

Tamworth Regional

Local Flood Emergency Sub Plan



TAMWORTH REGIONAL FLOOD EMERGENCY SUB PLAN

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

Volume 1 of the Tamworth Regional Flood Emergency Sub Plan

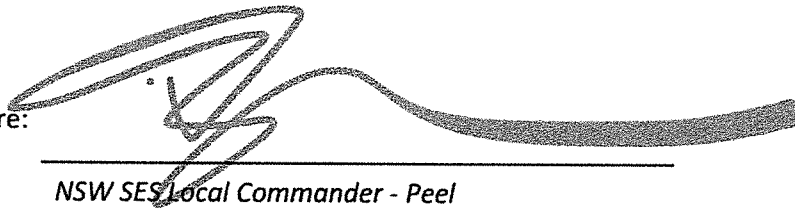
Version 3.0

AUTHORISATION

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

Authorised

Signature:



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Date:

11.09.2023

Endorsed

Signature:



Chair, Local Emergency Management Committee

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15/11/23

VERSION HISTORY

Version Number	Description	Date
1.0	Tamworth City and Parry Shire Local Flood Plan	February 2000
2.0	Tamworth Regional Flood Emergency Sub Plan	November 2013
3.0	Tamworth Regional Local Flood Plan	October 2023

AMENDMENT LIST

Suggestions for amendments to this plan should be forwarded to:

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

Amendment Number	Description	Updated by	Date
01	Update of references to 'Flood Development Manual' – replaced with 'Flood Risk Management Manual'	Melissa Lloyd	
02	Update of wording in section 5.4 relating to flood warnings, to reflect the change to the Australian Warning System	Melissa Lloyd	
03	Update of wording from 'DPIE' to 'DPE'	Melissa Lloyd	
04	Recovery Operations – updated 6.22 reference from Resilience NSW to NSW Reconstruction Authority	Melissa Lloyd	
05	Insertion of text under Section 5.9.4 - "The roles and responsibilities for Agriculture and Animal Services are outlined in the Agriculture and Animal Services Functional Area Supporting Plan."	Melissa Lloyd	

DISTRIBUTION LIST

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1 OUTLINE AND SCOPE

1.1 PURPOSE

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

1.2 AUTHORITY

- 1.2.1 This plan is written and issued under the authority of the [State Emergency and Rescue Management Act 1989 \(NSW\)](#) ('SERM Act'), the [State Emergency Service Act 1989 \(NSW\)](#) ('SES Act') and the NSW State Emergency Management Plan (EMPLAN).
- 1.2.2 This plan is a sub plan to the Tamworth Regional Local Emergency Management Plan (EMPLAN) and is endorsed by the Tamworth Regional Emergency Management Committee (LEMC).

1.3 ACTIVATION

- 1.3.1 This plan does not require activation. The arrangements set out in this plan are always active.
- 1.3.2 The Tamworth Regional Emergency Management Plan (EMPLAN) is active at all times in anticipation of the need to coordinate support and resources requested by combat agencies, including the NSW State Emergency Service (NSW SES).

1.4 SCOPE

- 1.4.1 The area covered by this plan is the Tamworth Regional LGA. The Tamworth Regional LGA and its principal towns, villages, rivers and creeks are shown in Appendix A.
- 1.4.2 The Council area is in the NSW SES North Western Zone and for emergency management purposes, is part of the New England Emergency Management Region.
- 1.4.3 The plan sets out the Tamworth Regional level emergency management arrangements for prevention, preparation, response and initial recovery for flooding in the Tamworth Regional LGA.
- 1.4.4 In this plan a flood is defined as a relatively high water level which overtops the natural or artificial banks in any part of a stream, river, estuary, lake or dam, and/or local overland flooding associated with drainage before entering a watercourse, and/or coastal inundation resulting from super-elevated sea levels and/or waves (including tsunami) overtopping coastline defences.
- 1.4.5 This plan outlines the local level arrangements for the management of downstream consequences of flooding due to dam failure, however it does not cover the management of flooding of an underground mine by inrush or other

cause, which should be covered by the Mine Emergency Sub Plan for the respective mine.

1.5 GOALS

1.5.1 The primary goals for flood emergency management in NSW are:

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

1.6 KEY PRINCIPLES

1.6.1 The protection and preservation of human life (including the lives of responders and the community) is the highest priority.

1.6.2 Evacuation is the primary response strategy for people impacted by flooding.

1.7 ROLES AND RESPONSIBILITIES

1.7.1 General responsibilities of emergency service organisations and functional areas are set out in the NSW State EMPLAN and NSW State Flood Sub Plan.

1.7.2 Specific roles and responsibilities for agencies, functional areas, and organisations in relation to flooding within Tamworth Region are detailed within this plan, Appendix B and Appendix C.

1.7.3 Any agency with agreed responsibilities in this plan that are temporarily unable, or no longer able to fulfil their responsibilities in response operations must as soon as possible notify:

- a. The NSW SES Incident Controller (for local or zone level responsibilities during response operations).
- b. The NSW SES Zone Duty Commander (for regional level responsibilities outside of response operations).

1.8 PLAN MAINTENANCE AND REVIEW

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

- a. Ensuring that all supporting emergency services and functional areas, organisations and officers mentioned in it are aware of their roles and responsibilities.
- b. Conduct a minimum of one exercise every five years or within two years of the plan being reviewed.
- c. Reviewing the contents of the plan:
 - When there are changes which alter agreed plan arrangements.
 - When changes to land use strategic plans and policies increase the population at risk.
 - After a flood including recommendations from after action reviews, reports, or inquiries.
 - As determined by the NSW SES Commissioner.
- d. The plan is to be reviewed no less frequently than every five years or after a significant flood event.

1.9 SUPPLEMENTARY DOCUMENTS

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

- a. Flood Plan Glossary.
- b. NSW SES Dam Failure Notification Flowchart.
- c. NSW SES Resupply Flowchart.

2 OVERVIEW OF NSW FLOOD HAZARD AND RISK

2.1 THE FLOOD THREAT

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

Dam Name	Owner	High Risk Dam
Chaffey Dam	Water NSW	No
Dungowan Dam	Tamworth Regional Council	No
Moore Creek Dam	NSW Department of Industry - Lands	No
Nixon Dam	Adam Cobot	No
Split Rock Dam	Water NSW	No

3 PREVENTION/ MITIGATION

3.1 INTRODUCTION

- 3.1.1 The Flood Risk Management Manual outlines the NSW Government's Flood Prone Land Policy which details the framework for managing flood prone land in New South Wales. Incorporation of flood risk management into land use planning is one of the key means to limit the exposure to flood risks to our communities and help build long term resilience to future flood events.

3.2 LAND USE PLANNING

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

Actions:

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

3.3 FLOODPLAIN RISK MANAGEMENT

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

Actions:

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

4 PREPARATION

4.1 INTRODUCTION

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

4.2 FLOOD EMERGENCY PLANNING

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

Actions:

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

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

4.3 FLOOD INTELLIGENCE SYSTEMS

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

Actions:

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

4.4 DEVELOPMENT OF WARNING SYSTEMS

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

Actions:

- a. All levels of government work in partnership to develop and maintain flood warning infrastructure.
- b. NSW SES maintains a list of the requirements for flood warnings for flood gauges in NSW (including flood classifications, warning times required and key statistics) and can be found in the supplementary document to the NSW State Flood Plan (see Section 1.9).
- c. NSW SES will recommend new warning services and changes to warning alert levels for gauges to the NSW and ACT Flood Warning Consultative Committee.
- d. The State Government, in partnership with Local Government, is responsible for developing and maintaining flash flood warning systems for local catchments where required.
- e. Tamworth Regional Council has developed and maintains a flash flood warning system for Nundle and Woolomin.

- f. Dam Owners will provide Dam Emergency Plans (where required) and consult with NSW SES on alert levels and messaging. Alert level definitions are listed in Dam Emergency Plans.
- g. NSW SES maintains a dedicated dam failure hotline and procedures to ensure priority dissemination of dam failure warnings.
- h. NSW SES develops and maintains warning and flood information products by:
 - Utilising flood intelligence data.
 - Developing warning and flood information products.
 - Continuously reviewing warning and flood information products.
 - Consulting with affected communities, key stakeholders, Dam Safety NSW and the NSW and ACT Flood Warning Consultative Committee and maintains Operational Readiness.
 - Participating in the development of public information and warning systems.
- i. Gauge owners adequately maintain flood warning gauges and systems, including those identified in the 'Service Level Specification' maintained by the Australian Bureau of Meteorology (Bureau) and those identified in the 'Provision and Requirements for Flood Warning in New South Wales' maintained by NSW SES.

4.5 BRIEFING, TRAINING AND EXERCISING

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

Actions:

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

4.6 COMMUNITY RESILIENCE TO FLOODING

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

Actions:

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

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

Actions:

- a. Partners with and engage communities to understand and manage the risks associated with floods, including providing business continuity guidance (NSW SES Business FloodSafe), family preparedness (NSW SES Home FloodSafe) and other engagement strategies.
- b. NSW SES will collate, assess and disseminate flood information to the community.
- c. Collaborate with individuals, businesses, government agencies and communities when developing flood intelligence, preparedness, and response information.
- d. Plan for floods collaboratively with communities through community and stakeholder participation and engagement.
- e. Collaborate with community sector and recognise the needs of individuals within communities who have an increased susceptibility during floods.

5 RESPONSE

5.1 INTRODUCTION

5.1.1 Flood response operations will begin:

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

5.2 INCIDENT MANAGEMENT ARRANGEMENTS

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

Actions:

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

breakdown of an Area of Operations into Divisions and/or Sectors in accordance with the principles of AIIMS.

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

Actions:

- a. NSW SES will operate Incident Control Centre(s) as required.
- b. The NSW SES Incident Control Centre(s) will:
 - Control resources from NSW SES and coordinate resources of supporting emergency services and functional areas.
 - Manage Request for Assistance (RFA) tasking and ensure they are actioned in a timely manner.
 - Undertake response planning and determine future resourcing requirements.
 - Coordinate information flow, including warnings, public information, and social media.

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

Actions:

- a. Supporting emergency services and functional areas should provide Liaison Officers to NSW SES Incident Control Centre(s) and/or Emergency Operation Centres (EOC) as required.
- b. NSW SES will provide Liaison Officer(s) to EOC as required.
- c. Where possible EOC to be co-located with NSW SES Incident Control Centres for Flood Emergency Response.

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

Actions:

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

5.3 USE OF INFORMATION AND COLLECTION OF INTELLIGENCE

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

Actions:

- a. Information relating to the consequences of flooding, response strategies, situational awareness and operational updates will be distributed by NSW SES to supporting emergency services and functional areas listed under this Plan.
- b. All supporting emergency services and functional areas and Council will accurately record and report information relevant to their activities and any real time flood information (including road closure information) to the NSW SES Incident Controller. This may be in the form of a combined Emergency Operations Centre (EOC) report, or direct from agencies where an EOC has not been established.
- c. NSW SES may establish and operate a Joint Intelligence Unit to coordinate the collection, collation, interpretation, mapping, actioning and dissemination of information.
- d. Reconnaissance, mapping, damage assessments, intelligence validation and post flood evaluation will be coordinated by NSW SES. This may occur post impact and continue into the recovery phase.
- e. NSW SES may request Engineering to assist with the gathering of flood intelligence including (not limited to) maximum flood extents, peak flood heights, recording major flood damage at key high velocity locations and preparation of After-Flood Report.

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

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

5.4 PROVISION OF INFORMATION AND WARNINGS TO THE COMMUNITY

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

Actions:

- a. The Bureau issues public weather and flood warning products before and during a flood. These may include:
 - Severe Thunderstorm Warnings – Detailed - issued for all capital cities and surrounding areas when individual severe thunderstorms are within range of the capital city radars.
 - Severe Thunderstorm Warnings - Broad-based - issued for the entire Australian State or territories affected highlighting broad areas where severe storms may occur within the next 3 hours.
 - Severe Weather Warnings with reference to heavy rainfall and/or storm surge.

- Flood Watches.
 - Flood Warnings.
- b. Councils will use the following established flash flood warning system for Nundle and Woolomin to provide warnings and information to NSW SES, key stakeholders, and the community.
 - c. Dam Owners will utilise the Dam Emergency Plan to provide warnings and information to NSW SES and communities (where appropriate).
 - d. NSW SES Incident Controllers will issue the following NSW SES Flood Warnings aligning to the Australian Warning Systems:
 - Advice
 - Watch and Act
 - Emergency Warning
 - e. NSW SES liaises with the Bureau to discuss the development of flood warnings as required.
 - f. NSW SES provides alerts and deliver flood information to affected communities using a combination of public information.
 - g. NSW SES may request supporting agencies redistribute NSW SES alerts and information, including through the provision of doorknocking teams.
 - h. Road closure information will be provided to the community through the following agencies/methods:
 - Local Government Council websites.
 - Transport for NSW 'Live Traffic' website: www.livetraffic.com or 'Transport InfoLine': 131 500. VMS messaging on roadways may also be used to advise motorists.
 - i. The Public Information and Inquiry Centre will be established by NSW Police Force where required to provide information regarding evacuees and emergency information. Contact details will be broadcast once the centre is established.
 - j. The Disaster Welfare Assistance Line will be established by Disaster Welfare Services where required to provide information on welfare services and assistance. Assistance line contact details will be broadcast once Disaster Welfare Services commence.

5.5 PROTECTION OF PROPERTY

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

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

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

5.6 ROAD AND TRAFFIC CONTROL

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

Actions:

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

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

Actions:

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

5.7 PROTECTION OF ESSENTIAL SERVICES

5.7.1 Local and Region EMPLAN's contain infrastructure inventories.

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

Actions:

- a. The Transport Services Functional Area is to coordinate the provision of information about the assessment and restoration of transport network infrastructure.
- b. The Energy and Utility Services Functional Area is to coordinate the assessment and restoration of essential energy and utility services (not including telecommunications).
- c. The Telecommunications Services Functional Area is to coordinate the assessment and restoration of telecommunications and the Public Safety Network.

- d. The Engineering Services Functional Area is to:
- Coordinate the assessment and restoration of critical public buildings for example hospitals.
 - Assessment and operation of flood protection levees.
 - Protection of property.
 - Construction and repair of levees.
 - Dam safety assessment and dam stability.
 - Water supply and sewerage operations.
 - Other critical infrastructure.
- e. The Functional Areas and Council will keep NSW SES informed of the status of utilities and infrastructure.

5.8 EVACUATION

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

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

Actions:

- a. Evacuations will take place when there is a risk to public safety. Circumstances may include:
- Evacuation of people when their homes or businesses are likely to flood.
 - Evacuation of people who are unsuited to living in isolated circumstances, due to flood water closing access.
 - Evacuation of people where essential energy and/or utility services are likely to fail or where buildings have been or may be made uninhabitable.
- b. NSW SES will consider the following in evacuation decisions:
- Duration of evacuation.
 - Characteristics of the community.
 - Numbers requiring evacuation.
 - Availability of evacuation routes and transport.
 - The ability for existing levees or other flood protection works to fulfil their intended function.
 - Time available for evacuation.
 - Evacuee management requirements.
 - Resources and delivery of evacuation information.
 - Length of isolation.

- c. NSW SES Incident Controllers, planning and intelligence officers will carefully consider the risks involved in conducting evacuations.
- d. All evacuation decisions will be made as per the current NSW SES policies and procedures, and consistent with the NSW Evacuation Management Guidelines.
- e. Potential Evacuation Centres are located in Local EMPLAN.
- f. NSW Police Force will coordinate the provision of overall security for evacuated areas.

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

- a. NSW SES will control and coordinate the evacuation of affected communities.
- b. The NSW SES Commissioner (or delegate) will warn communities to prepare for a possible evacuation, where circumstances allow such lead time.
- c. The NSW SES Commissioner (or delegate) will order any necessary evacuations and provide information to the community about when and how to evacuate.
- d. Support to evacuation operations may be requested from other emergency services and supporting agencies using arrangements in the local EMPLAN and supporting plans.
- e. The Health Services Functional Area will coordinate the evacuation of hospitals, health centres and aged care facilities (including nursing homes) in consultation with NSW SES and Welfare Services.
- f. School administration offices (Government and Private) will coordinate the evacuation of schools in consultation with NSW SES and Welfare Services, if not already closed.
- g. Caravan Park proprietors will inform the NSW SES Incident Controller when caravan park evacuations have been completed.
- h. People who are reluctant or refuse to comply with any Emergency Warning will be referred to NSW Police Force.

5.9 EVACUEE MANAGEMENT AND WELFARE

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

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

Actions:

- a. NSW SES will provide initial welfare for evacuees where required but will hand the responsibility over to the Welfare Services Functional Area as soon as possible. NSW SES will brief the Welfare Services Functional Area at the earliest opportunity regarding the level of assistance required.
- b. The Welfare Services Functional Area will manage evacuation centres for affected residents and travellers in accordance with the Welfare Services Functional Area Supporting Plan.

- c. Schools Administration (Government and Private) will manage the safety of students directly affected by flooding and will work with NSW SES in the temporary closure of schools and will coordinate with NSW SES, Transport and Welfare Services in the management of school evacuees.
- d. Disaster Victim Registration will be controlled and coordinated by NSW Police Force with the assistance of NSW SES and the Welfare Services Functional Area.
- e. NSW SES will provide details of all residents assisted in evacuations to the Welfare Services Functional Area as early as possible.
- f. Where the expected remaining number of evacuees and the duration of evacuation is assessed to be beyond the capability and capacity of the established evacuation centre arrangements the SEOCON may establish Major Evacuation Centres or Mass Care facilities.
- g. The decision to establish Major Evacuation Centres or Mass Care Facilities will be made by NSW SES and SEOCON in consultation with members of the State Emergency Management Committee.

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

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

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

Actions:

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

The roles and responsibilities for Agriculture and Animal Services are outlined in the [Agriculture and Animal Services Functional Area Supporting Plan](#).

5.10 FLOOD RESCUE

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

Actions:

- a. NSW SES will perform flood rescue, where training and equipment is suitable and where a risk assessment has indicated that the risk to rescuers is acceptable.
- b. Flood rescue operations will be conducted in accordance with the State Rescue Board NSW State Rescue Policy which sets out the framework, governance,

responsibilities, and requirements for the management and conduct of flood rescue in NSW.

- c. NSW SES may request other supporting emergency services to undertake flood rescues on behalf of NSW SES. Agencies must be authorised/accredited to undertake flood rescue operations in accordance with State Rescue Board requirements, as prescribed by NSW SES. Supporting emergency services must supply information regarding rescues performed to NSW SES. Notification arrangements with NSW Police Force are outlined in the State Rescue Board NSW State Rescue Policy.
- d. Rescue agencies will conduct rescue of domestic small and large animals as per the State Rescue Board NSW State Rescue Policy (and may include Large Animal Rescue of family horses and cows at a residence or property). The rescue of livestock (which includes commercial animals found on farming and breeding enterprises) will be coordinated through the Animal and Agriculture Services Functional Area.

5.11 RESUPPLY

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

Actions:

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

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

Actions:

- a. When requested, NSW SES will establish a resupply schedule and coordinate the resupply for isolated rural properties.

- b. NSW SES will provide local suppliers with designated loading points. Resupply items are to be packaged by the supplier.
- c. Isolated households unable to afford resupply items will be referred to the Welfare Services Functional Area for assistance.

5.12 RETURN

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

Actions:

- a. The NSW SES Incident Controller will determine when it is safe to progressively return in consultation with the relevant Emergency Operations Controller and supporting agencies considering the ongoing risk to public safety.
- b. The NSW SES Incident Controller will specify the level of access to affected communities as the following:
 - Not suitable for access; or
 - Limited access by emergency services and response agencies; or
 - Limited access by residents and/or business operators; or
 - Full access.
- c. The NSW SES Incident Controller will issue an 'Advice Warning advising "Reduced threat: Return with Caution" when the immediate danger to life and property has passed for areas.
- d. NSW SES will facilitate the return of evacuees to their homes.

5.13 END OF RESPONSE OPERATIONS

5.13.1 **Strategy:** Conclude response operations.

Actions:

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

5.14 POST IMPACT ACTIONS

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

Actions:

- a. NSW SES will continue to engage with communities after significant floods through convening one or more community forums, workshops or other opportunities to provide communities a chance to provide feedback, address any concerns and provide input into the recovery process. These will typically include other agencies such as the Bureau, Welfare Services and Tamworth Regional Council representatives.
- b. NSW SES will conduct After Action Reviews, at the conclusion of response operations, which will involve all stakeholders. Findings will be shared and incorporated into improved disaster resilience planning.
- c. NSW SES will provide information and data throughout the emergency response to inform community recovery. A report will be developed at the request of the SERCON at the conclusion of the response within an area. Should a response summary report be required it will include the following:
 - The emergency action plan in place at conclusion of the response emphasising any continuing activities including community meetings/engagement activities.
 - Resources allocated to the emergency response and associated exit strategies.
 - Details of any areas or situations with potential to re-escalate the emergency.
 - A recommendation for the conclusion of NSW SES as lead agency to transition to NSW Reconstruction Authority as the lead agency for Recovery.
 - Any actions that are incomplete or outstanding.
 - Damage Assessment Data and Information obtained throughout the response phase which will further support the long-term recovery of communities.
- d. NSW SES will undertake/coordinate a comprehensive review of intelligence and plans following significant flood events.

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

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

6 RECOVERY OPERATIONS

6.1 INTRODUCTION

- 6.1.1 Recovery is the process of returning an affected community to its proper level of functioning after an emergency. It will generally commence simultaneously with the Response phase.
- 6.1.2 Recovery operations will be initiated and conducted as outlined in the NSW State EMPLAN and as further detailed in the NSW Recovery Supporting Plan.

6.2 NSW SES RECOVERY ROLE

- 6.2.1 **Strategy:** NSW SES will support recovery operations and established Recovery Committees.
- 6.2.2 **Actions:**
 - a. NSW SES will provide representation to Recovery Committees as required and may have an ongoing role in the Recovery phase.
 - b. NSW SES roles on Recovery Committees may include providing information about any continuing response, guidance on mitigation strategies and general advice and assistance to the committee as a subject matter specialist and or expert.
 - c. NSW SES will provide information to NSW Reconstruction Authority to support applications to Treasury for Natural Disaster Relief and Recovery Arrangements.
 - d. NSW SES, in conjunction with a Recovery Committee, will provide a service to support the information needs of a community immediately following a flood.
 - e. NSW SES and where required supporting agencies will assist with clean-up operations after floods, where possible when resources and personnel permit.
 - f. NSW SES may coordinate immediate relief in collaboration with SEOCON and SERCON.

7 ABBREVIATIONS

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

8 GLOSSARY

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

Readers should refer to EMPLAN Annex 9 – Definitions.

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

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

9 Appendix A – Map of Tamworth Regional Council Area



10 Appendix B – Roles and Responsibilities

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

AGENCY	RESPONSIBILITIES
Agriculture and Animal Services Functional Area	The roles and responsibilities for Agriculture and Animal Services are outlined in the Agriculture and Animal Services Supporting Plan and NSW State Flood Plan.
Australian Government Bureau of Meteorology	The roles and responsibilities for the Australian Government Bureau of Meteorology are outlined in the NSW State Flood Plan.
Caravan Park Proprietor(s)	<ul style="list-style-type: none"> • Prepare a flood emergency plan for the Caravan Park. • Ensure that owners and occupiers of movable dwellings are aware that the caravan park is flood liable by providing a written notice to occupiers taking up residence and displaying this notice and emergency management arrangement within the park. • Ensure that owners and occupiers of movable dwellings are aware that if they are expecting to be absent for extended periods, they should: <ul style="list-style-type: none"> – Provide the manager of the caravan park with a contact address and telephone number in case of an emergency. – Leave any movable dwelling in a condition allowing it to be relocated in an emergency (i.e.: should ensure that the wheels, axles and draw bar of the caravans are not removed and are maintained in proper working order). • Ensure that occupiers are informed of Flood Information. At this time, occupiers should be advised to: <ul style="list-style-type: none"> – Ensure that they have spare batteries for their radios. – Listen to a local radio station for updated flood information. – Prepare for evacuation and movable dwelling (cabins) relocation. • Ensure that owners and occupiers of caravans are aware of what they must do to facilitate evacuation and movable dwelling relocation when flooding occurs. • Coordinate the evacuation of people and the relocation of movable dwellings when floods are rising and their return when flood waters have subsided. Movable dwellings will be relocated back to the caravan park(s) by owners or by vehicles and drivers arranged by the park managers.

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> • Secure any movable dwellings that are not able to be relocated to prevent floatation. • Inform NSW SES of the progress of evacuation and/or movable dwellings relocation operations and of any need for assistance in the conduct of these tasks.
Childcare Centres and Preschools	<ul style="list-style-type: none"> • When notified of possible flooding or isolation, childcare centres and preschools should: <ul style="list-style-type: none"> – Liaise with NSW SES and arrange for the early release of children whose travel arrangements are likely to be disrupted by flooding and/or road closures. – Assist with coordinating the evacuation of preschools and childcare centres.
Dams Safety NSW	The roles and responsibilities for Dams Safety NSW (formerly NSW Dam Safety Committee) are outlined in the NSW State Flood Plan.
Department of Defence	Arrangements for Defence Assistance to the Civil Community are detailed within the State EMPLAN (section 448).
Energy and Utilities Services Functional Area	<p>The roles and responsibilities for Energy and Utilities Services are outlined in the Energy and Utility Services Supporting Plan (EUSPLAN).</p> <p>Roles and responsibilities in addition to the Supporting Plan are:</p> <ul style="list-style-type: none"> • Assist NSW SES with identification of infrastructure at risk of flood damage where resources are available. • Facilitate local utility service distribution providers (electricity, gas, water, wastewater) to: <ul style="list-style-type: none"> – Provide advice to NSW SES of any need to disconnect power/gas/water/wastewater supplies or of any timetable for reconnection. – Advise NSW SES of any hazards from utility services during flooding and coastal erosion/inundation. – Advise the public with regard to electrical hazards during flooding and coastal erosion/inundation, and to the availability or otherwise of the electricity supply. – Clear or make safe any hazard caused by power lines or electricity distribution equipment. – Reconnect customers' electrical/ gas/ water/wastewater installations, when certified safe to do so and as conditions allow. – Assist NSW SES to identify infrastructure at risk of flooding for incorporation into planning and intelligence.
Engineering Services Functional Area	The roles and responsibilities for Engineering Services are outlined in the Engineering Services Supporting Plan and NSW State Flood Plan.

AGENCY	RESPONSIBILITIES
Environmental Services Functional Area	The roles and responsibilities for Environmental Services are outlined in the Environmental Services (ENVIROPLAN) Supporting Plan.
Floodplain Management Australia	The roles and responsibilities for Floodplain Management Australia are outlined in the NSW State Flood Plan.
Fire and Rescue NSW	The roles and responsibilities for Fire and Rescue NSW are outlined in the NSW State Flood Plan.
Forestry Corporation of NSW	The roles and responsibilities for Forestry Corporation of NSW are outlined in the NSW State Flood Plan.
Health Services Functional Area	The roles and responsibilities for Health Services are outlined in the Health Services (HEALTHPLAN) Supporting Plan and NSW State Flood Plan.
Local Emergency Operations Controller (LEOCON)	<ul style="list-style-type: none"> • Monitor flood operations. • If requested, coordinate support for the NSW SES Incident Controller.
Local Emergency Management Officer (LEMO)	<ul style="list-style-type: none"> • If requested by the NSW SES Incident Controller, advise appropriate agencies and officers of the start of response operations.
Marine Rescue NSW	The roles and responsibilities for Marine Rescue NSW are outlined in the NSW State Flood Plan.
NSW Ambulance	The roles and responsibilities for NSW Ambulance are outlined in the Health Services (HEALTHPLAN) Supporting Plan and NSW State Flood Plan.
NSW Department of Education, Association of Independent Schools of NSW, and National Catholic Education Commission	The roles and responsibilities for NSW Department of Education, Association of Independent Schools of NSW, and National Catholic Education Commission are outlined in the NSW State Flood Plan.
NSW Department of Planning and Environment (Environment and Heritage Group)	The roles and responsibilities for NSW Department of Planning and Environment (Environment and Heritage Group) are outlined in the NSW State Flood Plan (referred to as DPIE EES).
NSW Department of Planning and Environment (Water)	The roles and responsibilities for NSW Department of Planning and Environment (Water) are outlined in the NSW State Flood Plan.
NSW Food Authority	The roles and responsibilities for NSW Food Authority are outlined in the Food Safety Emergency Sub Plan.
NSW National Parks and Wildlife Services	The roles and responsibilities for NSW National Parks and Wildlife Services are outlined in the NSW State Flood Plan.
NSW Police Force	The roles and responsibilities for NSW Police Force are outlined in the NSW State Flood Plan.
NSW Reconstruction Authority	The roles and responsibilities for NSW Reconstruction Authority are outlined in the NSW State Flood Plan.

AGENCY	RESPONSIBILITIES
NSW Rural Fire Service	The roles and responsibilities for NSW Rural Fire Service are outlined in the NSW State Flood Plan.
Owners of Declared Dams within or upstream of the LGA	The roles and responsibilities for Owners of Declared Dams are outlined in the NSW State Flood Plan.
Public Information Services Functional Area	The roles and responsibilities for Public Information Services are outlined in the Public Information Services Supporting Plan and NSW State Flood Plan.
SEOCON/SEOC	The roles and responsibilities for the SEOCON/SEOC are outlined in the NSW State Flood Plan.
Surf Life Saving NSW	The roles and responsibilities for Surf Life Saving NSW are outlined in the NSW State Flood Plan.
Tamworth Regional Council	<p data-bbox="507 824 686 857">Preparedness</p> <ul data-bbox="507 884 1433 1792" style="list-style-type: none"> • Establish and maintain floodplain and coastal risk management committees and ensure that key agencies are represented. • Develop and implement flood risk management plans in accordance with the NSW Government's Flood Prone Land Policy and the Flood Risk Management Manual. • Provide levee studies, flood studies and flood risk management studies to NSW SES. • Maintain Dam Emergency Plans for the Dungowan Dam and provide copies to NSW SES. • Provide information on the consequences of dam failure to NSW SES for incorporation into planning and flood intelligence. • Coordinate the development of warning services for catchments prone to flash flooding (small catchments), where appropriate. • Maintain council-owned flood warning networks and flood mitigation works. • Participate in NSW SES-led flood emergency planning meetings, to assist in the preparation of Flood Sub Plans. • Maintain a plant and equipment resource list for the council area. • Contribute to community engagement activities. <p data-bbox="507 1814 635 1848">Response</p> <ul data-bbox="507 1874 1401 1998" style="list-style-type: none"> • Subject to the availability of council resources, assist NSW SES with flood operations including: <ul data-bbox="550 1966 1193 1998" style="list-style-type: none"> – Traffic management on council managed roads.

AGENCY	RESPONSIBILITIES
	<ul style="list-style-type: none"> – Provision of assistance to NSW SES (plant, equipment, and personnel where able and requested). – Property protection tasks including sandbagging. – Assist with the removal of caravans from caravan parks. – Warning and/or evacuation of residents and other people in flood liable areas. – Provision of back-up radio communications. – Resupply of isolated properties. – Technical advice on the impacts of flooding. – Close and reopen council roads (and other roads nominated by agreement with Transport for NSW) and advise NSW SES, NSW Police Force and people who contact the council for road information. – Assist NSW SES to provide filled sandbags and filling facilities to residents and business in areas which flooding is expected. <ul style="list-style-type: none"> • Assist with making facilities available for domestic pets and companion animals of evacuees during evacuations. • Operate a flash flood warning system. • Operate flood mitigation works including critical structures such as detention basins and levees and advise NSW SES regarding their operation. • Manage and protect council-owned infrastructure facilities during floods. • Provide advice to NSW SES and the Health Services Functional Area during floods about key council managed infrastructure such as sewerage treatment and water supply. • Advise the Environmental Protection Authority of any sewerage overflow caused by flooding. • Work with NSW SES and NSW Department of Planning and Environment to collect flood related data during and after flood events. <p>Recovery</p> <ul style="list-style-type: none"> • Provide for the management of health hazards associated with flooding including removing debris and waste. • Ensure premises are fit and safe for reoccupation and assess any need for demolition. • Provide services, assistance and advice to State Government in accordance with the State Recovery Plan.

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

11 Appendix C – Community Specific Roles and Responsibilities

Community Members	<p>Preparedness</p> <ul style="list-style-type: none"> • Understand the potential risk and impact of flooding. • Prepare homes and property to reduce the impact of flooding. • Understand warnings and other triggers for action and the safest actions to take in a flood. • Households, institutions, and businesses develop plans to manage flood risks, sharing and practicing this with family, friends, employees, and neighbours. • Have an emergency kit. • Be involved in local emergency planning processes. <p>Recovery</p> <ul style="list-style-type: none"> • Assist with community clean-up if required and able to do so. • Participate in After Action Reviews if required.
Aboriginal organisations or groups	<ul style="list-style-type: none"> • Act as the point of contact between NSW SES and the Tamworth community. • Inform the NSW SES Incident Controller about flood conditions and response needs. • Disseminate flood information, including flood and evacuation warnings, to the Tamworth community. • Tamworth Local Aboriginal Land Council (LALC) – 02 6766 9028
Farmer Flood Warning Network	<ul style="list-style-type: none"> • Provide flood information to the NSW SES Incident Controller. • Distribute flood warnings and flood information provided by the NSW SES Incident Controller.

HAZARD AND RISK IN TAMWORTH REGIONAL

Volume 2 of the Tamworth Regional Local Flood Plan

Last Update: February 2000

ANNEX A – THE FLOOD THREAT

RIVER SYSTEMS AND LANDFORMS

Namoi River

The MacDonald (or Namoi) River rises on the New England Plateau in Parry Shire to the east of Tamworth. It flows North and West leaving the shire 20 kilometres North of Western Creek. It has no affect on the area covered by this plan.

Peel River

The Peel River rises in the steep heavily timbered area of the Great Dividing Range south of Nundle. Chaffey Dam is situated on the Peel River approximately four kilometres upstream of the junction with Copes Creek. Dungowan Creek flows out of the Moonbi Ranges at Dungowan with Dungowan Dam located in the headwaters approximately 30 Kilometres upstream of the settlement of Dungowan Creek. Between Dungowan and Tamworth the Peel River is boarded on the North by mountains but flattens out to river plains on the southern side.

Cockburn River

Seven kilometres upstream of Tamworth the Peel River is joined by the Cockburn River which also flows out of the Moonbi Ranges. The major tributary of the Cockburn River is Mula Creek rising north of Whites Sugarloaf, flowing in a North-West direction to its junction three kilometres above Kootingal. The other tributaries rise in the Western slopes of the Moonbi Range and these creeks exhibit particular high run off characteristics. Between Kootingal (on the Cockburn River) and the junction of the Peel and Cockburn Rivers they flow through river flats of about seven kilometres average width.

Goonoo Goonoo Creek

The Goonoo Goonoo Creek rises in the Great Dividing Range, south of Tamworth, and enters the Peel River at Tamworth having quickly lost elevation as it flows North to the plains around Goonoo Goonoo. This creek is the major contributor to flooding in Tamworth and can produce floods in excess of moderate flooding without effluence from other rivers/creeks.

Tamworth

Tamworth lies at the junction of three major streams, the Peel and Cockburn Rivers and Goonoo Goonoo Creek. A fourth stream, Timbumburi Creek, enters the Peel River a short distance downstream of the Taminda Industrial Estate and can influence flood levels in that area.

Downstream of Tamworth

From Tamworth, the Peel River flows in a general north-west direction and is joined on both sides by a number of minor tributaries that contribute relatively little to the overall runoff of the entire catchment.

FLOOD HISTORY

The following brief history of flooding at Tamworth is from the Tamworth Flood Study (May 1990) conducted by Webb, McKeown & Associates Pty Ltd (Consulting Engineers) for the Department of Water Resources.

1800s

The first recorded major flood at Tamworth occurred in 1840 and another flood described as “probably Tamworth’s worst” occurred on 9 February 1864. There are no details available on these floods except that two lives were lost and severe damage was inflicted on property and stock in the 1864 flood.

February 1910

The flood of 1910 reached a level equivalent to 6.93 metres on the Tamworth Bridge gauge. The flood was preceded by four days of steady rain, beginning on Monday 10 January with a total registration of 200 mm. On the Friday evening there was a torrential downpour and a further 75 mm of rainfall was recorded in a matter of hours. The skies then cleared. The river, which had risen in the previous days, started to fall. However, at 2 am on Saturday 15 January it started to rise rapidly and by dawn had inundated the town. No lives were lost but damage was severe, mainly as the result of debris swept along at velocities estimated at up to 5.5 metres per second.

February 1955

The Tamworth levee was constructed during the depression of the 1930’s as an unemployment relief scheme. The largest flood on the Peel tested the levee, in February 1955. This flood was preceded by several occurrences of moderate to heavy rainfall over a five-week period, culminating in intense falls between 23 and 28 February. The levee held with the help of sandbags but there was still considerable damage. Much of this damage was caused by the ponding of town stormwater drainage behind the levee.

January 1962

The largest flood since 1955 occurred on 13 January 1962. This flood typifies the flooding in the Peel in that it consisted of a single sharp peak and contained a small volume of runoff. Two days after the peak, the river level was almost back to normal.

Post 1962

Other floods occurred in February 1971, January 1974, January 1976 and January 1984 and all of these followed a similar pattern. In each case the catchment had been well watered by above average rainfalls in the preceding weeks. The floods themselves were multiple peak events resulting from a number of separate rainfall bursts. The largest was the 1984 event that caused considerable damage in the Taminda Industrial Estate.

The 10 recorded floods that have occurred at Tamworth above the major flood classification (6.0 metres) are depicted in Figure 1 below.

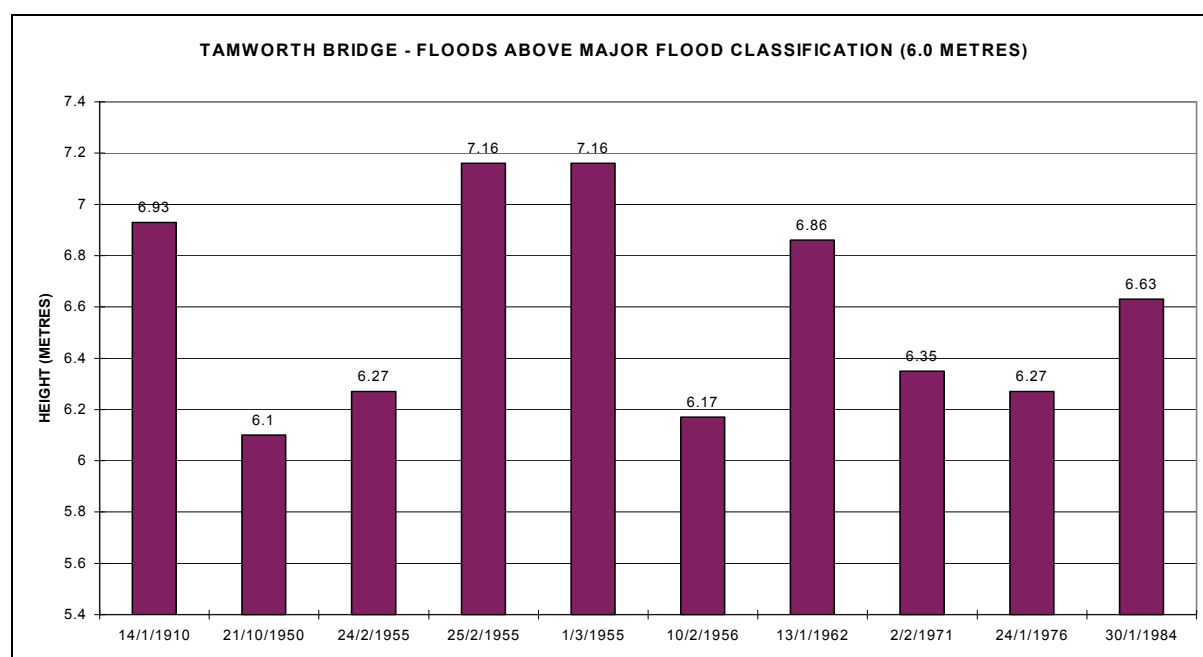


Figure 1 – Tamworth Bridge; Floods Above Major Flood Classification

FLOOD PATTERN

There is no consistent pattern in the floods recorded in recent years in the Namoi Valley. This is due to the many sources of floodwaters, the large catchment area involved and significant variation in the location of storm centres. It is apparent that if all of the upstream tributaries had a major flood simultaneously, flooding in the floodplain and riverine area could potentially be significantly greater than anything yet recorded. The probability of such an event is very low, but it indicates that the high flood levels of the period from 1955 to 1977 should not be considered as freaks.

Annual median rainfall over the headwaters of the Peel above 2,500 metres is between 875 millimetres and 1,125 millimetres. The wettest months are January and June. 50 millimetres of rain over the whole catchment assuming a reasonable level of catchment saturation and good river flows will produce minor to moderate flooding in Tamworth.

Floods have occurred in all months of the year but have been rare in April and May. The most common months for major flooding have been January, February and March when the summer cyclonic weather systems extend southward from Queensland to affect the valley. The pattern of occurrences of floods above moderate flood level is depicted in Figure 2 below:

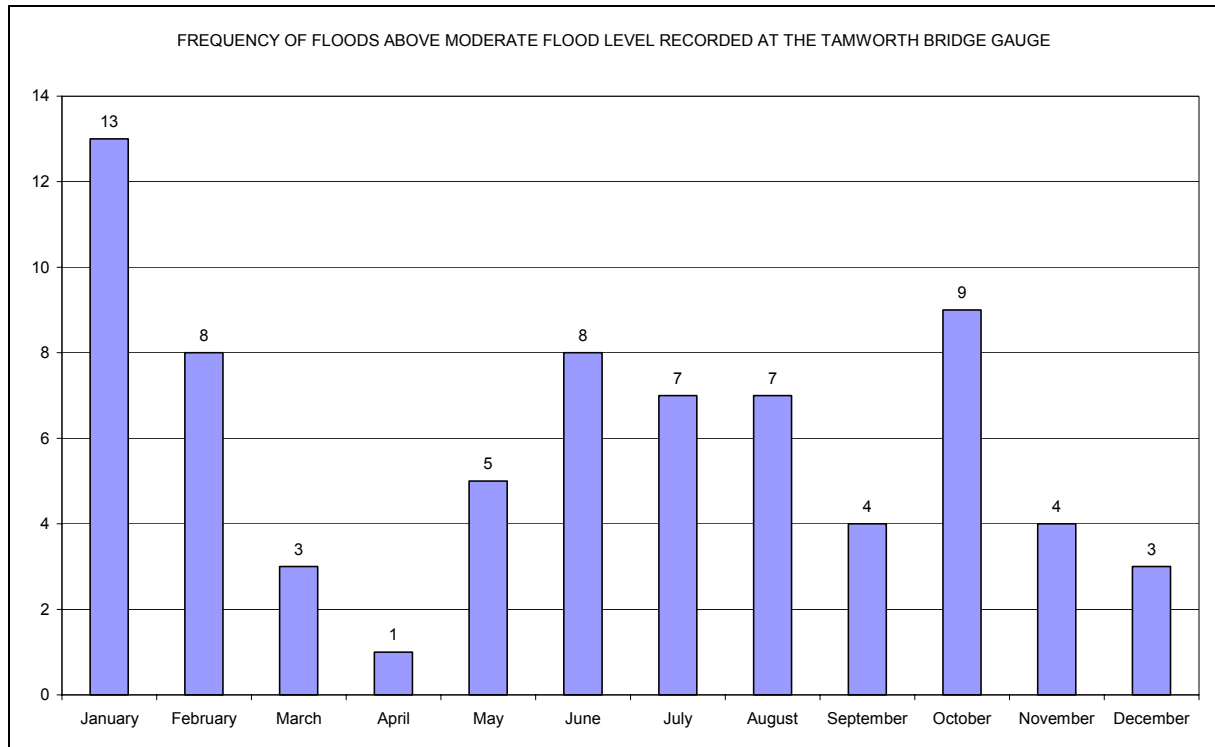


Figure 2 – Frequency of Floods Above Moderate Flood Level

THE FLOOD THREAT

Tamworth City

The city of Tamworth (population 35,236) lies astride a flood plain formed at the junction of three major streams, the Peel and Cockburn Rivers and Goonoo Goonoo Creek. A fourth stream, Timbumburi Creek enters the Peel a short distance downstream of the Taminda Industrial Estate. Flows in the Peel River are diverted into the Wallamore Anabranch near Taminda. Flooding in the City is therefore the result of a complex combination of interacting flows from a number of sources.

The gauge at Tamworth was installed at the Highway Bridge (immediately downstream of the bridge). Conditions at the highway have changed since 1955 with a new road alignment and Bridge as well as new development. Hydraulic modelling has established that there were only negligible affects resulting from these changes.

While the river systems can produce complicated flows, a flood on the Peel River without contributions from Goonoo Goonoo and/or Timbumburi Creek does not

cause significant problems and will not cause water to flow in the Wallamore Anabranche. Goonoo Goonoo Creek can flood without flooding in the Peel. Furthermore, Timbumburi Creek can also flood without flooding on the Peel and the Goonoo Goonoo.

The unpredictability and volatility of the catchments of the above systems means that some areas of Tamworth can be subjected to flash flooding which can occur with as little as 4-6 hours warning.

Parry Shire Council Area

Various levels of riverine flooding affect the communities of Dungowan (Peel/Dungowan Rivers), Nemingha (Cockburn/Peel Rivers) and Bendemeer (Bendemeer River). The other small communities and villages in the Parry Shire are affected by localised flooding and short-term isolation problems.

DESIGN FLOODS

The Tamworth City Council has adopted the following heights as the design floods for Tamworth City:

- a. 1% AEP - 7.662 metres.
- b. 2% AEP - 7.162 metres.
- c. 5% AEP – 6.508 metres.

CHAFFEY DAM

Chaffey Dam is situated on the Peel River 43 Kilometres south east of Tamworth and 5 Kilometres above the village of Woolomin. Access is via the Nundle - Tamworth Road, turning off the Hume Highway at Nemingha, 7 Kilometres east of Tamworth or off the New England Highway north of Wallabadah. The dam comprises a 54 metre high earth and rock fill embankment with a morning glory spillway and is located on the Peel River and 40 kilometres above the city of Tamworth. The dam retains storage of 62,000 megalitres for the supply level. This storage retention can increase to in excess of 160,000 megalitres for the existing design flood level with the potential to release a flood flow down the valley which is more than five times the revised estimate of the PMF which could occur naturally. The Chaffey Dam spillway has the ability to handle only 53% of the PMF without overtopping and failure of the dam. This imminent failure flood has been exceeded of such a flood in a period of 100 years range from 1:13 (8%) to 1:6 (17%). Chaffey Dam is operated by DLWC and provides in excess of 90% of the water supply for the city of Tamworth.

The Chaffey Dam embankment and spillway configuration (where flood flows are pondered and throttled through the morning glory spillway) results in significantly reduced discharge under the flood conditions that would precede an overtopping failure. This mitigation effect presents advantages under normal flood conditions.

However, for abnormal flood conditions that might cause failure of the dam, this mitigation effect is extremely hazardous to residents in the downstream valley extending from the dam to the outskirts of Tamworth. This is due to lack of prior extreme flooding in the river valley that would forewarn impending failure flood conditions at the dam.

These failure flood conditions would produce a flood discharge from the dam at failure being approximately 40 times the largest flood recorded in the valley and more than five times the PMF that would occur naturally. The effect would be:

Town	Population	Occupied Houses	Flood Wave Depth	Travel Time from Chaffey Dam after Dam Failure
Wollomin	150-180	25	11.0	20 mins
Dungowan	453	152	3.0	1.5 hours
Tamworth	35,236	10	3.5	3.3 hours

The flood wave would probably cause failure of the bridge over the Peel River serving the North Western Railway System and road bridges and road access serving Tamworth would be similarly impaired.

General standards for warning would dictate about 12 hours advance warning of extreme flood conditions. It will be noted that as little as 48 minutes is available from the safe level in the dam to imminent failure. Dam break studies indicate that approximately 18 hours is required before post dam break flooding recedes sufficiently for access to be gained to damaged works.

Two synoptic situations are possible as mechanisms for production of the probable maximum precipitation. One would be the slow movement of a tropical depression or decaying tropical cyclone just to the west of the catchment with a northerly inflow of moist air to the catchment. The other would be the presence of a tropical cyclone off the north coast of New South Wales or a trough extending to that area from a cyclone further to the north with an east - south - easterly inflow to the catchment from the Tasman Sea. The second mechanism produces higher estimates of PMP.

DUNGOWAN DAM

The Dungowan Dam and pipeline was completed in 1958 and upgraded in 1992. It was the first major water storage facility for Tamworth. It is still a significant part of Tamworth's water supply and is owned by the Tamworth City Council. It has a storage capacity of 5,900 megalitres and a height of 27 metres.

Dungowan Dam is classified as a Prescribed Dam by the NSW Dams Safety Committee and the Tamworth City Council is responsible for the formulation and issue of a Dam Safety Emergency Plan. It is not classified as being deficient and there is no requirement for a flood emergency plan.

COEYPOLLY No2 DAM

The Coepolly Dam is located on Quipolly Creek approximately 10 kilometres south-east of Werris Creek and about the same distance north-east of Quirindi. The dam provides the water supply for Werris Creek and is owned by the Parry Shire Council. It was constructed by the Public Works Department in 1955 and is a zoned earthfill embankment dam. It has a storage capacity of 5,435 megalitres, a height of 16 metres and a crest length of 200 metres. The dam is actually located within the Quirindi Shire and its failure would not impact on any communities within the Parry Shire. Parry Shire Council has developed a flood emergency plan for the dam and this forms part of the Quirindi Local Flood Plan.

FLOOD MITIGATION

Tamworth City CBD Levee

The new levee system that protects the Tamworth CBD consists of a concrete gravity retaining wall that is designed to provide protection for the CBD against the 1% AEP flood plus 1 metre freeboard. The levee has a top wall height of 9.072 metres but is designed for a flood level of 8.072 metres. The additional one metre is designed to allow for flood wave action.

There are two openings in the levee and these are located at the pedestrian footbridge in Bicentennial Park and the main traffic bridge at Bridge Street. Tamworth City Council will close these bridges and seal the openings with 1 metre high aluminium barriers in anticipation of a river height attaining or exceeding 7.713 metres. There is designed leakage at each of these locations but this is expected to be minimal.

The ponding problems in the lower end of the CBD brought about by local runoff and stormwater drains will still occur.

West Tamworth Levee Proposal

A proposal to construct a levee for West Tamworth is still under consideration. It is proposed that this levee would be constructed below the New England Highway near Goonoo Goonoo Road between Mathew and Thibaul Streets.

Voluntary Purchase and House Raising

Tamworth City Council has started to purchase some houses in the area between Bridge Street and the Viaduct. It is also investigating a proposal to raise houses in the same area.

Taminda Industrial Estate Levee Proposal

Consultations about a proposal to protect the Taminda Industrial Estate with a levee have been going on since November 1998. This is a long term project that proposes the construction of a concrete gravity retaining wall from the Viaduct to the

Racecourse. Whether it will be designed to protect this area against a 5% AEP plus 1 metre freeboard or 1% plus 1 metre freeboard is still being examined.

ANNEX B - EFFECTS OF FLOODING ON THE COMMUNITY

TAMWORTH CITY

Central Business District

A levee protecting the main Commercial area of Tamworth was constructed in 1930 and raised in 1978 to a crest level one metre above the February 1955 flood level (estimated to be a 2% AEP flood). The levee has recently being substantially upgraded to provide protection against a 1% AEP flood plus 1 metre freeboard. A private levee protects the racecourse. Runoff from East Tamworth can cause ponding and nuisance flooding in the area bounded by Brisbane Street, the New England Highway (to Armidale), Roderick Street and the levee bank. Most Residential areas are not at risk during flooding, except in the event of failure of the Chaffey Dam, during extreme flooding. Such an event could require the evacuation of up to 7,000 persons.

Riverside Car Parks And Sporting Fields

Riverside carparks and sporting fields are located on the western side of the flood plain. They stretch from opposite the CBD for two kilometres in a North-West direction. This area is affected by floodwaters from the Peel River at a main bridge level of 4.2 metres necessitating the warning of car owners to remove their vehicles.

King George Avenue

King George Avenue, located two kilometres south of the CBD, is affected by the Peel River resulting in the need to evacuate three houses when the Paradise Bridge Gauge reaches 5.5 metres.

Crown Street And Ebsworth Street

Two-three houses in this area are affected by the combined flows of the Peel and Goonoo Goonoo Creek.

Kurrawan Street And Goonoo Goonoo Road

This area is affected when the Tamworth Bridge gauge reads 6.00 metres. If the Goonoo Goonoo Creek is the dominant system, Kurrawan Street and the eastern side of the Goonoo Goonoo Road may be affected below a main bridge height of 6.0 metres. When this occurs, five houses in Kurrawan Street are affected. The flooding of this area is influenced by a storm drain outlet from the hill behind Kurrawan Street.

Thibault Street, Wise Street And Hilton Street

These streets are affected by the Goonoo Goonoo Creek separately from Kurrawan Street. The occupants of the flood-affected houses in this area normally evacuate to friends and relatives.

Westdale

Westdale, located four kilometres west of the city, is flooded by Timbumburi Creek when the main bridge gauge reads 6.0 metres. The significant flooding in this area is on the Wallamore Road and Flinders Street, particularly for those residences that back onto Westdale Park, and the majority of these residences have privately constructed levees to protect their properties.

Taminda Industrial Area

The Taminda Industrial Estate is located on the Peel floodplain one kilometre north-west of the CBD. This area is inundated by major flooding and requires the alerting of property owners and relocation of stock. Flooding commences in this area at 4.3 m on the main bridge gauge. In 1984 some premises had up to one metre of water in them.

Flood Intelligence – Tamworth Bridge Gauge

The Tamworth/Parry SES maintains a detailed flood intelligence card for the Tamworth Bridge gauge (AWRC Number 419009). An abridged version of the card giving a brief description of the possible effects that may occur at various heights is shown below:

Height (Metres)	Consequences
3.80	Water breaks out of the Peel River and enters the Jewry street car parks. During the Country Music Festival this area is used as a camping area for as many as 1,000 people in tents.
4.20	Water enters the riverside car park and sporting fields. Check for campers and/or motor vehicles. During the Country Music Festival, this area is used by as many as 10,000 people in tents and caravans. The nine levee gates must be closed by this height. The Tamworth City Council requires at least two hours prior notice to close the levee gates and prepare the Olympic Pool. Water starts to enter the low-lying areas at the bottom of the Taminda Industrial Estate in the vicinity of Jewry Street.
4.60	O'Brien's Lane and Cater Street closed. The only access from Nemingha to Calala is via Tamworth City. Water over the causeway closes Cross Park Road. The evacuation route for residents in the Cross Park area is lost.

5.00	Water starts to enter Crown, Denison, Plain and Belmore Streets and starts to threaten business houses in the Taminda Industrial Estate. Blackwoods and Sons is surrounded by water impeding vehicular traffic.
5.20	Estimated height that business houses in the lower areas of the Taminda Industrial Estate start to experience over floor inundation.
5.79	Water enters the yards of houses in Ebsworth Street between Bridge and Denne Streets.
6.00	The main traffic bridges in Bridge Street are closed by floodwater in the vicinity of Barnes Gully at the Tamworth Towers Flag Inn closing the Oxley Highway and cutting Tamworth City in two. A railway vehicle is made ready for emergency use transporting personnel and equipment across the Peel River via the Viaduct bridge. Evacuation of approximately 12 houses in the rural residential area in King George Avenue must be completed.
6.51	5% AEP flood level (6.508 metres).
6.27	Peak height 23 January 1976. A total of 25 families evacuated.
6.70	Peak height 30 January 1984. Taminda Industrial Estate severely affected. Evacuations from Karrawon Street, King George Road and Cross Park Road.
6.86	Peak height 13 January 1962. The Cockburn River was the dominant system and the Peel River was in low flood. One third of shops on the western side were flooded, 20-25 families were evacuated and three bridges were washed away.
7.16	Peak height 25 February 1955. 2% AEP flood level (7.162 metres).
7.66	1% AEP flood level (7.662 metres).
9.07	Design levee height.

PARRY SHIRE COUNCIL AREA

Short-term riverine flooding occurs at:

- a. Dungowan (Peel River and Dungowan Creek);
- b. Nemingha (Cockburn/Peel Rivers); and
- c. Bendameer (MacDonald River).

Local runoff and short-term isolation due to roads being closed by floodwaters can affect the other communities in the Parry Shire Council area.

CHAFFEY DAM

Details of a failure of the Chaffey Dam are detailed in Part 3 of this plan. Some relevant factors worthy of note are:

- Woolomin; population 150-180; would need to be completely evacuated in the event of the failure of Chaffey Dam.
- Dungowan; population 453; would need to be completely evacuated in the event of the failure of Chaffey Dam.
- Approximately 20% of Tamworth City (about 7,000 people) will be affected, particularly in the Taminda Industrial Estate.
- Somerton; population 111 (41 houses); would need to be completely evacuated.
- Carroll; population 188 (63 houses); would need to be completely evacuated.

ROADS

Roads that may be affected by flooding are detailed in the following table:

Name	From-To	Designation	Location of Closure
New England Highway	Tamworth-Glen Innes		Tamworth Bridge
New England Highway	Tamworth-Murrurundi		Tamworth Bridge
Oxley Highway	Tamworth – Gunnedah		Timbumburi Creek (4 km west of CBD)
	Manilla-Tamworth	TR 63	
	Tamworth-Dungowan	MR 105	
	Dungowan-Nundle	MR 105	
	Tamworth-Werris Creek	MR 130	

SES RESPONSE ARRANGEMENTS FOR TAMWORTH REGIONAL

Volume 3 of the Tamworth Regional Local Flood Plan

Last Update: February 2000

**ANNEX C TO THE
TAMWORTH/PARRY LOCAL FLOOD PLAN**

ANNEX C - GAUGES MONITORED BY TAMWORTH/PARRY SES

Station	AWRC No	Stream	Flood Classification			Type
			Min	Mod	Maj	
Goonoo Goonoo	410935	Goonoo Goonoo Creek				Telemeter
Scott's Road	10344	Goonoo Goonoo Creek				Manual
Calala Lane	10072	Goonoo Goonoo Creek				Manual
Nemingha	10263	Cockburn River				Manual
Mulla Crossing	419016	Cockburn River				Telemeter
Limbri	419054	Swamp Oak Creek				Manual
Chaffey Dam Storage	419069	Peel River				Telemeter
Tamworth Water Supply	419070	Peel River				Telemeter
Piallamore	419015	Peel River				Telemeter
Attunga	419046	Peel River				Manual
Paradise Weir	419024	Peel River				Telemeter
Appleby	419073	Peel River				Telemeter
Bective	419074	Peel River				Telemeter
Somerton	419075	Peel River				Telemeter
Tamworth Bridge (Note 1)	419009	Peel River	3.00	4.20	6.00	Telemeter

Note:

1. The Bureau of Meteorology provides flood warnings for the Tamworth Bridge gauge.

**ANNEX D TO THE
TAMWORTH/PARRY LOCAL FLOOD PLAN**

ANNEX D - DISSEMINATION OF SES FLOOD BULLETINS

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

Television Stations:

Prime TV	Tamworth
NBN TV	Tamworth
ABC	Tamworth
NRTV	Tamworth

Radio Stations:

2TM	Tamworth
2NU	Tamworth
2MO	Tamworth
2VM	Moree
2CR	Orange
2AD	Armidale
2DU	Dubbo
2WEB	Bourke

Newspapers:

The Northern Daily Leader, Tamworth

ANNEX E - GUIDE TO THE CONTENT OF EVACUATION WARNING MESSAGES

1. Time of issue and title of Authorising Officer.
2. Description of the area to which the warning applies and the flood threat to that area.
3. Information to be given to evacuees on:
 - a. Location of and route to evacuation centre.
 - b. Time by which evacuation should take place.
 - c. Arrangements for those without their own transport.
4. Evacuees to be advised to:
 - a. Raise furniture and furnishings above likely flood level.
 - b. Gather medicines, personal and financial documents and mementoes and those belongings that can be fitted within own means of transport (or within a suitcase of travelling by bus).
 - c. Listen to radio for confirmation of message and for further information.
 - d. Assist neighbours if necessary.
 - e. Register evacuation at a Police Station or evacuation centre.
 - f. Make arrangements for their pets or leave them to be cared for under emergency arrangements.
5. Evacuees to be advised that Police will provide security for properties in the evacuated area.
6. Phone number for confirmation of warnings.

ANNEX F - EVACUATION OF CAMP SITES DURING THE COUNTRY MUSIC FESTIVAL

SITUATION

Tamworth City Council allows camping on the Council Reserves adjacent to the Peel River, Jewry and Carter Streets during the Country Music Festival. These reserves are on the floodplain and are subject to flooding at short notice following persistent heavy rain.

At 3.80 metres on the Tamworth Bridge Gauge (AWRC Number 419009), water breaks out of the Peel River and enters the Jewry Street car parks. During the Country Music Festival this area is used as a camping area for as many as 1,000 people in tents.

At 4.20 metres, water enters the riverside car park and sporting fields. During the Country Music Festival, this area is used by as many as 10,000 people in tents and caravans.

MISSION

To evacuate campers on Council Reserves at risk of flooding.

EXECUTION

General Outline

On the receipt of a flood warning predicting a river height of 3.80 meters or greater, all campers occupying the Council Reserves adjacent to the Peel River, Jewry and Carter Streets will be evacuated and relocated to alternative sites around Tamworth.

Action to be Taken on Receipt of a Flood Alert/Warning

Immediately, upon receiving advice that the Peel River will reach or exceed 3.80 metres at the Tamworth Bridge gauge, notify:

- a. Tamworth Local Area Commander.
- b. Environmental Health Manager – Tamworth City Council.
- c. Chairperson of the Tamworth LEMC.

Action to be Taken on Decision to Evacuate

If the decision is made to evacuate the camp sites, the Operations Inspector (Oxley Local Area Command) will:

- a. Arrange for Police vehicles with public address systems fitted to patrol all areas where people are congregating and broadcast evacuation warnings.
- b. Arrange for evacuation warnings to be disseminated via local radio and TV media outlets (Radio: 2TM, FM 92.9, Festival Radio and ABC. TV: Prime and NBN).
- c. Contact all licensed premises and entertainment venues and arrange to have evacuation warning placed over the public address systems.
- d. Arrange for SES and Council staff to be in attendance at all sites to facilitate orderly relocation.
- e. Arrange for reception at the alternative sites.
- f. Provide available police officers to assist SES and Council staff with evacuation.

Relocation Centres

Campers evacuated from the Council Reserves are to be relocated to the following alternative sites:

- a. Chaffey Park,
- b. Chauvel Park,
- c. Belmore Park, and
- d. The South Tamworth Sporting Complex near the intersection of the New England Highway (Goonoo Goonoo Road) and Greg Norman Drive.

COMMAND AND SIGNAL

Control Arrangements

Evacuations are to be controlled by the Tamworth/Parry SES Local Controller (or at his/her request, the Tamworth LEOCON using the Operations Inspector Oxley Local Area Command).

**ANNEX G TO THE
TAMWORTH/PARRY LOCAL FLOOD PLAN**

ANNEX G - ACTIONS TO BE TAKEN ON ISSUE OF CHAFFEY DAM FAILURE ALERT

Chubb New England Security on the activation on any alarm is to notify the Tamworth/Parry SES Local Controller.

Alert	Transmitted to	Actions	Subsequent Actions
White	<ul style="list-style-type: none"> • Chubb New England Security. • Tamworth/Parry SES Control Room. • Department of Water Resources. 	<p>Tamworth-Parry SES Local Controller to advise:</p> <ul style="list-style-type: none"> • Peel Local Emergency Operations Controller. • Namoi Division SES Headquarters. • Nundle Shire SES Local Controller. • SES Wardens. • Co-ordinator Tamworth Disaster Welfare Service. • Tamworth Local Emergency Management Officer. <p>SES Local Controller to check on the 30 residences and 3 stations at Woolomin and Dungowan townships to:</p> <ul style="list-style-type: none"> • Advise them of the alert. • Check to numbers to be evacuated. • Check potential evacuation problems. 	Namoi SES Division Headquarters will advise SES State Headquarters.
Amber	As above.	<p>Tamworth-Parry SES Local Controller to advise above persons plus:</p> <ul style="list-style-type: none"> • Tamworth City Council. • Parry Council. • NSW Ambulance Service (Tamworth). 	<p>Namoi SES Division Headquarters will advise:</p> <ul style="list-style-type: none"> • Gunnedah SES Local Controller. • SES State Headquarters.

Alert	Transmitted to	Actions	Subsequent Actions
		<ul style="list-style-type: none"> • Telecom (Tamworth). • State Rail Authority. • Pacific Power (where). • Road Transport Authority • Media. <p>SES Local Controller to check the 33 locations downstream of the dam to:</p> <ul style="list-style-type: none"> • Confirm/advise them of the alert. • Remind the residences to prepare for evacuation. 	
	Residences below the dam.	Residents prepare to evacuate on red alert.	
Red	As above.	<p>Tamworth-Parry SES Local Controller to advise above persons plus:</p> <ul style="list-style-type: none"> • Tamworth Base Hospital. <p>SES Local Controller to check the residents downstream of the dam to ensure they have received the red alert and are evacuating.</p>	To be classified as an emergency operation and controlled by the Local Emergency Operations Controller. (1) (Police)
Dam Failure	As above.	<p>Tamworth/Parry SES Local Controller to advise:</p> <ul style="list-style-type: none"> • Local Emergency Operations Centre. • Namoi SES Division Headquarters. 	Namoi SES Division Headquarters to advise SHQ. (Police)
All Clear	As above.	SES Local controller to advise above persons.	All agencies involved in disseminating earlier alerts to advise residents at threat and/or evacuees that "all clear" has been issued.

ANNEX H - ARRANGEMENTS FOR FLOOD LIABLE CARAVAN PARKS

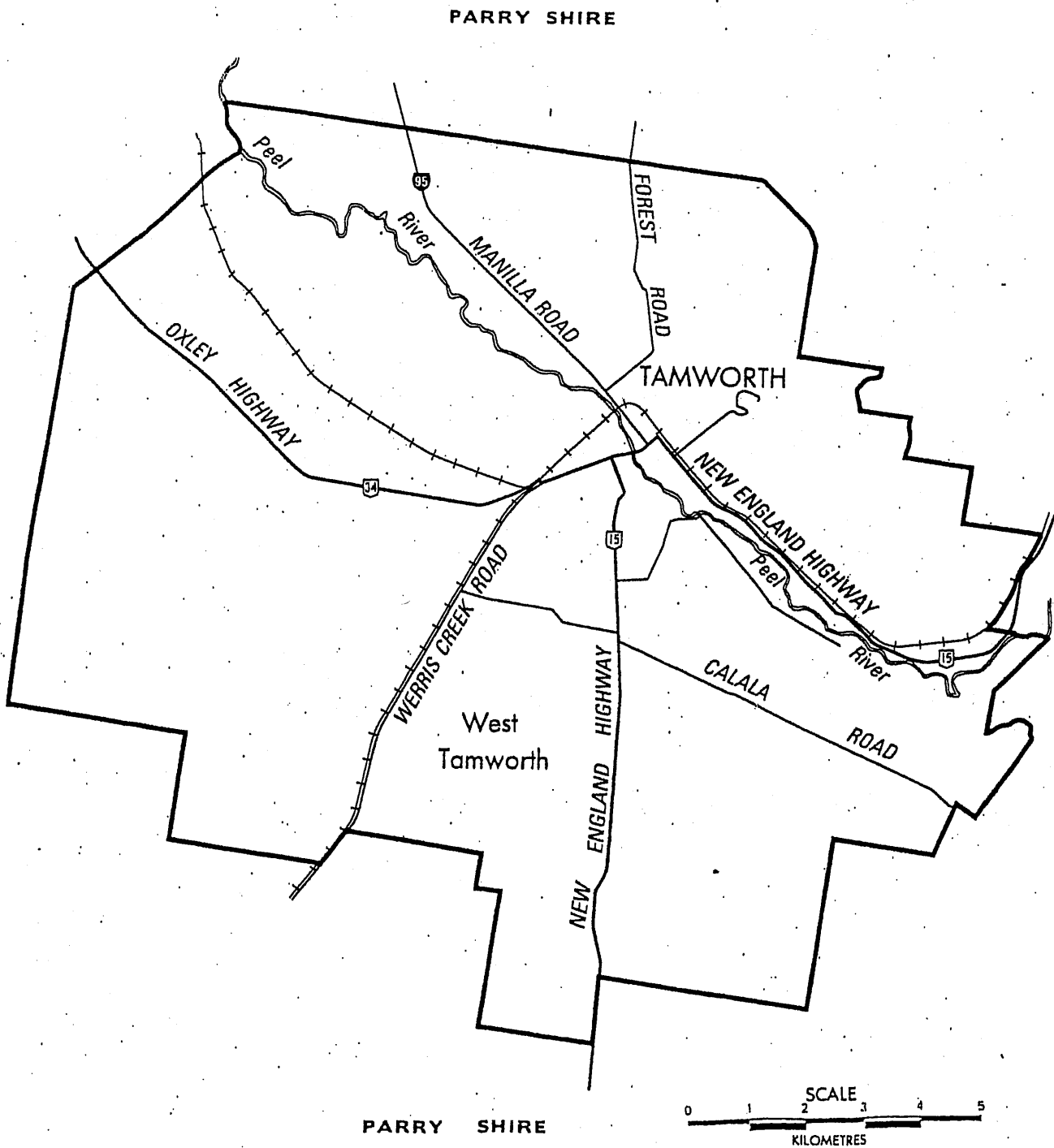
This Annex is to be finalised by the Tamworth/Parry SES Local Controller in consultation with the Tamworth City and Parry Shire Councils and the park proprietors.

At minimum, this Annex should indicate that there are council-operated licensing regulations for caravan parks which relate to public safety and the removal of vans during periods of flooding, and should list by location the caravan parks known to partly or wholly flood liable. Note that van movement is the responsibility of park proprietors, but agency help can be indicated.

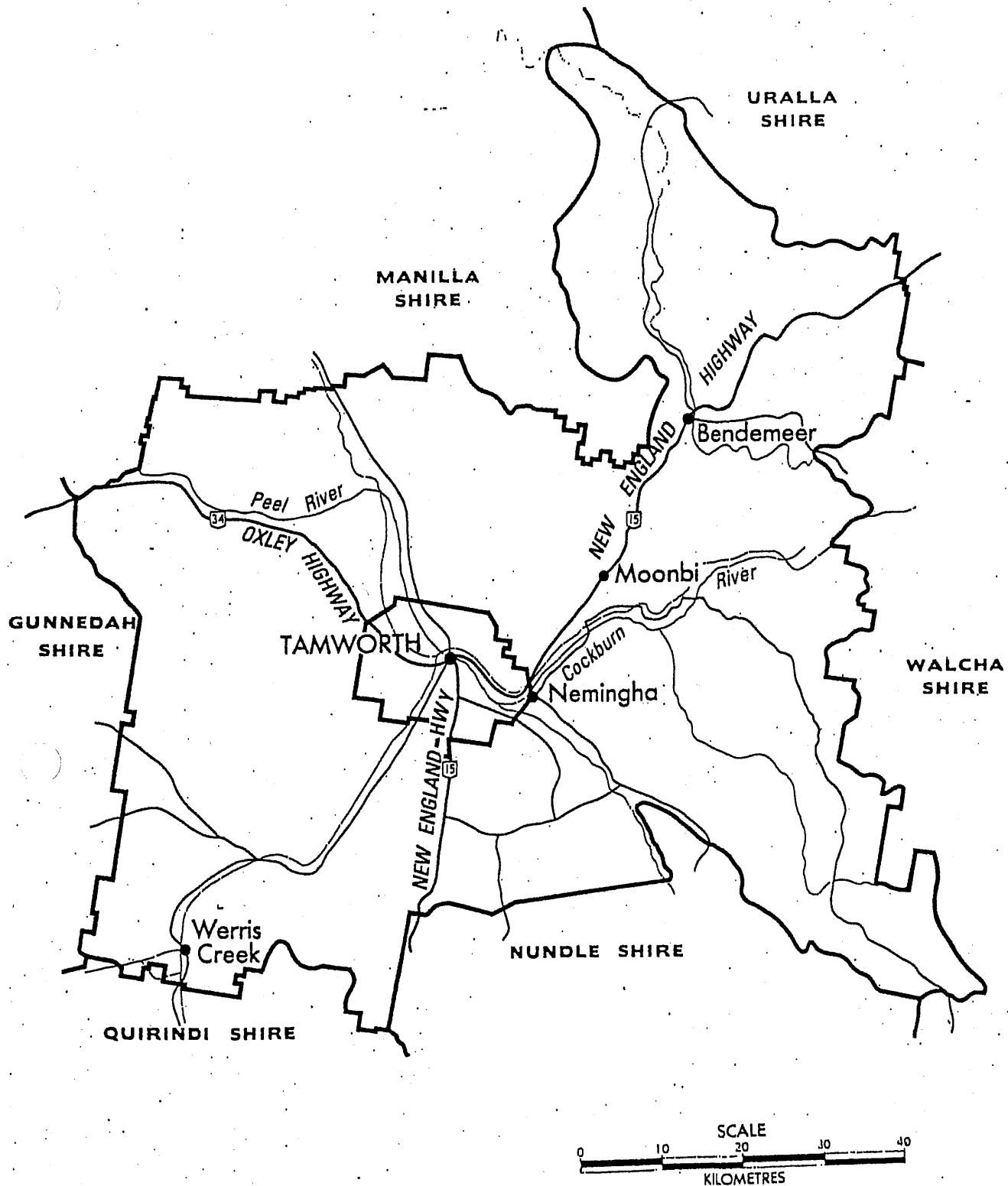
Additional material could include, where available/or appropriate:

- a. Description of each park (heights at which inundation begins, floods whole parks; numbers of permanent vans/cabins, number permanently inhabited, numbers of permanent vans which can be easily removed, casual van sites, tent sites; indication of possible total population of park at specified peak periods).
- b. Advising procedures (whereby caravan park manager is informed of coming flood and likely severity).
- c. Warning procedures (passage of messages to park occupiers and van owners).
- d. Arrangements for evacuation and van relocation.
- e. Arrangements for return of occupants and vans].

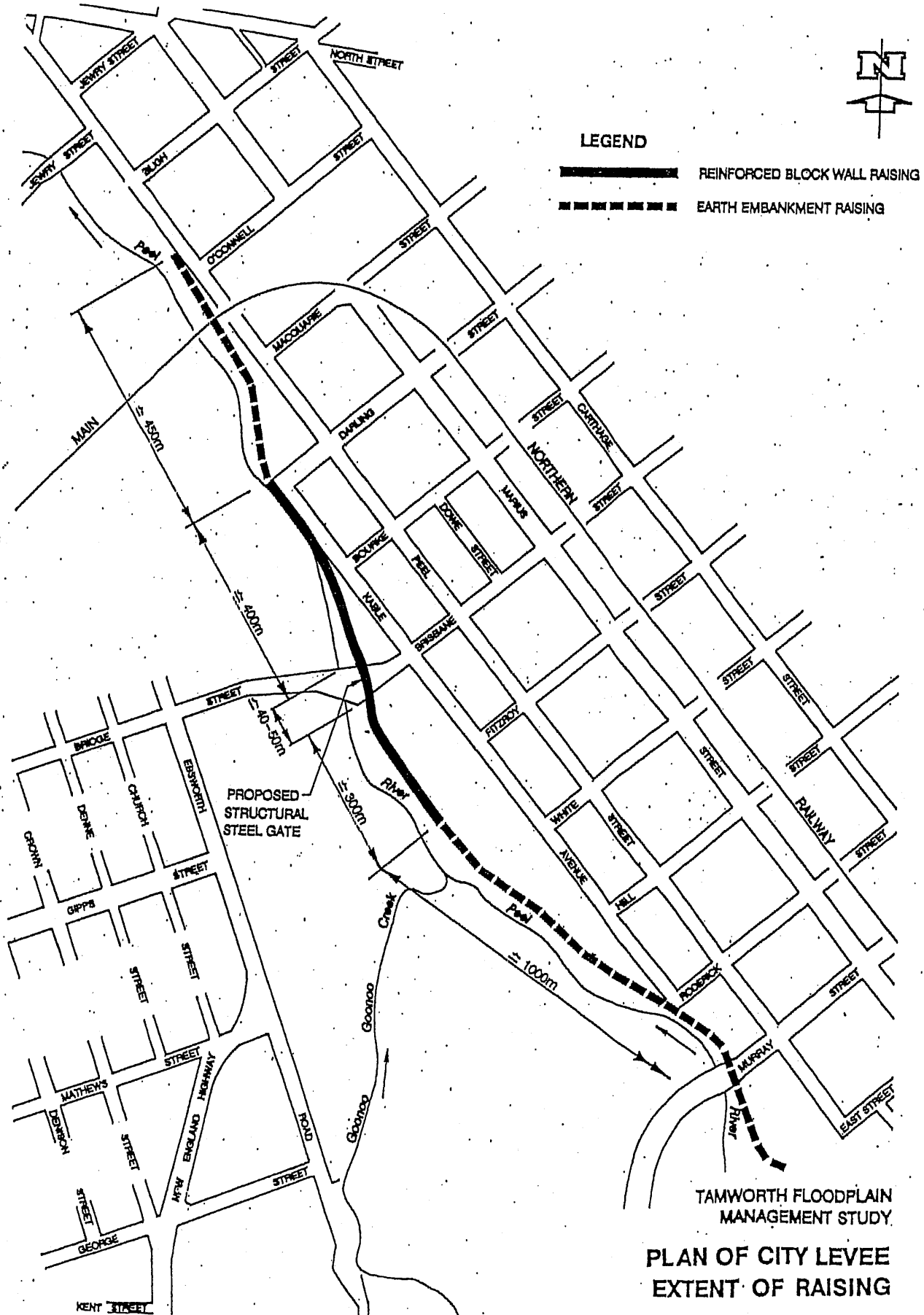
MAP 1 – TAMWORTH CITY COUNCIL AREA



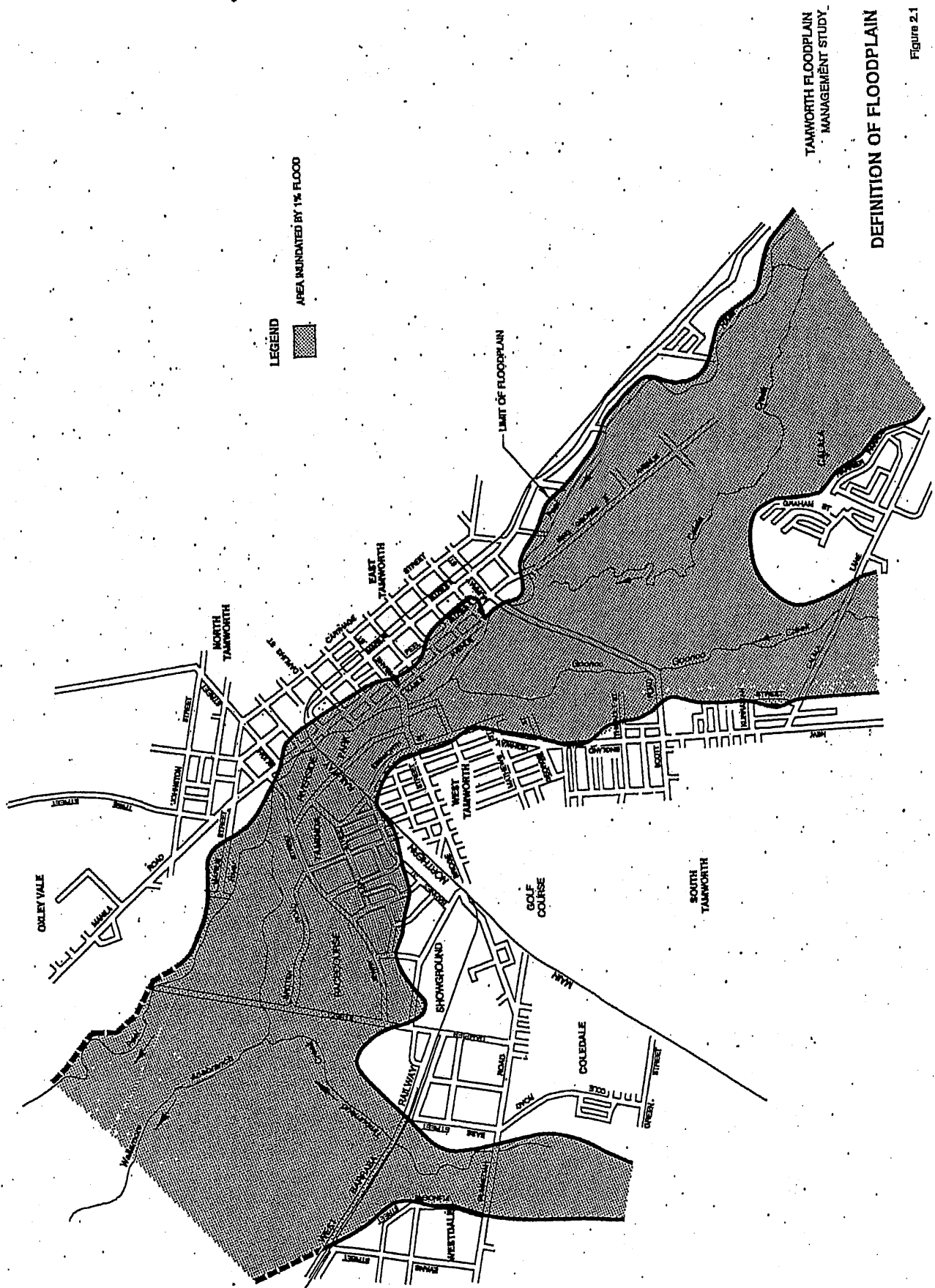
MAP 2 – PARRY SHIRE



MAP 3 – PLAN OF CITY LEVEE; TAMWORTH CITY



MAP 4 – DEFINITION OF FLOODPLAIN; TAMWORTH CITY



MAP 5 – HIGH HAZARD ZONE; TAMWORTH CITY

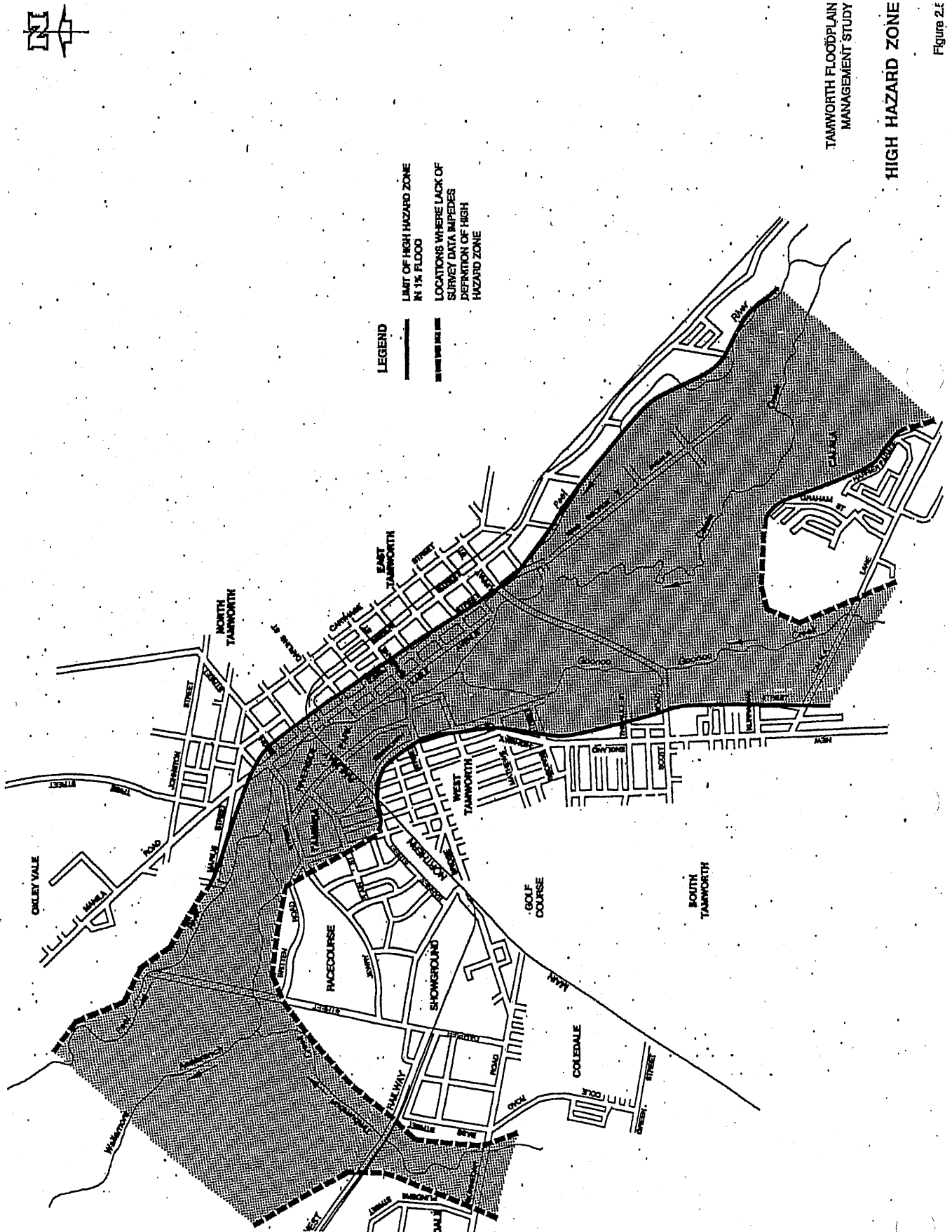
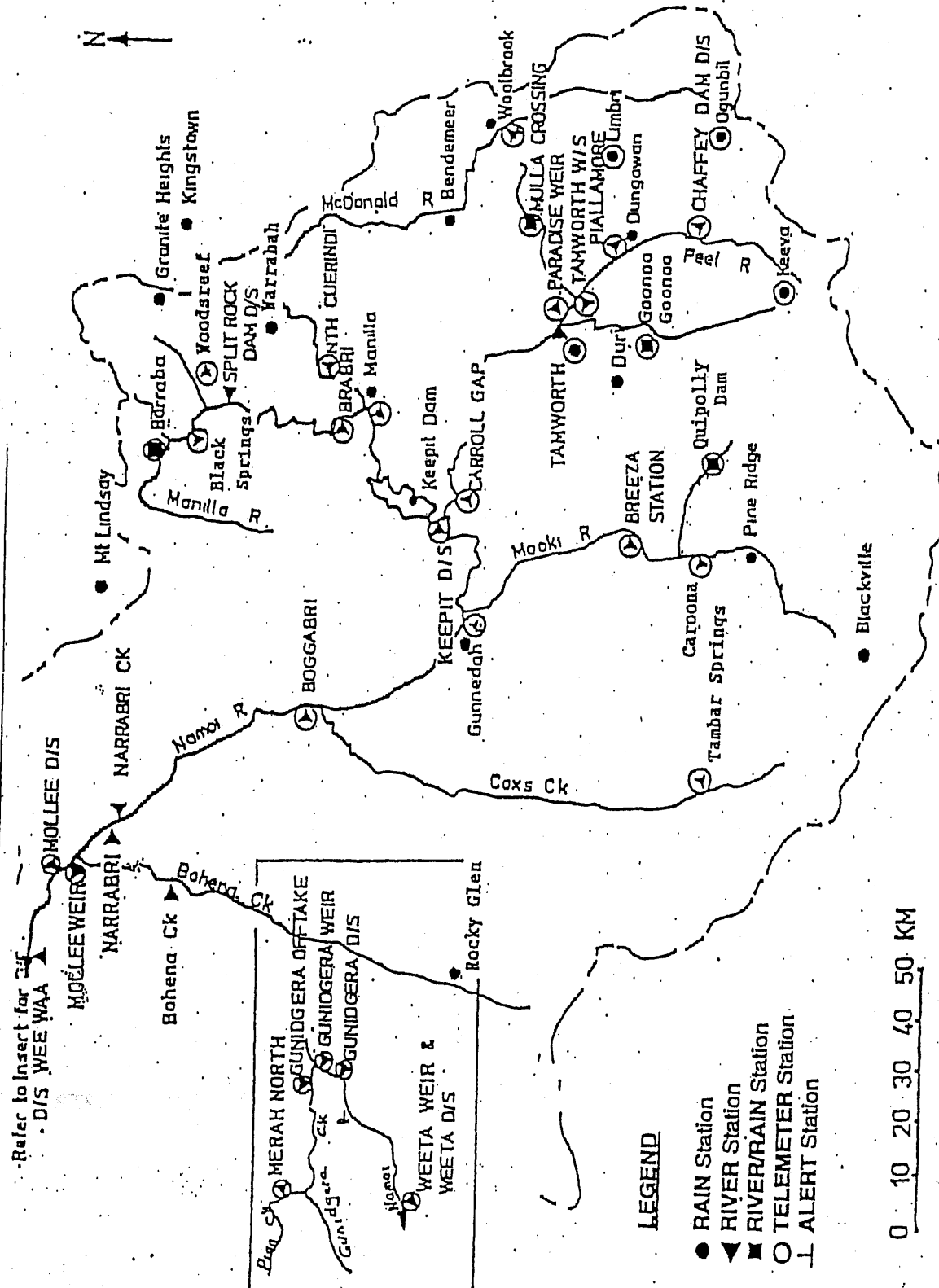


Figure 2.f

MAP 6 – NAMOI RIVER BASIN



**ANNEX F TO THE
TAMWORTH/PARRY LOCAL FLOOD PLAN**

**ANNEX F – Country Music Festival Camping Areas Flood
Response Plan**

SITUATION:

In recognition of the increased demand on local facilities during the Tamworth Country Music Festival, *Tamworth Regional Council* allows camping on the Council Reserves adjacent to the Peel River, Jewry and Carter Streets during the Country Music Festival. These reserves are on the floodplain and are subject to flooding at short notice following sufficient rain in the Peel River Catchment.

At **3.80 metres** on the Tamworth Bridge Gauge (AWRC Number 419009), water breaks out of the Peel River and enters the Jewry Street car parks on the Manilla side of the street. During the Country Music Festival this area may be occupied by unauthorised *Campers*.

At **4.20 metres**, water enters the riverside car park and sporting fields. During the Country Music Festival, this area is used by as many as 5,000 people in tents, caravans and camper vans.

MISSION:

To ensure the safety of *Campers* along the Peel River within Tamworth who are at risk due to flooding.

EXECUTION:

Flood Watch

A Flood Watch is issued by the *Bureau of Meteorology* if they have reason to believe that the forecast weather conditions could lead to flooding.

An example of when a FLOOD WATCH would be issued is if the *Bureau of Meteorology* was forecasting heavy rainfall in a catchment within a 24 or 48 hour period.

ACTION to be taken upon receipt of a FLOOD WATCH:

The *Tamworth Local SES Controller* will notify:

- a. The *Local Emergency Operations Controller (LEOCON)* for Tamworth Regional Council area.
- b. Tamworth Regional Council's *Country Music Festival Operations Manager*
- c. The *Department of Community Services Tamworth Area Emergency Liaison Officer*
- d. *Tamworth Local Emergency Management Officer* (who in turn is to immediately notify all other members of the *Local Emergency Management Committee*)

The *Local Emergency Management Officer (LEMO)* will:

- a. Convene a meeting of the *Local Emergency Management Committee* to receive a report and advice from the *Tamworth Local SES Controller* in regards to the flood threat and to undertake planning for operational activity.

The *Namoi Region SES Controller* will:

- a. Arrange for Flood Watch Information Bulletins to be disseminated via local radio and TV media outlets (Radio: *2TM, FM 92.9, Festival Radio* and *ABC*. TV: *Prime* and *NBN*).

The *Tamworth SES Local Controller* will:

- a. Arrange for all necessary preparations to be undertaken for the possibility of an evacuation of *Campers* from the Tamworth Floodplain.

NOTE: Unless the FLOOD WATCH is very specific about the location and timing of forecast flooding, it is unlikely that *Campers* would be given evacuation instructions at this stage.

- b. Depending on the content of the FLOOD WATCH and how specific it is to the Peel River at Tamworth, consider closing the Tamworth Floodplain to any additional *Campers* until such time as the threat of flooding has abated.

Should the decision be made to close the floodplain to any additional *Campers* an 'alternate site' will need to be made available by *Tamworth Regional Council*. This 'alternate site' will also need to be

made available to those *Campers* on the floodplain who may wish to relocate on their own accord.

- c. Consider relocation of *Campers* on the floodplains most vulnerable areas such as any *Unauthorised Campers* on the Manilla side of Jewry Street, or *Campers* on the lower areas of Paradise Caravan Park and those on the lower levels of the river banks generally.

A check should also be conducted to ensure there are no camps located inside camping exclusion zones. Any persons found camping within exclusion zones should be reported to *Council*.

- d. Consider the issue of additional safety advice to campers including specific information related to the current FLOOD WATCH.

NOTE: An SES 'FloodSafe' brochure specific to the Country Music Festival camping is usually issued to *Campers* at the time of their initial arrival at the Riverside camping grounds.

ACTIONS on receipt of a FLOOD WARNING:

On receipt by the SES of a 'FLOOD WARNING' issued by the *Bureau of Meteorology* or intelligence indicating a ***predicted flood height*** of 3.80 metres or greater, ALL *Campers* will be evacuated from the affected camp grounds.

The *Tamworth SES Local Controller* will:

- a. Liaise with the *LEOCON* regarding the co-ordination of the evacuation of campers on the Tamworth Floodplain
- b. Notify the *Tamworth Regional Council* Country Music Festival Operations Manager
- c. The Department of Community Services Tamworth Area Emergency Liaison Officer
- d. Notify *Tamworth Regional Council Local Emergency Management Officer* who in turn will immediately notify all other members of the *Tamworth Local Emergency Management Committee* and request all emergency services provide a liaison officer to Tamworth SES.

The *Namoi Region SES Controller* will:

- a. Arrange for FLOOD WARNINGS to be disseminated via local radio and TV media outlets (Radio: *2TM*, *FM 92.9*, *Festival Radio* and *ABC*. TV: *Prime* and *NBN*).

ACTIONS to be taken on DECISION TO EVACUATE:

If the *Tamworth SES Local Controller* decides to EVACUATE the camping grounds ;

The *Tamworth SES Local Controller* will:

- a. Arrange for *SES* or vehicles fitted with public address systems, to broadcast evacuation orders on the affected Camping Grounds or request *Police* or another Emergency Service to undertake such
- b. Provide *SES volunteers* for the evacuation of the campers
- c. Arrange for *Council Staff* to be in attendance at all sites to facilitate orderly relocation.
- d. Request *Department of Community Services* and *Tamworth Regional Council* staff to be in attendance for reception of evacuees at the alternative sites.
- e. Request available personnel and resources from Local Emergency Management Committee members such as the Rural Fire Service and NSW Fire Brigade to assist with the evacuation
- f. Request *Police* vehicles with public address systems fitted to patrol all areas where people are congregating and broadcast evacuation warnings
- g. Arrange for bus transport of campers without own transport from the Riverside camping grounds to the relocation centres (alternative sites). Pick up points for these campers on the perimeter of the floodplains should be arranged. These would typically be in the vicinity of the intersections of Carter & Bridge St and Plain & Ebsworth Streets.

The *Namoi Region SES Controller* is to:

- a. Arrange for evacuation warnings to be disseminated via local radio and TV media outlets (Radio: *2TM*, *FM 92.9*, *Festival Radio* and *ABC*. TV: *Prime* and *NBN*).

The *Local Area Commander (LAC)* for *Oxley Local Area Command* will;

- a. Provide available police officers to assist *SES*, *Council staff* and other *Emergency Service Personnel* with the evacuation.

- b. Arrange for *Police* vehicles with public address systems fitted to patrol all areas where people are congregating and broadcast evacuation warnings.
- c. Contact all licensed premises and entertainment venues and arrange to have evacuation warnings placed over the public address systems.
- d. Implement appropriate Traffic Control measures (particularly on Bridge Street) to ensure the timely evacuation of *Campers* from the Carter Street Camping Grounds.
- e. If requested by the *Tamworth SES Local Controller*, arrange for *Police Vehicles* fitted with public address systems to broadcast evacuation orders on the Carter Street Camping Grounds

Relocation Centres (Alternative Sites):

Campers evacuated from flood affected Council Reserves are to be relocated to the following 'Alternative Sites' as confirmed by *Tamworth Regional Council*:

- a) Chaffey Park
- b) Chauvel Park
- c) Belmore Park
- d) Hyman Park

Other locations such as the Tamworth Regional Sporting Complex area near to the TRECC (Tamworth Regional Entertainment & Convention Centre) at the intersection of the New England Highway (Goonoo Goonoo Road) and Greg Norman Drive may also be utilised by agreement between *Police, SES and Council*, as required.

A Map showing the location of the Relocation Centres (Evacuation Points) a) to d) above and the Tamworth Regional Entertainment & Convention Centre (which is surrounded by the Tamworth Regional Sporting Complex) is included as Appendix 1 to this Sub plan.

NOTE:

Example Evacuation Maps / Information Brochures which will be provided to evacuees are also attached. These maps may change as needs arise so are included as a guide only.

COMMAND AND SIGNAL

Control Arrangements

Evacuations are to be controlled by the Tamworth SES Local Controller. The evacuation is conducted with the assistance of the Tamworth Local Emergency Management Committee.

An *SES Site Commander* will be appointed to coordinate the evacuation from the Carter Street Camping Grounds and will establish a Command Post within the camping grounds.

RETURN OF CAMPERS

Following an evacuation of campers from the Tamworth Floodplain, the *Tamworth SES Local Controller* will determine when the risk of flooding has abated sufficiently for the consideration of the return of campers to the Tamworth Floodplain.

The actual decision to permit campers back onto the flood affected camping areas will be made and publicised by *Tamworth Regional Council*.



Appendix I - Flood Evacuation Points

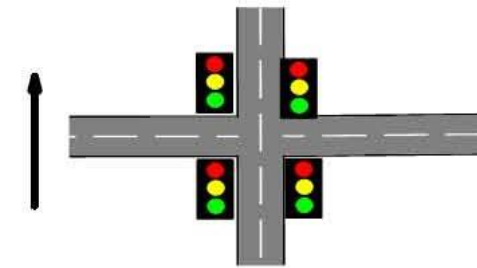
Evacuated to Belmore Park

YOU ARE HERE

Belmore Park Evacuation Area

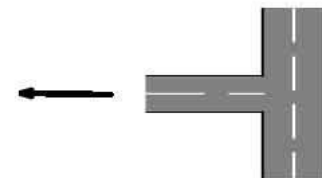
START

1.



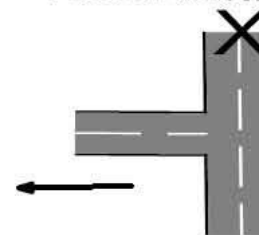
Crn Ebsworth Street and Bridge Street
Travel Straight ahead

2.



Turn Left

3.



Turn Left
Follow signs to Emergency
Evacuation Centre

FINISH

EMERGENCY CONTACT INFORMATION

To report an accident or incident requiring 'urgent' assistance from either:

Police / Ambulance / Fire Brigade

Dial '000'

The Operator may need the following details:

Your location:

Belmore Park, Tamworth

Street name:

Gidley Street

Nearest cross street:

King Street

If you are suffering hardship or welfare issues as a result of the evacuation please contact:

Department of Community Services

**1800 018 444
6768 4600**

If you require 'non-urgent' Police assistance while staying at the Evacuation Area:

Tamworth Police Station

6768 2999

For Flooding, Storm Damage or Evacuation assistance:

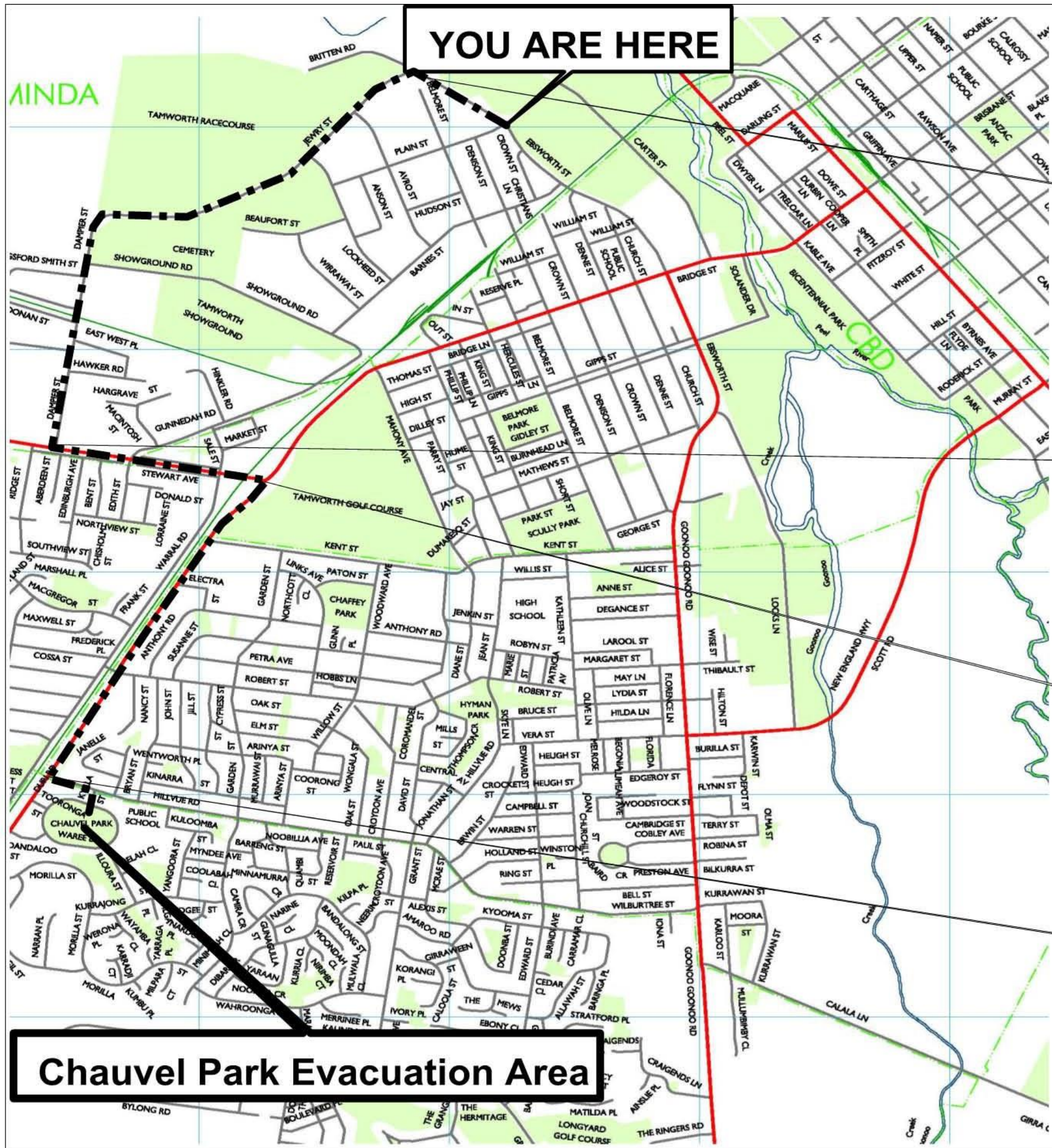
SES (State Emergency Services)

132 500

Other general and support information is available from:

Tamworth Regional Council

6767 5555

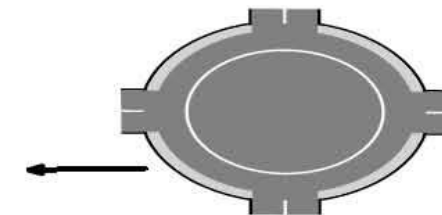


Evacuated to Chauvel Park

START

1.

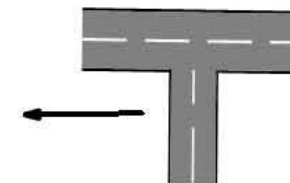
Travel to Jewry Street roundabout



Turn left

2.

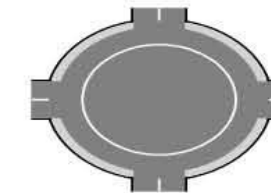
Travel 2.53 km to Gunnedah Road



Turn Left

3.

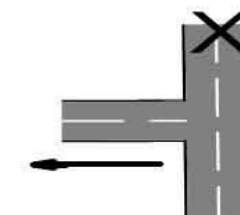
Travel 850m to Werris Creek Rd Roundabout



Turn Right

4.

Travel 1.6 Km to Hillvue Rd turn off



Turn left --follow sign to
Emergency Evacuation Centre

FINISH

Chauvel Park Evacuation Area

EMERGENCY CONTACT INFORMATION

To report an accident or incident requiring 'urgent' assistance from either:

Police / Ambulance / Fire Brigade

Dial '000'

The Operator may need the following details:

Your location:

Chauvel Park, Tamworth

Street name:

Waree Drive

Nearest cross street:

Kyilla Street

If you are suffering hardship or welfare issues as a result of the evacuation please contact:

Department of Community Services

**1800 018 444
6768 4600**

If you require 'non-urgent' Police assistance while staying at the Evacuation Area:

Tamworth Police Station

6768 2999

For Flooding, Storm Damage or Evacuation assistance:

SES (State Emergency Services)

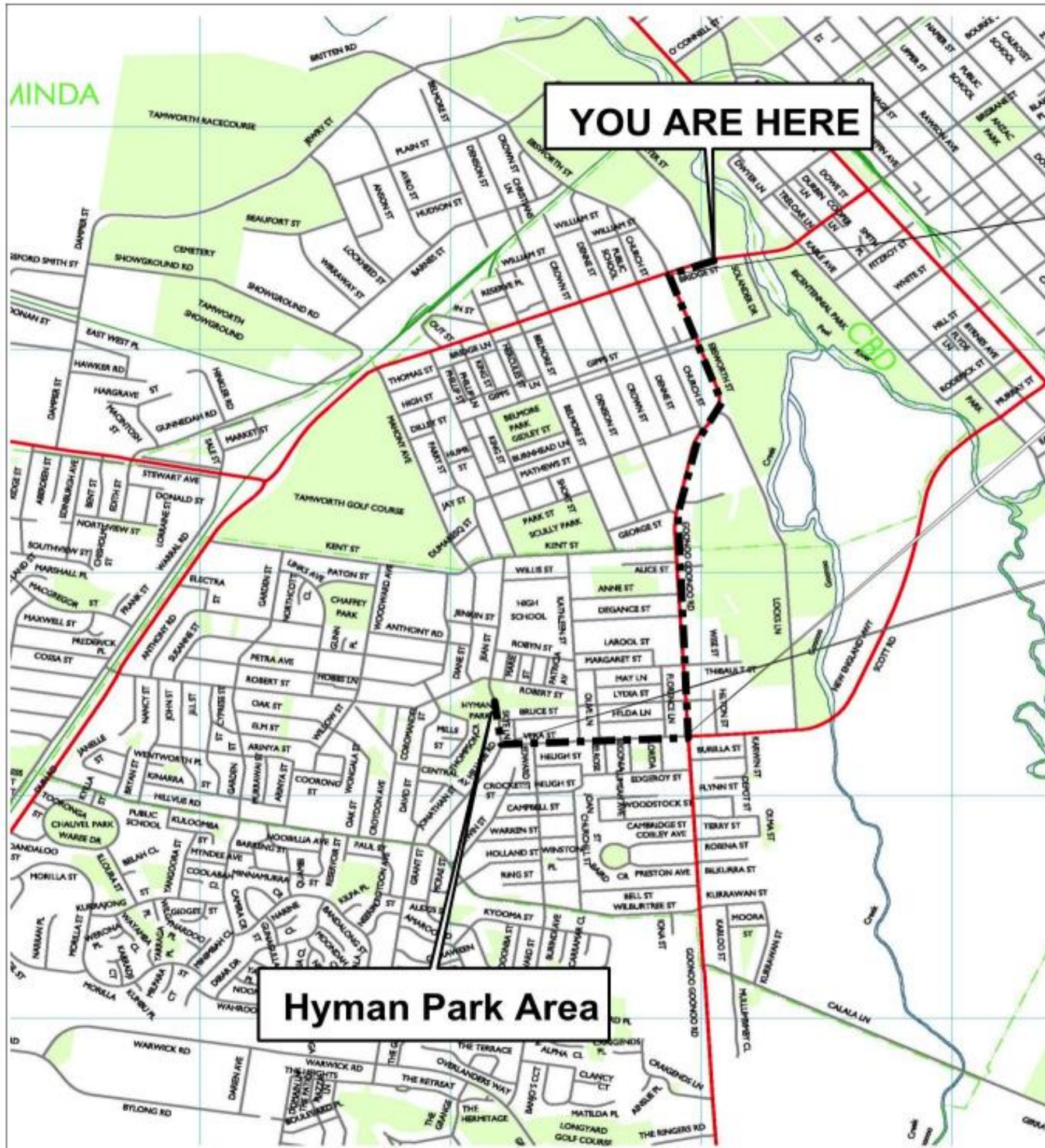
132 500

Other general and support information is available from:

Tamworth Regional Council

6767 5555

Evacuated to Hyman Park



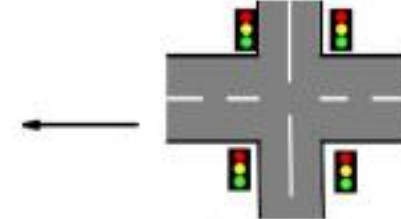
YOU ARE HERE

Hyman Park Area

START

1.

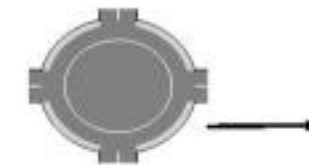
Travel 180m to Epsworth Street



Turn Left

2.

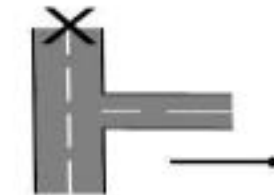
Travel 2.1km to Vera Street



Turn Right

3.

Travel 700m to Hillvue Road



Turn Right
Follow signs to Evacuation Area

FINISH

EMERGENCY CONTACT INFORMATION

To report an accident or incident requiring ‘urgent’ assistance from either:

Police / Ambulance / Fire Brigade

Dial ‘000’

The Operator may need the following details:

Your location:

Hyman Park, Tamworth

Street name:

Jean Street

Nearest cross street:

Robert Street

If you are suffering hardship or welfare issues as a result of the evacuation please contact:

Department of Community Services

1800 018 444

6768 4600

If you require ‘non-urgent’ Police assistance while staying at the Evacuation Area:

Tamworth Police Station

6768 2999

For Flooding, Storm Damage or Evacuation assistance:

SES (State Emergency Services)

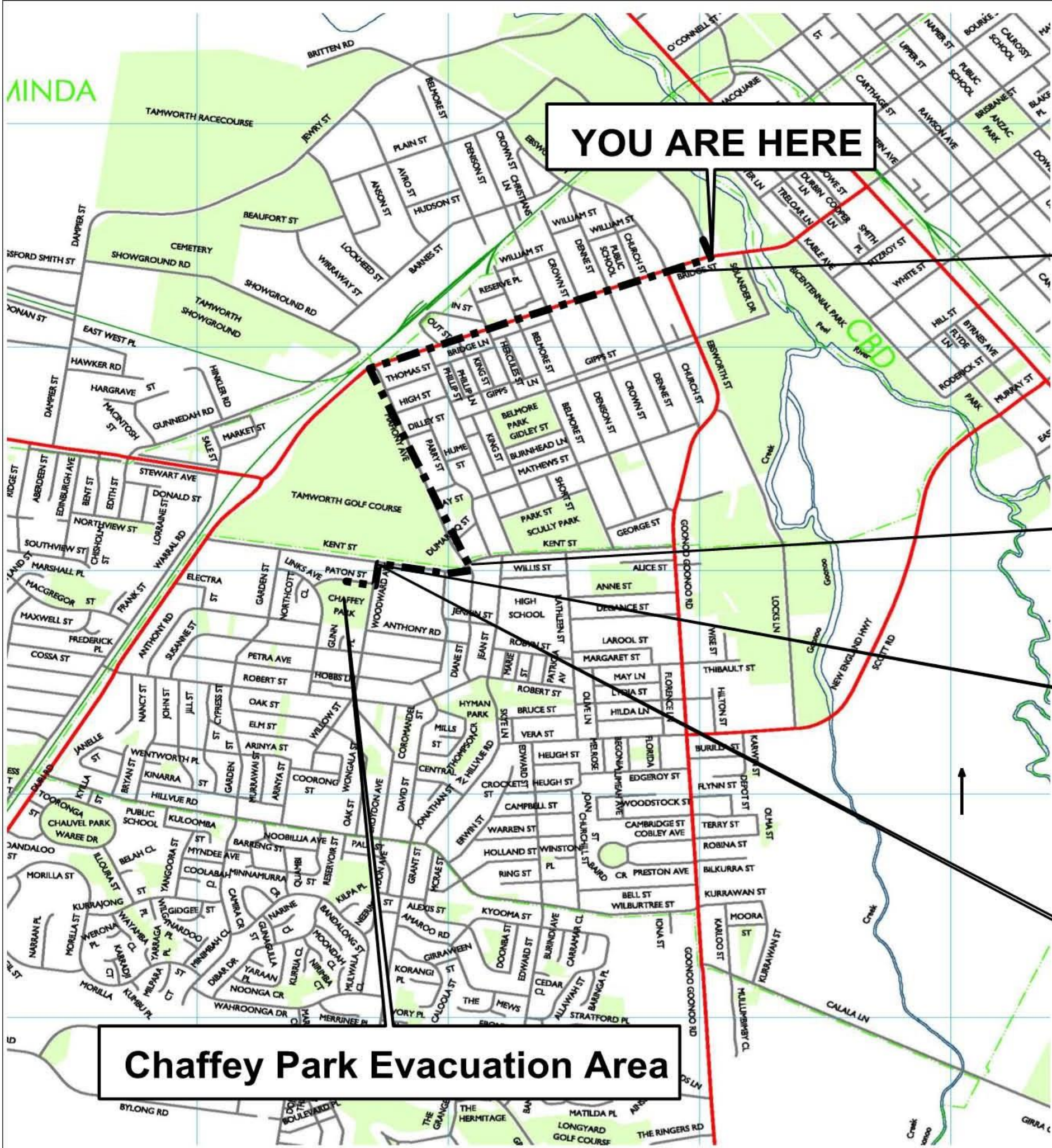
132 500

Other general and support information is available from:

Tamworth Regional Council

6767 5555

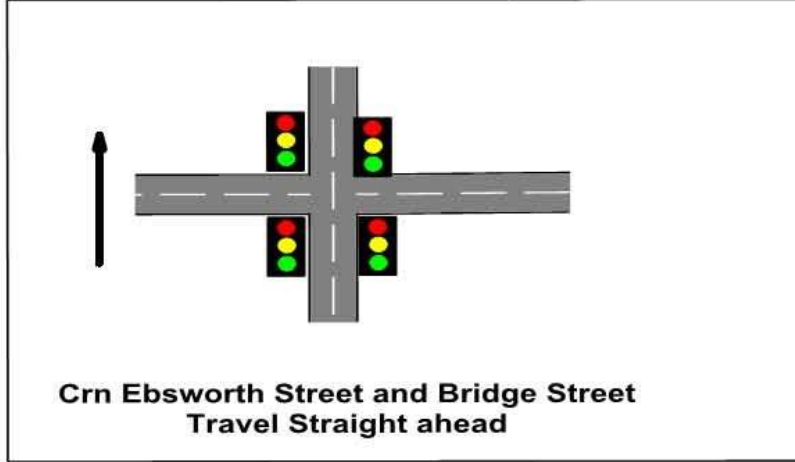
AINDA



YOU ARE HERE

Evacuated to Chaffey Park

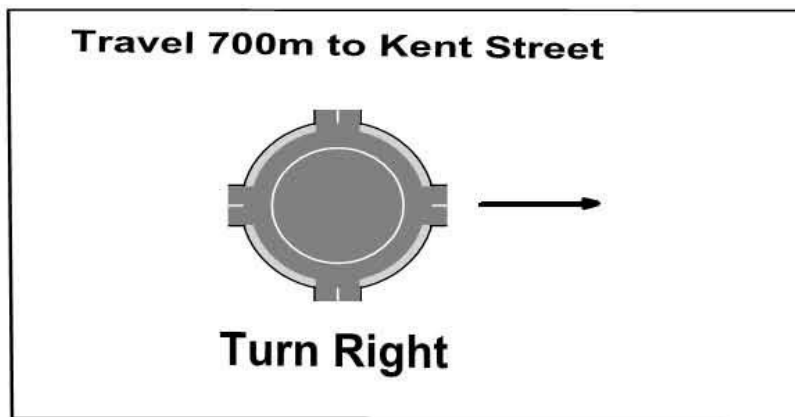
1.



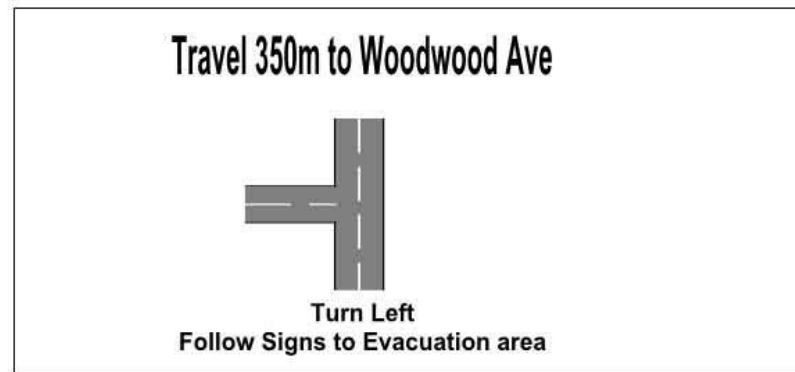
2.



3.



4.



Chaffey Park Evacuation Area

START

FINISH

EMERGENCY CONTACT INFORMATION

To report an accident or incident requiring ‘urgent’ assistance from either:

Police / Ambulance / Fire Brigade

Dial ‘000’

The Operator may need the following details:

Your location:

Chaffey Park, Tamworth

Street name:

Links Avenue

Nearest cross street:

Paton Street

If you are suffering hardship or welfare issues as a result of the evacuation please contact:

Department of Community Services

1800 018 444

6768 4600

If you require ‘non-urgent’ Police assistance while staying at the Evacuation Area:

Tamworth Police Station

6768 2999

For Flooding, Storm Damage or Evacuation assistance:

SES (State Emergency Services)

132 500

Other general and support information is available from:

Tamworth Regional Council

6767 5555