENT LIST

Suggestions for amendments to this plan should be forwarded to:

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

| Amendment Number | Description | Updated by | Date |
|------------------|-------------|------------|------|
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DISTRIBUTION LIST

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1 OUTLINE AND SCOPE

1.1 PURPOSE

1.1.1 The purpose of this plan is to set out the multi-agency arrangements for the emergency management of flooding in the Blayney Shire Local Government Area (LGA).

1.2 AUTHORITY

1.2.1 This plan is written and issued under the authority of the [State Emergency and Rescue Management Act 1989 \(NSW\)](#) ('SERM Act'), the [State Emergency Service Act 1989 \(NSW\)](#) ('SES Act') and the NSW State Emergency Management Plan (EMPLAN).

1.2.2 This plan is a sub plan to the Blayney Shire Local Emergency Management Plan (EMPLAN) and is endorsed by the Local Emergency Management Committee (LEMC).

1.3 ACTIVATION

1.3.1 This plan does not require activation. The arrangements set out in this plan are always active.

1.3.2 The Blayney Shire Emergency Management Plan (EMPLAN) is active at all times in anticipation of the need to coordinate support and resources requested by combat agencies, including the NSW State Emergency Service (NSW SES).

1.4 SCOPE

1.4.1 The area covered by this plan is the Blayney Shire LGA. The Blayney Shire LGA and its principal towns, villages, rivers and creeks are shown in Appendix A.

1.4.2 The council area is in the NSW SES Western Zone and for emergency management purposes, is part of the Central West Emergency Management Region.

1.4.3 The plan sets out the Blayney Shire level emergency management arrangements for prevention, preparation, response, and initial recovery for flooding in the Blayney Shire LGA.

1.4.4 In this plan a flood is defined as a 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 (including tsunami) overtopping coastline defences.

1.4.5 This plan outlines the local level arrangements for the management of downstream consequences of flooding due to dam failure, however it does not cover the management of flooding of an underground mine by inrush or other cause, which should be covered by the Mine Emergency Sub Plan for the respective mine.

1.5 GOALS

- 1.5.1 The primary goals for flood emergency management in NSW are:
- a. Protection and preservation of life.
 - b. Establishment and operation of flood warning systems.
 - c. Issuing of community information and community warnings.
 - d. Coordination of evacuation and welfare of affected communities.
 - e. Protection of critical infrastructure and community assets essential to community survival during an emergency incident.
 - f. Protection of residential property.
 - g. Protection of assets and infrastructure that support individual and community financial sustainability and aid assisting a community to recover from an incident.
 - h. Protection of the environment and conservation values considering the cultural, biodiversity and social values of the environment.

1.6 KEY PRINCIPLES

- 1.6.1 The protection and preservation of human life (including the lives of responders and the community) is the highest priority.
- 1.6.2 Evacuation is the primary response strategy for people impacted by flooding.

1.7 ROLES AND RESPONSIBILITIES

- 1.7.1 General responsibilities of emergency service organisations and functional areas are set out in the NSW State EMPLAN and NSW State Flood Sub Plan.
- 1.7.2 Specific roles and responsibilities for agencies, Functional Areas, and organisations in relation to flooding within Blayney Shire are detailed within this plan, Appendix B and Appendix C.
- 1.7.3 Any agency with agreed responsibilities in this plan which are temporarily unable or no longer able to fulfil their responsibilities in response operations must, as soon as possible, notify:
- a. The NSW SES Incident Controller (for local or zone level responsibilities during response operations).
 - b. The NSW SES Zone Duty Commander and/or the NSW SES Western Zone office (for regional level responsibilities outside of response operations).

1.8 PLAN MAINTENANCE AND REVIEW

- 1.8.1 The NSW SES will maintain the currency of this plan by:
- a. Ensuring that all supporting emergency services and Functional Areas, organisations and officers mentioned in it are aware of their roles and responsibilities.
 - b. Conduct a minimum of one exercise every five years or within two years of the plan being reviewed.

- c. Reviewing the contents of the plan:
 - When there are changes which alter agreed plan arrangements.
 - When changes to land use strategic plans and policies increase the population at risk.
 - After a flood including recommendations from after action reviews, reports or inquiries.
 - As determined by the NSW SES Commissioner.
- d. The plan is to be reviewed no less frequently than every five years or after a significant flood event.

1.9 SUPPLEMENTARY DOCUMENTS

- 1.9.1 Supplementary and supporting material of the Local Flood Emergency Sub Plan is maintained on the NSW SES website at: <https://www.ses.nsw.gov.au/about-us/flood-storm-and-tsunami-plans/> including:
- a. Flood Plan Glossary.
 - b. NSW SES Dam Failure Notification Flowchart.
 - c. NSW SES Resupply Flowchart.

2 OVERVIEW OF NSW FLOOD HAZARD AND RISK

2.1 THE FLOOD THREAT

- 2.1.1 The NSW SES maintains information on the nature of flooding and effects of flooding on the community in the Blayney Shire LGA.
- 2.1.2 Declared dams in or upstream of the Blayney Shire Local Government Area.

| Dam Name | Owner | High Risk Dam |
|--|--------------------------|---------------|
| Cadia North Waste Dump Detention | Newcrest Mining Limited | No |
| Cadia Southern Tailings Storage Facility | Newcrest Mining Limited | No |
| Cadia Tailings | Newcrest Mining Limited | Yes |
| Cadiangullong | Newcrest Mining Limited | No |
| Carcoar | Water NSW | No |
| Junction Reefs | DPIE- Crown Lands | No |
| Lake Rowlands | Central Tablelands Water | No |
| Upper Rodds Creek | Cadia Holdings Pty Ltd | No |

3 PREVENTION/ MITIGATION

3.1 INTRODUCTION

- 3.1.1 The Floodplain Risk Management Manual outlines the NSW Government's Flood Prone Land Policy which details the framework for managing flood prone land in New South Wales. Incorporation of floodplain risk management into land use

planning is one of the key means to limit the exposure to flood risks to our communities and help build long term resilience to future flood events.

3.2 LAND USE PLANNING

3.2.1 **Strategy:** Effective land use planning is a key focus for minimising the impacts of flooding. The NSW SES will work with land use planning and consent authorities to inform and influence the consideration of the risks arising from flood, storm and tsunami to prevent the creation of intolerable impacts of these hazards on the community.

Actions:

- a. The NSW SES will provide strategic input about land use planning matters which have or will create significant flood risk to life and/or property due to flooding.
- b. The NSW SES will provide responses to land use planning proposal referrals that have or will create significant flood risk to life and/or property due to flooding.

3.3 FLOODPLAIN RISK MANAGEMENT

3.3.1 **Strategy:** Advocate for consideration of emergency management in decision making to reduce risks to the existing community and minimise the growth in future, continuing and residual risk due to development through input to the floodplain management program.

Actions:

- a. The NSW SES will provide coordinated and consistent emergency management advice to councils and other agencies in relation to the management of land that is subject to flooding.
- b. The NSW SES will provide advice, support, technical resources, and training for NSW SES representatives to contribute effectively on local Floodplain Risk Management Committees.

4 PREPARATION

4.1 INTRODUCTION

4.1.1 Preparation includes arrangements or plans to deal with an emergency or the effects of an emergency.

4.2 FLOOD EMERGENCY PLANNING

4.2.1 **Strategy:** NSW SES develop, review and maintain Flood Emergency Sub Plans.

Actions:

- a. Develop and review this NSW SES Local Flood Emergency Sub Plan as required. Local Flood Emergency Sub Plans outline the specific arrangements for management of flood events within an LGA and may include cross boundary arrangements.
- b. Review plans as per [Section 1.8](#).

- 4.2.2 Local EMPLAN Consequence Management Guides (CMGs) for flood are not required for communities covered by NSW SES Local Flood Emergency Sub Plans however may be utilised in place of Local Flood Emergency Sub Plan if agreed to by the NSW SES.

4.3 FLOOD INTELLIGENCE SYSTEMS

- 4.3.1 **Strategy:** The NSW SES develop and maintain a flood intelligence system to identify flood behaviour, its impact on the community and required response actions.

Actions:

- a. Gather and assess flood information for the full range of flood types and severities.
- b. Collect, collate, and assess information on the characteristics of communities at risk and the potential effects of flooding on communities at risk.
- c. Share flood intelligence information with supporting agencies.

4.4 DEVELOPMENT OF WARNING SYSTEMS

- 4.4.1 **Strategy:** Develop, maintain, and prepare systems for the provision of flood warnings and associated warning services.

Actions:

- a. All levels of government work in partnership to develop and maintain flood warning infrastructure.
- b. The NSW SES maintains a list of the requirements for flood warnings for flood gauges in NSW (including flood classifications, warning times required and key statistics) and can be found in the supplementary document to the NSW State Flood Plan (see Section 1.9). Gauges of relevance within the Blayney Shire LGA are also listed in Volume 3 of this plan.
- c. The NSW SES will recommend new warning services and changes to warning alert levels for gauges to the NSW and ACT Flood Warning Consultative Committee.
- d. The State Government, in partnership with Local Government, is responsible for developing and maintaining flash flood warning systems for local catchments where required.
- e. The NSW SES maintains a dedicated dam failure hotline and procedures to ensure priority dissemination of dam failure warnings.
- f. The NSW SES develops and maintains warning and flood information products by:
 - Utilising flood intelligence data.
 - Developing warning and flood information products.
 - Continuously reviewing warning and flood information products.

- Consulting with affected communities, key stakeholders, Dam Safety NSW and the NSW and ACT Flood Warning Consultative Committee and maintains Operational Readiness.
 - Participating in the development of public information and warning systems.
- g. Gauge owners adequately maintain flood warning gauges and systems, including those identified in the 'Service Level Specification' maintained by the Bureau of Meteorology (Bureau) and those identified in the 'Provision and Requirements for Flood Warning in New South Wales' maintained by the NSW SES.

4.5 BRIEFING, TRAINING AND EXERCISING

4.5.1 **Strategy:** Ensure the NSW SES, supporting agencies, functional areas and the community are prepared and familiar with the strategies and arrangements within the Flood Emergency Sub Plan and supporting documents.

Actions:

- a. The NSW SES will consult stakeholders throughout the development of plans.
- b. The NSW SES will inform stakeholders of content changes after revisions.
- c. The NSW SES will ensure their facilities and resources are maintained and operationally ready.
- d. The NSW SES will train personnel for their expected flood operation roles.
- e. The NSW SES will regularly brief stakeholders on the exercise arrangements contained in the NSW Flood Emergency Sub Plan.

4.6 COMMUNITY RESILIENCE TO FLOODING

4.6.1 **Strategy:** The NSW SES provides and maintains a flexible volunteer workforce to support community resilience.

Actions:

- a. Ensure ongoing recruitment and training of a diverse range of volunteers.
- b. Ensure pre-planning to facilitate the management of spontaneous volunteers and community members during a flood.

4.6.2 **Strategy:** NSW SES works with individuals, communities, businesses and government agencies to build flood resilience.

Actions:

- a. Partners with and engages communities to understand and manage the risks associated with floods, including providing business continuity guidance (NSW SES Business FloodSafe), family preparedness (NSW SES Home FloodSafe) and other engagement strategies.
- b. The NSW SES will collate, assess and disseminate flood information to the community.

- c. Collaborate with individuals, businesses, government agencies and communities when developing flood intelligence, preparedness and response information.
- d. Plan for floods collaboratively with communities through community and stakeholder participation and engagement.
- e. Collaborate with community sector and recognise the needs of individuals within communities who have an increased susceptibility during floods.

5 RESPONSE

5.1 INTRODUCTION

5.1.1 Flood response operations will begin:

- a. On receipt of a Bureau Severe Weather Warning or Thunderstorm Warning that includes heavy rain or storm surge; or
- b. On the receipt of a Bureau Flood Watch or Flood Warning; or
- c. On receipt warnings for flash flood; or
- d. On receipt of a dam failure alert; or
- e. When other evidence leads to an expectation of flooding.

5.2 INCIDENT MANAGEMENT ARRANGEMENTS

5.2.1 **Strategy:** Maintain effective control of flood operations across NSW.

Actions:

- a. The NSW SES uses the Australasian Inter-service Incident Management System (AIIMS) to manage the flood response.
- b. Control of flood response will be at the lowest effective level and may be scaled to suit the incident.
- c. The NSW SES State Controller (or delegate) will appoint Incident Controllers and establish Incident Control Centres (see NSW SES facilities on map in Appendix A).
- d. The NSW SES Incident Controller, in consultation with participating supporting emergency services and Functional Areas, will determine the appropriate breakdown of an Area of Operations into Divisions and/or Sectors in accordance with the principles of AIIMS.

5.2.2 **Strategy:** Maintain Incident Control Centre(s).

Actions:

- a. The NSW SES will operate Incident Control Centre(s) as required.
- b. The NSW SES Incident Control Centre(s) will:
 - Control resources from the NSW SES and coordinate resources of supporting emergency services and Functional Areas.

- Manage incident tasking and ensure they are actioned in a timely manner.
- Undertake response planning and determine future resourcing requirements.
- Coordinate information flow, including warnings, public information, and social media.

5.2.3 **Strategy:** Provide effective liaison between the NSW SES and supporting agencies or Functional Areas in accordance with the local EMPLAN.

Actions:

- Supporting emergency services and Functional Areas should provide Liaison Officers to NSW SES Incident Control Centre(s) and/or Emergency Operation Centres as required.
- The NSW SES will provide Liaison Officer(s) to Emergency Operations Centres as required.
- Where possible Emergency Operation Centres are to be co-located with NSW SES Incident Control Centres for Flood Emergency Response.

5.2.4 **Strategy:** Coordinate resources and logistics support to ensure operational effectiveness.

Actions:

- The NSW SES Incident Controller will notify agencies of potential access issues between locations, for the consideration of pre-deploying of resources.
- The NSW SES may request resources and logistics support directly from a supporting emergency service or Functional Area.
- Wherever possible, supporting organisations are to provide their own logistic support in consultation with the NSW SES where appropriate.
- The NSW SES Incident Controller will control air support operations and may utilise supporting agencies in the management of aircraft.

5.3 USE OF INFORMATION AND COLLECTION OF INTELLIGENCE

5.3.1 **Strategy:** Ensure flood information is effectively utilised, communicated and collected during and post a flood.

Actions:

- Information relating to the consequences of flooding, response strategies, situational awareness and operational updates will be distributed by the NSW SES to supporting emergency services and Functional Areas listed under this plan.
- All supporting emergency services and Functional Areas and council will accurately record and report information relevant to their activities and any real time flood information (including road closure information) to the NSW SES Incident Controller. This may be in the form of a combined Emergency Operations Centre (EOC) report, or direct from agencies where an EOC has not been established.

- c. The NSW SES may establish and operate a Joint Intelligence Unit to coordinate the collection, collation, interpretation, mapping, actioning and dissemination of information.
- d. Reconnaissance, mapping, damage assessments, intelligence validation and post flood evaluation will be coordinated by the NSW SES. This may occur post impact and continue into the recovery phase.
- e. NSW SES may request the Engineering Services Functional Area to assist with the gathering of flood intelligence including (not limited to) maximum flood extents, peak flood heights, recording major flood damage at key high velocity locations and preparation of after-flood report.

5.3.2 **Strategy:** Ensure flood intelligence is incorporated into operational decision-making.

Action: the NSW SES will use flood intelligence, official forecasts, warnings, and flood scenario products to undertake an assessment of the predicted impact of a flood and to inform operational decision-making.

5.4 PROVISION OF INFORMATION AND WARNINGS TO THE COMMUNITY

5.4.1 **Strategy:** Timely and effective warnings are distributed to the community.

Actions:

- a. The Bureau issues public weather and flood warning products before and during a flood. These may include:
 - Severe Thunderstorm Warnings – Detailed - Issued for all capital cities and surrounding areas when individual severe thunderstorms are within range of the capital city radars.
 - Severe Thunderstorm Warnings - Broad-based - Issued for the entire Australian state or territories affected highlighting broad areas where severe storms may occur within the next 3 hours.
 - Severe Weather Warnings with reference to heavy rainfall and/or storm surge.
 - Flood Watches.
 - Flood Warnings.
- b. The NSW SES Incident Controllers will issue the following NSW SES Flood Warnings aligning to the Australian Warning System:
 - Advice
 - Watch and Act
 - Emergency Warning
- c. The NSW SES liaises with the Bureau to discuss the development of flood warnings as required.
- d. The NSW SES provides alerts and deliver flood information to affected communities using a combination of public information.

- e. The NSW SES may request supporting agencies redistribute NSW SES alerts and information, including through the provision of doorknocking teams.
- f. Road closure information will be provided to the community through the following agencies/methods:
 - Local Government websites.
 - Transport for NSW 'Live Traffic' website: www.livetraffic.com or 'Transport InfoLine': 131 500. VMS messaging on roadways may also be used to advise motorists.
- g. The Public Information and Inquiry Centre will be established by NSW Police Force where required to provide information regarding evacuees and emergency information. Contact details will be broadcast once the centre is established.
- h. The Disaster Welfare Assistance Line will be established by the Disaster Welfare Services Functional Area where required to provide information on welfare services and assistance. Assistance line contact details will be broadcast once Disaster Welfare services commence.

5.5 PROTECTION OF PROPERTY

5.5.1 **Strategy:** Coordinate the protection of property from destruction or damage arising from floods.

Action: The NSW SES, supporting agencies, and community volunteers will assist the community (where resources are available, feasible and safe to do so) in:

- a. The protection of properties including critical infrastructure through flood protection systems (e.g. sandbagging) to minimise entry of water into buildings.
- b. The raising or moving of household furniture and commercial stock/equipment.

5.6 ROAD AND TRAFFIC CONTROL

5.6.1 **Strategy:** Coordinate the closing and re-opening of flood affected roads.

Actions:

- a. Blayney Shire Council will coordinate the closure and reopening of council managed roads once inspections have been carried out by the relevant authority.
- b. Transport for NSW will coordinate the closure and reopening of the state road network.
- c. The NSW Police Force may close and re-open roads but will normally only do so if the Blayney Shire Council or Transport for NSW have not already acted and if public safety requires such action.
- d. The NSW SES will assist with erecting road closure signs and barriers when time and resources permit.

5.6.2 **Strategy:** Coordinate traffic control measures in flood affected areas.

- a. The NSW SES Incident Controller may direct the imposition of traffic control measures into flood affected areas in accordance with the provisions of the *State Emergency Service Act, 1989* and the *State Emergency Rescue Management Act, 1989*.
- b. The NSW SES Incident Controller may request the Local Emergency Operations Controller provide suitable personnel to assist with traffic coordination.

5.7 PROTECTION OF ESSENTIAL SERVICES

5.7.1 Local and region EMPLANS contain infrastructure inventories.

5.7.2 **Strategy:** Minimise disruption to the community by ensuring protection of infrastructure and supply of essential energy, utility services and lifelines.

Actions:

- a. The Transport Services Functional Area is to coordinate the provision of information about the assessment and restoration of transport network infrastructure.
- b. The Energy and Utility Services Functional Area is to coordinate the assessment and restoration of essential energy and utility services (not including telecommunications).
- c. The Telecommunications Services Functional Area is to coordinate the assessment and restoration of telecommunications and the Public Safety Network.
- d. The Engineering Services Functional Area is to:
 - Coordinate the assessment and restoration of critical public buildings for example hospitals.
 - Assessment and operation of flood protection levees.
 - Protection of property.
 - Construction and repair of levees.
 - Dam safety assessment and dam stability.
 - Water supply and sewerage operations.
 - Other critical infrastructure.
- e. The Functional Areas and Blayney Shire will keep the NSW SES informed of the status of utilities and infrastructure.

5.8 EVACUATION

5.8.1 Evacuation is the NSW SES' primary response strategy for managing the population at risk of flooding.

5.8.2 **Strategy:** Conduct planning to ensure all evacuation constraints are considered.

Actions:

- a. Evacuations will take place when there is a risk to public safety. 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/or utility services are likely to fail or where buildings have been or may be made uninhabitable.
- b. The NSW SES will consider the following in evacuation decisions:
- Duration of evacuation.
 - Characteristics of the community.
 - Numbers requiring evacuation.
 - Availability of evacuation routes and transport.
 - The ability for existing levees or other flood protection works to fulfil their intended function.
 - Time available for evacuation.
 - Evacuee management requirements.
 - Resources and delivery of evacuation information.
 - Length of isolation.
- c. NSW SES Incident Controllers, planning and intelligence officers will carefully consider the risks involved in conducting evacuations.
- d. All evacuation decisions will be made as per the current NSW SES policies and procedures, and consistent with the NSW Evacuation Management Guidelines.
- e. Potential Evacuation Centres are located in the local EMPLAN.
- f. The NSW Police Force will coordinate the provision of overall security for evacuated areas.

5.8.3 **Strategy:** Evacuate people pre-emptively from dangerous or potentially dangerous places and or locations created by the flood hazard to safe locations away from the hazard.

- a. The NSW SES will control and coordinate the evacuation of affected communities.
- b. The NSW SES Commissioner (or delegate) will warn communities to prepare for a possible evacuation, where circumstances allow such lead time.
- c. The NSW SES Commissioner (or delegate) will order any necessary evacuations and provide information to the community about when and how to evacuate.
- d. Support to evacuation operations may be requested from other emergency services and supporting agencies using arrangements in the local EMPLAN and supporting plans.
- e. The Health Services Functional Area will coordinate the evacuation of hospitals, health centres and aged care facilities (including nursing homes) in consultation with the NSW SES and the Welfare Services Functional Area.

- f. School administration offices (government and private) will coordinate the evacuation of schools in consultation with the NSW SES and the Welfare Services Functional Area, if not already closed.
- g. Caravan Park proprietors will inform the NSW SES Incident Controller when caravan park evacuations have been completed.
- h. People who are reluctant or refuse to comply with any Emergency Warning will be referred to the NSW Police Force.

5.9 EVACUEE MANAGEMENT AND WELFARE

5.9.1 Research and experience in flood operations shows that most evacuees go to family, friends and commercial accommodation outside the impact area.

5.9.2 **Strategy:** Maintain the welfare of communities and individuals affected by the impact of a flood.

Actions:

- a. The NSW SES will provide initial welfare for evacuees where required but will hand the responsibility over to the Welfare Services Functional Area as soon as possible. The NSW SES will brief the Welfare Services Functional Area at the earliest opportunity regarding the level of assistance required.
- b. The Welfare Services Functional Area will manage evacuation centres for affected residents and travellers in accordance with the Welfare Services Functional Area Supporting Plan.
- c. Schools administration (government and private) will manage the safety of students directly affected by flooding and will work with the NSW SES in the temporary closure of schools and will coordinate with the NSW SES, the Transport and Welfare Services Functional Areas in the management of school evacuees.
- d. Disaster Victim Registration will be controlled and coordinated by the NSW Police Force with the assistance of the NSW SES and the Welfare Services Functional Area.
- e. The NSW SES will provide details of all residents assisted in evacuations to the Welfare Services Functional Area as early as possible.
- f. Where the expected remaining number of evacuees and the duration of evacuation is assessed to be beyond the capability and capacity of the established evacuation centre arrangements the State Emergency Operations Controller (SEOCN) may establish Major Evacuation Centres or Mass Care facilities.
- g. The decision to establish Major Evacuation Centres or Mass Care Facilities will be made by the NSW SES and SEOCN in consultation with members of the State Emergency Management Committee (SEMC).

5.9.3 **Strategy:** Coordinate available and accessible health services for flood affected communities.

Action: The provision of environmental health advice, assessment of public health risks and coordination of immediate mental health support will be provided by the Health Services Functional Area.

5.9.4 **Strategy:** Maintain the welfare of animals impacted by a flood.

Actions:

- a. The Agriculture and Animal Services Functional Area will coordinate the welfare of livestock, pets, companion animals and wildlife including support to primary producers, animal holding establishments and community members.
- b. The Agriculture and Animal Services Functional Area role will coordinate the evacuation, emergency care and assessment of animals, the humane destruction and disposal of affected animals, and the supply of emergency fodder and water (with aerial support where necessary).

5.10 FLOOD RESCUE

5.10.1 **Strategy:** Control and coordinate flood rescue of people and domestic animals.

Actions:

- a. The NSW SES will perform flood rescue, where training and equipment is suitable and where a risk assessment has indicated that the risk to rescuers is acceptable.
- b. Flood rescue operations will be conducted in accordance with the State Rescue Board NSW State Rescue Policy which sets out the framework, governance, responsibilities, and requirements for the management and conduct of flood rescue in NSW.
- c. The NSW SES may request other supporting emergency services to undertake flood rescues on behalf of the NSW SES. Agencies must be authorised/accredited to undertake flood rescue operations in accordance with State Rescue Board requirements, as prescribed by the NSW SES. Supporting emergency services must supply information regarding rescues performed to NSW SES. Notification arrangements with the NSW Police Force are outlined in the State Rescue Board NSW State Rescue Policy.
- d. Rescue agencies will conduct rescue of domestic small and large animals as per the State Rescue Board NSW State Rescue Policy (and may include large animal rescue of family horses and cows at a residence or property). The rescue of livestock (which includes commercial animals found on farming and breeding enterprises) will be coordinated through the Animal and Agriculture Services Functional Area.

5.11 RESUPPLY

5.11.1 **Strategy:** Coordinate resupply to towns and villages isolated by flooding to minimise disruption to the community.

Actions:

- a. The NSW SES will advise communities and businesses if flood predictions indicate that areas are likely to become isolated, and indicative timeframes where possible.
- b. Retailers should be advised to ensure sufficient stock is available for the duration of the flood.
- c. When isolation occurs, the NSW SES will establish loading points where retailers can instruct suppliers to deliver goods.
- d. The NSW SES will endeavour to support the delivery of mail to isolated communities but may not be able to do so according to normal Australia Post timetables.
- e. The NSW SES will assist hospitals with resupply of linen and other consumables where able.
- f. The NSW SES may request resupply assistance from supporting agencies.
- g. The NSW SES may conduct resupply operations as per the designated resupply plan for the event.
- h. Where additional supplies are required Engineering Services Functional Area be requested to coordinate the supply of goods and services in response to and recovery from the emergency.

5.11.2 **Strategy:** Coordinate resupply to rural properties isolated by flooding.

Actions:

- a. When requested, the NSW SES will establish a resupply schedule and coordinate the resupply for isolated rural properties.
- b. The NSW SES will provide local suppliers with designated loading points. Resupply items are to be packaged by the supplier.
- c. Isolated households unable to afford resupply items will be referred to the Welfare Services Functional Area for assistance.

5.12 RETURN

5.12.1 **Strategy:** Coordinate the safe return of communities to flood affected areas when the immediate danger to life and property has passed.

Actions:

- a. The NSW SES Incident Controller will determine when it is safe to progressively return in consultation with the relevant Emergency Operations Controller and supporting agencies considering the ongoing risk to public safety.
- b. The NSW SES Incident Controller will specify the level of access to affected communities as the following:
 - Not suitable for access; or
 - Limited access by emergency services and response agencies; or
 - Limited access by residents and/or business operators; or
 - Full access.

- c. The NSW SES Incident Controller will issue an Advice Warning advising “Reduced Threat: Return with Caution” when the immediate danger to life and property has passed for areas.
- d. The NSW SES will facilitate the return of evacuees to their homes.

5.13 END OF RESPONSE OPERATIONS

5.13.1 **Strategy:** Conclude response operations.

Actions:

- a. Response operations will conclude when:
 - There is a reduced likelihood of additional flooding within the Area of Operation and flood waters have receded.
 - All requests for assistance related to the flood have been completed.
 - The need for warning and evacuation no longer exist.
 - There is no further likelihood of rescuing people.
 - Resupply is no longer required (resupply operations may occur concurrently with the recovery phase).
 - Response to fire and hazardous material incidents have concluded (not including subsequent clean-up of contaminated sites).
 - All affected areas have had an ‘Reduced Threat: Return with Caution’ issued.

5.14 POST IMPACT ACTIONS

5.14.1 **Strategy:** Learnings from the event are used to inform recovery and future events.

Actions:

- a. The NSW SES will continue to engage with communities after significant floods through convening one or more community forums, workshops or other opportunities to provide communities a chance to provide feedback, address any concerns and provide input into the recovery process. These will typically include other agencies such as the Bureau, the Welfare Services Functional Area and Blayney Shire Council representatives.
- b. The NSW SES will conduct After Action Reviews, at the conclusion of response operations, which will involve all stakeholders. Findings will be shared and incorporated into improved disaster resilience planning.
- c. The NSW SES will provide information and data throughout the emergency response to inform community recovery. A report will be developed at the request of the SERCON at the conclusion of the response within an area. Should a response summary report be required it will include the following:
 - The emergency action plan in place at conclusion of the response emphasising any continuing activities including community meetings/ engagement activities.

- Resources allocated to the emergency response and associated exit strategies.
- Details of any areas or situations with potential to re-escalate the emergency.
- A recommendation for the conclusion of the NSW SES as lead agency to transition to the NSW Reconstruction Authority as the lead agency for recovery.
- Any actions that are incomplete or outstanding.
- Damage assessment data and Information obtained throughout the response phase which will further support the long-term recovery of communities.

d. The NSW SES will undertake/coordinate a comprehensive review of intelligence and plans following significant flood events.

5.14.2 **Strategy:** Participate in post flood data collection analysis.

Actions: The NSW SES works with relevant stakeholders and Blayney Shire Council on post flood data collection analysis including review of flood intelligence where necessary.

6 RECOVERY OPERATIONS

6.1 INTRODUCTION

6.1.1 Recovery is the process of returning an affected community to its proper level of functioning after an emergency. It will generally commence simultaneously with the response phase.

6.1.2 Recovery operations will be initiated and conducted as outlined in the NSW State EMPLAN and as further detailed in the NSW Recovery Supporting Plan.

6.2 NSW SES RECOVERY ROLE

6.2.1 **Strategy:** The NSW SES will support recovery operations and established Recovery Committees.

6.2.2 **Actions:**

- The NSW SES will provide representation to Recovery Committees as required and may have an ongoing role in the recovery phase.
- The NSW SES roles on Recovery Committees may include providing information about any continuing response, guidance on mitigation strategies and general advice and assistance to the committee as a subject matter specialist and or expert.
- The NSW SES will provide information to the NSW Reconstruction Authority. to support applications to Treasury for Natural Disaster Relief and Recovery Arrangements.

- d. The NSW SES, in conjunction with a Recovery Committee, will provide a service to support the information needs of a community immediately following a flood.
- e. The NSW SES, and where required supporting agencies, will assist with clean-up operations after floods, where possible when resources and personnel permit.
- f. The NSW SES may coordinate immediate relief in collaboration with SEOCON and State Emergency Recovery Controller (SERCON).

7 ABBREVIATIONS

For a full list of abbreviations refer to the NSW State Flood Plan - Abbreviations.

8 GLOSSARY

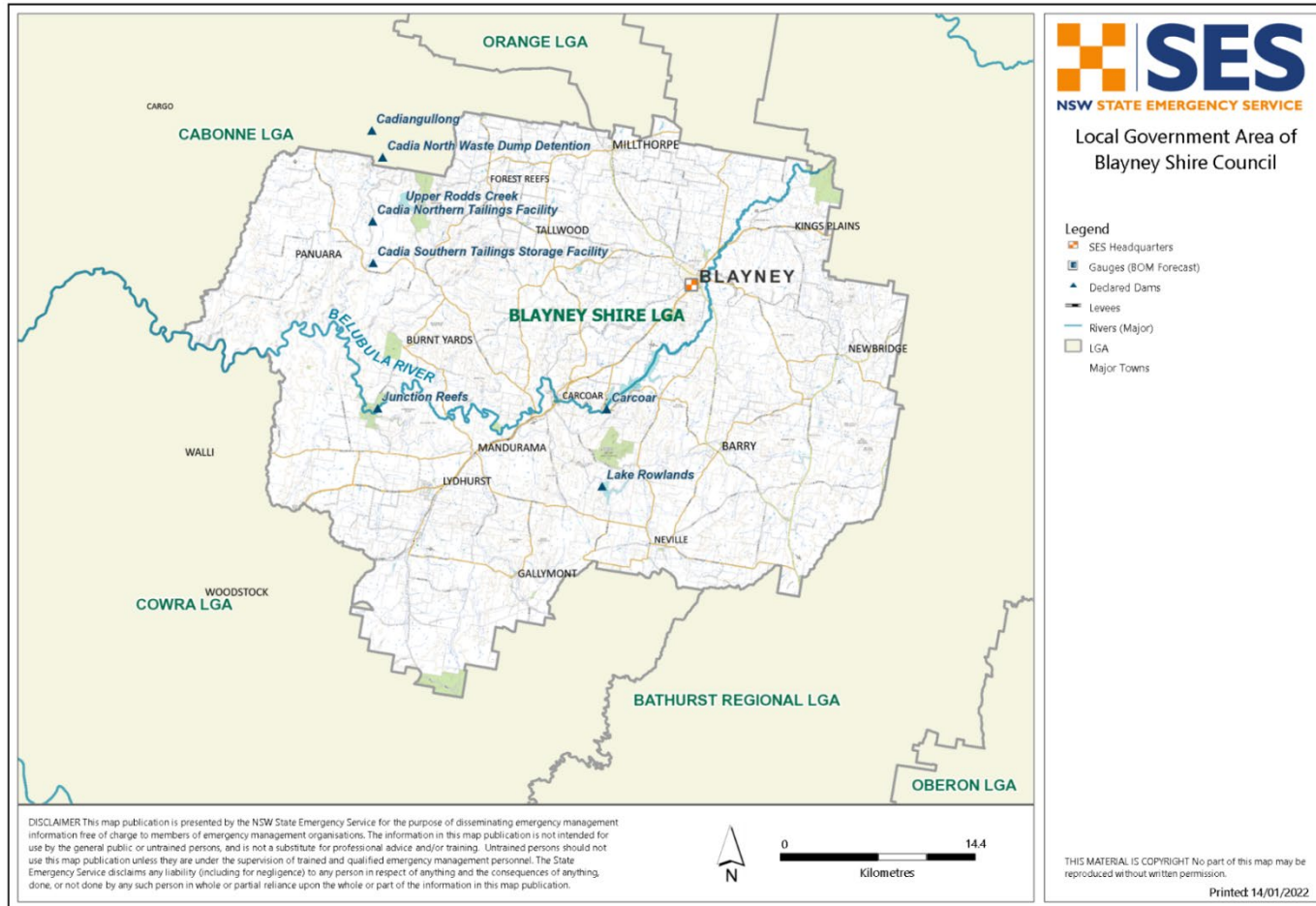
Common emergency service terminology can be found within the Australian Disaster Resilience Glossary.

Readers should refer to EMPLAN Annex 9 – Definitions.

Refer to the NSW State Flood Plan for a complete glossary of terminology used throughout this plan and within NSW SES Flood Plans.

For a full list of definitions refer to the Supporting Document - State Flood Plan Glossary
<https://www.ses.nsw.gov.au/media/2650/glossary.pdf>

9 Appendix A – Map of Blayney Shire Council Area



10 Appendix B – Roles and Responsibilities

| AGENCY | RESPONSIBILITIES |
|-----------------------------|--|
| NSW State Emergency Service | The NSW SES is the designated Combat Agency for floods, storms and tsunami and controls response operations. The NSW SES roles and responsibilities in relation to floods are outlined in the NSW State Flood Plan . |

| AGENCY | RESPONSIBILITIES |
|---|---|
| Agriculture and Animal Services Functional Area | The roles and responsibilities for the Agriculture and Animal Services are outlined in the Agriculture and Animal Services Supporting Plan and NSW State Flood Plan. |
| Australian Government Bureau of Meteorology | The roles and responsibilities for the Australian Government Bureau of Meteorology (Bureau) are outlined in the NSW State Flood Plan. |
| Blayney Shire Council | <p>Preparedness</p> <ul style="list-style-type: none"> • Establish and maintain floodplain and coastal risk management committees and ensure that key agencies are represented. • Develop and implement floodplain risk management plans in accordance with the NSW Government’s Flood Prone Land Policy and the Floodplain Risk Management Manual. • Provide levee studies, flood studies and floodplain management studies to the NSW SES. • Maintain council-owned flood warning networks and flood mitigation works. • Participate in NSW SES-led flood emergency planning meetings, to assist in the preparation of Flood Sub Plans. • Maintain a plant and equipment resource list for the council area. • Contribute to community engagement activities. <p>Response</p> <ul style="list-style-type: none"> • Subject to the availability of council resources, assist the NSW SES with flood operations including: <ul style="list-style-type: none"> – Traffic management on council managed roads. – Provision of assistance to the NSW SES (plant, equipment, and personnel where able and requested). – Property protection tasks including sandbagging. – Assist with the removal of caravans from caravan parks. – Warning and/or evacuation of residents and other people in flood liable areas. – Provision of back-up radio communications. |

| AGENCY | RESPONSIBILITIES |
|-----------------------------------|---|
| | <ul style="list-style-type: none"> – Resupply of isolated properties. – Technical advice on the impacts of flooding. – Close and reopen council roads (and other roads nominated by agreement with Transport for NSW) and advise the NSW SES, NSW Police Force and people who contact the council for road information. – Assist the NSW SES to provide filled sandbags and filling facilities to residents and business in areas which flooding is expected. <ul style="list-style-type: none"> • Assist with making facilities available for domestic pets and companion animals of evacuees during evacuations. • Operate flood mitigation works including critical structures such as detention basins and levees and advise the NSW SES regarding their operation. • Manage and protect council-owned infrastructure facilities during floods. • Provide advice to the NSW SES and the Health Services Functional Area during floods about key council managed infrastructure such as sewerage treatment and water supply. • Advise the Environmental Protection Authority of any sewerage overflow caused by flooding. • Work with the NSW SES and NSW Department of Planning and Environment to collect flood related data during and after flood events. <p>Recovery</p> <ul style="list-style-type: none"> • Provide for the management of health hazards associated with flooding including removing debris and waste. • Ensure premises are fit and safe for reoccupation and assess any need for demolition. • Provide services, assistance, and advice to State Government in accordance with the State Recovery Plan. |
| Caravan Park Proprietor(s) | <ul style="list-style-type: none"> • Prepare a flood emergency plan for the caravan park. • Ensure that owners and occupiers of movable dwellings are aware that the caravan park is flood liable by providing a written notice to occupiers taking up residence and displaying this notice and emergency management arrangement within the park. • Ensure that owners and occupiers of movable dwellings are aware that if they are expecting to be absent for extended periods, they should: <ul style="list-style-type: none"> – Provide the manager of the caravan park with a contact address and telephone number in case of an emergency. |

| AGENCY | RESPONSIBILITIES |
|--|--|
| | <ul style="list-style-type: none"> – Leave any movable dwelling in a condition allowing it to be relocated in an emergency (i.e.: should ensure that the wheels, axles and draw bar of the caravans are not removed and are maintained in proper working order). • Ensure that occupiers are informed of Flood Information. At this time, occupiers should be advised to: <ul style="list-style-type: none"> – Ensure that they have spare batteries for their radios. – Listen to a local radio station for updated flood information. – Prepare for evacuation and movable dwelling (cabins) relocation. • Ensure that owners and occupiers of caravans are aware of what they must do to facilitate evacuation and movable dwelling relocation when flooding occurs. • Coordinate the evacuation of people and the relocation of movable dwellings when floods are rising and their return when flood waters have subsided. Movable dwellings will be relocated back to the caravan park(s) by owners or by vehicles and drivers arranged by the park managers. • Secure any movable dwellings that are not able to be relocated to prevent floatation. • Inform the NSW SES of the progress of evacuation and/or movable dwellings relocation operations and of any need for assistance in the conduct of these tasks. |
| Childcare Centres and Preschools | <ul style="list-style-type: none"> • When notified of possible flooding or isolation, childcare centres and preschools should: <ul style="list-style-type: none"> – 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 childcare centres. |
| Dams Safety NSW | The roles and responsibilities for Dams Safety NSW (formerly NSW Dam Safety Committee) are outlined in the NSW State Flood Plan. |
| Department of Defence | Arrangements for Defence Assistance to the Civil Community are detailed within the State EMPLAN (section 448). |
| Energy and Utilities Services Functional Area | <p>The roles and responsibilities for the Energy and Utilities Services are outlined in the Energy and Utility Services Supporting Plan (EUSPLAN).</p> <p>Roles and responsibilities in addition to the supporting plan are:</p> <ul style="list-style-type: none"> • Assist the NSW SES with identification of infrastructure at risk of flood damage where resources are available. |

| AGENCY | RESPONSIBILITIES |
|---|--|
| | <ul style="list-style-type: none"> • Facilitate local utility service distribution providers (electricity, gas, water, wastewater) to: <ul style="list-style-type: none"> – Provide advice to the NSW SES of any need to disconnect power/gas/water/wastewater supplies or of any timetable for reconnection. – Advise the NSW SES of any hazards from utility services during flooding and coastal erosion/inundation. – Advise the public with regard to electrical hazards during flooding and coastal erosion/inundation, 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/wastewater 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. |
| Engineering Services Functional Area | The roles and responsibilities for the Engineering Services Functional Area are outlined in the Engineering Services Supporting Plan and NSW State Flood Plan. |
| Environmental Services Functional Area | The roles and responsibilities for the Environmental Services Functional Area are outlined in the Environmental Services (ENVIROPLAN) Supporting Plan. |
| Floodplain Management Australia | The roles and responsibilities for Floodplain Management Australia are outlined in the NSW State Flood Plan. |
| Fire and Rescue NSW | The roles and responsibilities for Fire and Rescue NSW are outlined in the NSW State Flood Plan. |
| Forestry Corporation of NSW | The roles and responsibilities for Forestry Corporation of NSW are outlined in the NSW State Flood Plan. |
| Health Services Functional Area | The roles and responsibilities for the Health Services Functional Area are outlined in the Health Services (HEALTHPLAN) Supporting Plan and NSW State Flood Plan. |
| Local Emergency Operations Controller (LEOCON) | <ul style="list-style-type: none"> • Monitor flood operations. • If requested, coordinate support for the NSW SES Incident Controller. |
| Local Emergency Management Officer (LEMO) | <ul style="list-style-type: none"> • If requested by the NSW SES Incident Controller, advise appropriate agencies and officers of the start of response operations. |
| Manly Hydraulics Laboratory (MHL) | The roles and responsibilities for Manly Hydraulic Laboratory are outlined in the NSW State Flood Plan. |
| Marine Rescue NSW | The roles and responsibilities for Marine Rescue NSW are outlined in the NSW State Flood Plan. |

| AGENCY | RESPONSIBILITIES |
|---|---|
| NSW Ambulance | The roles and responsibilities for NSW Ambulance are outlined in the Health Services (HEALTHPLAN) Supporting Plan and NSW State Flood Plan. |
| NSW Department of Education, Association of Independent Schools of NSW, and National Catholic Education Commission | The roles and responsibilities for NSW Department of Education, Association of Independent Schools of NSW, and National Catholic Education Commission are outlined in the NSW State Flood Plan. |
| NSW Department of Planning and Environment (Environment and Heritage Group) | The roles and responsibilities for NSW Department of Planning and Environment (Environment and Heritage Group) are outlined in the NSW State Flood Plan (referred to as DPIE EES). |
| NSW Department of Planning and Environment (Water) | The roles and responsibilities for NSW Department of Planning and Environment (Water) are outlined in the NSW State Flood Plan. |
| NSW Food Authority | The roles and responsibilities for the NSW Food Authority are outlined in the Food Safety Emergency Sub Plan. |
| NSW National Parks and Wildlife Services | The roles and responsibilities for NSW National Parks and Wildlife Services are outlined in the NSW State Flood Plan. |
| NSW Police Force | The roles and responsibilities for the NSW Police Force are outlined in the NSW State Flood Plan. |
| NSW Reconstruction Authority. | The roles and responsibilities for the NSW Reconstruction Authority. are outlined in the NSW State Flood Plan. |
| NSW Rural Fire Service | The roles and responsibilities for the NSW Rural Fire Service are outlined in the NSW State Flood Plan. |
| Owners of Declared Dams within or upstream of the LGA | The roles and responsibilities for owners of declared dams are outlined in the NSW State Flood Plan. |
| Public Information Services Functional Area | The roles and responsibilities for the Public Information Services Functional Area are outlined in the Public Information Services Supporting Plan and NSW State Flood Plan. |
| State Emergency Operations Controller (SEOCN) | The roles and responsibilities for the SEOCN/SEOC are outlined in the NSW State Flood Plan. |
| Surf Life Saving NSW | The roles and responsibilities for Surf Life Saving NSW are outlined in the NSW State Flood Plan. |
| Telecommunications Services Functional Area | The roles and responsibilities for the Telecommunications Services Functional Area are outlined in the Telecommunications Services (TELCOPLAN) Supporting Plan. |
| Transport for NSW | <ul style="list-style-type: none"> • Transport for NSW coordinates information on road conditions for emergency services access. |

| AGENCY | RESPONSIBILITIES |
|---|---|
| | <ul style="list-style-type: none"> • Transport for NSW coordinates the management of the road network across all modes of transport. • Transport for NSW in conjunction will assist the NSW SES with the evacuation of at-risk communities by maintaining access and egress routes. • Assist the NSW SES with the communication of flood warnings and information provision to the public through Live Traffic and Social Media according to the VMS protocols and procedures. • Assist the NSW SES with identification of road infrastructure at risk of flooding. |
| Transport Services Functional Area | The roles and responsibilities for the Transport Services Functional Area are outlined in the Transport Services Functional Area Supporting Plan and NSW State Flood Plan. |
| VRA Rescue NSW | The roles and responsibilities for VRA Rescue NSW are outlined in the NSW State Flood Plan. |
| Water NSW | The roles and responsibilities for Water NSW are outlined in the NSW State Flood Plan. |
| Welfare Services Functional Area | The roles and responsibilities for the Welfare Services Functional Area are outlined in the Welfare Services Functional Area Supporting Plan and NSW State Flood Plan. |

11 Appendix C – Community Specific Roles and Responsibilities

| | |
|--|--|
| <p>Community Members</p> | <p>Preparedness</p> <ul style="list-style-type: none"> • Understand the potential risk and impact of flooding. • Prepare homes and property to reduce the impact of flooding. • Understand warnings and other triggers for action and the safest actions to take in a flood. • Households, institutions, and businesses develop plans to manage flood risks, sharing and practicing this with family, friends, employees and neighbours. • Have an emergency kit. • Be involved in local emergency planning processes. <p>Recovery</p> <ul style="list-style-type: none"> • Assist with community clean-up if required and able to do so. • Participate in After Action Reviews if required. |
| <p>Private Companies or Other Organisations</p> | <p>Newmans Bus Service.</p> <p>Assist with the provision of:</p> <ul style="list-style-type: none"> • Bus transport and drivers for evacuation, resupply or commuting purposes. • Trucks and drivers to relocate furniture. • Warehousing facilities to store furniture. • Sand for sandbagging. |
| <p>Service and Sporting Clubs</p> | <p>Blayney Soccer Club, Blayney Rugby League Club and Blayney Cricket Club.</p> <p>Assist with:</p> <ul style="list-style-type: none"> • Delivery of evacuation warnings. • Conduct of evacuations. • Lifting and/or moving household furniture and commercial stock. • Sandbagging. • Relocation of caravans. |

HAZARD AND RISK IN BLAYNEY SHIRE

Volume 2 of the Blayney Shire Local Flood Plan

Last Update: November 2009

ANNEX A - THE FLOOD THREAT

Landforms and River Systems

1. The Shire of Blayney encompasses approximately 1,600 square kilometres of gently undulating to hilly country on the Central Tablelands. Much of the land is elevated, at over 900 metres above sea level. The Blayney Shire consists of a natural basin bisected down the north south axis by the Belubula River which is a headwater stream for the Lachlan river basin (NSW Regional Statistics, 1998).
2. Virtually the whole of the Blayney Council area is drained by the upper reaches of the Belubula River and its tributaries. The headwaters are in undulating country to the north of the Council boundary, in a series of low hills roughly along its eastern edge and in the Stringybark and Bugs ridges to the south. Most of these headwaters are at elevations between 900 and 1,100 metres.
3. From above Blayney the Belubula flows in a south-westerly and westerly direction towards the Lachlan River, being joined below Carcoar by its major tributary within the Council area, Coombing Creek, which drains most of the south-eastern part of the Council's territory. The major tributaries in the west are Cowriga Creek, Flyers Creek and the Mandurama Ponds. In its upper reaches the Belubula during periods of high flows is largely confined to its stream channel, and its path takes it through undulating country interspersed with only limited areas of alluvial floodplain. Near Blayney the plain is about 500 metres wide but it narrows again downstream of the town.
4. A small portion of the northern area of the Shire lies within the Macquarie Valley catchment.

Storage Dams

5. **Carcoar Dam** (State Water) is located 4 kms upstream of the town of Carcoar on the Belubula River and has a limited capacity to mitigate the impacts of flooding on the lower reaches of the Belubula River within the Council area. A Dam Safety Emergency Plan (DSEP) exists for this dam dated October 2007.

Carcoar Dam was completed in 1970 to provide water for irrigation and stock purposes in the Belubula Valley. The dam is a double parabolic curvature concrete arch dam with gravity abutments with an uncontrolled spillway along the length of the arch. It is 46 metres high with a crest length of 269 metres. The storage capacity is 35,800 ML at full supply level.
6. Failure of Carcoar Dam is unlikely except under extreme circumstances, but nonetheless, it has the potential for failure. Where failure of this dam is brought about by extreme flood conditions, there would already be unprecedented flooding downstream of the dam due to spillway discharge and flow in the Belubula River. This flooding would be many times more destructive than the flood of June 1952, the flood of record in the Belubula Valley, consequently vast areas downstream of Carcoar Dam would likely to be have already been evacuated, or at the least, effected by lost power supply, inoperable telephone facilities and cut off evacuation routes.

7. A sunny day dam break of Carcoar Dam would result in the approximate travel times shown below:

| Distance (Kms) | Location | Time to Start of Flood Wave (hrs, mins) | Time to Peak of Flood Wave (hrs, mins) | Peak Water Depth |
|----------------|-------------------------------|---|--|------------------|
| 4.67 | Carcoar – Mid-Western Highway | 0:05 | 0:20 | 5.1 m |
| 27.25 | Junction Reefs Dam | 0:46 | 1:50 | 9.8 m |
| 79.5 | Canowindra Bridge | 3:56 | 6:00 | 5.3 m |

8. Failure of Carcoar Dam would result in widespread flooding of properties:
- Within the Village of Carcoar – low-lying properties and properties located up to 300 metres from the Belubula River
- Rural properties – located adjacent to the Belubula River, and at Davys and Tapflow Flats.
- State Water maintains a list of downstream residents who are contacted when outflows from the dam are at high levels and will contact them.
9. **Gallymont Dam** (Department of Lands) is located on Gallymont Creek at Gallymont and has a small capacity. No DSEP exists for this dam.
- Gallymont Dam was built in 1895. The dam is a 6 metre high masonry gravity arch dam. It has a high probability of dam failure but, being a small dam, the impact on life and property of such failure would be minimal.
- In the event of dam failure, no loss of life is expected. However, properties along Gallymont Creek and Mandurama Ponds may be affected by an increased threat of inundation by temporarily raised water levels.
10. **Lake Rowlands Dam** (Central Tablelands Council) is located 7 kms south-east of the village of Carcoar on Coombing Creek and forms the water supply for the town of Blayney. This dam has a **High** hazard rating with the DSC. A Draft DSEP exists for this dam dated June 2007.
- Lake Rowlands Dam was built between 1949 and 1954. The dam is a concrete buttress earthfill dam with an uncontrolled spillway. It is 20 m high with a crest length of 444 metres and a storage capacity of 4500 ML.
11. **Junction Reefs Dam** (Department of Lands) is located 7 kms north-west of Lyndhurst on Mandurama Ponds 1½ kms upstream of the junction with the Belubula River. A DSEP exists for this dam dated June 2005.
- Junction Reefs Dam was constructed by the Lyndhurst Goldfields Company Limited between 1895 and 1897 to store water to supply electricity to nearby mining activities. The dam is a masonry buttress and arch dam on concrete foundations with an uncontrolled spillway situated on the left abutment. It is about 19 metres high with an overall length of 131 metres. The storage capacity (originally 7 300 ML) has been significantly reduced due to siltation.

12. **Cadiangullong Dam.** (Cadia Holdings Pty Ltd) is located 19 kms south-west of the City of Orange on Cadiangullong Creek. This dam has a **High** hazard rating with the DSC. A DSEP exists for this dam dated January 2003.

Cadiangullong Dam was built between 1996 and 1997 by Cadia Holdings Pty Ltd to supply untreated water for the Newcrest Cadia goldmine. The dam is a roller compacted concrete gravity dam. It is 45 metres high with a crest length of 395 metres with an uncontrolled spillway. It has a storage capacity of 4 200 ML. Water released from this dam flows into Cadiangullong Creek, through the upper Cadia Mine complex and then southwards into the Belubula River.

13. **Cadia Northern Tailings Storage Dam** (Cadia Holdings Pty Ltd) is located 24 kms south-west of the City of Orange on Rodds Creek. This dam has a **Significant** hazard rating with the DSC. A DSEP exists for this dam dated December 2008.

Cadia Northern Tailings Storage Dam was built about 1997 by Cadia Holdings Pty Ltd to store residual waste materials from the Newcrest Cadia goldmine. The dam is an earth- and rock-fill dam. It is 73 metres high with a crest length of 3700 metres with an uncontrolled spillway. It has a storage capacity of 91000 ML. Water from this dam flows into the Southern Tailings Storage Dam.

14. **Cadia Southern Tailings Storage Dam** (Cadia Holdings Pty Ltd) This dam is located 26 kms south-west of the City of Orange on Rodds Creek. This dam has a **Significant** hazard rating with the DSC. A DSEP exists for this dam dated July 2008.

Cadia Southern Tailings Storage Dam was built about 2001 by Cadia Holdings Pty Ltd to store residual waste materials from the Newcrest Cadia goldmine. The dam is an earth- and rock-fill dam. It is 62 metres high with a crest length of 2200 metres and an uncontrolled spillway. It has a storage capacity of 40 000 ML. Water released from this dam flows into Rodds Creek and Cadiangullong Creek and southwards into the Belubula River.

15. **Cadia Upper Rodds Creek Dam** (Cadia Holdings Pty Ltd) is located 22 kms south-west of the City of Orange on Rodds Creek. This dam has a **Low** hazard rating with the DSC. A DSEP exists for this dam dated July 2002.

Cadia Upper Rodds Creek Dam was built in 2001 by Cadia Holdings Pty Ltd to supply untreated water for the Newcrest Cadia goldmine. The dam is an earthfill dam. It is 31 metres high with a crest length of 560 metres with an uncontrolled spillway. It has a storage capacity of 3 000 ML. Water from this dam flows into the Cadia Northern Tailings Storage Dam.

16. **Cadia North Waste Dump Detention Dam** (Cadia Holdings Pty Ltd) is located 20 kms south-west of the City of Orange on Hoares Creek, a tributary of Cadiangullong Creek. Water from this dam is drained to a site runoff pond to supply process water. This dam has a **Low** hazard rating with the DSC. A DSEP exists for this dam dated March 2003.

Cadia North Waste Dump Detention Dam was built in 2001 by Cadia Holdings Pty Ltd to store untreated water for the Newcrest Cadia goldmine. The dam is a rock- and earth-fill dam. It is 18 metres high with a crest length of 90 metres and an uncontrolled spillway. It has a storage capacity of 50 ML.

Weather Systems and Flooding

17. Average annual rainfall over the upper reaches of the catchment varies between 800 and 900 mm. Marked local variations occur as a result of terrain differences, with higher falls on the peaks and tablelands than in the valleys. Unusually wet years, with totals more than twice the annual average, have been recorded as have falls of more than 75 mm in a 24-hour period.
18. Rainfall is distributed fairly evenly across the months of the year but there are weak tendencies towards higher falls in the June-August and December-February periods. Floods can occur at any time of the year, though the mechanisms which bring them about tend to vary from season to season. In summer, low-pressure troughs extending southwards into NSW from northern parts of the continent can cause intense short-period rainfall leading to flooding. Winter floods tend to be the result of sequences of troughs associated with southern depressions crossing the region from west to east. These rarely produce high daily falls but can bring substantial falls over longer periods.

Characteristics of Flooding

19. The floodplain above and below Blayney is well defined, with steeply rising ground at its extremities. Active flows generally occur across the whole floodplain and there are few areas of dead water which contribute to temporary flood storage only. As a result the distinction between floodways and flood prone areas on the floodplain is not as significant as it is in the lower reaches and it is reasonable to consider the whole floodplain as a floodway.
20. A defining characteristic of flooding in the Council area is the rapid rise and fall of floodwaters. This is a result of the location of Blayney LGA in the headwaters of the Belubula (Lachlan) River.

Flood History

21. Detailed records of flooding within the Council area are few. The three major floods on record at Blayney occurred in October 1934, January 1972 and January 1980. The 1934 flood was the most severe, but those of 1972 and 1980 were of similar heights (4 mm and 13 mm respectively lower than the 1934 event). The height of the 1972 flood is marked on a concrete wall in Henry Street, Blayney. In August 1990, the flood level rose to within 50 mm of the 1972 mark. Another major flood occurred in June 1952 which may have exceeded the 1934 flood, but no records of this event have been found. This flood peaked 0.22 metres higher than the August 1990 flood *in Canowindra*. [Reference: Carcoar Dam DSEP, State Water. January 2002 at page 32.]

Extreme Flooding

22. The worst-ever floods recorded in the valley of the Belubula River since European settlement should not be considered to be the most severe floods which will ever occur. Floods as severe as the event of 1934 will be experienced in the future and on occasions the flooding could be even more serious than it was on that occasion. When genuinely severe floods occur, they often reach much greater heights than was true of previous record floods. Moreover, they are generally both faster to rise and more dangerous in terms of depth and velocity than previously known events.

ANNEX B - EFFECTS OF FLOODING ON THE COMMUNITY

Community Profile

| Census Description | LGA | Blayney | Carcoar | Mandurama | Millthorpe |
|--|------|---------|---------|-----------|------------|
| Total Persons | 6593 | 2749 | 216 | 149 | 727 |
| Total Dwellings | 2403 | 1016 | 84 | 59 | 249 |
| Total persons aged 65 years and over | 1011 | 451 | 64 | 33 | 93 |
| Total persons aged below 15 years | 1480 | 642 | 25 | 25 | 170 |
| Total persons of indigenous origin | 156 | 91 | 7 | 3 | 15 |
| Total persons using Internet | 1361 | 908 | 84 | 35 | 156 |
| Single parent families | 270 | 150 | 9 | 13 | 16 |
| Persons living alone | 603 | 277 | 23 | 15 | 77 |
| Total persons who do not speak English well | 8 | 4 | 0 | 0 | 0 |
| Total persons who lived at a different address 5 years ago | 2359 | 1081 | 51 | 60 | 265 |
| Households without vehicles | 153 | 104 | 6 | 0 | 16 |
| Total persons residing in caravans or cabins | 11 | 0 | 0 | 0 | 0 |
| Mean household size | 2.7 | 2.7 | 2.6 | 2.5 | 2.9 |

Table B-1: Australian Bureau of Statistics (2006 Census data)

Specific Risk Areas

The principal town in the Blayney Shire is Blayney, situated some 37km west of Bathurst and approximately 250km by road from Sydney.

Blayney

In major floods water spreads across floodplain for about 500m in the vicinity of the town. This represents a local widening of the floodplain as within a few kilometres upstream and downstream of the town the floodplain is quite narrow. Flooding in Blayney occurs along Abattoir Creek but is largely a backwater effect from the Belubula River. A total of about seven buildings are affected by floodwaters in a major flood (1983 NSW Inland Rivers Floodplain Management Studies – Lachlan Valley). Most of these buildings are located in the vicinity of Henry Street between Church and Burns Streets. Land within the town is largely flood free except for the area along Abattoir Creek and land in the vicinity of the Belubula River (Church, Henry and Burns Streets).

The three major riverine floods recorded at Blayney occurred in October 1934, January 1972 and January 1980, with the highest of these (1972) marked on a concrete wall in Henry Street, Blayney (858.7m AHD). The approximate flood extent for the 1980 flood can be seen on Map 2.

Blayney can also be affected by localised flooding. On 21 December 2007 heavy local rainfall of 55 mm in a 5-hour period resulted in over floor flooding of a residential property in Adelaide Street, flooding of lower levels of a business property in Osman Street (near Water Street), Plumb Street was closed. (Source: Blayney Chronicle, 10 January 2008).

Millthorpe

During the 21 December 2007 storm at Millthorpe, the Victoria Street railway underpass had over 1m of water over the road which remained impassable for several days. (Source: Blayney Chronicle, 10 January 2008). Alternate routes were available and remained open.

Road Closures

1. Some road closures may occur in the Council area during floods. The most important of these closures occur at the following locations.

(Note: all grid references below refer to the Blayney 8730 I & IV 1:50 000 topographic map, First Edition, 1977.)

- a. The Blayney to Hobbys Yards Road (SH 54) at Brewery Bridge 1 km south of Blayney (GR 101855). An alternate access is available through Carcoar and Neville to the west, or through Newbridge to the east to Hobbys Yards.
 - b. The Blayney to Newbridge Road, just east of the Blayney town boundary (GR 095872). An alternate access is available through Kings Plains and The Village to Newbridge.
 - c. Access to Orange via Millthorpe Road and to Bathurst via the Mid-Western Highway is not lost during floods.
2. Many minor roads can also be cut during periods of flooding. In addition, flooding in the adjoining Council areas of Bathurst Regional, Cowra and Cabonne can restrict movement to other locations.

Effects on Utilities and Infrastructure

1. There are no known effects on utilities or infrastructure.

SES RESPONSE ARRANGEMENTS FOR BLAYNEY SHIRE

Volume 3 of the Blayney Shire Local Flood Plan

Last Update: November 2009

ANNEX C - DISSEMINATION OF SES FLOOD BULLETINS

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

a. Television Stations:

| Station | Location |
|--------------------|----------|
| Southern Cross Ten | Orange |
| Prime TV | Orange |
| WIN TV | Orange |

b. Radio Stations:

| Station | Location | Frequency | Modulation |
|-----------------------|----------|-----------|------------|
| 2CR (ABC) | Orange | 549 | AM |
| Easy Listening Ten-89 | Orange | 1089 | AM |
| 2BS | Bathurst | 1503 | AM |
| Star FM | Orange | 105.9 | FM |
| 2MCE FM | Bathurst | 92.3 | FM |
| 2MCE FM | Orange | 94.7 | FM |
| B-Rock | Bathurst | 99.3 | FM |
| 2GZ-FM | Orange | 105.1 | FM |

c. Newspapers:

| Name | Location |
|-----------------------|-------------------------------|
| Central Western Daily | Orange |
| Blayney Chronicle | Blayney (Published Thursdays) |
| Western Advocate | Bathurst |

d. Other Agencies:

- Blayney SES Unit Headquarters
- Flood bulletins will be issued by the SES to all agencies with responsibilities listed in this plan and the Blayney Local DISPLAN.

ANNEX D - TEMPLATE EVACUATION WARNINGS AND EVACUTION ORDERS (FLOOD AND DAM FAILURE)



Evacuation Warning

Central West Region Headquarters

79 Corporation Avenue,
Bathurst NSW 2795

Telephone: (02) 6334 8555

Fax: (02) 6334 8500

Email: cwr.ops@ses.nsw.gov.au

Issued [day] [date] at [time in civilian format (am,pm)]

Radio stations are asked to immediately read this message to listeners and repeat it often.

Evacuation Warning for [Enter locations]

Authorised By: []

[Enter general information about flood situation]. This means that [enter areas] may become flooded by [enter time].

The State Emergency Service recommends that residents within these areas maintain a vigilant watch on the situation and to prepare to evacuate [enter time if necessary].

The State Emergency Service is monitoring the situation and will advise you if it is necessary to leave your property.

If flooding does occur in your area, remaining within your home or business will be dangerous and your life may be placed at risk. Even if your home or business is raised it may become a refuge for vermin, snakes and spiders. There may be no water, sewerage, power, telephone or other services and you may be unable to call for help in an emergency.

If evacuation becomes necessary evacuation centres will be established at [] (*specify route if appropriate*). At these centres assistance will be available to meet your needs including, temporary accommodation, financial help, personal support, refreshments and meals, clothing and personal needs and help in contacting friends and family. You may also choose to go to a friends or relatives house.

To prepare for possible evacuation you should:

- Raise belongings by placing them on tables, beds and benches. Put electrical items on top. You may be able to place light weight items in the roof space.
- Collect together medicines, personal and financial documents, mementos and photos
- If possible, check to see if your neighbours need help
- Make arrangements for care of pets or other animals, you may take your pets with you when you evacuate

If you have to evacuate:

- Turn off the electricity, gas and water.
- Take three days' supply of clothing and medicines
- Take any important documents, mementos and photos with you
- Continue to listen to a local radio station for updates

Don't walk or drive through floodwaters – this is the main cause of death and injury during flooding

If you require assistance contact the SES on 132 500

End _____

[enter update and currency details]

For further information contact:

*The worst in nature
the best in us*



Evacuation Warning

Central West Region Headquarters

79 Corporation Avenue,
Bathurst NSW 2795

Telephone: (02) 6334 8555

Fax: (02) 6334 8500

Email: cwr.ops@ses.nsw.gov.au

Issued [day] [date] at [time in civilian format (am,pm)]

Radio stations are asked to immediately read this message to listeners and repeat it often.
Please use the Standard Emergency Warning Signal with this message

Evacuation Warning for [Enter locations]

Authorised By: []

The dam failure warning system for [enter dam name] dam has issued an Amber Alert, for areas downstream of the dam. This alert means there is a chance that the dam could fail. If failure of the dam does occur major flooding of the following areas is possible [enter areas].

The State Emergency Service recommends that residents within these areas maintain a vigilant watch on the situation and to prepare to evacuate [enter time if necessary].

The State Emergency Service is monitoring the situation and will advise you if it will be necessary to leave your property.

If flooding does occur in your area, remaining within your home or business will be dangerous and your life may be placed at risk.

If evacuation becomes necessary, then evacuation centres will be established at [] (*specify route if appropriate*). At these centres assistance will be available to meet your needs including, temporary accommodation, financial help, personal support, refreshments and meals, clothing and personal needs and help in contacting friends and family. You may also choose to go to a friends or relatives house.

To prepare for possible evacuation you should:

- Raise belongings by placing them on tables, beds and benches. Put electrical items on top. You may be able to place light weight items in the roof space.
- Collect together medicines, personal and financial documents, mementos and photos
- If possible, check to see if your neighbours need help

- Make arrangements for care of pets or other animals, you may take your pets with you when you evacuate

If you have to evacuate:

- Turn off the electricity and gas as you leave
- Take three days' supply of clothing and medicines
- Take any important documents, mementos and photos with you
- Continue to listen to a local radio station for updates

Don't walk or drive through floodwaters – this is the main cause of death and injury during flooding

If you require assistance contact the SES on 132 500

End _____

[Enter update and currency details]

For further information contact:

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the best in us*



Evacuation Order

Central West Region Headquarters

79 Corporation Avenue,
Bathurst NSW 2795

Telephone: (02) 6334 8555

Fax: (02) 6334 8500

Email: cwr.ops@ses.nsw.gov.au

Issued [day] [date] at [time in civilian format (am,pm)]

Radio stations are asked to immediately read this message to listeners and repeat it often.
Please use the Standard Emergency Warning Signal with this message

Evacuation Order for [Enter locations]

Authorised By: []

[Enter general information about flood situation]. This means that [enter areas] may become flooded by [enter time].

The State Emergency Service directs residents within these areas to evacuate within the next [] hours. If you delay your evacuation, roads may be congested or closed and you could become trapped and need to be rescued. Remaining in flooded areas is dangerous and may place your life at risk.

When you evacuate you may go to the house of a friend or relative. Alternatively, if you go to an evacuation centre, accommodation and other assistance can be arranged for you.

If you do not attend an evacuation centre it is important to inform emergency services of your location by calling [enter number]

You can drive to an evacuation centre located at [] (*specify route if appropriate*).

If you don't have a car, buses may operate where possible on normal routes. Special transport can also be provided on request if necessary, telephone [].

Before evacuating, you should prepare yourself and your property for flooding:

- Raise belongings by placing them on tables, beds and benches. Put electrical items on top. You may be able to place some light-weight items in the roof space
- Collect together important documents, mementos and photos to take with you
- If possible, check to see if your neighbours need help
- Make arrangements for care of pets or other animals or take pets with you to an evacuation centre
- Turn off the electricity and gas

- Take three days' supply of clothing and medicines with you
- Do not drive or walk through floodwater
- Continue to listen to a local radio station for updates

End _____

This Evacuation Order remains current until the All Clear has been issued

For further information contact:

*The worst in nature
the best in us*



Evacuation Order

Central West Region Headquarters

79 Corporation Avenue,
Bathurst NSW 2795

Telephone: (02) 6334 8555

Fax: (02) 6334 8500

Email: cwr.ops@ses.nsw.gov.au

Issued [day] [date] at [time in civilian format (am,pm)]

Radio stations are asked to immediately read this message to listeners and repeat it often.
Please use the Standard Emergency Warning Signal with this message

Evacuation Order for [Enter locations]

Authorised By: []

The dam failure warning system for [enter dam name] dam has issued a Red Alert, for areas downstream of the dam. This alert means dam failure is imminent. Failure of the dam will result in major flooding of the following areas [enter areas].

The State Emergency Service directs residents within these areas to evacuate within the next [] hours. If you delay your evacuation, roads may be congested or closed and you could become trapped and need to be rescued. Remaining in flooded areas is dangerous and may place your life at risk.

When you evacuate you may go to the house of a friend or relative. Alternatively, if you go to an evacuation centre, accommodation and other assistance can be arranged for you.

If you do not attend an evacuation centre it is important to inform emergency services of your location by calling [enter number]

You can drive to an evacuation centre located at [] (*specify route if appropriate*).

If you don't have a car, buses may operate where possible on normal routes. Special transport can also be provided on request if necessary, telephone [].

Before evacuating, you should prepare yourself and your property for flooding:

- Raise belongings by placing them on tables, beds and benches. Put electrical items on top. You may be able to place some light-weight items in the roof space.

- Collect together important documents, mementos and photos to take these with you
- If possible, check to see whether your neighbours need help
- Make arrangements for care of pets or other animals or take pets with you to an evacuation centre. Put pets on leads or in approved containers.
- Turn off the electricity, gas and water
- Take three days' supply of clothes and medicines with you
- Do not drive or walk through floodwater
- Continue to listen to a local radio station for updates

End _____

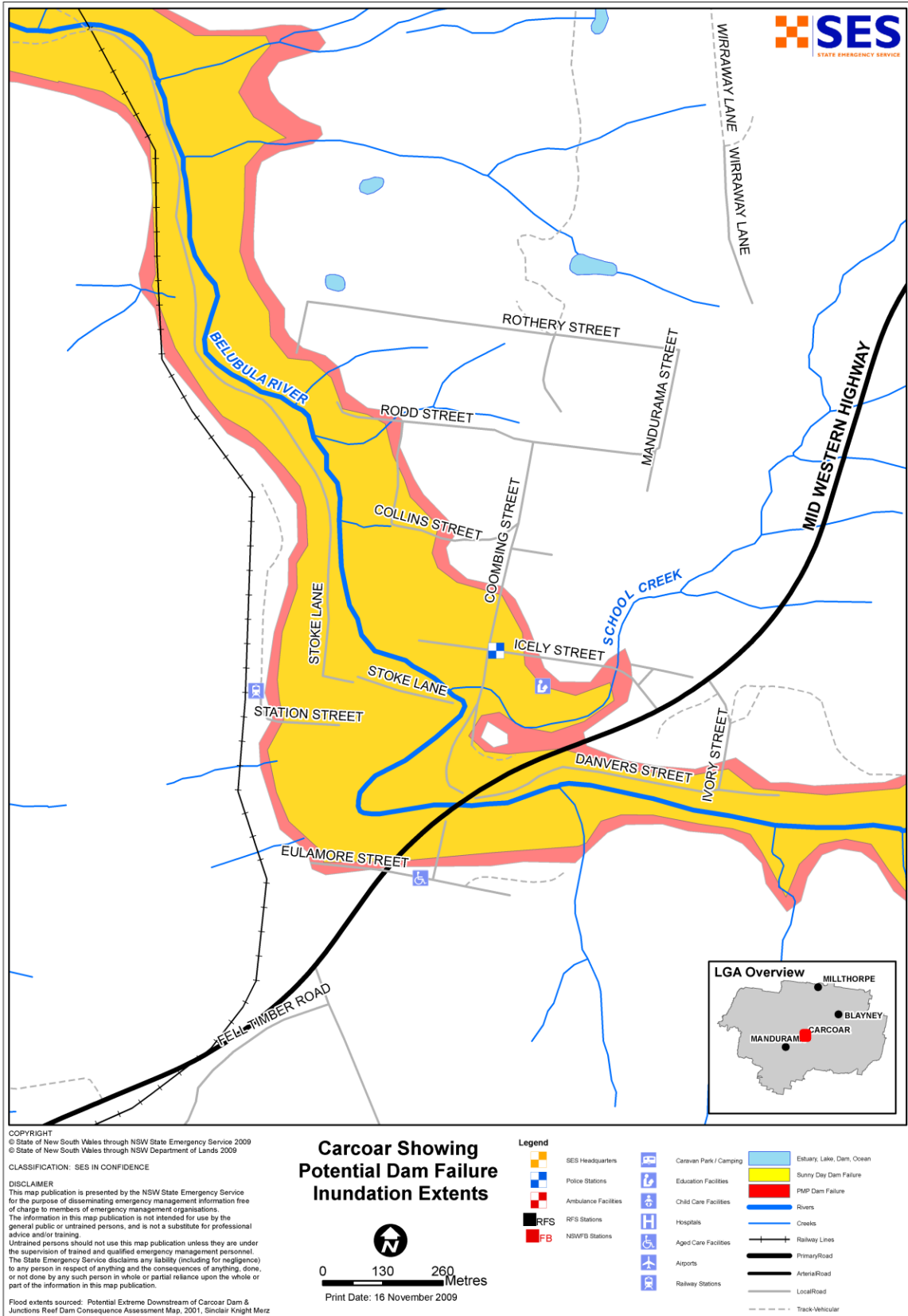
This Evacuation Order remains current until the All Clear has been issued

For further information contact:

*The worst in nature
the best in us*

MAP 3 - VILLAGE of CARCOAR

showing possible extends of flooding due to sunny day failure of Carcoar Dam.



PART 5 - References Used for Blayney Shire Local Flood Plan

- Australian Bureau of Statistics (2006) NSW Regional Statistics
- Rankine and Hill (1983) NSW Inland Rivers Flood Plain Management Studies - Lachlan River Basin
- Blayney Shire Council (1998) Blayney LEP, *flood liable land map*
- Blayney Chronicle (2008) *article* 'Heavy rain takes its toll on Blayney'
- URS Australia Pty Ltd. Cadiagullong Dam Dam Safety Emergency Plan 2003 (Cadia Holdings Pty Ltd)
- Cadia Holdings Pty Ltd Upper Rodds Creek Water Holding Dam Dam Safety Emergency Plan 2002
- Cadia Holdings Pty Ltd North Waste Dump (Hoares Creek) Detention Dam Dam Safety Emergency Plan 2003
- URS Australia Pty Ltd. Cadia Northern Tailings Storage Facility Dam Safety Emergency Plan 2008 (Cadia Holdings Pty Ltd)
- URS Australia Pty Ltd. Cadia Southern Tailings Storage Facility Dam Safety Emergency Plan 2008 (Cadia Holdings Pty Ltd)
- State Water (2002, updated 2005 and 2007) Carcoar Dam Dam Safety Emergency Plan
- State Water (2002) *Map* Potential extreme Inundation Downstream of Carcoar Dam and Junctions Reef Dam (within Carcoar Dam Dam Safety Emergency Plan)
- State Water (2005) Junction Reefs Dam Dam Safety Emergency Plan
- GHD Pty Ltd (2007) Central Tablelands Water. Lake Rowlands Dam Dam Safety Emergency Plan
- GHD Pty Ltd (2009) Central Tablelands Water. Report for Lake Rowlands Dam Hydrological and Dam Break Study (Draft).