



NEW SOUTH WALES STATE FLOOD PLAN

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

Endorsed by the State Emergency Management Committee

1 March 2018

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Proposals for amendment to this plan are to be forwarded to:

Manager, Emergency Risk Management Branch, NSW State Emergency Service, PO Box 6126, Wollongong , NSW, 2500.

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 tsunamis) overtopping coastline defences.
- 1.4.3 The arrangements for dealing with episodes of coastal erosion by severe weather, are described in the New South Wales State Storm Plan.
- 1.4.4 The arrangements for the emergency management of tsunamis are dealt with in the State Tsunami Emergency Sub Plan.
- 1.4.5 This plan outlines the high level arrangements for the management of downstream consequences of 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 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 and 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; and
 - 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 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 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 Operations 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:
- a. Ensuring that all supporting emergency services and functional areas, organisations and officers mentioned in it are aware of their roles and responsibilities;
 - b. Conducting exercises to test arrangements;
 - c. Reviewing the contents of the plan:
 - 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 after action reviews, reports or inquiries; and
 - As determined by the NSW SES Commissioner.
- d. The plan is to be reviewed no less frequently than every five years.

1.9 SUPPLEMENTARY DOCUMENTS

1.9.1 Supplementary material published in previous versions of the State Flood Plan is now maintained on the NSW SES website at:

<https://www.ses.nsw.gov.au/about-us/flood-storm-and-tsunami-plans/> including:

- a. The Flood Hazard and Risk in NSW;
- b. The Requirements for the NSW Flood Warning Gauge Network;
- c. State Flood Plan Glossary;
- d. NSW SES Resupply Flowchart; and
- e. NSW River Basin Maps.

2 OVERVIEW OF NSW FLOOD HAZARD AND RISK

2.1 THE FLOOD THREAT

2.1.1 The NSW 2017 State Level Emergency Risk Assessment (SLERA) classifies flood as a priority hazard that poses a significant risk to the State. The identified scenario (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** is 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 that are listed in Schedule 1 of the *Dams Safety Act 1978* (NSW) are known as prescribed dams. The Dam Safety Committee guidelines outline the requirements for dam safety management in NSW. A new *Dams Safety Act 2015* (NSW) and regulations are currently under development.

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 Documentation ([Section 1.9](#)).
- 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 prescribed 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 and storm surges.

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. 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 financial 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 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 Documentation (see [Section 1.9](#)).

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 Lands 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, p.1).
- 3.1.3 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.
- 3.1.4 The NSW SES works with the community to assist them in building their own resilience with the aim of risk avoidance in respect of flood, storm and tsunami.

3.2 LAND USE PLANNING

- 3.2.1 **Strategy:** Work with land use planning and consent authorities to advocate that the risks arising from flood, storm and tsunami are considered so as 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 flood risk;
 - b. Provide coordinate response on land use planning proposal referrals that have or will create significant flood risk;

- c. Contribute to nation 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 the recognition of emergency management considerations through participation in the floodplain risk 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 Government committees and at other forums (e.g. Floodplain Management Australia) dealing with mitigation and floodplain risk management; and
- d. Provide advice, support and technical resources 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 Plans as required. Local Flood 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 for flood are not required for communities covered by SES Regional and Local Flood Plans.

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 Flood Warning Consultative Committee advises and reports to the Bureau of Meteorology (the Bureau). 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, NSW OEH, NSW Water; ACT SES; NSW Office of Water, 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 Manual 21 of the Australian Disaster Resilience Handbook Collection);
- 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. 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 Documentation ([Section 1.9](#));
- e. The State Government in partnership with Local Government, is responsible for developing and maintaining flash flood warning systems for local catchments where required;
- f. All levels of government work in partnership to develop and maintain flood warning infrastructure;
- g. Dam Owners will provide Dam Failure Warning Systems (where required) and consult NSW SES on messaging;
- h. NSW SES will develop and maintain warning and flood information products by:
 - Utilising flood intelligence data;
 - Developing pre-written warning and flood information products;
 - Continuously reviewing warning and flood information products; and
 - Consulting with affected communities, key stakeholders, the Dam Safety Committee and the NSW Flood Warning Consultative Committee; and
- i. NSW SES will maintain 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 familiar with the strategies and arrangements within the Flood 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 train personnel for their expected flood operation roles; and
- d. NSW SES will regularly brief and exercise the arrangements contained in the Flood Sub-Plan with stakeholders.

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. Work with 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. 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.

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.
- 5.1.2 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 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, with reference to SES Local Flood Plans or SES Regional Plans in accordance with the principles of AIIMS.
- 5.2.3 **Strategy:** Maintain a single strategic command and control centre.
- 5.2.4 **Actions:**
- a. The NSW SES will operate a 24/7 State Operations Centre to enable agencies and the public to contact the NSW SES; and
 - b. The NSW SES State Operations 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 Operations Centre and/or Emergency Operation Centres as required; and
 - b. The NSW SES State Duty Operations Controller (SDOC) will ensure consultation with the State Emergency Operations Controller (SEOC) and SEOC is ongoing throughout response operations.
- 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 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.

5.3 USE OF INFORMATION AND COLLECTION OF INTELLIGENCE

5.3.1 **Strategy:** Ensure flood information is effectively communicated and collected during 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, this may be in the form of a combined 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.

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

5.3.4 **Action:** The NSW SES will use flood intelligence and official forecasts and warnings, 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 with reference to heavy rainfall
 - Regional Severe Thunderstorm Warnings with reference to heavy rainfall
 - Detailed Severe Thunderstorm Warnings (for Sydney / Newcastle / Wollongong) with reference to heavy rainfall,
 - 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 Dam Failure Warning Systems 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 will provide alerts and deliver flood information to affected communities using a combination of some of the following methods:
 - Mobile and fixed public address systems;
 - Two-way radio;
 - Emergency Alert (SMS and voice message alerting system);
 - Telephony (including Auto dial systems);
 - Facsimile
 - Standard Emergency Warning Signal;
 - Doorknocking;
 - Mobile and fixed sirens;
 - Variable message signs;
 - Community notices in identified hubs;
 - Distribution through established community liaison networks, partnerships and relationships; and
 - NSW SES social media and website.

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 and where feasible) in:
 - a. The protection of properties through flood protection systems (e.g. sandbagging) to minimise entry of water into buildings; and

- b. The lifting 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 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 and utility services.

5.6.3 **Actions:**

- a. Transport Services Functional Area will keep the NSW SES informed of the status of transport 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 Government Radio Network;
- d. The Engineering Services Functional Area is to coordinate the assessment and restoration of critical public buildings for example hospitals; and
- e. Functional Areas 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 located in NSW SES Local Flood 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;
 - Time available for evacuation;
 - Evacuee management requirements; and
 - Resources and delivery of evacuation information; and
- d. NSW SES Incident Controllers, and flood planners will carefully consider the risks involved in conducting evacuations;
- e. All evacuation decisions will be made as per the NSW SES Communication and Dissemination of Evacuation Decisions Standard Operating Procedure;
- f. Evacuation operations are to be consistent with the NSW Evacuation Management Guidelines;
- g. The NSW SES Incident Controller will warn communities to prepare for a possible evacuation, where circumstances allow such lead time;
- h. The NSW SES Incident Controller 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. In these cases the NSW SES will brief the Welfare Services Functional Area at the earliest opportunity regarding the 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:** Coordinate maintenance of food supplies for flood affected communities.

5.8.7 **Actions:**

- a. All matters relating to the primary production, manufacturing, processing and handling of all food from primary industries to retail, inclusive of all restaurants, food services and catering businesses should be referred to the NSW Food Authority through the Agriculture and Animal Services Functional Area.

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

5.8.9 **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 assist with 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 deliver 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.

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 impact on the following:
 - Access and egress;
 - Communications;
 - Power supply;
 - Gas supply;
 - Infrastructure damage;
 - Hazardous materials; and
 - Public health risks; and
- 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:

- The physical impact of the flood has ceased;
- All requests for assistance related to the flood have been completed;
- The need for warning and evacuation no longer exist;
- There is no further prospect 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 ensure that damage assessment information is provided to the SEOCON or relevant Emergency Operations Controller to inform the recovery impact assessment;
- c. NSW SES will conduct After Action Reviews, wherever possible, within three weeks of the end of response operations, which will involve all stakeholders. Findings will be shared and incorporated into improved disaster resilience planning;
- d. NSW SES will provide a response summary report to the SEOCON to inform the response to recovery handover from the SEOCON to the SERCON. The response summary report should outline:
 - 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 end of response operations and handover to recovery operations; and
 - Any actions that are incomplete or outstanding; and

- e. 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 work with Office of Environment and Heritage and relevant Council(s) 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 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 through its community engagement personnel;
 - 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 Office of Emergency Management 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 will assist with clean-up operations after floods where possible.

7 ABBREVIATIONS

AIIMS	Australasian Inter-service Incident Management System
AEP	Annual Exceedance Probability
Bureau	Australian Government Bureau of Meteorology
EMPLAN	Emergency Management Plan
EOCON	Emergency Operations Controller
IAG	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
OEH	Office of Environment and Heritage
OEM	Office of Emergency Management
PPRR	Prevention, Preparation, Response and Recovery
RMS	Roads and Maritime Services
SDOC	State Duty Operations Controller
SEMC	State Emergency Management Committee
SEOC	State Emergency Operations Centre
SEOCON	State Emergency Operations Controller
SERCON	State Emergency Recovery Controller
SEWS	Standard Emergency Warning Signal
SLERA	State Level Emergency Risk Assessment
SOC	State Operations Centre

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 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.

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 Operations Controller (SDOC). 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 Operations Controller 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 – Financial, welfare and damage assessment assistance to flood affected primary producers. • Support recovery arrangements including: <ul style="list-style-type: none"> – Administer transport subsidies to 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

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> Formulate, issue and publish official forecasts and warnings and include NSW SES safety messages within warnings.
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 Sub-Plans.
Department of Industry (Crown Lands and Water Division)	<p>Prevention</p> <ul style="list-style-type: none"> Department of Industry 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 <i>Water Management Act 2000</i> (NSW) in partnership with the NSW Office of Environment and Heritage.
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.
Engineering Services Functional Area	<p>The roles and responsibilities for Engineering Services are outlined in the Engineering Services Supporting Plan.</p>
Environmental Services Functional Area	<p>The roles and responsibilities for Environmental Services are outlined in the Environmental Services (ENVIROPLAN) Supporting Plan.</p>
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 (within Fire Districts (13) or hazardous materials that pose a significant

AGENCY	RESPONSIBILITIES
	<p>threat to surrounding populations due to the impact of a flood for incorporation into NSW SES flood intelligence and planning; and</p> <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; • 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; • Assist with clean-up operations, including the hosing out of flood affected properties; • 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

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Coordinate the deployment of the NSWFR Hightrans Pump to locations in consultation with NSW SES. <p>Recovery</p> <ul style="list-style-type: none"> • 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; • 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.
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 Office of Environment and Heritage, 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 off-shore 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 Flood Warning Consultative Committee (FWCC) which includes the NSW SES and the Bureau, prior to changes to gauge locations and datum.

AGENCY	RESPONSIBILITIES
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 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; • 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 National Parks and Wildlife Service managed areas.
NSW Ambulance	<p>The roles and responsibilities for NSW Ambulance are outlined in the Health Services (HEALTHPLAN) Supporting Plan.</p>
NSW Dams Safety Committee (Dam Safety NSW)	<p>Preparedness</p> <ul style="list-style-type: none"> • Maintain a list of prescribed dams and their risk status and provide to NSW SES State Headquarters when updated; and • Provide a chair for the Dam Safety Committee Emergency Subcommittee. • Jointly conduct Dam Failure exercises and workshops with NSW SES and dam owners. <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.

AGENCY	RESPONSIBILITIES
NSW Department of Education, Association Of Independent Schools, and 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 Food Authority	<p>The roles and responsibilities for NSW Food Authority are outlined in the Food Industry Emergency Sub Plan.</p>
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; • 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 RMS; • 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.

AGENCY	RESPONSIBILITIES
	<p>Recovery</p> <ul style="list-style-type: none"> Participate in After Action Reviews as required.
<p>NSW Rural Fire Service</p>	<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> <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 when requested; 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 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; 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.

AGENCY	RESPONSIBILITIES
NSW Volunteer Rescue Association	<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: <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.
NSW Office of Environment and Heritage	<p>Prevention</p> <ul style="list-style-type: none"> • Oversee the delivery of the NSW Flood Prone Land Policy including financial support through the Floodplain Management Program. Provide technical advice to councils and state agencies including assistance with the identification of risks, the preparation and implementation of Floodplain Risk Management Plans and associated mitigation and management actions, and understanding flood mitigation schemes 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 DoI-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 and environmental water management in rural areas of the Murray Darling Basin. <p>Preparedness</p> <ul style="list-style-type: none"> • Assist the NSW SES in the exercising of Flood Sub Plans; • Management of the state government’s water level gauges for the flood warning network in tidal areas in NSW (Manly Hydraulic Laboratory operates this system as a service provider on behalf of OEH); • Provide advice to the NSW SES in relation to the operation of Hunter Valley Flood Mitigation Scheme; and • 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 related advice on flood risks to the NSW SES on request; and

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • 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.
<p>Office of Emergency Management</p>	<p>Prevention</p> <ul style="list-style-type: none"> • Administer the <i>State Emergency and Rescue Management Act 1989</i> (NSW) 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"> • Display, wherever practicable, the Bureau weather and flood warnings without change on the NSW Office of Emergency Management website; and • Support the State Emergency Operations Centre. <p>Recovery</p> <ul style="list-style-type: none"> • When required undertake recovery operations under direction of the SERCON; • When requested establish evacuation and recovery centres; • Administer Disaster Relief Account; and • Participate in After Action Reviews as required.
<p>Owners of Prescribed Dams</p>	<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 State Headquarters in the development of Dam Safety Emergency Plans, including the development of dam failure alerts, in accordance with the Dam Safety Committee Guidelines.

AGENCY	RESPONSIBILITIES
	<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 Safety Emergency Plan and Dam Safety Committee Guidelines; • In the case of prescribed 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> <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>.
<p>Public Information Services Functional Area</p>	<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.
<p>SEOCN/SEOC</p>	<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

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • 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
NSW State Emergency Service	<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 Coastal Management Act; • Provide strategic input into landuse 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 landuse planning; • Contribute to national and state policies and guidelines dealing with mitigation, floodplain and coastal risk management, landuse planning and development assessment; • Ensure NSW SES representation at State Government committees and other forums dealing with mitigation, floodplain and coastal risk management, landuse 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 Operations 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, in particular those matters that impact response strategies in relation to property protection, warning, evacuation, rescue and resupply;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • 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 Controllers and members are appropriately trained and equipped for their roles; • 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 capacity 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 capacity 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 Flood Warning Consultative Committee, councils, the Dam Safety Committee, the owners of high risk dams and flood-affected communities; • Coordinate Service input to Dam Safety Emergency Plans and dam failure alert defining conditions for extreme and high consequence dams, and dams identified as high risk by the Dam Safety Committee, in consultation with the relevant NSW SES Region;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • 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 (eg earthquake causing sunny day failure of a dam, or coastal inundation caused by long period waves), prepare to open the State Operations Centre. • Notify the SEMC, functional areas (and supporting agencies) of the potential for flooding and a potential requirement for liaison officers. • Establish a Strategic Command and Coordination team in the State Operations Centre to provide support to the IMTs in the areas of operation; • Maintain a roster of staffing the NSW SES State Operations 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 Operations Centre to manage the Service’s 132 500 emergency assistance telephone number, dam failure hotline, state-wide radio communications, and rescue coordination;

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • 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; • Coordinate public information management strategies; • Assist councils to organise temporary repairs or improvements to 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 Office of Emergency Management 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.

AGENCY	RESPONSIBILITIES
	<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: <ul style="list-style-type: none"> • The emergency action plan in place at conclusion of the response, emphasising any actions that are incomplete; • 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 handover 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.
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 .

AGENCY	RESPONSIBILITIES
Transport Services Functional Area	<p>The roles and responsibilities for Transport Services are outlined in the Transport Services Supporting Plan.</p> <p>Roles and responsibilities in addition to the Supporting Plan are:</p> <ul style="list-style-type: none"> • Participate in risk management studies; • Assist the NSW SES to identify transport infrastructure at risk of flood damage for incorporation into planning and intelligence; and • Coordinate the provision of traffic and transport operations as consistent with the roles of Transport organisations.
Water NSW	<p>In addition to responsibilities for Owners of Prescribed 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 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 (written and via teleconference) 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>