



Uralla Shire Council
Local Emergency Management Committee

Emergency Risk Management Report
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1. EXECUTIVE SUMMARY

Uralla Shire Council (Council), through the Armidale Dumaresq Council, engaged QRMC Risk Management to assist it in the undertaking of an Emergency Risk Management Study to increase community safety through the identification, analysis, evaluation and treatment of natural disaster and other major risks from a preventative, mitigation perspective within the area of Council jurisdiction.

The study aimed to:

- Identify hazards and sources of risk with reasonable potential to impact the communities of the Uralla local government area (LGA);
- Analyse those risks; and,
- Determine the Treatment Options/Strategies to reduce the likelihood and/or impact of the risk, including consideration of existing control or mitigation measures.

The process followed is that set out in the NSW State Emergency Management Committee's publication *Implementation Guide for Emergency Management Committees* (May 2000). The District Emergency Management Officer (DEMO) for the Peel District was consulted at various times during the preparation of the documentation set out in the guide. Relevant agencies such as, Uralla SES, the Bureau of Meteorology, Hunter New England Area Health Service, the Rural Fire Service and the NSW Police were also invited to provide input to the study.

The study concluded that a significant risk faced by Uralla communities is wildfire (bush and grass) with a large body of work and a number of strategies currently directed at mitigating this particular hazard, both from the Council itself, the Bushfire Management Committee (local fire plans) and the Uralla SES.

Severe storms (electrical, snow, rain, hail and strong winds) also occur regularly, and again the SES has a well established process for storm warnings and to effect emergency repairs. Other hazards require Council to refer to the appropriate agency for emergency response plans and treatment options, such as Hunter New England Health Service for human communicable disease outbreaks and/or pandemics and Department of Primary Industries (DPI) for animal communicable disease outbreaks.

Specific details of elements at risk, treatment options and strategies for all hazards are contained in Forms 1 to 8, which accompany this report.

2. DEFINITIONS AND ABBREVIATIONS

2.1. Definitions

Emergency risk management is a systematic process that produces a range of measures which contribute to the well being of communities and the environment.

The following definitions are to be used to facilitate common terminology within the emergency risk management process. The definitions specified in the NSW State Emergency and Rescue Management Act and NSW State DISPLAN prevail over any other definition used in the emergency risk management context. (Source: NSW State Emergency Management Committee 2001: *Implementation Guide for Emergency Management Committees*).

Annual exceedence probability (AEP)	The chance of an event (typically a flood) of a given or larger size occurring in any one year. Usually expressed as a percentage. e.g. 1 chance in 100 per year or 1 % AEP
Australian height datum (AHD)	A common national surface level datum (reference level approximately corresponding to mean (average) sea level, e.g. 10 metres AHD means 10 metres above average sea level.
Average recurrence interval (ARI)	The long term average number of years between the occurrence of an event (typically a flood) of a given or larger size, e.g. a 20 year ARI flood will happen on average about once every 20 years.
Built environment	The elements of physical construction within a community.
Combat agency	The agency identified in Displan as the agency primarily responsible for responding to a particular emergency. (Source: SERM Act).
Community	A group with a commonality of association and generally defined by location, shared experience or function.
Community safety	A reference to providing a safer living environment in the broadest sense and is not concerned with crime prevention and law enforcement issues.
Consequence	The outcome of an event or situation expressed qualitatively or quantitatively, being a loss, injury, disadvantage or gain. (In emergency risk management-the outcome of

	<p>an event or situation expressed qualitatively or quantitatively. In the emergency risk management context, consequences are generally described as the effects on persons, society, the economy and the environment.)</p>
District Emergency Management Officer	<p>The principal executive officer appointed to the District Management Emergency Management Committee and to the District Emergency Operations Controller.</p>
Element at risk	<p>Things that are valued within (or by) a community and which may interact with a source or risk.</p>
Emergency	<p>An emergency due to the actual or imminent occurrence (such as fire, flood, storm, earthquake, explosion, accident, epidemic or warlike action) which:</p> <ol style="list-style-type: none">endangers, or threatens to endanger, the safety or health of persons or animals in the State, or;destroys or damages, or threatens to destroy or damage, any property in the State, being an emergency which requires a significant and coordinated response. (Source: SERM Act). <p>For the purposes of the definition of emergency, property in the State includes any part of the environment of the State. Accordingly, a reference in the Act to:</p> <ol style="list-style-type: none">Threats or danger to property includes a reference to threats or danger to the environment. <p>and</p> <ol style="list-style-type: none">The protection of property includes a reference to the protection of the environment. (Source: SERM Act).
Emergency risk management	<p>A systematic process that produces a range of measures that contributes to the well being of communities and the environment.</p>
Emergency Risk Management Working Group	<p>A subcommittee to the relevant emergency management committee established to undertake the emergency risk management process.</p>
Environment	<p>Conditions or influences comprising social, physical and built elements, which surround and interact with a community.</p>

Hazard	A source of potential harm or situation with a potential to cause loss.
Lifeline	A system or network that provides services on which the well being of the community depends.
Likelihood	A qualitative description of probability and frequency.
Local Emergency Management Officer (LEMO)	The principal executive officer appointed to the Local Emergency Management Committee (LEMC) and to the Local Emergency Operations Controller.
LEMC Chairperson	A person appointed by a local government council who has the authority of the council to coordinate the use of the Council's resources in the prevention of, preparation for, response to and recovery from emergencies.
Mitigation	Measures taken in advance of a disaster aimed at decreasing or eliminating its impact on society and environment.
Monitor	To check, supervise, observe critically or record the progress of an activity, action or system on a regular basis in order to identify change.
Preparation	In relation to an emergency includes arrangements or plans to deal with an emergency or the effects of an emergency. (Source: SERM Act).
Prevention	In relation to an emergency includes the hazards, the assessment of threats to life and property and the taking of measures to reduce potential loss to life or property. (Source: SERM Act).
Recovery	In relation to an emergency includes the process of returning an affected community to its proper level of functioning after an emergency. (Source: SERM Act).
Residual risk	The remaining level of risk after risk treatment measures have been taken.
Risk analysis	A systematic use of available information to determine how often specified events may occur and the magnitude of their likely consequences. (In emergency risk management the systematic use of available information to study risk.)
Risk acceptance	An informed decision to accept the consequences and the likelihood of a particular risk.

Risk evaluation	<p>The process in which judgements are made on the tolerability of the risk on the basis of risk analysis and taking into account factors such as socio economic and environmental aspects.</p> <p>The process used to prioritise risk.</p>
Risk treatment options	<p>Measures that modify the characteristics of hazards, communities or environments.</p>
Source of risk	<p>Situations or conditions with potential for loss or harm to people, property or the environment.</p>
Stakeholders	<p>Emergency Risk Management Stakeholders are individuals or organisations that may affect, be affected by or perceive themselves to be affected by the emergency risk management process. The SEMC has grouped stakeholders into three categories. They are:</p> <p><i>EMC Committee members</i> Representatives of emergency services, functional areas, other agencies and the relevant Emergency Operations Controller.</p> <p><i>Community groups</i> Representatives of participating or supporting agencies, service clubs, common interest groups and sporting/social clubs.</p> <p><i>Community members</i> Other persons residing in the defined area.</p>
Vulnerability	<p>The degree of susceptibility and resilience of the community and environment to hazards. The degree of loss to a given element at risk or set of such elements resulting from the occurrence of a phenomenon of a given magnitude and expressed on a scale of 0 (no damage) to 10 (total loss).</p>

2.2. Abbreviations

AEP	Annual exceedence probability
AHD	Australian height datum
ARI	Average recurrence interval
EMC	Emergency Management Committee
ERM	Emergency risk management
PPRR	Prevention, preparation, response and recovery
SEMC	State Emergency Management Committee
SERM Act	<i>State Emergency and Rescue Management Act 1989</i> (as amended)

3. AIMS

The aim of the Uralla Shire Council (Uralla) Emergency Risk Management Study is to increase community safety through identification, analysis, evaluation and treatment “of natural disaster risks” from a preventative, mitigation perspective within the area of the Uralla Shire Council jurisdiction. Emphasis is placed on the four (4) emergency management principles of Prevention, Preparedness, Response and Recovery.

This aim will be achieved by:

- Identifying hazards and sources of risk with reasonable potential to impact the communities of the Uralla local government area;
- Analysing those risks; and,
- Determining the Treatment Options/Strategies to reduce the likelihood and/or impact of the risk, including consideration of existing control or mitigation measures. Note: The most significant risk faced by Uralla communities is fire and there is a large body of work and strategies currently directed at mitigating this particular hazard.

Scope:

This process is limited to hazards requiring a significant coordinated (multi-agency) response. Hazards that can be managed by Council alone (for example, minor road closures resulting from traffic accidents and/or landslips) are not part of this study.

4. OBJECTIVES

The Uralla Emergency Risk Management Study will achieve the following objectives:

- Develop a comprehensive series of documents detailing the identified hazards and potential risks and treatment strategies for the following elements:
 - People
 - Property
 - Lifelines and infrastructure
 - Environment
 - Socio-economic.
- Provide the Uralla communities and stakeholders with an opportunity to become involved in the study and to assist where possible in providing comments and historical information on past events. A well attended community meeting to discuss the study was held on 18 December 2006.

5. CONTEXT STATEMENT

An Emergency Risk Management Study was undertaken for the Uralla LGA which had a population count of approximately 6,500, centred in Uralla (2,500) with several small villages having populations of up to 550 persons.

The study was conducted on the Uralla communities to identify hazards, analyse hazards and sources of risk, assess the vulnerability of the communities and suggest and implement appropriate and reasonable treatment strategies to ameliorate the consequences (and if possible, likelihood) of the hazards and subsequent sources of risk.

5.1. Identified Problems

Discussions with the LEMC and the LEMO resulted in the conclusion that the Study should examine the key hazards of:

1. Wildfire (bush and grass) (**Likelihood** – Possible/**Consequence** – Moderate/**Risk** – High)
2. Severe Storm (snow, rain, hail, strong winds, electrical) (Possible/Moderate/High)
3. Dam failure (Possible/Moderate/High)
4. Transportation Accident (Possible/Major/Extreme)
5. Infrastructure failure (Possible/Moderate/High)
6. Residential or Industrial fire (Possible/Moderate/High)
7. Communicable disease affecting animals (Possible/Moderate/High)

Other hazards of similar or lesser consequence and likelihood reported upon are listed in Form 4 – *Elements at Risk* (attached to this report).

As a guide, the recommended treatment options relevant to each risk level are set out below:

RISK LEVEL	TREATMENT OPTION
Extreme	<ul style="list-style-type: none">• Community awareness/education campaigns where appropriate• Warning system/mechanism where appropriate• Development controls to lower the risk of the hazard arising• Normal DISPLAN and Recovery arrangements will apply• Road Closures and Evacuation plan(s)

RISK LEVEL	TREATMENT OPTION
	<ul style="list-style-type: none"> • Recovery Management Plan(s) • Rehabilitation Plans
High	<ul style="list-style-type: none"> • Community awareness/education campaigns where appropriate • Warning system/mechanism where appropriate • Normal DISPLAN and Recovery arrangements will apply • Road Closures and Evacuation plan(s)
Moderate	<ul style="list-style-type: none"> • Community awareness/education campaigns where appropriate • Normal DISPLAN and Recovery arrangements will apply
Low	<ul style="list-style-type: none"> • Normal DISPLAN and Recovery arrangements will apply

5.2. Process Limitations

It was resolved that the following completion of the initial risk assessment and the preparation of this report, it would be reviewed by the LEMC and consideration then given to the community and stakeholder feedback that had occurred during the process. This is discussed further in 5.3.3 and Appendix 2 – *Communication and Consultation Plan*.

5.3. Management Framework

Uralla Shire Council (through Armidale Dumaresq Council) commissioned QRMC Risk Management to prepare the ERM Plan and resolved that this report would be presented to the LEMC for review, prior to seeking Council approval.

5.3.1. Stakeholders

Include the following:

- **Government Agencies**
 - Uralla Shire Council
 - Hunter New England Health Service
 - Department of Environment and Conservation
 - Department of Natural Resources (DNR)
 - Roads and Traffic Authority (RTA)
 - Country Energy
 - RailCorp
 - Department of Primary Industries (DPI)

- **Emergency Services**
 - NSW Police
 - State Emergency Service
 - NSW Fire Brigades
 - NSW Rural Fire Service
 - Ambulance Service of NSW
- **Community Groups**
- **Local school communities**
- **Local businesses and business groups**

5.3.2. Legislation and Policy

This ERM Study was conducted in accordance with the following:

- NSW State Emergency Management Committee Implementation Guide for Emergency Management Committees
- AS/NZS 4360:2004 Risk Management
- Relevant NSW State Legislation
- Relevant Uralla Shire Council Plans and Policies

5.3.3. Communication and Consultation

- Holding of a public meeting to discuss the study and provide an opportunity for community input
- Adoption of the Draft Emergency Risk Management Report by the LEMC and Uralla Shire Council
- Further consultation and review of the Draft Plan by the LEMO
- Presentation of the ERM process to the Uralla Shire Council
- Public Exhibition of the Draft Report and Risk documentation for a period of 14 days
- Ongoing community consultation through appropriate Community Groups

5.3.4. Monitoring and Reviewing ERM Project Work

The ERM documentation will be subject to regular reviews and continual monitoring of changes within the Uralla LGA, such as significant new developments, new industry, improved infrastructure etc. The review and monitoring will include:

- A quarterly review on the progress of Implementation of Risk Treatment Options
- Ongoing monitoring of new sources of risk
- A quarterly review by LEMC of ERM documentation
- Ongoing community and stakeholder consultation throughout the Review and Monitor process.

6. RISK EVALUATION CRITERIA

The following Risk Evaluation Criteria was established, though this list is not necessarily exhaustive:

- Any reasonably preventable accident/incident resulting in loss of human life is unacceptable.
- Any reasonably preventable accident/incident resulting in serious injury to people is unacceptable.
- Any reasonably preventable accident/incident resulting in loss of animal life is unacceptable.
- Any reasonably preventable accident/incident resulting in serious injury to animals is unacceptable.
- Loss of domesticated, rare or endangered species, or expensive breeding stock is unacceptable.
- Any reasonably preventable accident/incident that will affect the health and wellbeing of a community is unacceptable.
- Any reasonably preventable accident/incident that will have a medium to long term effect on the environment is unacceptable.
- Any reasonably preventable accident/incident that will disrupt normal business activity for more than 2 days is unacceptable.
- Any reasonably preventable accident/incident that will disrupt community lifelines or services for more than 24 hours is unacceptable.
- Any reasonably preventable accident/incident that will have a medium to long term effect on the local Uralla economy is unacceptable.
- Any reasonably preventable accident/incident that will have a moderate to significant effect on education for more than 1 week is unacceptable.
- Any reasonably preventable accident/action that will lead to the introduction of exotic disease or pests to the Uralla LGA is unacceptable.

6.1. Lifelines and Infrastructure

It is considered that the communities within the Uralla LGA will accept the following as maximum timeframes for the loss of lifelines services as a result of a major incident:

LIFELINE SERVICE	MINIMUM – MAXIMUM TIMEFRAME FOR LOSS OF SERVICE
Electricity	8 – 24 hours
Water	8 – 24 hours
Sewerage	8 – 24 hours
Road	8 hours (without alternative road routes)
Communications	8 hours

APPENDIX 1 – PROJECT MANAGEMENT WORKPLAN

Project Name: Uralla Emergency Risk Management Plan

Project Start: July 2006

Project End: 31 March 2007

Project Management Summary

Stage 1	Research and preliminary stakeholder consultation	Weeks 1 to 8
Stage 2	Working Draft Document	Weeks 9 to 12
Stage 3	Consultation	Weeks 12 to 15
Stage 4	Preparation of Forms 1 to 8 and review by LEMO	Weeks 16 to 19
Stage 5	Publication of Final Document	Week 20

Stage	Milestones and Activity Measures	Resources/Responsibility
1	Research, consultation with agencies and LEMO, preparation of material for draft ERM Report	Consultant, Project Manager
2	Preparation of draft ERM Plan Report and submission to Uralla Shire Council and LEMC	Consultant
3	Review of Draft Report by Uralla and LEMC, consultation with stakeholders	LEMC, Project Manager, Consultant
4	Preparation of Forms 1 to 8 and response to review queries and amendments	Consultant
5	Preparation of Final Document and Adoption of Plan	Project Manager, LEMC, Consultant

APPENDIX 2 – COMMUNICATION AND CONSULTATION PLAN

Approximate timing	Method	Resources or Responsibility
March 2007	Place ERM Plan Report and Risk Assessment on exhibition for a period of 14 days	Project Manager
March 2007	Conduct further community consultation meetings in Uralla	LEMC
Quarterly	Progress Report to the LEMC	Project Manager and LEMO
Quarterly	Progress Report to the District Emergency Management Committee	LEMO
Ongoing	Consult with District Emergency Management Officer and State Emergency Management Committee as required	Project Manager
Ongoing	Meet as required with Community Groups to discuss relevant ERM matters	LEMO, Project Manager

APPENDIX 3 – HAZARD CHECKLIST

The following is a summary of the Hazards identified with the potential to impact the communities within the Uralla local government area, and to be dealt with through this process.

Natural Hazards
Snow Storm
Earthquake
Wildfire (Bush Fire/Grass Fire)
Flood
Infestation (Insect and Plant)
Severe Storm (electrical, rain, hail, wind)

Technological Hazards
Dam Failure
Hazardous Materials (Industrial accident)
Infrastructure – Power Failure
Infrastructure – Water Failure
Infrastructure – Sewerage Failure
Infrastructure – Communications Failure
Transport Accident – Road
Transport Accident – Rail
Fire – residential
Fire – industrial

Biological Hazards
Pathogens: Communicable Disease – Humans
Pathogens: Communicable Disease – Animals

APPENDIX 4 – LOCALITY MAP

(URALLA MAP TO BE INSERTED)

APPENDIX 5 – ELEMENTS AT RISK

There are 5 main elements at risk for the Uralla LGA study area:

- People
- Property/Assets
- Infrastructure/Lifelines
- Environment
- Socio-economic.

A complete listing of the Elements at risk is shown in Form 4 (attached).

APPENDIX 6 – RISK ANALYSIS AND PRIORITY

An overall risk rating was applied to a community and each of the elements identified as being at risk were given a priority based on the risk level. For example, in respect of one of Uralla's identified hazards – Infrastructure Failure:

- Risk level for Infrastructure Failure (*Likelihood* – Possible; *Consequence* – Moderate) determined to be **High** (see *EMC Implementation Guide page 61*).

Priorities are determined (see Form 6) in accordance with the hierarchy set out below, but also taking into account budgetary constraints, timing and other factors.

The normal priorities for emergency responses are in the protection of Life (People), then Property (Assets), then the Environment.

APPENDIX 7 – RISK TREATMENT PLANS

The Emergency Risk Management Plan (Form 8) outlines certain treatments, the agency or organisation responsible for their implementation, and an activity audit reporting structure to the Local Emergency Management Committee, as part of the review and monitoring process of treatments.