



NEW SOUTH WALES STATE FLOOD PLAN

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

Endorsed by the State Emergency Management

02 December 2021

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1 OUTLINE AND SCOPE

1.1 PURPOSE

- 1.1.1 The purpose of this plan is to set out the state level multi-agency arrangements for the emergency management of flooding in New South Wales including Lord Howe Island.

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 Emergency Management Plan (EMPLAN).
- 1.2.2 This plan is a sub plan to the NSW Emergency Management Plan (EMPLAN) and is endorsed by the NSW State Emergency Management Committee (SEMC).

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 State 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 Plan sets out the state level emergency management arrangements for prevention, preparation, response, and initial recovery for flooding at the strategic level.
- 1.4.2 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.
- 1.4.3 The arrangements for dealing with episodes of coastal erosion by severe weather, are described in the NSW State Storm Plan.
- 1.4.4 The arrangements for the emergency management of tsunami are dealt with in the NSW State Tsunami Emergency Sub Plan.
- 1.4.5 This plan outlines the high-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:

- Protection and preservation of life;
- Establishment and operation of flood warning systems;
- Issuing of community information and community warnings;
- Coordination of evacuation and welfare of affected communities;
- Protection of critical infrastructure and community assets essential to community survival during an emergency incident;
- Protection of residential property;
- Protection of assets and infrastructure that support individual and community financial sustainability and aid assisting a community to recover from an incident; and
- 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.

1.7.2 Specific roles and responsibilities for agencies, functional areas, and organisations in relation to flood are detailed in this Plan and Appendix A.

1.7.3 Specific local arrangements are detailed in NSW SES Local Flood Emergency Sub Plans.

1.7.4 Any agency with agreed responsibilities in this Plan that are temporarily unable, or no longer able to fulfil their responsibilities in response operations must notify the NSW SES State Duty Commander, NSW SES Deputy State Controller or NSW SES State Controller as soon as possible.

1.8 PLAN MAINTENANCE AND REVIEW

1.8.1 The NSW SES Commissioner will maintain the currency of this plan by:

- Ensuring that all supporting emergency services and functional areas, organisations and officers mentioned in it are aware of their roles and responsibilities;
- Conducting exercises to test arrangements;
- 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 from recommendations in after action reviews, reports, or inquiries; and
- ◆ As determined by the NSW SES Commissioner;
- The plan is to be reviewed no less frequently than every five years.

1.9 SUPPLEMENTARY DOCUMENTS

1.9.1 Supplementary and supporting material of the State Flood Plan is maintained on the NSW SES website at: <https://www.ses.nsw.gov.au/about-us/flood-storm-and-tsunami-plans/> including:

- The Flood Hazard and Risk in NSW;
- Provision of and Requirement for Flood Warning;
- State Flood Plan Glossary;
- NSW SES Resupply Flowchart; and
- NSW River Basin Maps.

2 OVERVIEW OF NSW FLOOD HAZARD AND RISK

2.1 THE FLOOD THREAT

2.1.1 The NSW State Level Emergency Risk Assessment (SLERA) classifies flood as a priority hazard that poses a significant risk to the State. In the 2017 SLERA, widespread heavy rainfall and inland flooding was assigned an extreme risk rating with major consequences expected.

2.2 CAUSES OF FLOODING

- 2.2.1 In NSW there are four mechanisms which may cause flooding, these include:
- a. **Heavy Rainfall** and associated runoff are the most common cause of flooding in NSW. It can cause:
 - Banks of rivers and creeks to overtop;
 - Overflow from lakes, detention basins and stormwater drains;
 - Local overland flooding; and
 - Releases or spills from dams.

- b. **Storm Surge** is a temporary rise of sea level above astronomical tide, caused by deep low-pressure systems located off the coast, resulting in coastal inundation.
- c. **Tsunami** results from undersea earthquakes, landslides, meteorite impacts or volcanic activity. Emergency management arrangements for tsunami are outlined in the State Tsunami Emergency Sub Plan.
- d. **Dam Failure** causes flooding of downstream waterways and their surrounds. Dam failure is very rare but can have catastrophic consequences, in some cases exceeding the probable maximum flood extent. Some causes of dam failure include:
 - Overtopping in severe floods;
 - Lack of structural integrity;
 - Earthquake activity (resulting in sunny day failure);
 - Failure of operating equipment; and
 - Piping (erosion of the embankment or substructure);

Dams Safety NSW publishes guidelines to help declared dam owners comply with the requirements of the *Dams Safety Act 2015* and regulation.

2.3 TYPES OF FLOODING

2.3.1 Riverine Flooding

- a. 'Riverine' flooding differs in characteristics between the coastal and inland areas of the state. Maps of Inland and Coastal Rivers can be found in the State Flood Plan Supplementary and Supporting Documentation on the NSW SES Website
- b. Coastal rivers are located to the east of the Great Dividing Range and are generally characterised by short headwaters of relatively steep gradient, fast rising floodwaters, high velocity flows and inundation even on the low-lying floodplains. Some rivers (such as the Georges and Hawkesbury Nepean Rivers) can experience flooding with significant depths. Flooding usually lasts a relatively short period of time (i.e. days).
- c. Inland rivers are located west of the Great Dividing Range and are generally characterised by flooding that rises and travels relatively slowly. Flooding can occur long after heavy rain and at great distances from the location of the rainfall. Vast areas of land can be inundated for weeks or months. However, some locations immediately west of the Great Dividing Range (such as Tamworth and Bathurst) experience flooding similar to coastal rivers with floodwaters quick to rise and travel.

2.3.2 Flash Flooding

- a. Flash flooding occurs quickly (within 6 hours) after rain causing overland flood and rapid stream rises. It can occur anywhere in the state when the intensity of the rainfall overwhelms natural or artificial drainage systems.

- b. Larger urban areas of Sydney, Newcastle, the Central Coast and Wollongong and in near-coastal environments where communities have been developed on, and immediately below, steep escarpments (such as at Coffs Harbour) are at risk of flash flooding. Flash flooding also occurs when urban drainage systems are overwhelmed by intense rainfall and roads become “rivers” with flooding occurring at their low points. In steeply sloping areas such flooding can have dangerously high flow velocities.
- c. Whilst flash flooding is quick to occur, when it occurs in the low-lying, flat, western parts of the state, floodwaters may take long periods of time to dissipate due to a lack of flow of water towards main rivers.

2.3.3 Dam Failure Flooding

- a. Dam failure flooding from declared dams and detention basins is rare (because of the high standards of safety for dams in NSW) but can be catastrophic. Flooding can be fast rising with high velocities and depths that can exceed the probable maximum flood extent. As dam failure can occur during a severe flood, areas downstream of dams may already be flood affected, with dam failure flooding worsening existing flood conditions.
- b. Flooding close to the dam wall generally has similar characteristics to flash flooding, whilst further down the catchment characteristics tend to transition to being similar to riverine flooding.
- c. The failure of dams that have not been formally designed or are poorly constructed and maintained (such as small farm dams) are the most common type of failure and can cause limited and localised flooding downstream.
- d. Dam failure flooding can also occur without existing flooding or heavy rainfall conditions (such as from earthquakes). This is known as Sunny Day Failure. During Sunny Day Failures flooding is generally contained within the probable maximum flood extent.

2.3.4 Coastal and Lacustrine Flooding

- a. Flooding on the lower reaches of coastal streams and around the lakes along the coast can be worsened by tidal conditions, storm surges, and flooding associated with east coast lows.

2.4 CONSEQUENCES OF FLOODING

2.4.1 The distribution and impact of flooding can vary from year to year across New South Wales.

2.4.2 The consequences of flooding can include:

- a. Loss of life;
- b. Inundation - damaging property, farmland, infrastructure, and roads (leading to a need for evacuation, property protection and/or rescue);

- c. Isolation of properties and/or communities due to flooding of access roads, with the additional risk of secondary emergencies (creating risk to life and the need for resupply and/or rescue);
 - d. Economic losses (for example impacts to local businesses, tourism, and agricultural damages); and
 - e. Environmental losses (for example impacts to water quality, soil erosion, animal habitat, cultural heritage); and
 - f. Indirect effects such as disruption to community activities and ongoing psychological issues. The broader community can be affected by infrastructure damage, disruption of essential services and disruption to transport routes etc.
- 2.4.3 Some communities are more vulnerable to flood consequences than others due to their low physical, mental and socio-economic capacity to cope and adapt to disasters and their access to support services.
- 2.4.4 NSW SES maintains a flood intelligence system which describes the impact of flooding at key locations throughout NSW. This information is used to support community warnings, inform emergency planning, and assist emergency decision making.
- 2.4.5 Further information on the flood threat in NSW, flood producing weather systems, flood history and impacts of climate change can be found in the State Flood Plan Supplementary and Supporting Documentation on the NSW SES Website

3 PREVENTION/ MITIGATION

3.1 INTRODUCTION

- 3.1.1 Actions to minimise risk to life and reduce property damage can be undertaken by carefully managing floodplains. These actions help to ensure the use of flood prone land is compatible with the nature of the flood hazard and allows for sustainable land use.
- 3.1.2 The Floodplain Development Manual outlines the NSW Government's Flood Prone Land Policy which details the framework for managing flood prone land in New South Wales. The primary objective of the flood prone land policy is to *reduce the impact of flooding and flood liability on individual owners and occupiers of flood prone property, and reduce private and public losses resulting from floods, utilising ecologically positive methods where appropriate* (Floodplain Development Manual).
- 3.1.3 Floodplain risk management includes an understanding and consideration of existing, future, continuing and residual risk as a means of limiting exposure to flood risk for both existing and growing communities. It requires a multidisciplinary approach including flood emergency managers, flood risk managers, and land use planners working together to help communities build long term resilience to future flood events.

- 3.1.4 The NSW SES works with the community to assist them in building their own resilience to reduce their risk in respect of floods, storms, and tsunamis.

3.2 LAND USE PLANNING

3.2.1 **Strategy:** Effective land use planning is a key focus for minimising the impacts of flooding. 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.

3.2.2 Actions:

- a. Provide strategic input on land use planning matters that have or will create significant risk to life and/or property due to flooding;
- b. Provide coordinated response on land use planning proposal referrals that have or will create significant risk to life and/or property due to flooding.
- c. Contribute to national and state legislation reviews, policies and guidelines dealing with relevant land use planning matters; and
- d. Provide NSW SES representation on State Government committees and at other forums dealing with relevant land use planning matters.

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.

3.3.2 Actions:

- a. Provide coordinated and consistent emergency management advice to councils and other agencies in relation to the management of land that is subject to flooding or coastal inundation;
- b. Contribute to national and state legislation reviews, policies and guidelines dealing with mitigation and floodplain risk management;
- c. Provide NSW SES representation on State and Local Government committees and at other forums (e.g. Floodplain Management Australia) to inform consideration of emergency management in flood risk management decision making; and
- d. Provide advice, support, technical resources, and training for NSW SES representatives to contribute effectively on local Floodplain 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.
- 4.1.2 Preparation is undertaken by:
 - a. Agencies and organisations which have responsibilities before, during and/or in the recovery from floods; and
 - b. Communities, businesses, and households which are likely to be impacted by the effects of flooding.

4.2 FLOOD EMERGENCY PLANNING

4.2.1 **Strategy:** NSW SES develop, review, and maintain flood sub plans

4.2.2 **Actions:**

- a. Develop and review State level flood plans including the Hawkesbury Nepean Sub Plan;
- b. Develop and review NSW SES Regional Flood Plans if required. Regional Flood Plans may be prepared in special circumstances and outline the specific arrangements for management of flood events at a regional scale (e.g. river basin, multiple Local Government areas or pre-defined areas of operation);
- c. Develop and review NSW SES Local Flood Emergency Subs Plans as required. NSW SES Local Flood Emergency Sub Plans outline the specific arrangements for management of flood events within a Local Government Area (LGA), and may include cross boundary arrangements; and
- d. Review plans as per Section 1.8.

4.2.3 Region and Local EMPLAN Consequence Management Guides (CMG's) for flood are not required for communities covered by NSW SES Regional and Local Flood Emergency Sub Plans however may be utilised in place of Local Flood Emergency Sub Plan if agreed to by NSW SES.

4.3 FLOOD INTELLIGENCE SYSTEMS

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

4.3.2 **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;
- c. Collect, collate, and assess information about the potential effects of flooding on communities at risk;
- d. Share flood intelligence information with supporting agencies; and

- e. Invest and/or support research and development of information, technology and systems which may improve the flood intelligence system and data gathering.

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.

4.4.2 **Actions:**

- a. The NSW and ACT Flood Warning Consultative Committee (FWCC) provides a forum for the Bureau of Meteorology (the Bureau) and key stakeholders including lead agencies in emergency management, flood risk management and gauges owners to inform the provision of flood warning services to communities in NSW. Its purpose is to coordinate the development and operation of flood forecasting and warning services across NSW and membership comprises of the Bureau, NSW SES, DPIE EES, ACT SES; Water NSW, Sydney Water, Murray-Darling Basin Authority, Local Government and Floodplain Management Australia.
- b. The FWCC encourage warning systems to align with the concept of a **Total Flood Warning System** (as outlined in the Public Information and Warnings Handbook of the Australian Disaster Resilience Handbook Collection AIDR 2021);
- c. The Bureau will provide warning services in line with the Intergovernmental Agreement on the Provision of Bureau of Meteorology Hazard Services to the States and Territories and the Service Level Specifications for Flood Forecasting and Warning Services for NSW.
- d. Work with gauge owners so they adequately maintain flood warning gauges and systems, including those identified in the 'Service Level Specification' maintained by the Bureau and those identified in the 'Provision and Requirements for Flood Warning in New South Wales' maintained by NSW SES;
- e. 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 State Flood Plan Supplementary and Supporting Documentation on NSW SES website.
- f. The State Government in partnership with Local Government, is responsible for developing and maintaining flash flood warning systems for local catchments where required.
- g. All levels of government work in partnership to develop and maintain flood warning infrastructure.
- h. Dam Owners will provide Dam Emergency Plans (where required) and consult with NSW SES on messaging.
- i. 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; and
 - Consulting with affected communities, key stakeholders, Dams Safety NSW, and the NSW and ACT Flood Warning Consultative Committee; and maintains Operational Readiness; and
 - Participating in the development of public information and warning systems; and
- j. NSW SES maintains a dedicated dam failure hotline and procedures to ensure priority dissemination of dam failure warnings.

4.5 BRIEFING, TRAINING AND EXERCISING

4.5.1 **Strategy:** Ensure 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.

4.5.2 **Actions:**

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

4.6 COMMUNITY RESILIENCE TO FLOODING

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

4.6.2 **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.

4.6.3 **Strategy:** Work with individuals, communities, businesses, and government agencies to build flood resilience.

4.6.4 **Actions:**

- a. Partners with and engage communities to understand and manage the risks associated with floods, including providing business continuity guidance, family preparedness guidance and other engagement strategies.
- b. 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 of warnings for flash flood; or
- d. On receipt of a dam failure alert; or
- e. When other evidence leads to an expectation of flooding.

5.1.2 The response phase includes pre-impact, impact, and post-impact response actions.

5.2 INCIDENT MANAGEMENT ARRANGEMENTS

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

5.2.2 **Actions:**

- a. The NSW SES use 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;
- d. The NSW SES State Controller (or representative) may determine one or more Areas of Operations to either coordinate relevant Incident Controllers, or to manage Incident at a higher level; and
- e. The Incident Controller, in consultation with participating supporting emergency services and Functional Areas will determine appropriate breakdown of an Area of Operations into Divisions and/or Sectors in accordance with the principles of AIIMS.

5.2.3 **Strategy:** Maintain state operations and command centre/s.

5.2.4 **Actions:**

- a. The NSW SES will operate a 24/7 State Command Centre to enable agencies and the public to contact the NSW SES; and
- b. The NSW SES State Command Centre will:
 - Coordinate and oversee multiple areas of operation, ensuring internal and external information flow;
 - Undertake state-wide resource management; and
 - Provide operational management and flood intelligence advice in support of Incident Management Team(s).

5.2.5 **Strategy:** Provide effective liaison between the NSW SES and supporting agencies or functional areas in accordance with State EMPLAN.

5.2.6 **Actions:**

- a. Supporting emergency services and Functional Areas should provide Liaison Officers to NSW SES Incident Control Centres, NSW SES State Command Centre and/or Emergency Operation Centres as required; and
- b. The NSW SES State Duty Commander (SDC) will ensure consultation with the State Emergency Operations Controller (SEOC) and SEOC is ongoing throughout response operations.
- c. Where possible Emergency Operation Centres to be co-located with NSW SES Incident Control Centres for Flood Emergency Response

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

5.2.8 **Actions:**

- a. The NSW SES may request resources and logistics support directly from a supporting emergency service or Functional Area. If it is likely that State resources will be exhausted or are insufficient for particular tasks, liaison with the SEOC and or National Resourcing Sharing Centre (NRSC) will occur to determine the need for access to Interstate or Commonwealth assistance; and
- b. Wherever possible, supporting organisations are to provide their own logistic support in consultation with NSW SES where appropriate.
- c. Develop and manage an interstate liaison unit when required

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.

5.3.2 **Actions:**

- a. Information relating to the consequences of flooding, response strategies, situational awareness and operational updates will be distributed by NSW

SES to supporting emergency services and Functional Areas listed under this Plan;

- b. All supporting emergency services and Functional Areas will accurately record and report information relevant to their activities and any real time flood information to the appropriate NSW SES Controller or State Duty Commander, this may be in the form of a combined Emergency Operation 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; and
- d. Reconnaissance, mapping, damage assessments, intelligence validation and post flood evaluation will be coordinated by NSW SES. This may occur post impact and continue into the recovery phase
- e. NSW SES may request Engineering 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.

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

5.3.4 **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.

5.4.2 **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, and
 - Flood Warnings.

- b. Councils will use established flash flood warning systems to provide warnings and information to NSW SES, key stakeholders, and the community.
- c. Dam Owners will utilise the Dam Emergency Plan to provide warnings and information to NSW SES and communities (where appropriate).
- d. NSW SES Incident Controllers will issue the following NSW SES flood information products incorporating warnings from the above, expected consequences and safety messages:
 - Livestock and Equipment Warnings
 - Local Flood Advices
 - Flood Bulletins
 - NSW SES Evacuation Warning
 - NSW SES Evacuation Order
 - NSW SES All Clear
- e. NSW SES liaises with the Bureau to discuss the development of flood warnings as required.
- f. NSW SES provides alerts and deliver flood information to affected communities using a combination of public information

5.5 PROTECTION OF PROPERTY

- 5.5.1 **Strategy:** Coordinate the protection of property from destruction or damage arising from floods.
- 5.5.2 **Action:** 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 incl. critical infrastructure through flood protection systems (e.g. sandbagging) to minimise entry of water into buildings; and
 - b. The raising or moving of household furniture and commercial stock/equipment.

5.6 PROTECTION OF ESSENTIAL SERVICES

- 5.6.1 Arrangements for the protection of local assets are outlined in NSW SES Local Flood Emergency Sub Plans and NSW SES Regional Plans. In addition, Local and Region EMPLAN's contain infrastructure inventories.
- 5.6.2 **Strategy:** Minimise disruption to the community by ensuring protection of infrastructure and supply of essential energy, utility services and lifelines.
- 5.6.3 **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;
 - i. coordinate the assessment and restoration of critical public buildings for example hospitals;
 - ii. assessment and operation of flood protection levees
 - iii. protection of property
 - iv. construction and repair of levees
 - v. dam safety assessment and dam stability
 - vi. water supply and sewerage operations
 - vii. other critical infrastructure
- e. Functional Areas and Council's will keep the NSW SES informed of the status of utilities and infrastructure.

5.7 EVACUATION

- 5.7.1 Evacuation is the NSW SES's primary response strategy for managing the population at risk of flooding.
- 5.7.2 Community specific evacuation arrangements are in NSW SES Local/State Flood Emergency Sub Plans and NSW SES Regional Flood Plans.
- 5.7.3 **Strategy:** Evacuate people pre-emptively from dangerous or potentially dangerous places created by the flood hazard to safe locations away from the hazard.
- 5.7.4 **Actions:**
 - a. NSW SES will control and coordinate the evacuation of affected communities;
 - b. 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; and
 - Evacuation of people where essential energy and/or utility services are likely to fail or where buildings have been or may be made uninhabitable; and
 - c. 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.
- d. NSW SES Incident Controllers, planning and intelligence officers will carefully consider the risks involved in conducting evacuations.
 - e. All evacuation decisions will be made as per the NSW SES Policy and Procedures.
 - f. Evacuation operations are to be consistent with the NSW Evacuation Management Guidelines.
 - g. NSW SES Commissioner (or delegate) will warn communities to prepare for a possible evacuation, where circumstances allow such lead time.
 - h. NSW SES Commissioner (or delegate) will order any necessary evacuations and provide information to the community about when and how to evacuate.
 - i. Support to evacuation operations may be requested from other emergency services and supporting agencies using arrangements in EMPLAN and supporting plans

5.8 EVACUEE MANAGEMENT AND WELFARE

- 5.8.1 Research and experience in flood operations shows that most evacuees go to family, friends, and commercial accommodation outside the impact area.
- 5.8.2 **Strategy:** Maintain the welfare of communities and individuals affected by the impact of a flood.
- 5.8.3 **Actions:**
 - a. 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. Welfare Services Functional Area will manage evacuation centres for affected residents and travellers in accordance with the Welfare Services Functional Area Supporting Plan;

- c. The SEOCON or appointed Major Evacuation Centre Manager will manage Major Evacuation Centres or Mass Care Facilities where they are established;
- d. Disaster Victim Registration will be controlled and coordinated by the NSWPF, with the assistance of NSW SES and Welfare Services Functional Area;
- e. 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 SEOCON may establish Major Evacuation Centres or Mass Care facilities; and
- g. The decision to establish Major Evacuation Centres or Mass Care Facilities will be made by the NSW SES and SEOCON in consultation with members of the State Emergency Management Committee.

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

5.8.5 **Actions:**

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

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

5.8.7 **Actions:**

- a. 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; and
- b. Agriculture and Animal Services Functional Area role will coordinate evacuation, emergency care of animals and assessment, humane destruction and disposal of affected animals, and supply of emergency fodder, water, and aerial support where necessary.

5.9 FLOOD RESCUE

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

5.9.2 **Actions:**

- a. 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 Land Rescue Policy and the NSW State Rescue Board Flood

Rescue Policy which sets out the framework, governance, responsibilities, and requirements for the management and conduct of flood rescue in NSW;

- c. 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 NSW SES. Supporting emergency services must supply information regarding rescues performed to the NSW SES. Notification arrangements with NSW Police Force are outlined in the NSW State Rescue Board Flood Rescue Policy; and
- d. Rescue agencies will conduct rescue of domestic small and large animals as per the State Rescue Board Land 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 Animal and Agriculture Services Functional Area.

5.10 RESUPPLY

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

5.10.2 **Actions:**

- a. 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, NSW SES will establish loading points where retailers can instruct suppliers to deliver goods.
- d. 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. NSW SES will assist hospitals with resupply of linen and other consumables where able.
- f. NSW SES may request resupply assistance from supporting agencies.
- g. NSW SES may conduct resupply operations as per the designated resupply plan for the event.
- h. Where additional supplies are required Engineering be requested to coordinate the supply of goods and services in response to and recovery from the emergency.

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

5.10.4 **Actions:**

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

5.11 ALL CLEAR AND RETURN

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

5.11.2 **Actions:**

- a. NSW SES will determine when it is safe to progressively return in consultation with the relevant EOCON and State Emergency Recovery Controller (SERCON) and supporting agencies considering the ongoing risk to public safety.
- b. NSW SES will specify the level of access to affected communities as the following:
 - Not suitable for access;
 - Limited access by emergency services and response agencies;
 - Limited access by residents and/or business operators; or
 - Full access; and
- c. NSW SES Incident Controller will issue an 'All Clear' message when the immediate danger to life and property has passed for areas assessed as safe; and
- d. The NSW SES will facilitate the return of evacuees to their homes.

5.12 END OF RESPONSE OPERATIONS

5.12.1 **Strategy:** Conclude response operations.

5.12.2 **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 response 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); and
- All affected areas have had an 'All Clear' issued.

5.13 POST IMPACT ACTIONS

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

5.13.2 **Actions:**

- a. 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 of Meteorology, Welfare Services and Local Council representatives;
- b. 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. 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 Resilience NSW as the lead agency for Recovery; ; and
 - Any actions that are incomplete or outstanding; and
 - Damage Assessment Data and Information obtained throughout the response phase which will further support the long-term recovery of communities; and
- d. NSW SES will undertake/coordinate a comprehensive review of intelligence and plans following significant flood events.

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

5.13.4 **Actions:** NSW SES works with relevant stakeholders 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:** NSW SES will support recovery operations and established Recovery Committees.

6.2.2 **Actions:**

- a. NSW SES will provide representation to Recovery Committees as required and may have an ongoing role in the Recovery phase;
- b. 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;
- c. NSW SES will provide information to Resilience NSW 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; and
- e. NSW SES and where required supporting agencies will assist with clean-up operations after floods, where possible when resources and personnel permit.
- f. NSW SES may coordinate immediate relief in collaboration with Resilience NSW

7 ABBREVIATIONS

AIIMS	Australasian Inter-service Incident Management System
Bureau	Australian Government Bureau of Meteorology
DPIE	Department of Planning, Industry and Environment
DPIE EES	Department of Planning Industry and Environment - Environment Energy and Science
EMPLAN	Emergency Management Plan
EOCON	Emergency Operations Controller
IGA	Intergovernmental Agreement on the Provision of Bureau of Meteorology Hazard Services to the States and Territories
NSW RFS	New South Wales Rural Fire Service
NSW SES	New South Wales State Emergency Service
PPRR	Prevention, Preparation, Response and Recovery
RES NSW	Resilience NSW
SCC	State Command Centre
SDC	State Duty Commander
SEMC	State Emergency Management Committee
SEOC	State Emergency Operations Centre
SEOCON	State Emergency Operations Controller
SERCON	State Emergency Recovery Controller
SLERA	State Level Emergency Risk Assessment
TfNSW	Transport for NSW

8 GLOSSARY

For a full list of definitions refer to the Supporting Document - State Flood Plan Glossary

Community Resilience. Communities and individuals harnessing local resources and expertise to help themselves in an emergency, in a way that complements the response of the emergency services. Resilient communities are better able to withstand a crisis event and have an enhanced ability to recover from residual impacts.

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, structural weaknesses, or sabotage.

Damage Assessment. Collection and collation of specific impact information to inform the impact assessment. The information assists with the transition to recovery.

Evacuation. A risk management strategy that may be used to mitigate the effects of an emergency on a community. It involves the movement of people and their animals (where possible) to a safer location and their return. For an evacuation to be effective, it must be appropriately planned and implemented.

Flash Flooding. Flooding which is sudden and often unexpected because it is caused by sudden local or nearby heavy rainfall and typically occurs in small catchments. Technically, flash Flooding means any flooding of short duration with a relatively high peak discharge in which the time interval between the observable causative event and the Flood is less than six hours.

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 (including tsunami) overtopping coastline defences.

Flood Intelligence. The product of a process of collecting, evaluating and analysing flood information relating to an event and presenting and communicating it in such a way as to inform decision making and to devise treatment options across prevention, preparedness, response, and recovery. Flood intelligence can be developed before, during and after a flood event and uses a range of sources. NSW SES maintain a Flood Intelligence system to store Flood Intelligence.

Incident Controller. The individual responsible for the overall management of an emergency or critical incident within their defined area of operation

NSW SES State Controller. The NSW SES Commissioner, in connection with the exercise of his or her functions under the SES Act, may use the title NSW SES State Controller and the NSW SES Deputy Commissioner may use the title NSW SES Deputy State Controller.

NSW SES State Duty Commander (SDC). The delegated authority appointed by the NSW SES State Controller, responsible for providing advice and support to an Incident Controller and/or Operations Controller when required. State Duty Commander is in command of emergency response operations.

Riverine Flooding. Any flooding where the rain-to-flood delay time is relatively high and typically more than six hours, but excludes Flooding caused by: elevated sea levels, storm surge, flash floods, failure of any man-made infrastructure, for example failure of dams or levees, or urban overland flow.

Spontaneous Volunteers. Emergent volunteers during times of crisis who volunteer their time to help their local communities but do not wish to have an ongoing commitment to an organisation.

9 Appendix A – Roles and Responsibilities

AGENCY	RESPONSIBILITIES
Agriculture and Animal Services Functional Area	<p>The roles and responsibilities for Agriculture and Animal Services are outlined in the Agriculture and Animal Services Supporting Plan.</p> <p>Roles and responsibilities in addition to the Supporting Plan are:</p> <ul style="list-style-type: none"> • Disseminate briefing information to participating agriculture and animal services and related stakeholders; • When activated the Agriculture and Animal Services will coordinate the provision of required services which may include: <ul style="list-style-type: none"> – Coordinate response for animal welfare including pets, livestock, and wildlife; – Supply and delivery of emergency fodder; – Emergency water replacement in certain circumstances; and – Damage assessment of flood affected primary producers.
Australian Government Bureau of Meteorology	<p>Preparedness</p> <ul style="list-style-type: none"> • Maintain, coordinate, and deliver operational 24-hour weather and flood warning services to the NSW community in line with the IGA and Bureau’s Service Level Specification for NSW; • Undertake community education activities and contribute to similar community engagement and capacity building programs undertaken by the NSW SES; • Develop warning systems in conjunction with the NSW SES and other state and local agencies; and • Provide advice to local governments to support the development of Flash Flood Warnings and Systems and procedures. <p>Response</p> <ul style="list-style-type: none"> • Act as the flood prediction agency in non-flash flood catchments in accordance with the Bureau’s Service Level Specification for NSW; • Provide weather and flood information directly to the NSW SES, SEMC and relevant agencies; • Collect, collate, and analyse rain and river data; • Provide near real time rainfall and river level data; and • Formulate, issue, and publish official forecasts and warnings and include NSW SES safety messages within warnings.

AGENCY	RESPONSIBILITIES
Councils of Local Government Areas	<ul style="list-style-type: none"> Local government is primarily responsible for managing flood risk in their service areas as outlined in the Floodplain Development Manual. Some may own and operate flood warning gauges and networks. The agreed responsibilities of Local Governments are listed in Local Flood Emergency Sub Plans.
Dams Safety NSW	<p>Preparedness</p> <ul style="list-style-type: none"> Maintain a list of declared dams and their risk status and provide to NSW SES when updated; and Jointly conduct Dam Failure exercises and workshops with NSW SES and dam owners; and Monitor declared dam owners' compliance with legislation and the Dams Safety NSW Guidelines – Emergency Plan. <p>Response</p> <ul style="list-style-type: none"> Establish and maintain communication with the NSW SES and dam owner when a dam operator issues an Amber and/or Red Alert; Maintain communication with NSW SES during a dam safety emergency; and Advise NSW SES when it has taken over control of dam operations.
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 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 NSW SES with identification of infrastructure at risk of flood damage where resources are available.
Engineering Services Functional Area	<p>The roles and responsibilities for Engineering Services are outlined in the Engineering Services Supporting Plan.</p> <p>Roles and responsibilities in addition to the Supporting Plan are:</p> <p>Provide engineering advice and assistance in the areas of</p> <ul style="list-style-type: none"> * reconnaissance and damage assessments, * coordinate, monitor and report on repair, reconstruction and relocation of public buildings and infrastructure * integrity of damaged structures, * re-establishing access to properties, * 'make safe' of damaged structures, * assessment and operation of flood protection levees,

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> * protection of property, * construction and repair of levees, * dam stability, * failed water supply and sewerage operation, * tarpaulin maintenance, * supply of plant and equipment, and the supply of goods and services, and * restoration of critical infrastructure. * specialist advice in coastal structures, roads, bridges, embankments & retaining walls assessment
Environmental Services Functional Area	The roles and responsibilities for Environmental Services are outlined in the Environmental Services (ENVIROPLAN) Supporting Plan.
Floodplain Management Australia	<p>Prevention</p> <ul style="list-style-type: none"> • Promote sound and responsible floodplain management, and to make representations on behalf of Local Government at State and Federal levels.
Fire and Rescue NSW	<p>Preparedness</p> <ul style="list-style-type: none"> • Identify and notify the NSW SES of any locations at risk of fire or hazardous materials that pose a significant threat to surrounding populations due to the impact of a flood for incorporation into NSW SES flood intelligence and planning; and <p>Response</p> <ul style="list-style-type: none"> • Meet the agreed arrangements described in the NSW SES and Fire and Rescue NSW Mutual Aid Agreement; • Provide Incident Management personnel and Liaison Officers to the NSW SES where required; • When requested by NSW SES, provide support to the NSW SES in response to flood emergencies across the State; • Assist the NSW SES with the warning and/or evacuation of at-risk communities; • Assist the NSW SES with the monitoring/reconnaissance of flood prone areas; • Provision of Land Based and In Water Flood Rescue Operators as required; • Provision of appropriately trained personnel to perform Down the Wire (DTW) functions as required;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Conduct Hazmat operations including asbestos risks, arising from flood emergencies in coordination with the SES Incident Controller. • Decontamination of Flood Rescue Operators as required; • Assist the NSW SES with the resupply of isolated communities and/or properties; • Assist the NSW SES with property protection tasks including sandbagging; • Provide resources for pumping flood water out of buildings and from low-lying areas; • Provide trained staff to support a joint intelligence unit, if established by NSW SES, including Remotely Piloted Aircraft System (RPAS) pilots to assist with field observations; • Assist the NSW SES to undertake damage assessment including structural collapse risks; • Coordinate the pre-deployment of fire resources to communities within NSW Fire Districts if access is expected to be lost, in consultation with the NSW SES; and • Coordinate the deployment of the FRNSW High Transfer Pump to locations in consultation with NSW SES. <p>Recovery</p> <ul style="list-style-type: none"> • Assist with clean-up operations, including the hosing out of flood affected properties; • Participate in After Action Reviews as required.
Forestry Corporation of NSW	<p>Response</p> <ul style="list-style-type: none"> • Close and reopen Forestry Corporation of NSW roads when affected by flood waters and advise the NSW SES of its status; • Manage traffic on Forestry Corporation of NSW roads; • Facilitate the safe reliable access of emergency resources on Forestry Corporation managed roads; • Assist the NSW SES with identification of road infrastructure at risk of flooding; • Assist the NSW SES with the communication of warnings and information provision to the public through variable message signs and other appropriate means; and • Close and relocate people from camping grounds at risk of flooding in State Forest managed areas.

AGENCY	RESPONSIBILITIES
Health Services Functional Area	<p>The roles and responsibilities for Health Services Functional Area are outlined in the Health Services (HEALTHPLAN) Supporting Plan.</p> <p>Roles and responsibilities in addition to the Supporting Plan are:</p> <ul style="list-style-type: none"> • Ensure that appropriate business continuity plans are developed for essential health infrastructure and are activated during floods.
Manly Hydraulics Laboratory (MHL)	<p>Preparedness</p> <p>Act as a service provider for operations of gauges and warning systems for Department Planning Industry and Environment (DPIE), other state agencies and Councils. In this role MHL:</p> <ul style="list-style-type: none"> • Provides the Bureau and NSW SES with real-time access to data from stream and rain gauges; • Provides real-time offshore ocean data when storm surge conditions exist; • Provides NSW SES with information about new gauge locations; • Collects and maintains flood data including data relating to flood heights, velocities, and discharges; and • Consults with the NSW and ACT Flood Warning Consultative Committee (FWCC) which includes the NSW SES and the Bureau, prior to changes to gauge locations and datum.
Marine Rescue NSW	<p>Response</p> <ul style="list-style-type: none"> • When requested by NSW SES, assist in flood operations when training and equipment are available and suitable including assistance with: <ul style="list-style-type: none"> – Warning and/or evacuation of at-risk communities; – Providing communications personnel; – Property protection tasks including sandbagging; and – Flood rescue operations.
NSW Ambulance	<p>The roles and responsibilities for NSW Ambulance are outlined in the Health Services (HEALTHPLAN) Supporting Plan.</p> <p>Roles and responsibilities in addition to the Supporting Plan are:</p> <p>Preparedness</p> <ul style="list-style-type: none"> • Participate in NSW SES briefings, training & exercises as required. <p>Response</p> <ul style="list-style-type: none"> • Provide a Liaison Officer to the NSW SES State Command or Incident Control Centre/s as required.

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Provide Incident Management personnel and Liaison Officers to the NSW SES where required; • Provision of land based & in water flood rescue operators as required.
NSW Department of Education, Association of Independent Schools of NSW, and National Catholic Education Commission	<p>Preparedness</p> <ul style="list-style-type: none"> • Liaise with the NSW SES 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); • Ensure that evacuation plans for flood liable schools have arrangements for flooding; and • Assist NSW SES with community engagement and capacity building programs. <p>Response</p> <ul style="list-style-type: none"> • Assist with the coordination of the evacuation of schools and the immediate welfare of students until returned to the appropriate carer; • Pass information to school bus drivers/companies and/or school principals on expected or actual impacts of flooding; and • Provide space in schools for evacuation centres where necessary.
NSW Department of Planning Industry and Environment (DPIE EES)	<p>Prevention</p> <ul style="list-style-type: none"> • . Oversee the delivery of the NSW Flood Prone Land Policy through the Floodplain Management Program. This includes technical support and financial assistance to councils including assistance with the identification of flood risks, the preparation and implementation of Floodplain Risk Management Plans and associated mitigation and management actions. DPIE EES also provide technical support to other agencies on flood risk management and understanding flood mitigation works including levees. • Work with the NSW SES on the Flood Data Access Program to improve the provision of flood information through the NSW Flood Data Portal; • Assist the DPIE Water in the preparation of rural floodplain management plans under the <i>Water Management Act 2000</i> (NSW); and • Provision of strategic technical advice to support floodplain risk management. <p>Preparedness</p> <ul style="list-style-type: none"> • Assist the NSW SES in the exercising of Flood Sub Plans;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Advise the NSW SES about conditions which may lead to coastal inundation or retarded river drainage near the coast. <p>Response</p> <ul style="list-style-type: none"> • Provide technical advice on flood risks to the NSW SES on request; and • Work with the relevant local council and NSW SES to collect flood related data during and after flood events. <p>Recovery</p> <ul style="list-style-type: none"> • Support recovery committees as required.
NSW Department of Planning Industry and Environment (Water)	<p>Prevention</p> <ul style="list-style-type: none"> • Department of Planning, Industry and Environment (Water) is responsible for the management of the state's surface water and groundwater resources and reports to the NSW Government for water policy and the administration of key water management legislation, including the <i>Water Management Act 2000</i> (NSW) and <i>Water Act 1912</i> (NSW) and corporate flood work licencing under the <i>Water Management Act 2000</i> (NSW); • Manage the approval process for controlled activities (works that have the potential to affect the quantity or flow of water in a water course) under the <i>Water Management Act 2000</i> (NSW); and • Develop rural Floodplain Management Plans under the Water Management Act 2000 (NSW) in partnership with the Department Planning, Industry and Environment. • Management of the state government's water level gauges for the flood warning network in tidal areas in NSW (Manly Hydraulic Laboratory (MHL) operates this system as a service provider on behalf of DPIE Water); • Provide advice to the NSW SES in relation to the operation of Hunter Valley Flood Mitigation Scheme;
NSW Food Authority	<p>The roles and responsibilities for NSW Food Authority are outlined in the Food Safety Emergency Sub Plan.</p>
NSW National Parks and Wildlife Services	<p>Preparedness</p> <ul style="list-style-type: none"> • Assist the NSW SES with identification of road infrastructure in National Parks at risk of flooding; <p>Response</p> <ul style="list-style-type: none"> • Close and reopen National Parks and Wildlife Service roads when affected by flood waters and advise the NSW SES of its status;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Facilitate the safe reliable access by emergency resources on National Parks and Wildlife Service managed roads; • Assist the NSW SES with the communication of warnings and information provision to the public through variable message signs and other appropriate means; and • Close and direct people to leave camping grounds at risk of flooding in NSW National Parks and Wildlife Service managed areas.
NSW Police Force	<p>Preparedness</p> <ul style="list-style-type: none"> • Participate in NSW SES briefings, training and exercises as required. <p>Response</p> <ul style="list-style-type: none"> • Provide a Liaison Officer to the NSW SES Operation Centre if required; • Provide Incident Management personnel and Liaison Officers to the NSW SES where required; • When requested by NSW SES, in flood operations when training and equipment are available and suitable; <ul style="list-style-type: none"> – Assist with warning and/or evacuation of at-risk communities; – Assist with monitoring / reconnaissance of flood prone areas; – Assist with flood rescue operations; • Conduct road and traffic control operations in conjunction with council and/or TfNSW; • Coordinate searches for missing people within flood affected areas; • Coordinate security of supply lines, evacuated and damaged areas. • Manage Disaster Victim Registration; and • Operate the Public Information and Inquiry Centre, if requested or otherwise needed during flood events. <p>Recovery</p> <ul style="list-style-type: none"> • Participate in After Action Reviews as required.
NSW Rural Fire Service	<p>Preparedness</p> <ul style="list-style-type: none"> • Participate in NSW SES briefings, training and exercises as required; and • Meet the agreed arrangements described in the NSW SES/NSW RFS Memorandum of Understanding. <p>Response</p>

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Provide a Liaison Officer to the NSW SES Operation Centre or Emergency Operations Centre as required; • Provide Incident Management personnel and Liaison Officers to the NSW SES where required; • Provide trained staff to support a joint intelligence unit, if established by NSW SES; • Provide aviation support, management and advice as requested through the State Air Desk; • Provide speciality aircraft and appropriately trained personnel to perform Down the Wire (DTW) functions as required; • Assist with Damage Assessments; and • Provide Strike Teams during flood operations when requested by NSW SES. This may include assistance with: <ul style="list-style-type: none"> – Warning and/or evacuation of at-risk communities; – Monitoring / reconnaissance of flood prone areas. – Property protection tasks including sandbagging; – Pumping flood water out of buildings and from low-lying areas; – Back-up radio communications; – Clean-up operations, including the hosing out of flood affected properties while avoiding silt and debris entering the storm water system; – Deploying resources to communities within Rural Fire Districts where access is expected to be lost in consultation with the NSW SES; – The resupply of isolated communities and/or properties; and – Decontamination of NSW SES Flood Rescue Operators as required. <p>Recovery</p> <ul style="list-style-type: none"> • Participate in After Action Reviews as required.
<p>NSW State Emergency Service</p>	<p>The NSW SES role for floods at the State level covers:</p> <p>Prevention</p> <ul style="list-style-type: none"> • Provide emergency management advice to councils and other agencies in relation to the management of land which is subject to flooding, coastal erosion, or coastal inundation in accordance with the Floodplain Development Manual and supporting FRM guidelines and Coastal Management Act;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Provide strategic input into land use planning matters, including advice related to process and input on Major Projects, State, Regional and Local Environmental Planning Policies, Development Control Plans; • Develop internal procedures, policy, and guidelines to support emergency risk management in land use planning; • Contribute to national and state policies and guidelines dealing with mitigation, floodplain and coastal risk management, land use planning and development assessment; • Ensure NSW SES representation at State Government committees and other forums dealing with mitigation, floodplain and coastal risk management, land use planning and development assessment; and • Provide advice, support, and technical resources for NSW SES representatives to contribute effectively on local Floodplain and Coastal Risk Management Committees. <p>Preparedness</p> <ul style="list-style-type: none"> • Maintain a State Command Centre at NSW SES State Headquarters. • Ensure NSW SES facilities and infrastructure are fit for purpose and are maintained to enable control of operations at the lowest effective level; • Maintain a strategic understanding of flood risk across the state and implement an emergency risk management framework that guides the Services risk management strategies for preparing and responding to communities at risk; • Identify emerging issues and trends across the state in relation to emergency management, those matters that impact response strategies in relation to property protection, warning, evacuation, rescue, and resupply; • Investigate, assess and where feasible apply new technologies and approaches to dealing with flood emergency management; • Develop and maintain flood intelligence systems for the full range of flood types and severities; • Provide coordination, oversight, technical advice and quality assurance in the preparation, maintenance and exercising of Flood Sub Plans; • Ensure that NSW SES Commanders and members are appropriately trained and equipped for their roles;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Ensure that appropriate supporting emergency services, functional areas, organisations, and officers are aware of and ready for tasks related to their agreed flood responsibilities; • Lead the development and conduct state-level multi-agency flood exercises. • Support the preparation, coordination and delivery of community engagement and capability building programs to assist communities in building resilience to floods; • Maintain coordination and visibility of operational readiness across the state, including the development of doctrine, plans, prewritten warnings, and intelligence; • Establish and maintain a flexible volunteer workforce to meet surge in demand during significant flood operations. • Establish a capability to utilise spontaneous volunteers during flood operations. • Ensure NSW SES representation at state government committees and other forums dealing with preparedness and response matters; • Lead and contribute to research initiatives regarding emergency management and floods; • Prepare systems for the communication of warnings and public information regarding flooding; • Define and continually review the State’s flood warning requirements in conjunction with the NSW and ACT Flood Warning Consultative Committee, councils, the owners of high-risk dams and flood-affected communities. • Coordinate Service input to Dam Emergency Plans and dam failure alert defining conditions for extreme and high consequence dams, and dams identified as high risk; • Maintain a dedicated dam failure hotline and procedures to ensure dam failure warnings are disseminated with priority and urgency. <p>Response</p> <p>i) Pre-Impact phase</p> <ul style="list-style-type: none"> • Upon receipt of advice from the Bureau of Meteorology regarding a potential for significant flooding; or other indication of potentially significant emergency (e.g. earthquake causing sunny day failure of a dam, or coastal inundation caused by long period waves), prepare to open the State Command Centre and/or Incident Control Centres • Notify the SEMC, functional areas (and supporting agencies) of the potential for flooding and a potential requirement for liaison officers.

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Establish a Strategic Command and Coordination team in the State Command Centre to provide support to the IMTs in the areas of operation; • Maintain a roster of staffing the NSW SES State Command Centre with appropriately trained personnel for the duration of the Response (pre-impact, impact, and post impact) phases and to facilitate the transition to Recovery; • Establish an Incident Management Team under the Australasian Inter-Agency Incident Management System (AIIMS) to support the area of operations; • Appoint an Incident Controller (Level 1, 2 or 3) for the area of operations according to the anticipated scale of response (typically this would be resourced in the first instance by controllers local to the area of impact) in accordance with the NSW SES Incident Management Policy; • Establish interagency support and activation of functional area supporting plans as required; • Advise the Chair of PIFAC of any weather event likely to result in significant multi-agency operational activity; and • Receive dam safety notifications and alerts via the dam failure hotline and disseminate as per standard operating procedures. <p>ii) Impact phase</p> <ul style="list-style-type: none"> • Conduct State Operations as per the NSW SES Incident Management Framework; • Operate a 24x7 Command Centre to manage the Service's 132 500 emergency assistance telephone number, dam failure hotline, state-wide radio communications, and rescue coordination; • Ensure that SEOCON and supporting emergency services and functional areas are briefed on flood operations; • When required, assist the IMT in the coordination of reconnaissance of areas likely to be affected by floods; • Provide support to the IMT in the dissemination of warnings through media, the NSW SES website and utilisation of Emergency Alert. Note these are to complement other local and regionally issued warnings. • Coordinate logistics support to the NSW SES and supporting emergency services and functional areas; • Provide an information service to support the information needs of a community during a flood;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Coordinate public information management strategies; • Assist councils to organise temporary repairs or improvements to flood mitigation works including levees. • Assist the Agriculture and Animals Services Functional area with fodder supply operations; • Maintain strategic situational awareness of flood risk and response across the state; • Depending upon the scale of the event establish a Joint Media Information Centre as near as is practicable to the areas affected by flooding; and • Provide operational updates incorporating the activities of supporting emergency services and functional areas to all agencies listed under this Plan and to all state level supporting operations centres and relevant members of parliament. <p>iii) Post-Impact phase</p> <ul style="list-style-type: none"> • Provide support to the response IMT to coordinate post-impact data collection for intelligence validation and damage assessment; • Provide an information service to support the information needs of a community immediately following a flood; • Provide information to Resilience NSW to support applications to Treasury for Natural Disaster Relief and Recovery Arrangements; • Provide support to the response IMT to coordinate immediate welfare support to evacuees where Welfare Services are not yet established; and • Provide an information service to support the information needs of a community immediately following a flood. <p>Recovery</p> <p>Note: The Recovery phase will often overlap with the response;</p> <ul style="list-style-type: none"> • Provide appropriate representation to the Recovery Committee for the duration of the response phase of an event and as agreed during the recovery phase; • Contribute to a response summary report with the State Emergency Operations Controller (SEOCN) for the information of the State Emergency Recovery Controller (SERCON), Recovery committee and/or Recovery Coordinator, outlining: • The emergency action plan in place at conclusion of the response, emphasising any actions that are incomplete;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Resources allocated to the emergency response and associated exit strategies; • An impact summary, noting any areas or situations with a potential to re-escalate the emergency; and • A recommendation for the cessation of response operations and transition to recovery operations. • Coordinate the conduct of After Action Reviews and debriefs of the response operation as soon as possible after the flooding has abated; and • Ensure that adequate arrangements are in place to record details of operational decision making and After-Action Reviews.
Owners of Declared Dams	<p>Preparedness</p> <ul style="list-style-type: none"> • Assist the NSW SES with community engagement programs; • Provide NSW SES with information necessary for response planning and warning distribution; • Assist the NSW SES identify correlations between water level and/or discharges at the dam for use in flood response operations (warning and evacuation); and • Consult with the NSW SES in the development of Dam Emergency Plans, including the development of dam failure alerts in accordance with Dams Safety NSW Guidelines; • Provide Dam Emergency Plans and spatial data to NSW SES. <p>Response</p> <ul style="list-style-type: none"> • Where water level monitoring or other instrumentation allows, provide NSW SES with flood advices as per pre-agreed thresholds for use in downstream flood response operations (warnings); • Notify NSW SES of potential or actual dam failures in accordance with the Dam Emergency Plan and Dams Safety NSW Guidelines; • Close at-risk camping grounds / recreational areas within their managed areas; • In the case of declared dams whose risks are intolerable, assist the NSW SES in planning to warn and evacuate people at risk of dam failure and maintain and operate any special Dam Failure Warning Systems and/or automatic telemetered monitoring devices to assist with early detection of incidents which are installed until such time that the risks have been lowered to an acceptable level; and <p>Owners of gated dams:</p>

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Provide all available information to the Bureau and the NSW SES on storage levels and actual and prospective water releases and their likely impacts on downstream river levels; • Advise the downstream community of prospective and actual water releases, except in those circumstances where the Bureau would issue flood warnings; and • Where possible actively work with NSW SES and the Bureau to reduce the impacts of flooding on communities through management of water releases within identified safe parameters and within statutory licencing provisions under the <i>Water Management Act 2000</i> and <i>Water NSW Act 2014</i>.
Public Information Services Functional Area (PIFAC)	<p>The roles and responsibilities for Public Information Services are outlined in the Public Information Services Supporting Plan.</p> <p>Roles and responsibilities in addition to the Supporting Plan are:</p> <ul style="list-style-type: none"> • On receipt of advice from NSW SES of any weather event likely to result in significant multi agency operational activity, the PIFAC determines if a daily multi-agency teleconference is required to ensure that the information needs of each agency are being met and to address any issues. These teleconferences continue through the response phase into the recovery phase.
Resilience NSW	<p>Prevention</p> <ul style="list-style-type: none"> • Provide support to the SEMC to administer the <i>State Emergency and Rescue Management Act 1989 (NSW)</i> and State Emergency Management Plan (EMPLAN); and • Administer grant funding to support flood and emergency risk management in NSW. <p>Preparedness</p> <ul style="list-style-type: none"> • Contribute to NSW SES reviews into plans, policies and procedures as required; and • Facilitates capability development for flooding through state level exercises and grants administration. <p>Response</p> <ul style="list-style-type: none"> • Support the State Emergency Operations Centre. <p>Recovery</p> <ul style="list-style-type: none"> • Host the role of SERCON • When required undertake recovery operations under direction of the SERCON;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Administer Disaster Relief Account; and • Participate in After Action Reviews as required.
SEOCN/SEOC	<p>Response</p> <ul style="list-style-type: none"> • Monitor flood operations • Consider requests for State or Commonwealth assistance • Coordinate the establishment of a Major Evacuation Centre in accordance with Major Evacuation Centre Guidelines • Facilitate requests for the Public Inquiry and Information Centre to be stood up • If requested, coordinate support to the NSW SES and/or other agencies
Surf Life Saving NSW	<p>Preparedness</p> <ul style="list-style-type: none"> • Contribute to NSW SES reviews into plans, policies and procedures as required; and • Participate in NSW SES briefings, training and exercises as required. <p>Response</p> <ul style="list-style-type: none"> • Assist the NSW SES with the warning and/or evacuation of at-risk communities; • Provide accommodation in Surf Life Saving facilities for evacuation centres where required; and • Assist the NSW SES with flood rescue operations, where training and equipment are suitable.
Telecommunications Services Functional Area	The roles and responsibilities for Telecommunications Services are outlined in the Telecommunications Services (TELCOPLAN) Supporting Plan.
Transport Services Functional Area	<p>The roles and responsibilities for Transport Services are outlined in the Transport Services Functional Area Supporting Plan.</p> <p>Roles and responsibilities in addition to the Supporting Plan are:</p> <ul style="list-style-type: none"> • Co-ordinate multi-agency operational planning and return to services for traffic and transport operations in the response and recovery stage.
VRA Rescue NSW	<p>Response</p> <ul style="list-style-type: none"> • Where requested by the NSW SES, assist in flood operations when training and equipment are available and suitable, including assistance with:

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> – The warning and/or evacuation of at-risk communities; – Flood rescue operations; – Monitoring / reconnaissance of flood prone areas; – Resupply of isolated communities and/or properties; and – Property protection tasks including sandbagging.
Water NSW	<p>In addition to responsibilities for Owners of Declared Dams:</p> <p>Preparedness</p> <ul style="list-style-type: none"> • Management of the state government’s water level gauges for the flood warning network in non-tidal areas in NSW. • Provide to the NSW SES and the Bureau: <ul style="list-style-type: none"> – Flow rating charts for river height gauges; – Real-time or near real-time access to river height gauges and height data for the development of official flood warnings; and – Real-time or near real-time advice and information from dams and hydrometeorological stations during floods; and • Provide NSW SES with information about new gauge locations; • Collect and maintain flood data including data relating to flood heights, velocities, and discharges; • Consult with the FWCC which includes the NSW SES and the Bureau prior to changes to gauge locations and datum; • Maintain Water NSW Flood Incident Management Protocols; and • Water NSW is responsible for managing non-corporate flood work licencing under the <i>Water NSW Act 2014</i>, <i>Water Management Act 2000</i>. <p>Response</p> <ul style="list-style-type: none"> • Close and evacuate camping grounds/recreational areas at risk of flooding in Water NSW managed areas; and • Convene a regular briefing with the Bureau of Meteorology, Water NSW dam operators and NSW SES in the pre-flood stage and during flood operations or other incidents to enable the rapid exchange of information between agencies.
Welfare Services Functional Area	<p>The roles and responsibilities for Welfare Services are outlined in the Welfare Services Functional Area Supporting Plan.</p> <p>Preparedness</p> <ul style="list-style-type: none"> • Support the LEMC in the audit of evacuation centre sustainability. •

AGENCY	RESPONSIBILITIES
	<p data-bbox="491 271 619 300">Response</p> <ul data-bbox="491 327 1474 398" style="list-style-type: none"> <li data-bbox="491 327 1474 398">• Establish and manage evacuation centres and provide immediate assistance to impacted individuals with no other means of support. <p data-bbox="491 423 619 452">Recovery</p> <ul data-bbox="491 461 1321 490" style="list-style-type: none"> <li data-bbox="491 461 1321 490">• When requested establish evacuation and recovery centres.