

Yass Valley

Local Flood Plan

YASS VALLEY FLOOD EMERGENCY SUB PLAN

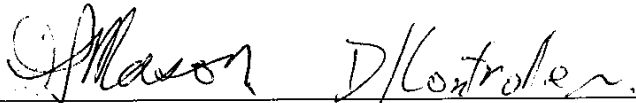
**A Sub-Plan of the Yass Valley Local Emergency Management Plan
(EMPLAN)**

Volume 1 of the Yass Valley Local Flood Plan

AUTHORISATION

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


Recommended



NSW SES Yass Local Controller

Date: 21.6.13.

Approved



Chair, Local Emergency Management Committee

Date: 24.6.2013

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DISTRIBUTION LIST

Recipient	Number of copies
NSW SES Yass Local Controller	1
NSW SES Yass Unit	1
NSW SES Southern Highlands Region Headquarters	1
NSW SES State Headquarters	1
Yass Valley Council, Local Emergency Operations Controller	1
Yass Valley Council, Local Emergency Management Committee Members	4
Yass Valley Council, Local Emergency Management Officer	1
Yass Valley Council, Local Emergency Operations Centre	1
Yass Valley Council, Mayor	1
Yass Valley Council, General Manager	1
Yass Valley Council, Operations Division	1
NSW Police Force, Goulburn Local Area Command	1
NSW Police Force, Yass	1
Fire and Rescue NSW, Yass	1
Rural Fire Service, Southern Tablelands Zone and Yass Fire Control Centre	1
Ambulance Service of NSW, Yass	1
Volunteer Rescue Association, Binalong Rescue Squad	1
Office of Environment and Heritage	1
NSW Department of Primary Industries, Yass	
Apex Homes Incorporated, Yass	1
Telstra Country Wide, South East NSW Office, Goulburn	
Country Energy, South East Region Office, Queanbeyan	
State Waters, Burrinjuck Dam	
Evacuation Centres	1 each
Yass District Hospital	1
Schools	1 each
Caravan Parks	1 each
Yass Library	1
Total	

VERSION HISTORY

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

Description	Date
Yass Valley Local Flood Plan endorsed	2004

AMENDMENT LIST

Suggestions for amendments to this plan should be forwarded to:

The Yass Local Controller
NSW State Emergency Service
PO Box 394 Yass NSW 2582

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

Amendment Number	Description	Updated by	Date

Document Issue: V28112012

LIST OF ABBREVIATIONS

The following abbreviations have been used in this plan:

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

PMR	Private Mobile Radio
PMP	Probable Maximum Precipitation
RFS	Rural Fire Service
RMS	Roads and Maritime Services
SEOCN	State Emergency Operations Controller
SERCON	State Emergency Recovery Controller
NSW SES	NSW State Emergency Service
SEWS	Standard Emergency Warning Signal
VRA	Volunteer Rescue Association

GLOSSARY

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

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

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

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

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

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

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

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

- **Flood Induced Dam Failure:** Dam failure caused by flood, either due to overtopping erosion or by subsequent structural failure.
- **Sunny Day Dam Failure:** Dam Failure as a result of factors other than flood ie other than flood flow into the reservoir. Causes of "Sunny Day" dam failure can include internal erosion, landslide, piping, earthquake or sabotage.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Flood of record. Maximum observed historical flood.

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

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

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

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

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

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

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

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

- Agriculture and Animal Services;
- Energy and Utility Services;
- Engineering Services;
- Environmental Services;
- Health Services;
- Public Information Services;
- Telecommunication Services;
- Transport Services; and
- Welfare Services.

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

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

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

Inundation. See definition for Flood.

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

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

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

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

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

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

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

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

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

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

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

PART 1 - INTRODUCTION

1.1 PURPOSE

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

1.2 AUTHORITY

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

1.3 AREA COVERED BY THE PLAN

- 1.3.1 The area covered by the plan is the Yass Valley Council area which includes: the villages of Binalong, Bookham, Bowning, Gundaroo, Murrumbateman, Sutton, Wee Jasper and Yass, together with the localities on the shores of Lake Burrinjuck. These localities are Burrinjuck Village, Good Hope Tourist Resort, Hume Park Tourist Resort, Burrinjuck Waters Leisure Resort and Burrinjuck Waters State Park.
- 1.3.2 The council area and its principal rivers and creeks are shown in Attachment 3.
- 1.3.3 The council area is in the NSW SES Southern Highlands Region and for emergency management purposes is part of the Southern Highlands Emergency Management Region.

1.4 DESCRIPTION OF FLOODING AND ITS EFFECTS

- 1.4.1 The SES maintains information on the nature of flooding and effects of flooding on the community in the Yass Valley Council area.

1.5 RESPONSIBILITIES

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

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

Preparedness

- a. Maintain a Local Headquarters at Laidlaw Street, Yass 2582 in accordance with the SES Controllers' Guide and the SES Operations Manual.
- b. Ensure that SES members are trained to undertake operations in accordance with current policy as laid down in the SES Controllers' Guide and the SES Operations Manual.
- c. Coordinate the development and operation of a flood warning service for the community.
- d. Participate in floodplain risk management initiatives organised by the Yass Valley Council.
- e. Coordinate a public education program.
- f. Identify and monitor people and/or communities at risk of flooding.
- g. Ensure that the currency of this plan is maintained.

Response

- h. Appoint an appropriate Incident Controller to undertake response roles. The Incident Controller will:
- i. Control flood and storm response operations. This includes:
 - Directing the activities of the SES units operating within the council area.
 - Coordinating the activities of supporting agencies and organisations and ensuring that liaison is established with them.
 - Contribute to preparation of Region IAP.
- j. Provide an information service in relation to:
 - Flood heights and flood behaviour.
 - Road conditions and closures.
 - Advice on methods of limiting property damage.
 - Confirmation of evacuation warnings and evacuation orders.
- k. Direct the conduct of flood rescue operations.
- l. Direct the evacuation of people and/or communities.
- m. Provide immediate welfare support for evacuated people.
- n. Coordinate the provision of emergency food and medical supplies to isolated people and/or communities.
- o. Coordinate operations to protect property, for example by:

- Arranging resources for sandbagging operations.
 - Lifting or moving household furniture.
 - Lifting or moving commercial stock and equipment.
- p. Arrange for support (for example, accommodation and meals) for emergency service organisation members and volunteers assisting them.
- q. Ensure that the managers of caravan parks are advised of flood warnings and the details of any evacuation order.
- r. If SES resources are available, assist with emergency fodder supply operations conducted by Agriculture and Animal Services.
- s. If SES resources are available, assist the NSW Police Force, RMS and Council with road closure and traffic control operations.
- t. Exercise financial delegations relating to the use of emergency orders as laid down in the SES Controllers' Guide.
- u. Coordinate the collection of flood information for development of intelligence.
- v. Submit Situation Reports to The SES Southern Highlands Region Headquarters and agencies assisting within the council area. These will contain information on:
- Road conditions and closures.
 - Current flood behaviour.
 - Current operational activities.
 - Likely future flood behaviour.
 - Likely future operational activities.
 - Probable resource needs.
- w. Keep the Local Emergency Operations Controller advised of the flood situation and the operational response.
- x. Issue the 'All Clear' when flood operations have been completed.

Recovery

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

1.5.3 Yass SES Unit Members:

- a. Carry out flood response tasks. These may include:
- The management of The Yass Unit Headquarters Operations Centre.
 - Assist in the collection of flood information for the development of intelligence.

- Flood rescue.
 - Evacuation.
 - Providing immediate welfare for evacuated people.
 - Delivery of warnings and information.
 - Resupply.
 - Sandbagging.
 - Lifting and/or moving household furniture and commercial stock.
 - Animal rescue.
 - Assisting with road closure and traffic control operations.
 - Assisting with emergency fodder supply operations.
- b. Assist with preparedness activities.
- c. Undertake training in flood and storm response operations.
- 1.5.4 **Agriculture and Animal Services Functional Area**
- a. When requested by NSW SES:
- Activate the Agriculture and Animal Services Supporting Plan as required and coordinate the provision of required services which may include:
 - Supply and delivery of emergency fodder.
 - Coordinate the management of livestock and farm animals.
 - Advice on dealing with dead and injured farm animals.
 - Financial, welfare and damage assessment assistance to flood affected farmers.
 - Operation of animal shelter compound facilities for the domestic pets and companion animals of evacuees.
- 1.5.5 Forestry Corporation of NSW
- Close and evacuate at risk camping grounds in Forestry Corporation of NSW managed areas.
- 1.5.6 The **Ambulance Service of NSW, Yass:**
- a. Assist with the evacuation of at risk communities (in particular elderly and/or infirm people).
- b. Consider deploying ambulance resources to appropriate locations if access is expected to be lost.
- c. Assist the SES with flood rescue operations.
- 1.5.7 **Australian Government Bureau of Meteorology (The Bureau):**
- a. Provide Flood Watches for the Murrumbidgee River Basin.
- b. Provide severe weather warnings when flash flooding is likely to occur.

1.5.8 Apex Homes Incorporated, Board members, Yass:

- a. Advise the SES of any high dependency residents in the Apex Homes who may require specialist assistance during an evacuation.
- b. Assist with the evacuation of the Apex homes.

1.5.9 Burrinjuck Dam (State Water Corporation):

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

1.5.10 Caravan Park Proprietor(s):

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

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

1.5.11 **Child Care Centres and Preschools:**

- a. Childcare Centres are to be contacted by the SES in the event of possible flooding or isolation.
- b. When notified the child care centres and preschools should:
 - Liaise with the SES and arrange for the early release of children whose travel arrangements are likely to be disrupted by flooding and/or road closures.
 - Assist with coordinating the evacuation of preschools and child care centres.

1.5.12 **Office of Environment and Heritage:**

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

- Coordinate the collection of post event flood data, in consultation with the NSW SES.
- Provide advice to the SES about conditions which may lead to coastal flooding or retarded river drainage near the coast.
- Collect and maintain flood data relating to flood heights, velocities and discharges in coastal areas of NSW (through a contract with MHL as discussed separately).
- Provide data to the Bureau of Meteorology and SES real-time or near real-time access to river height gauges and height data for the development of official flood warnings (through a contract with MHL as described in the Response section of this plan).

c. **National Parks and Wildlife Service**

- Close and evacuate at risk camping grounds in National Parks managed areas.

1.5.13 **Energy and Utility Services Functional Area:**

a. When requested by NSW SES:

- Implement the Energy and Utilities Services Functional Area Supporting Plan.
- Where required, coordinate energy and utility services emergency management planning, preparation, response and recovery, including the restoration of services following a flood event.
- Coordinate advice to the SES of any need to disconnect electricity, gas, water or wastewater services.
- Assist the SES to identify infrastructure at risk of flooding for incorporation into planning and intelligence.
- Identify interdependencies between flooding and utility services due to secondary impacts of flooding and advise the NSW SES.
- Assist the SES with advisory notices relating to hazards from utility services during flooding.
- Coordinate with utilities on restoration of services, including advisory notices relating to estimated time for restoration and mandatory safety checks prior to reconnection. Advise the SES and the relevant recovery committee and coordinator of the timetable for restoration.

1.5.14 **Local Providers (electricity, gas, water, waste water) Essential Energy:**

- a. Provide advice to the SES Yass Local Controller of any need to disconnect power/gas/water/waste water supplies or of any timetable for reconnection.
- b. Advise the SES of any hazards from utility services during flooding.

- c. Advise the public with regard to electrical hazards during flooding and to the availability or otherwise of the electricity supply.
- d. Clear or make safe any hazard caused by power lines or electrical reticulation equipment.
- e. Inspect, test and reconnect customers' electrical/ gas/ water/waste water installations as conditions allow.
- f. Assist the SES to identify infrastructure at risk of flooding for incorporation into planning and intelligence.

1.5.15 Engineering Services Functional Area:

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

1.5.16 Environmental Services Functional Area:

- a. When requested by NSW SES:
 - Implement the Environmental Services Functional Area (Enviroplan) Supporting Plan if required.
 - Activate the Hazmat/CBR Emergency Sub Plan if required.

1.5.17 Fire and Rescue NSW, Yass:

- a. Assist the SES with the delivery of evacuation warnings and evacuation orders.
- b. Assist the SES with the conduct of evacuations.
- c. Provide equipment for pumping flood water out of buildings and from low-lying areas.
- d. Assist with clean-up operations, including the hosing out of flood affected properties.
- e. Consider the deployment of fire resources to appropriate locations if access is expected to be lost.

1.5.18 Health Services Functional Area:

- a. When requested by NSW SES:
 - Activate Healthplan if required.
 - Ensure that appropriate business continuity plans are developed for essential health infrastructure and are activated during floods.
 - Provide medical support to the NSW SES.
 - Establish health surveillance in affected areas.
 - Assess potential public health risks that either acutely endanger the health of human populations or are thought to have longer term consequences.
 - Provide environmental health advice.
 - Provide public health warnings and advice to affected communities.
 - Assist the SES with the warning and evacuation of hospitals.

1.5.19 NSW Office of Water

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

1.5.20 NSW Police Force, Goulburn Local Area Command (LAC):

- a. Assist the SES with the delivery of evacuation warnings and evacuation orders.
- b. Assist the SES with the conduct of evacuation operations.
- c. Conduct road and traffic control operations in conjunction with council and/or RMS.

-
- d. Coordinate the registration of evacuees.
 - e. Secure evacuated areas.
- 1.5.21 **NSW Rural Fire Service (RFS Southern Tablelands Zone):**
- a. Provide personnel in rural areas and villages to:
 - Inform the SES Yass Local Controller about flood conditions and response needs in their own communities, and
 - Disseminate flood information.
 - b. Provide personnel and high-clearance vehicles for flood related activities.
 - c. Assist the SES with the delivery of evacuation warnings and evacuation orders.
 - d. Assist the SES with the conduct of evacuations.
 - e. Provide equipment for pumping flood water out of buildings and from low-lying areas.
 - f. Assist with the removal of caravans.
 - g. Assist with clean-up operations, including the hosing of flood affected properties.
- 1.5.22 **Public Information Services Functional Area:**
- a. When requested by NSW SES:
 - Assist the SES in the establishment and operation of a Joint Media Information Centre.
- 1.5.23 **Rail Corporation New South Wales and the Australian Rail Track Corporation will:**
- Close and reopen railway lines affected by flood waters and advise the NSW SES.
- 1.5.24 **Roads and Maritime Services will:**
- Close and reopen the Hume Highway, Barton Highway, Lachlan Valley Way, and Burley Griffin Way when affected by flood waters and advise the SES of their status.
 - Facilitate the safe reliable access of emergency resources on RMS managed roads.
 - Assist the SES with identification of road infrastructure at risk of flooding.
 - Manage traffic.
 - Assist the SES with the communication of warnings and information provision to the public through variable message signs.

- 1.5.25 **School Administration Offices (including Catholic Education Office Diocese of Canberra-Goulburn, Department of Education & Communities Illawarra and South East Region and Private Schools):**
- a. Liaise with the 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).
 - b. Pass information to school bus drivers/companies and/or other schools on expected or actual impacts of flooding.
 - c. Assist with coordinating the evacuation of schools when flooding or isolation is expected to occur
 - d. Provide space in schools for evacuation centres where necessary.
- 1.5.26 **Telecommunication Services Functional Area:**
- a. When requested by NSW SES:
 - Coordinate the restoration of telephone facilities damaged by flooding.
 - Coordinate additional telecommunications support for the SES Headquarters as required.
 - Assist the SES to identify infrastructure at risk of flooding for incorporation into planning and intelligence.
- 1.5.27 **Transport Services Functional Area:**
- a. When requested by NSW SES:
 - Assist with the coordination of transport for evacuation purposes.
 - Assist with the resupply of isolated communities and/or properties
- 1.5.28 **Welfare Services Functional Area:**
- a. When requested by NSW SES:
 - Establish and manage evacuation centres, and provide disaster welfare services from recovery centres.
- 1.5.29 **Volunteer Rescue Association (VRA), Binalong:**
- a. Assist The SES Yass Local Controller with flood operations, where equipment and training are suitable.
- 1.5.30 **Yass Valley Local Emergency Operations Controller (LEOCON):**
- a. Monitor flood operations.
 - b. Coordinate support to The SES Yass Local Controller if requested to do so.

1.5.31 **Yass Valley Local Emergency Management Officer:**

- a. Provide executive support to the LEMC and LEOCON in accordance with the Yass Valley Local Emergency Management Plan.
- b. At the request of the SES Yass Local Controller, advise appropriate agencies and officers of the start of response operations.

1.5.32 **Yass Valley Council:**

Preparedness

- a. Establish and maintain floodplain risk management committees and ensure that key agencies are represented on such committees.
- b. Provide levee studies, flood studies, and floodplain management studies to the NSW SES.
- c. Maintain a plant and equipment resource list for the council area.
- d. Contribute to the development and implementation of a public education program.

Response

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

Recovery

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

1.5.33 **Owners of Prescribed Dams within or upstream of Yass:**

Dam	Owner
Yass Dam	Yass Valley Council
Burrinjuck Dam	State Waters

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

1.6 CROSS-BORDER ASSISTANCE ARRANGEMENTS

- 1.6.1 A Memorandum of Understanding exists between the NSW SES and the ACT SES that provides for cross-border assistance should such assistance be required. If ACT SES assistance is required, the Yass Local Controller is to make the request to the SES Region Controller, Southern Highlands Region.

PART 2 - PREPAREDNESS

2.1 MAINTENANCE OF THIS PLAN

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

2.2 FLOODPLAIN RISK MANAGEMENT

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

2.3 DEVELOPMENT OF FLOOD INTELLIGENCE

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

2.4 DEVELOPMENT OF WARNING SYSTEMS

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

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

2.5 PUBLIC EDUCATION

- 2.5.1 The SES Yass Local Controller, with the assistance of the Yass Valley Council, The SES Southern Highlands Region Headquarters and SES State Headquarters, is responsible for ensuring that the residents of the council area are aware of the flood threat in their vicinity and how to protect themselves from it.
- 2.5.2 Specific strategies to be employed include:
 - a. Dissemination of flood-related brochures and booklets in flood liable areas.
 - b. Talks and displays orientated to community organisations, businesses and schools.
 - c. Publicity given to this plan and to flood-orientated SES activities through local media outlets, including articles in local newspapers about the flood threat and appropriate responses.

2.6 TRAINING

- 2.6.1 Throughout this document there are references to functions that must be carried out by the members of The SES Yass. The SES Yass Local Controller is responsible for ensuring that the members are:
 - a. Familiar with the contents of this plan.
 - b. Trained in the skills necessary to carry out the tasks allocated to the NSW SES.

2.7 RESOURCES

- 2.7.1 The SES Yass Local Controller is responsible for maintaining the condition and state of readiness of SES equipment and the SES Yass Headquarters.

PART 3 - RESPONSE

CONTROL

3.1 CONTROL ARRANGEMENTS

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

3.2 OPERATIONAL MANAGEMENT

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

3.3 START OF RESPONSE OPERATIONS

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

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

3.4 RESPONSE STRATEGIES

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

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

3.4.2 The SES Incident Controller will select the appropriate response strategy to deal with the expected impact of the flood in each sector and/or community. The impact may vary so a number of different strategies may be selected and implemented across the whole operational area. The available strategies for each sector and/or community are maintained by the NSW SES.

3.4.3 Supporting strategies may include:

- a. Protect the community from incidents involving fire and hazardous materials.
- b. Maintain the welfare of communities and individuals affected by the impact of a flood.
- c. Minimise disruption to the community by ensuring supply of essential energy and utility services.
- d. Ensure coordinated health services are available to and accessible by the flood affected communities.
- e. Maintain the welfare of animals affected by the impact of a flood.

3.5 OPERATIONS CENTRES

3.5.1 The Yass SES Operations Centre is located at 1410 Laidlaw Street, Yass 2582.

3.5.2 Supporting EOCs are located at venues that will be advised during operations.

3.6 LIAISON

3.6.1 Any agency with responsibilities identified in this plan may be requested by the SES to provide liaison (including a liaison officer where necessary) to The SES Yass Operations Centre.

3.6.2 Liaison officers are to:

- a. Have the authority to deploy the resources of their parent organisations at the request of The SES Yass Incident Controller,
- b. Advise The SES Yass Incident Controller on resource availability for their service, and
- c. Be able to provide communications to their own organisations.

3.7 END OF RESPONSE OPERATIONS

3.7.1 When the immediate danger to life and property has passed the SES Region Controller or the SES Incident Controller will issue an 'all clear' message signifying that response operations have been completed. The message will be distributed through the same media outlets as earlier evacuation

messages. The relevant Controller will also advise details of recovery coordination arrangements, arrangements made for clean-up operations prior to evacuees being allowed to return to their homes, and stand-down instructions for agencies not required for recovery operations.

PLANNING

3.8 COLLATING SITUATIONAL INFORMATION

Strategy

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

Actions

- 3.8.2 The SES Yass Local Headquarters collates information on the current situation in the Yass Valley Council LGA and incorporates it in Situation Reports.
- 3.8.3 The SES Southern Highlands Region Headquarters collates Region-wide information for inclusion in Region SES Situation Reports.
- 3.8.4 Sources of situational information during times of flooding are:
- a. **Agency Situation Reports.** Agencies and functional areas provide regular situation reports (SITREPs) to the NSW SES.
 - b. **Active Reconnaissance.** The SES Yass Incident Controller is responsible for coordinating the reconnaissance of impact areas, recording and communicating observations. Reconnaissance can be performed on the ground and using remote sensing (more commonly aerial). The SES monitors the following problem areas:
 - Yass - Wee Jasper Road at Mountain Creek.
 - The Sutton - Gunning Road at Gundaroo.
 - Greenwood Road between Hillview & Yass River Roads, over the Yass River and two subsequent crossings.
 - The Barton Highway at Murrumbateman.
 - Yass River Road at Buckmaster's Crossing on Yass River.
 - Yass River Road at 'Milford' on Yass River.
 - Yass River Road at 'Booth's Crossing on Yass River.
 - Hardwicke Lane at Yass River.
 - Low Level Crossing in Yass at Yass River, known as Flat Rock Crossing.
 - Manton Creek on Lucerne Vale Road.
 - c. The **Bureau of Meteorology's Flood Warning Centre** provides river height and rainfall information, data is available on the website <http://www.bom.gov.au/nsw/flood/> However there is no specific flood

information for the Yass Valley LGA as there is no rainfall / river gauge system on the Yass River within the LGA to provide information to the Bureau.

- d. **NSW Office of Water.** This office advises flow rates and rates of rise for the Murrumbidgee River. Daily river reports containing information on gauge heights and river flows are available from the website: <http://waterinfo.nsw.gov.au/>
 - e. **Burrinjuck Dam Storage Monitoring System.** This system provides information on Burrinjuck Dam.
 - f. **Southern Highlands SES Region Headquarters.** The Region Headquarters provides information on flooding and its consequences, including those in nearby council areas (this information is documented in Bulletins and Situation Reports).
- 3.8.5 During flood operations sources of information on roads closed by flooding include:
- a. Yass Valley Council
 - b. Goulburn Police Local Area Command
 - c. Roads and Maritime Services (website and/or telephone service).
- 3.8.6 Situational information relating to consequences of flooding should be used to verify and validate SES Flood Intelligence records.

3.9 PROVISION OF FLOOD INFORMATION AND WARNINGS

Strategy

- 3.9.1 The SES Yass Local Headquarters provides advice to The SES Southern Highlands Region Headquarters on current and expected impacts of flooding in the Yass Valley Council LGA.
- 3.9.2 The SES Southern Highlands Region Headquarters issues SES Flood Bulletins, SES Livestock and Equipment Warnings, Evacuation Warnings and Evacuation Orders to media outlets and agencies on behalf of all SES units in the Region.

Actions

- 3.9.3 The SES Yass Incident Controller will ensure that The SES Southern Highlands Region Controller is regularly briefed on the progress of operations.
- 3.9.4 Yass SES Local Headquarters operations staff will be briefed regularly so that they can provide information in response to enquiries received in person or by other means such as phone or fax.
- 3.9.5 **Bureau of Meteorology Severe Thunderstorm Warning.** These are issued direct to the media by the Bureau when severe thunderstorms are expected to produce dangerous or damaging conditions, including flash flooding. Severe thunderstorms are usually smaller in scale than events covered by Flood Watches and Severe Weather Warnings.

- 3.9.6 **Bureau of Meteorology Severe Weather Warnings for Flash Flooding.** These are issued direct to the media by the Bureau and provide a warning of the possibility for flash flooding as a result of intense rainfall. These warnings are issued when severe weather is expected to affect land based communities with 6 to 24 hours. Severe Weather Warnings may also include other conditions such as Damaging Winds.
- 3.9.7 **Bureau of Meteorology Flood Watches.** Flood Watches are issued by the Bureau to advise people of the potential for flooding in a catchment area based on predicted or actual rainfall. Flood Watches will be included in SES Flood Bulletins issued by The SES Southern Highlands Region Headquarters.
- 3.9.8 **Bureau of Meteorology Flood Warnings.** The SES Southern Highlands Region Headquarters will send a copy of Bureau Flood Warnings to The SES Yass Unit. On receipt the SES Incident Controller will provide The SES Southern Highlands Region Headquarters with information on the estimated impacts of flooding at the predicted heights for inclusion in SES Region Flood Bulletins.
- 3.9.9 **SES Livestock and Equipment Warnings.** Following heavy rain or when there are indications of significant creek or river rises The SES Yass Incident Controller will advise The SES Southern Highlands Region Headquarters which will issue SES Livestock and Equipment Warnings.
- 3.9.10 **SES Local Flood Advices.** The Southern Highlands RHQ may issue Local Flood Advices for locations not covered by Bureau Flood Warnings. They may be provided verbally in response to phone inquiries but will normally be incorporated into SES Region Flood Bulletins.
- 3.9.11 **SES Flood Bulletins.** The SES Southern Highlands Region Headquarters will issue Flood Bulletins which describe information on the estimated impacts of flooding at the predicted heights (using information from Bureau Flood Warnings and other sources) to SES units, media outlets and agencies.
- 3.9.12 **SES Evacuation Warnings and Evacuation Orders.** These are usually issued to the media by the SES Region Controller on behalf of the SES Incident Controller.
- 3.9.13 **Dam Failure Alerts.** Dam failure alerts are issued to SES by the dam owner, in accordance with arrangements in the Dam Safety Emergency Plan (DSEP), the system involves the Dam Owner notifying SES State Headquarters Operations Communications Centre, who in turn distribute the warning to the SES Region Headquarters and SES Unit Headquarters.
- 3.9.14 A flow chart illustrating the notification arrangements for potential dam failure is shown in Attachment 2.
- 3.9.15 Dam failure alert levels are set in consultation with the SES and are used to trigger appropriate response actions. The conditions that define each of the alert levels are listed in the relevant DSEP. Responses escalate as the alert level migrates from white to amber to red. Table 1 briefly outlines examples of defining conditions and appropriate SES responses associated with each alert.

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

Table 1: Dam Failure Alert Levels

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

- 3.9.16 The SES / Dam Owner will disseminate warnings to the population at risk of dam failure (these arrangements are specific to each dam, are negotiated between the Dam Owner and NSW SES, and are documented in the DSEP).
- 3.9.17 **Standard Emergency Warning Signal (SEWS)**. This signal may be played over radio and television stations to alert communities to Evacuation Warnings, Evacuation Orders, Special Warnings or Dam-Failure Warnings.
- 3.9.18 **The Public Information and Inquiry Centre (PIIC)** (operated by the NSW Police Force) will answer calls from the public regarding registered evacuees.
- 3.9.19 **The Disaster Welfare Assistance line** is a central support and contact point for disaster affected people inquiring about welfare services advice and assistance. This service may not be available 24/7 or for all flood incidents.
- 3.9.20 **The RMS Transport Information Line** will provide advice to callers on the status of roads. The RMS website also lists road closure information.
- 3.9.21 **Yass Valley Council** will provide information on the status of roads.
- 3.9.22 Collation and dissemination of road information is actioned as follows:
- The SES Southern Highlands Region Headquarters may distribute information on main roads to SES units, media outlets and agencies as part of SES Flood Bulletins.

OPERATIONS

3.10 AIRCRAFT MANAGEMENT

- 3.10.1 Aircraft can be used for a variety of purposes during flood operations including evacuation, rescue, resupply, reconnaissance and emergency travel.
- 3.10.2 Air support operations will be conducted under the control of the SES Region Headquarters, which may allocate aircraft to units if applicable.
- 3.10.3 SES maintains the following information for the Yass Valley Council area:
 - a. Locations of designated helicopter landing points.
 - b. Details on when access to these locations is expected to be lost.

3.11 ASSISTANCE FOR ANIMALS

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

3.12 COMMUNICATION SYSTEMS

- 3.12.1 The primary means of communications between fixed locations is by telephone, email and facsimile.
- 3.12.2 The primary means of communication to and between deployed SES resources is by GRN, mobile phone and satellite phone (available from Region Headquarters if necessary).
- 3.12.3 All liaison officers will provide their own communication links back to their parent agencies.
- 3.12.4 All other organisations will provide communications as necessary to their deployed field teams.

3.13 PRELIMINARY DEPLOYMENTS

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

3.14 ROAD AND TRAFFIC CONTROL.

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

3.15 STRANDED TRAVELLERS

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

3.16 MANAGING PROPERTY PROTECTION OPERATIONS

Strategy

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

Actions

- 3.16.2 The SES is the responsible agency for the coordination of operations to protect property.
- 3.16.3 Property may be protected from floods by:
- a. Lifting or moving of household furniture.
 - b. Lifting or moving commercial stock and equipment.
 - c. Sandbagging to minimise entry of water into buildings.
- 3.16.4 The SES maintains bulk stocks of sandbags for resupply to Units during floods.

3.17 MANAGING FLOOD RESCUE OPERATIONS

Strategy

- 3.17.1 Rescue of people from floods.

Actions

- 3.17.2 The SES Yass Incident Controller controls flood rescue in Yass Valley Council local government area.
- 3.17.3 Flood rescues may be carried out by accredited units in accordance with appropriate standards.
- 3.17.4 Additional flood boats and crews can be requested through The SES Southern Highlands Region Headquarters.
- 3.17.5 There may be some residual population which did not evacuate during the early stages of flooding and which require rescue.

3.18 MANAGING EVACUATION OPERATIONS

Strategy

- 3.18.1 When there is a risk to public safety, evacuation is the primary strategy. Circumstances may include:
 - a. Evacuation of people when their homes or businesses are likely to flood.
 - b. Evacuation of people who are unsuited to living in isolated circumstances, due to flood water closing access.
 - c. Evacuation of people where essential energy and utility services are likely to fail, have failed or where buildings have been made uninhabitable.

Actions

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

Decision to evacuate

- 3.18.4 In most cases the decision to evacuate rests with The SES Yass Incident Controller who exercises his/her authority in accordance with Section 22(1) of The State Emergency Service Act 1989. However, the decision to evacuate

will usually be made after consultation with The SES Southern Highlands Region Controller and the Local Emergency Operations Controller.

- 3.18.5 In events that require large scale evacuations, the decision to evacuate may be escalated to the Region or the State Incident Controller.
- 3.18.6 Some people will make their own decision to evacuate earlier and move to alternate accommodation, using their own transport. This is referred to as self-motivated evacuation.

Mobilisation

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

SES Delivery of Evacuation Warnings and Evacuation Orders

- 3.18.11 The SES will advise the community of the requirements to evacuate. The SES will issue an **Evacuation Warning** when the intent of an SES Incident Controller is to warn the community of the need to prepare for a possible evacuation.
- 3.18.12 The SES will issue an **Evacuation Order** when the intent of the SES Incident Controller is to instruct a community to immediately evacuate in response to an imminent threat.
- 3.18.13 The SES Incident Controller will distribute Evacuation Warnings and Evacuation Orders to:
- a. Sector/Division Command Centres (where established).

- b. Yass Valley Local Emergency Operations Centre.
 - c. Yass Valley Council.
 - d. NSW Police Force, Goulburn Local Area Command.
 - e. Southern Tablelands Zone and Yass Rural Fire Service Control Centre.
 - f. Radio Stations.
 - g. Other local agencies and specified individuals.
- 3.18.14 The SES Southern Highlands Region Controller will distribute Evacuation Warnings and Evacuation Orders to:
- a. The SES State Operations Centre.
 - b. The SES Yass Incident Controller.
 - c. Affected communities via dial-out warning systems where installed or applicable.
 - d. Relevant media outlets and agencies.
- 3.18.15 Evacuation Warnings and Evacuation Orders may be delivered through:
- a. Radio and television stations.
 - b. Doorknocking by emergency service personnel.
 - c. Public address systems (fixed or mobile).
 - d. Telephony-based systems (including Emergency Alert).
- 3.18.16 The Standard Emergency Warning Signal (SEWS) may be used to precede all Evacuation Orders broadcast on Radio Stations.
- 3.18.17 Sector Command Centres, where established, will distribute Evacuation Orders via Emergency Service personnel in doorknock teams to areas under threat of inundation.
- 3.18.18 Doorknock teams will work at the direction of the Incident Controller.
- 3.18.19 Field teams conducting doorknocks will record and report back the following information to their local headquarters:
- a. Addresses and locations of houses doorknocked and/or evacuated.
 - b. The number of occupants.
 - c. Details of support required (such as transport, medical evacuation, assistance to secure house and/or property and raise or move belongings).
 - d. Details of residents who refuse to comply with the Evacuation Order.
- 3.18.20 Refusal to evacuate. Details of residents who refuse to evacuate are to be referred to the NSW Police Force.

Withdrawal

- 3.18.21 Evacuations will generally be carried out in stages starting from the lowest areas, low flood islands and low trapped perimeters; and progressively from higher areas.
- 3.18.22 The most desirable method of evacuation is via road using private transport. This may be supplemented by buses for car-less people. However, other means of evacuation may also be used if available and as necessary (eg by foot, rail, air).
- 3.18.23 Evacuees who require emergency accommodation or disaster welfare assistance will be directed to designated evacuation centres. Evacuees who have made their own accommodation arrangements will not be directed to evacuation centres. It is not possible to determine in advance how many will fall into this category.
- 3.18.24 Evacuees will:
- a. Move under local traffic arrangements from the relevant Sectors/Community eg. via managed evacuation routes;
 - b. Continue along the suburban/regional/rural road network to allocated Evacuation Centres.
- 3.18.25 **Health Services.** The Health Services Functional Area will coordinate the evacuation of hospitals, health centres, and aged care facilities (including nursing homes and the Apex Homes if assistance is required).
- 3.18.26 **Schools.** School administration offices (Department of Education and Communities, Catholic Education Office and Private Schools) will coordinate the evacuation of schools if not already closed.
- 3.18.27 If there is sufficient time between the start of response operations and the evacuation of communities, The SES Southern Highlands Region Controller will discuss the temporary closure of appropriate schools with the Regional Director, Illawarra and South East Region, Department of Education and Communities. This will enable pupils to stay at home or be returned home so they can be evacuated (if required) with their families.
- 3.18.28 Note that in the Yass Valley Council LGA, school principals may close some schools affected by flooding in the early stages of flooding.
- 3.18.29 **Caravan parks.** When an evacuation order is given occupiers of non-movable vans should:
- a. Secure their vans by tying them down to prevent flotation.
 - b. Isolate power to their vans.
 - c. Collect personal papers, medicines, a change of clothing, toiletries and bedclothes.
 - d. Lift the other contents of their vans as high as possible within the van.

- e. Move to a designated evacuation centre if they have their own transport, or move to the caravan office to await transport.
- 3.18.30 Where possible, vans that can be moved will be relocated by their owners. Park managers will arrange for the relocation of mobile vans whose owners do not have a vehicle. Council and SES personnel will assist if required and may be able to provide additional vehicles.
- 3.18.31 Caravan park managers will ensure that their caravan park is capable of being evacuated within the allocated time.
- 3.18.32 Advise The SES Yass Local Controller of:
- a. The number of people requiring transport.
 - b. Details of any medical evacuations required.
 - c. Whether additional assistance is required to effect the evacuation.
- 3.18.33 Check that no people remain in non-relocatable vans that are likely to be inundated.
- 3.18.34 Inform The SES Yass Local Controller when the evacuation of the caravan park has been completed.
- 3.18.35 Provide The SES Yass Local Controller with a register of people that have been evacuated.
- 3.18.36 **Assistance Animals, Pets and Companion Animals of Evacuees:** Assistance animals (guide dogs, hearing assistance animals, etc) will remain in the care of their owners throughout the evacuation. This includes transport and access into evacuation centres etc. Due to safety restrictions, it may not be possible to allow companion animals to accompany their owners when being transported via aircraft or flood rescue boats. Agriculture and Animal Services will make separate arrangements for the evacuation and care of companion animals.
- 3.18.37 **Transport and storage:** Transport and storage of furniture from flood threatened properties will be coordinated by the Yass SES Incident Controller as time and resources permit.
- 3.18.38 **Security:** The NSW Police Force will provide security for evacuated areas.

Shelter

- 3.18.39 **Evacuation centres / assembly areas.** The usual purpose of evacuation centres or assembly areas is to meet the immediate needs of disaster affected people following evacuation from an emergency situation, not to provide them with accommodation. Evacuees will be advised to go to or be taken to the nearest accessible evacuation centre, which may initially be established at the direction of the SES Yass Incident Controller, but managed as soon as possible by Welfare Services. Welfare Services will not provide any services at assembly areas.

- a. The location of evacuation centres will be advised to the public at the time of the event.
- 3.18.40 **Registration:** The NSW Police Force will ensure that evacuees are registered on arrival at the designated evacuation centres.
- 3.18.41 **Animal shelter compounds:** Animal shelter compounds will be set up for the domestic pets and companion animals of evacuees if required. Facilities will be managed by Agriculture and Animal Services.

Return

- 3.18.42 The SES Incident Controller will advise when return to evacuated areas is safe after flood waters have receded and reliable access is available.
- 3.18.43 The SES Incident Controller will determine when it is safe for evacuees to return to their homes in consultation with:
- a. The Recovery Coordinating Committee (if established),
 - b. Welfare Services Functional Area Coordinator (welfare of evacuees),
 - c. Engineering Services Functional Area Co-coordinator (electrical safety of buildings, structural integrity of levees/dams),
 - d. Health Service Functional Area Coordinator (public health),
 - e. Transport Services Functional Areas Coordinator (arrangement of transport),
 - f. The Yass Valley Council LEOCON,
 - g. The Yass Valley Council,
 - h. SES Region Controller,
 - i. Other appropriate agencies/functional areas as required (mitigation and advice regarding identified risks resulting from the flood event).
- 3.18.44 Once it is considered safe to do so, the SES Incident Controller will authorise the return of evacuees, usually by issuing an All Clear.
- 3.18.45 The return will be controlled by the SES Incident Controller and may be conducted, at their request, by the Recovery Coordinator.

3.19 MANAGING RESUPPLY OPERATIONS

- 3.19.1 The SES is responsible for the coordination of the resupply of isolated communities and properties.
- 3.19.2 If isolation is expected to occur, residents should be encouraged to consider their needs and suitability for an unknown period of isolation.
- 3.19.3 If properties/communities are going to remain in locations expected to become isolated, households/retailers should be encouraged to stock up on essential supplies.

- 3.19.4 Where practicable, once supplies are delivered to the SES designated loading point, the SES Incident Controller will arrange for the delivery of essential foodstuffs, fuels or urgent medical supplies required by an isolated property or community.
- 3.19.5 All reasonable effects will be made to deliver supplies, however where necessary the SES will prioritise the delivery of items.

Resupply of Isolated Towns and Villages

Strategy

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

Actions

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

Resupply of Isolated Properties

Strategy

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

Actions

- 3.19.13 The resupply of isolated properties is a common requirement during floods and coordination can be difficult because requests can emanate from a variety of sources. Isolated properties may call their suppliers direct, place their orders through their own social networks or contact the NSW SES.
- 3.19.14 The principles to be applied when planning for the resupply of isolated properties are:
- a. The SES will coordinate resupply and establish a schedule.
 - b. Some isolated households will not have the ability to purchase essential grocery items due to financial hardship. If an isolated household seeks resupply from the SES and claims to be, or is considered to be, in dire

circumstances, he/she is to be referred to Welfare Services for assessment of eligibility. Where financial eligibility criteria are met, Welfare Services will assist with the purchase of essential grocery items. Welfare Services will deliver the essential grocery items to the SES designated loading point for transport.

- c. Local suppliers will liaise with the SES regarding delivery of resupply items to the designated loading point.
 - d. Local suppliers are responsible for packaging resupply items for delivery.
- 3.19.15 A flowchart illustrating the Resupply process is shown in Attachment 1. Please note that the flowchart outlines the resupply process but does not encompass all potential situations and/or outcomes.

PART 4 - RECOVERY

4.1 RECOVERY COORDINATION AT THE LOCAL LEVEL

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

4.2 RECOVERY COORDINATION AT THE REGION AND STATE LEVEL

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

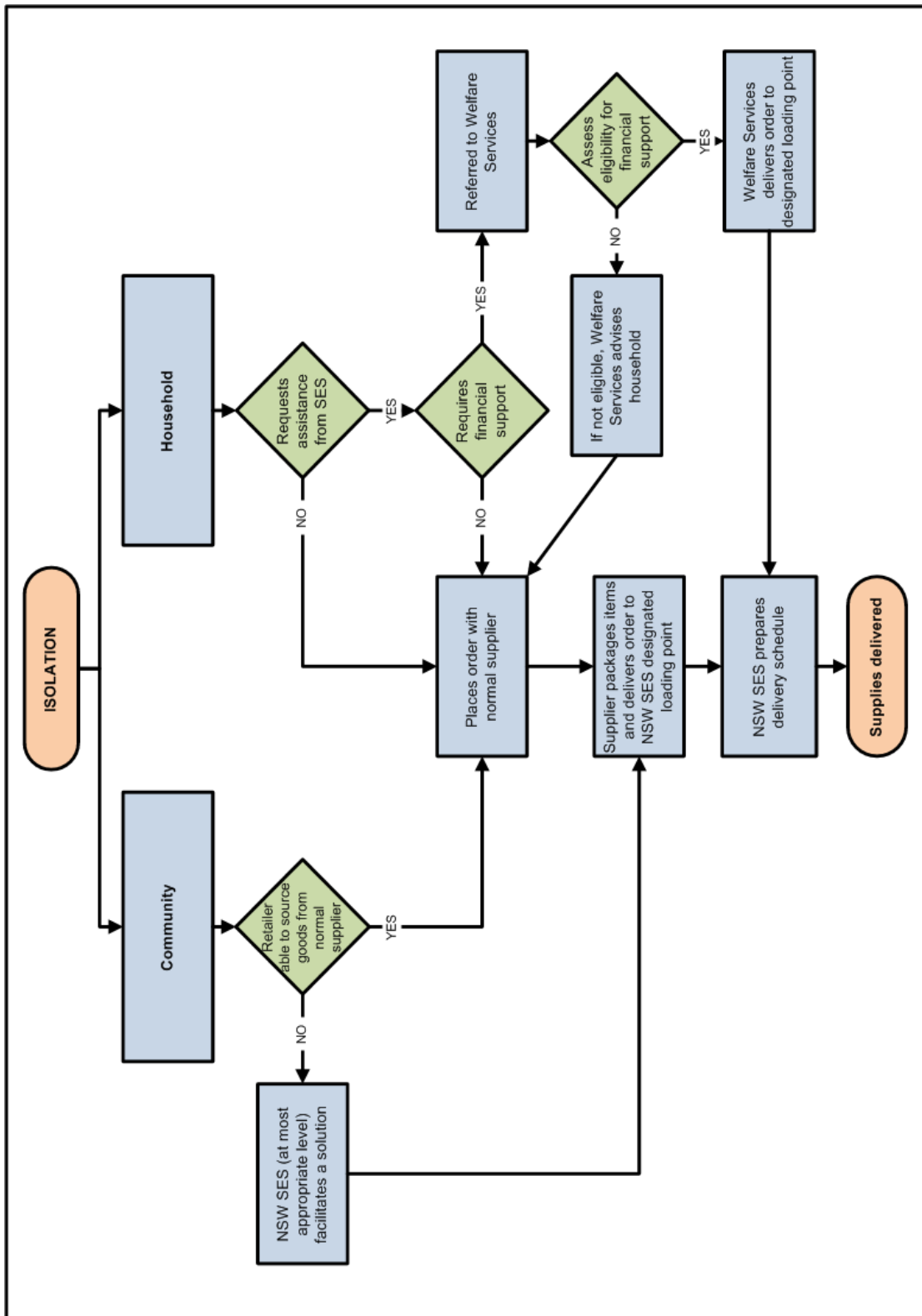
conveyed in the first instance to the SEOCON for confirmation with the SERCON.

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

4.3 ARRANGEMENTS FOR DEBRIEFS / AFTER ACTION REVIEWS

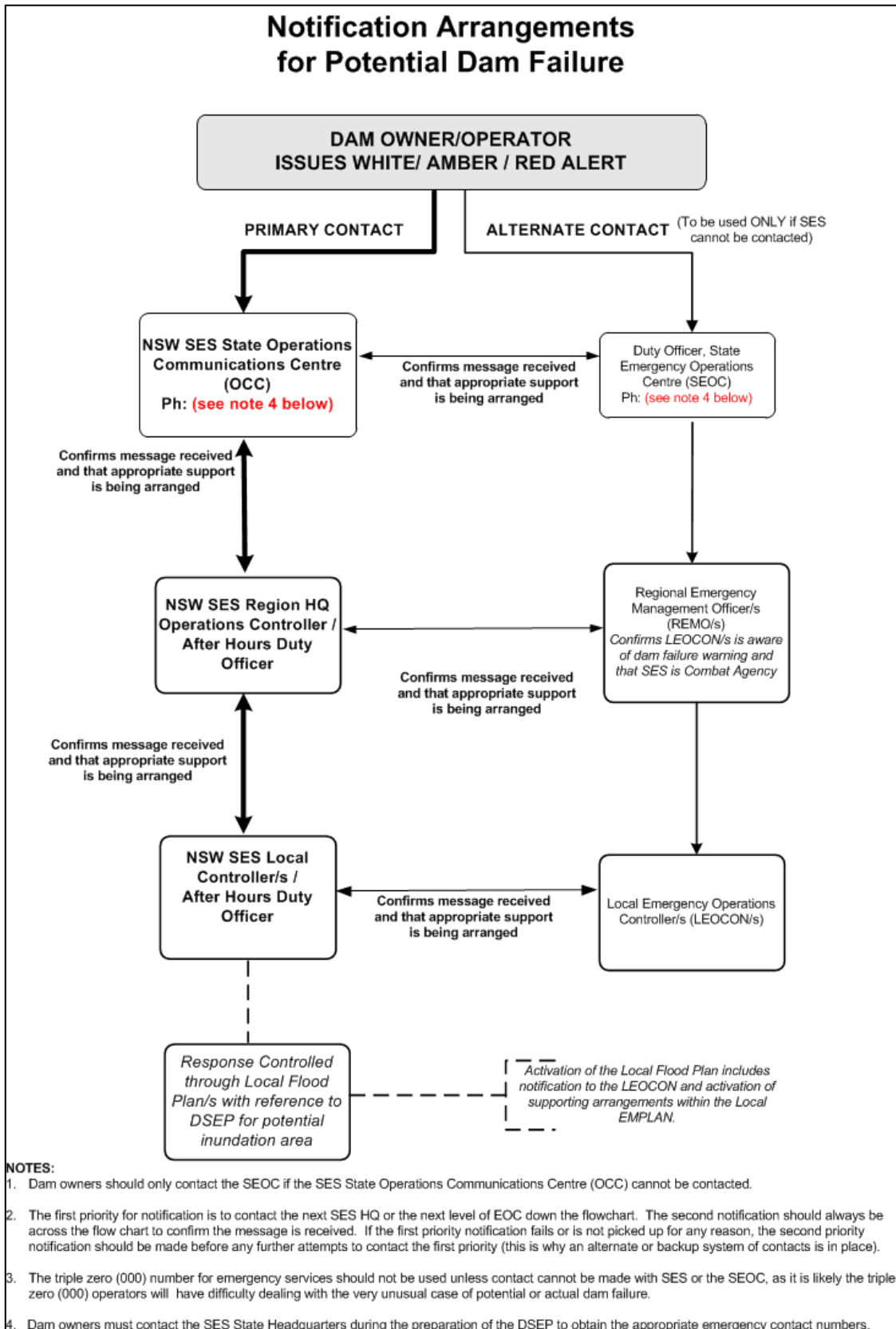
- 4.3.1 As soon as possible after flooding has abated, The SES Yass Local Controller will advise participating organisations of details of response operation after action review arrangements.
- 4.3.2 The SES Yass Local Controller will ensure that adequate arrangements are in place to record details of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

ATTACHMENT 1 - RESUPPLY FLOWCHART

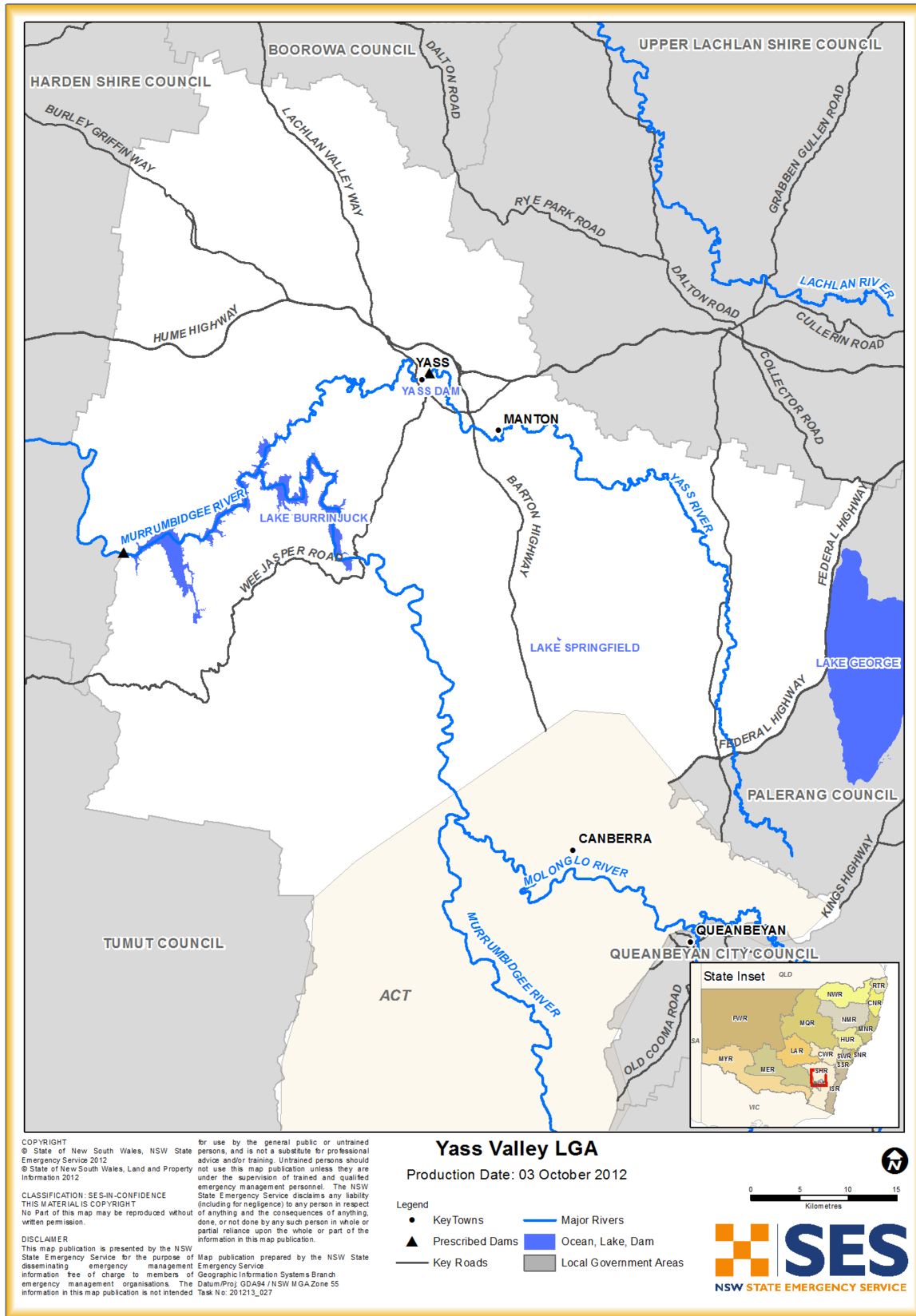


Please Note: The chart outlines the resupply process, but does not encompass all potential situations and outcomes.

ATTACHMENT 2 - DAM FAILURE ALERT NOTIFICATION ARRANGEMENTS FLOWCHART



ATTACHMENT 3 - YASS VALLEY COUNCIL LGA MAP



HAZARD AND RISK IN YASS VALLEY

Volume 2 of the Yass Valley Local Flood Plan

Last Update: October 2004

ANNEX A - THE FLOOD THREAT

River Catchments

1. The council area includes three main rivers: the Yass River; the Murrumbidgee River; and the lower reaches of the Goodradigbee River. The area also includes Burrinjuck Dam and Yass Dam. This region is shown in Map 2.
2. The township of Yass is built on both banks of the Yass River immediately downstream of the Yass Dam. The catchment area above the town is approximately 1300 square kilometres. The river in the town is characterised by a well-defined steep-sided channel with limited river flats. The upstream catchment lies to the south east of Yass, with major tributaries consisting of Murrumbateman Creek, Reedy Creek and Derringullen Creek. Downstream of Yass the river flows a further 25 kilometres south-west until entering Burrinjuck Dam. Washpen, Bowning and Derringullen Creeks enter the Yass River along this reach. The Yass River catchment is illustrated in Map 1.
3. The Murrumbidgee River lies to the south of Yass. It enters the council area from the ACT near Wallaroo and flows generally north until entering Burrinjuck Dam. Two tributaries, the Mullion and Jeir Creeks enter the river within the council area.
4. The Goodradigbee River lies west of the Murrumbidgee River. The river enters the council area near the junction with Micalong Ck and flows north until entering Burrinjuck Dam.
5. Both the Murrumbidgee and Goodradigbee Rivers run through steep terrain in narrow valleys. Consequently the area of floodplain is limited, although small areas of river flats can be inundated.

Storage Dams

6. **Yass Dam** is located on the Yass River, 1km north east of the township of Yass. It is a concrete arch dam with a height of 12 metres and an overfall spillway. The dam has a storage capacity of 876 megalitres and a catchment area of 1,230 square kilometres. The purpose of the dam is to supply water to Yass. The dam would have negligible flood mitigation affect on peak flows in the Yass River.
7. **Burrinjuck Dam** or Lake Burrinjuck is located 25 kilometres downstream of Yass township. Burrinjuck is a concrete gravity dam with a main wall height of 92.4 metres and a storage capacity of 1,026,000 megalitres. This dam is not considered as being deficient. High storage levels within the dam may result in the flooding of several caravan parks and camping grounds located on the foreshores of the dam.

Weather Systems and Flooding

8. Floods within the Yass council area can be caused by the following types of weather systems:
 - a. Sequences of southern air masses (frontal systems) coming from the Antarctic region and moving in north easterly direction over the catchment. This is the principal flood producing mechanism and operates primarily between the months of April and October.
 - b. Low-pressure systems located over the east coast of Australia and causing moist airflows over the Snowy Mountains.
 - c. Short duration, high intensity convective thunderstorms that occur over small areas during summer. These may cause town drainage systems to surcharge and minor creeks to rise rapidly. Such thunderstorms do not cause mainstream riverine flooding.

Yass Flood History

9. The highest flood in Yass occurred on the 21st of October 1959, peaking at approximately 9.8 metres on the Yass Gauge. Floodwaters reached the steps of the Court House and affected business premises and residents in Rossi and Comur Streets. The northern approaches to Hume Bridge were cut for approximately 12 hours.
10. The following table lists significant floods greater than 4 metres at the Yass gauge (410026) since 1969.

Date	Height (Yass Gauge (410026))
Friday 31 October 1969	5.90
Wednesday 28 August 1974	7.63
Thursday 5 September 1974	5.33
Friday 18 October 1974	5.06
Monday 14 July 1975	4.23
Saturday 25 October 1975	4.18
Saturday 17 October 1976	4.86
Tuesday 5 September 1978	4.44
Saturday 21 September 1985	4.05
Wednesday 15 March 1989	6.84
Thursday 13 April 1989	4.33

Table 1 Historical Flood Heights at the Yass Gauge

Yass Design Flood Heights

11. The following table lists design flood heights for the Yass gauge (410026)

Average Recurrence Interval	Height
1 in 5 year	4.60
1 in 10 year	6.39
1 in 20 year	8.00
1 in 50 year	9.39
1 in 100 year	10.04

Table 2 Design Flood Heights for the Yass Gauge

Burrinjuck Foreshores Design Flood Heights

12. The following table lists design flood heights for Good Hope on the foreshores of Burrinjuck Dam.

Average Recurrence Interval	Good Hope (metres AHD)
1 in 20	363.9
1 in 100	365.3
1 in 500	369.7

Table 3 Design Flood Heights for Good Hope on the foreshores of Burrinjuck Dam

Flood Mitigation Systems

13. No structural flood mitigation systems exist.

Extreme Flooding

14. Floods more severe than those previously recorded within the council area must be considered possible. Extreme floods generally rise faster and occur with less warning time. They are also characterised by faster-flowing, deeper and more dangerous waters.

ANNEX B - EFFECTS OF FLOODING ON THE COMMUNITY

Community Profile

1. According to the 2001 census the total population of the Yass Valley Council is approximately 9,708 persons, of this number approximately 5000 live in the township of Yass. The following table provides a brief overview of the demographic characteristics of the Yass Valley Council.

Census Description	Result
Total persons	9,708
Total persons of indigenous origin	181
Median age	38 years
Persons born overseas	902
Persons aged 65 years and over	1192
Persons aged below 15 years	2193
Single person households	762
Single parent families	313
Median household size	2.6 persons

Areas at Risk

2. Flooding can affect urban and rural properties in the Yass Valley Council area, though the impacts are often not severe. Farmlands along streams are prone to inundation, as are parts of Yass and the foreshores of Burrinjuck Dam. Road closures are common during periods of flooding, resulting in short periods of isolation, including of Wee Jasper. Specific areas at risk are discussed in the following sections.

Yass

3. The majority of Yass is flood free, apart from parts of Riley Terrace and Comur, Church, Rossi and Warrambalulah Streets. There is a small flood prone retirement village known as the Apex Homes, which consists of 20 units, located adjacent to Chinamens Creek in Rossi St. Development in close

proximity to Banjo Patterson Park on Rossi Street is generally the first to be affected. Specific areas at risk are shown in Map 3.

4. The following is intended to provide an indication of the way in which flooding develops within Yass township.
 - a. **0.5 metres:** Level of the Flat Rock Crossing between North and South Yass.
 - b. **2.0 metres:** An area along Warrambalulah Street upstream of Church Street is flooded.
 - c. **4.0 metres:** Flood waters start to break out on the left bank between Church and Dutton Streets. Flooding begins along Chinamans Creek because of backup water from the river.
 - d. **6.0 metres:** Some 5 commercial properties and 2 residences in Comur and Rossi streets are in danger of having flood waters exceed the floor levels.
 - e. **7.0 metres:** An additional 3 residences (Church, Pritchett and Rossi streets) have water to their doorsteps.
 - f. **8.0 metres:** The Apex Homes (retirement village) start to be inundated with water from Chinamans Creek.

5. Extreme flooding larger than the 1 in 100 year flood will inundate additional areas of town, including the south western sections of Comur, Dutton and Church streets; and parts of Meehan and Lead Streets. Under PMF flood conditions an estimated 307 houses would be inundated.

Burrinjuck Dam Foreshores

6. Camping grounds and caravan parks located upon the foreshores of Burrinjuck Dam may be prone to flooding. These include the Good Hope Tourist Resort, Burrinjuck Waters State Park and Hume Park Tourist Resort. The table below details the location, size and peak occupancy of each caravan park.

Name	Location	Cabins	Permeant Vans	Temporary Vans	Campsites	Peak Occupancy (Persons)
Burrinjuck Waters State Park (Burrinjuck State Recreation Area)	Burrinjuck Road	34	22	50	22	150
Hume Park	Good Hope					

Tourist Resort	Road					
Lake Burrinjuck Leisure Resort (Woolgarlo Tourist Resort)	Burrinjuck Road	7	120	8	100	400 to 500 persons

Table 4 Caravan Park details

Rural Flooding

7. Low-lying farmlands along creeks and rivers are prone to flooding, necessitating the movement of equipment and livestock.

Road Closures

8. The following roads maybe subject to closure as a result of flooding.
 - a. Bungendore Road from Murrumbateman.
 - b. Hyles Crossing, at the end of Kavenyes on the Murrumbidgee River.
 - c. Comur Street - The Old Hume Highway Bridge has been renewed and elevated above the 1959 high flood level. The Sydney approach to the bridge however remains below flood level and would not be trafficable during a major flood.
 - d. Yass (Wee Jasper) Rd at Mountain Creek
 - e. The Gunning - Sutton Rd at Gundaroo
 - f. The road between Murrumbateman and Yass River Road at Wanrambui.
 - g. The Barton Hwy at Murrumbateman.
 - h. Yass River Rd at Greenfields on the Yass River.
 - i. Yass River Rd at Buckmaster's Crossing on the Yass River.
 - j. Yass River Rd at 'Milford' on the Yass River.
 - k. Hardwicke Lane at Yass River.
 - l. Low level crossing in Yass at Yass River, known as Flat Rock Crossing.

SES RESPONSE ARRANGEMENTS FOR YASS VALLEY

Volume 3 of the Yass Valley Local Flood Plan

Last Update: October 2004

ANNEX C - GAUGES MONITORED BY THE YASS SES LOCAL HEADQUARTERS

Yass River Catchment River Gauges

Gauge Name	Type	AWRC No	Stream
White Hill	Manual	410160	Williams Creek
Gundaroo	Manual	410900	Yass River
Macks Reef Road u/s	Manual	410851	Yass River
Black Joes Creek	Manual	410852	Black Joes Creek
Yass †‡	Telemeter	410026	Yass River

Goodradigbee River Catchment River Gauges

Gauge Name	Type	AWRC No	Stream
Wee Jasper	Telemeter	410024	Goodradigbee River
Nottingham Road Bridge	Manual	410149	Nottingham Creek
Brindabella No. 1	Manual	410028	Goodradigbee River
Brindabella (No.2 & No.3-Cabbans)	Manual	410088	Goodradigbee River
Brindabella Post Office	Manual	410113	Goodradigbee River

Other River Gauges

Gauge Name	Type	AWRC No	Stream
Mountain Creek	Manual	410107	Mountain Creek
Halls Crossing	Manual	410777	Murrumbidgee River
Burrinjuck Dam W/L	Manual	410131	Murrumbidgee River
Burrinjuck Dam D/S	Manual	410008	Murrumbidgee River

Note:

1. SES Local Flood Advices are provided for the gauges marked with a single cross (†).
2. The SES holds a Flood Intelligence Card for the gauges marked with a double cross (‡).

ANNEX D - DISSEMINATION OF SES FLOOD BULLETINS

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

Television Stations:

Station	Location
Prime TV	Canberra
WIN TV	Canberra
Capital TV	Canberra
ABC	Canberra

Radio Stations:

Station	Modulation /Frequency	Location
2 CA	AM 1053	Canberra
2 CC	AM 1206	Canberra
666 ABC	AM 666	Canberra
2 GN	AM 1368	Goulburn
Eagle FM	FM 93.5	Goulburn
Yass FM	FM 103.0	Yass
FM 104.7	FM 104.7	Canberra
MIX	FM 106.3	Canberra

Newspapers:

Name	Location
Yass Tribune	Yass

Other Agencies:

- NSW Police Service, Local Area Command, Goulburn
- Southern Highlands District Emergency Management Officer
- Southern Highlands District Emergency Operations Controller
- Yass Local Emergency Operations Controller
- Yass Local Emergency Management Officer
- Yass Valley Council
- NSW Fire Brigades, Yass
- NSW Fire Brigades, Zone South 7, Goulburn
- NSW Rural Fire Service, Yass Fire Control

- Ambulance Service of NSW, Yass
- Ambulance Service of NSW, South East Sector, Goulburn
- Volunteer Rescue Association, Binalong Rescue Squad
- NSW Department of Primary Industry, Yass
- Telstra Country Wide, South East NSW Office, Goulburn
- Country Energy, South East Region Office, Queanbeyan
- Roads and Traffic Authority, Yass
- Department of Community Services, Area Office, Queanbeyan
- State Water, Burrinjuck Dam

ANNEX E - TEMPLATE EVACUATION WARNING MESSAGE

Evacuation Warning for []

Date/Time of Issue: []

Authorised By: []

The State Emergency Service advises that flooding will occur at [] (*place*) at [] (*time*). This means that the following area(s) may be inundated [].

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

To prepare for evacuation, you should:

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

If evacuation is necessary:

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

ANNEX F - EVACUATION ARRANGEMENTS FOR THE YASS VALLEY COUNCIL AREA

Background

1. Flood prone residents from the township of Yass and the foreshores of Burrinjuck Dam may require evacuation during floods. Typically the scale of evacuations will be small. However, during extreme flooding many persons may require evacuation.

Arrangements

2. **Control.** Evacuations will be controlled by the Yass SES Local Controller and conducted by personnel from NSW SES, NSW Police, NSW Rural Fire Service, NSW Ambulance, Yass Apex Club and Binalong VRA.
3. **Decision to Evacuate.** Responsibility for issuing any general evacuation order during flooding rests with the Yass SES Local Controller who exercises his/her authority in accordance with Section 22(1) of The State Emergency Service Act 1989. However, the decision to evacuate should be taken after consultation with the Local Emergency Operations Controller and the Southern Highlands SES Division Controller. As far as possible, evacuation will be carried out before inundation occurs.
4. Once the decision to evacuate is made, the NSW Department of Community Services and NSW Department of Primary Industry are to be notified to ensure appropriate welfare services are organised to support evacuees.
5. **Evacuation Warnings.** In Yass Township initial evacuation warnings will be delivered to at risk residents when the Yass gauge reaches 4 metres. The foreshores of Burrinjuck Dam will be carefully monitored to assess the need for evacuations.
6. **Content of Evacuation Warnings.** A template guide to the content of evacuation warning messages is at Annex E. These are disseminated via:
 - a. Public address systems from emergency service vehicles.
 - b. Door-knocks by emergency service personnel.
 - c. Telephone.
 - d. Two-way radio.
 - e. Direct access to Radio Station
 - f. The radio and TV stations listed in Annex D.
 - g. SES Flood Bulletins.

7. **Movement.** Evacuees are to be moved using their own transport where possible. The Yass SES Local Controller will arrange transport for those people without their own vehicles.
8. Burrinjuck Dam foreshore residents are to be evacuated to Yass via the Burrinjuck Road.
9. **Evacuation Centres.** The following centres are assessed as suitable for use as evacuation centres, given the likely short duration of any evacuation.
 - a. Yass High School.
 - b. Yass Soldiers Club.
10. Evacuation centres are to be managed by the NSW Department of Community Services.
11. **Registration.** The NSW Police will ensure that all evacuees are registered on arrival at the designated evacuation centres.
12. **Furniture Storage.** Furniture and other contents of evacuees can be temporarily stored at the Yass Memorial Hall.
13. **Management of Evacuees' Pets.** NSW Department of Primary Industry is responsible for providing animal care services for evacuees' pets.
14. Evacuees with their own transport will be encouraged to take their companion animals with them as they evacuate. Companion animals so shifted will be collected from their owners at evacuation centres and taken to facilities arranged by NSW Department of Primary Industry. Due to safety restrictions, it may not be possible to allow companion animals to accompany their owners when being transported via aircraft or flood boat. In these cases provision will be made for animals to be picked up as people are evacuated. Assistance animals will remain in the care of their owners throughout the evacuation. This includes transport and access into evacuation centres etc.
15. **Security.** The NSW Police will provide security for evacuated areas.
16. **Helicopter Landing Zone (Helo LZ).** A Helo LZ is located at the rear of the compound housing the Yass SES Local Headquarters and the Yass RFS Fire Control Centre.
17. **Return.** The return of evacuees will be controlled by the Yass SES Local Controller. Once it is considered safe to do so, the Yass SES Local Controller will authorise the return of evacuees to their normal or alternative place of residence. This decision will be made after consulting with appropriate officers in regard to matters such as the electrical safety of buildings.

Guidelines for Doorknocking

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

- a. Addresses and locations of houses doorknocked and/or evacuated.
 - b. The number of occupants.
 - c. Details of support required (such as transport, medical evacuation, assistance to secure house and/or property and raise or move belongings).
 - d. Details of residents who refuse to comply with the evacuation order.
19. Keys steps in planning for a doorknock are:
- a. Define the flood-affected areas that require doorknocking.
 - b. Using a map of the affected area define street segments of 10-15 houses and assign a doorknocking team to each segment. Teams can be assigned one or more street segments.
 - c. Assume that it will take a doorknocking team of two persons up to five minutes per property to doorknock. Rural properties take a longer period of time.
 - d. In each flood-affected area, generally plan to door knock the lowest lying areas first and then work up to higher areas.
 - e. Typed warning messages should be given to each doorknocking team for distribution to property occupants.
20. **Refusal to Evacuate.** Field teams should not waste time dealing with people who are reluctant or refuse to comply with any evacuation order. These cases should be referred to the Local Emergency Operations Controller who will arrange for Police to ensure their evacuation.

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

General

1. The following caravan parks are flood liable:
 - a. Good Hope Tourist Resort
 - b. Hume Park Tourist Resort
 - c. Burrinjuck Waters State Park
2. These caravan parks are described in Annex B of this plan.

Advising Procedures

3. Caravan Park proprietors are encouraged by the SES to ensure that the owners and occupiers of caravans are:
 - a. Made aware that the caravan park is flood liable by:
 - Handing a printed notice to occupiers taking up residence. The notice will indicate that the caravan park is liable to flooding and outline the evacuation and van relocation arrangements as detailed in this Annex.
 - Displaying this notice prominently in each van.
 - b. Made aware that if they are expecting to be absent from their vans for extended periods, they should:
 - Provide the manager with a key; in a sealed envelope; to the van.
 - Provide a contact address and telephone number.
 - Inform the manager if a vehicle will be required to relocate the van during flood time.
 - Leave any mobile van in a condition allowing it to be towed in an emergency (ie: tyres inflated, jacks wound up, personal effects secured and annexes and lines for water, sewer, electricity and gas readily detachable).
 - c. Informed when a flood is rising. At this time, occupiers will be advised to:

- Ensure that they have spare batteries for their radios.
 - Listen to a local radio station for updated flood information.
 - Prepare for evacuation and van relocation.
4. The SES Local Controller will ensure that the managers of caravan parks are advised of flood warnings and the details of any evacuation order.

Evacuation of Occupants and Relocation of Vans

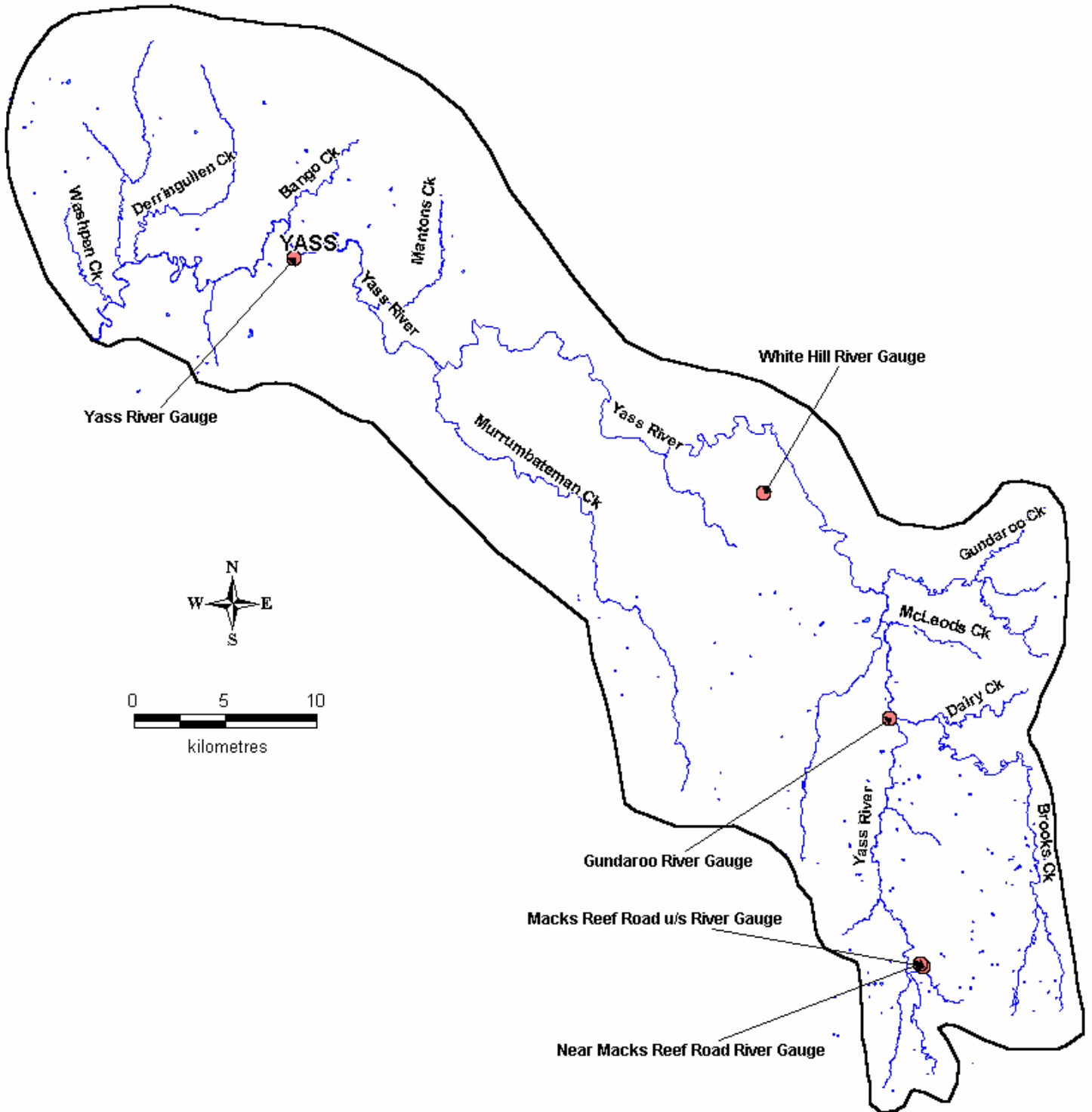
5. Caravan park proprietors are encouraged to install flood depth indicators and road alignment markers within their caravan parks.
6. When an evacuation order is given:
- a. Occupiers of non-movable vans should:
 - Secure their vans by tying them down to prevent flotation.
 - Isolate power to their vans.
 - Collect personal papers, medicines, a change of clothing, toiletries and bedclothes.
 - Lift the other contents of their vans as high as possible within the van.
 - Move to a designated evacuation centre if they have their own transport, or move to the caravan office to await transport.
 - b. Where possible, vans that can be moved will be relocated by their owners. Park managers will arrange for the relocation of mobile vans whose owners do not have a vehicle. Council and SES personnel will assist if required and may be able to provide additional vehicles. Vans are to be moved to higher sections of parks or to nearby roads.
7. Caravan park managers should:
- a. Advise the SES Local Controller of:
 - The number of people requiring transport.
 - Details of any medical evacuations required.
 - Whether additional assistance is required to effect the evacuation.
 - b. Check that no people remain in non-removable vans that are likely to be inundated.

- c. Inform the SES Local Controller when the evacuation of the caravan park has been completed.
- d. Provide the SES Local Controller with a register of people that have been evacuated.

Return of Occupants and Vans

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

MAP 1. YASS RIVER CATCHMENT



MAP 2. YASS VALLEY COUNCIL AREA



MAP 3. YASS

