Young LGA

Local Emergency Management Committee

EMERGENCY RISK MANAGEMENT REPORT

Developed by Echelon Australia

October 2009

Document Issue & Control

This report has been prepared by Echelon Australia specifically for reference by members of the Local Emergency Management Committee of the Local Government Area of Young.

Three copies of this report have been issued to the Local Emergency Management Officer of Young Shire and one to the Southern Highlands District Emergency Management Officer. A further copy remains with Echelon.

Report Copy	Located At	Responsibility of
1 of 5	Young Shire Council	Local Emergency Management Officer
2 of 5	Young Shire Council	Local Emergency Management Officer
3 of 5	Young Shire Council	Local Emergency Management Officer
4 of 5	Southern Highlands Emergency Management District P O Box 388 GOULBURN NSW 2580	Southern Highlands District Emergency Management Officer
5 of 5	Echelon Reference Library	Echelon Project Manager

Echelon Australia Pty Ltd

ABN No 96085720056

The Emergency Risk Management assessments contained within this manual have been developed based solely on the site-specific information supplied by members of the Local Emergency Management Committee Working Group and have been prima facie accepted by the authors of this manual and have not been independently verified for accuracy. Echelon Australia accepts no responsibility for any loss that arises out of the Local Emergency Management Committee of Young Shire having failed to bring all relevant facts to our attention or having provided inaccurate information.

Report Revision

Whenever this report is reviewed or amended, details must be recorded on this page.

Date	Revision Summary

Table of contents

Executive Summary

Local Emergency Management Committees throughout Australia have been requested to conduct a study and develop a report on how well prepared they were to manage serious disasters in their area. The request came from the Council of Australia Governments (COAG) and was coordinated by the Emergency Management Committees (EMCs) in each State.

This Emergency Risk Management Report has considered those risks associated with a range of natural, technological, biological and other hazards that, if a disaster occurred as a result of any of these hazards, would require a "significant and coordinated multi-agency emergency response" within the meaning of *Section 4* of the *State Emergency and Rescue Management Act 1989* (as amended).

The Local Emergency Management Committee (LEMC) for the Young Shire established the Emergency Risk Management Working Group to work on the project and develop the Emergency Risk Management report.

The Working Group firstly identified all the types of hazards that could occur within the Young Local Government Area that would require a coordinated response.

These hazards were then analysed and evaluated by the Working Group to see how significant the impact would be using the Likelihood and Consequence Assessment Matrix, found on page 60, to rate the level of risk from LOW to EXTREME

As a result, a total of 18 hazards were identified within the Local Government Area to form part of this study. These hazards were analysed as having the following severity rating:

- Eight hazards were rated **Extreme**
- Nine hazards were rated **High**
- One hazard was rated **Moderate**
- No hazards were rated **Low**

The detailed analysis of each of the hazards can be found in Section 7 (page 39) of the report under 'Risk Analysis and Evaluation'.

The following is a summary of the hazards rated as Extreme by the Emergency Risk Management Working Group. More information about these and all the other hazards can be found in Section 7 (page 39)

Hazard	Hazard Id	Risk Rating	Agency
EARTHQUAKE	NH01	EXTREME	LEOCON
Risk Statement: There is a risk that an earthquake in the Young Shire could result in significant property damage, serious personal injury, economic impact, significant transport disruption, utilities and infrastructure damage, social impact, environmental impact, severe interruption to normal community services and possible evacuation **Overview of Treatment/Mitigation:** See Page 40 for identified treatment and mitigation strategies.			

Hazard	Hazard Id	Risk Rating	Agency
FIRE - RURAL	NH02	EXTREME	NSWRFS

Risk Statement:

There is a risk that a class 2 / 3 rural fire could result in property damage, potential loss of life, personal injuries, loss of stock and fodder, environmental impact, impact on local agriculture, disruption to transport, closure of roads, potential loss of communications and power failure, impact on local community, possible evacuation

Overview of Treatment/Mitigation:

See Page 41 for identified treatment and mitigation strategies.

Hazard	Hazard Id	Risk Rating	Agency
FIRE – URBAN	NH03	EXTREME	NSWFB

Risk Statement:

There is a risk that a large fire in urban and CBD areas would result in property damage, potential loss of life, personal injuries, environmental impact, impact on local businesses, disruption to transport, closure of roads, potential loss of communications and power failure, impact on local community, economic impact, possible evacuation

Overview of Treatment/Mitigation:

See Page 42 for identified treatment and mitigation strategies.

Hazard	Hazard Id	Risk Rating	Agency
SEVERE STORM EVENT	NH06	EXTREME	SES

Risk Statement:

There is a risk that a severe storm would result in property damage, potential loss of life, personal injuries, loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation

Overview of Treatment/Mitigation:

See Page 45 for identified treatment and mitigation strategies.

Hazard	Hazard Id	Risk Rating	Agency
HAZARDOUS MATERIALS (Spillage and or pollution)	TH04	EXTREME	NSWFB

Risk Statement:

There is a risk that a hazardous material event could result in loss of life, serious personal injuries, and potential property damage. Depending on the location, there is a risk that there would be loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact; possible evacuation and exclusion zones

Overview of Treatment/Mitigation:

See Page 50 for identified treatment and mitigation strategies.

Hazard	Hazard Id	Risk Rating	Agency
INFRASTRUCTURE FAILURE – WATER	TH06	EXTREME	LEOCON

Risk Statement:

The villages of Koorawatha, Bendick Murrell, Crowther and Wirrimah have reticulated water provided by Cowra Shire Council (note: all these villages are on septic waste systems)

If Goldenfields Water (GWCC) supplier was disrupted, the Young water reticulation system would have between 2 – 20 days supply.

If local water infrastructure was damaged, there may be immediate disruption to water supply for Young.

There is a risk that water infrastructure failure would result in potential serious public health issues, impact on rural and urban community, businesses, vulnerable communities, hospital, displacement of people, potential financial, major disruption to the Burrangong Meat Processors (use 20% of town water supply in operations) and social impact

Overview of Treatment/Mitigation:

See Page 52 for identified treatment and mitigation strategies.

Hazard	Hazard Id	Risk Rating	Agency
COMMUNICABLE DISEASE – AFFECTING HUMANS	BH01	EXTREME	NSW HEALTH

Risk Statement:

There is a risk that a communicable disease (pandemic) affecting humans would result in multiple deaths and severe community and economic impact, isolation, exclusion zones, major civil unrest and major financial impact

Overview of Treatment/Mitigation:

See Page 58 for identified treatment and mitigation strategies.

Hazard	Hazard Id	Risk Rating	Agency
COMMUNICABLE DISEASE – AFFECTING ANIMALS	BH02	EXTREME	DII

Risk Statement:

There is a risk that a communicable disease affecting animals would result in multiple deaths of stock and severe community and economic impact, isolation, exclusion zones, major civil unrest, major financial impact and environmental impact due to stock disposal

Overview of Treatment/Mitigation:

See Page 59 for identified treatment and mitigation strategies.

For all Extreme hazards listed above, as well as those rated High, a treatment action plan was developed with additional measures to improve the existing arrangements and to be better prepared to deal with these disasters.

1 Introduction

Australia has adopted a ***comprehensive*** and ***integrated*** approach to the development of its arrangements and programs for the effective management of emergencies and disasters.

This approach is:

- ***Comprehensive***, in including *all hazards* and recognising that dealing with *risks* to community safety, caused by these hazards, requires a range of *prevention/mitigation*, *preparedness*, *response* and *recovery* (PPRR) arrangements and other risk management treatments; and
- ***Integrated*** in making sure that the efforts of governments, all relevant organisations and agencies, and the community are effectively coordinated and contribute to the development and maintenance of a safer, sustainable community.

The New South Wales State Emergency Management Committee (SEMC) has adopted the methodology of ***Emergency Risk Management*** (ERM) to facilitate the integrated national approach. This process involves dealing with risks to the community arising from emergency events. It is a systematic method for identifying, analysing, evaluating and treating emergency risks.

At community level, Local Government is a key player in Emergency Risk Management because it is the first level of support for communities in emergencies and plays an essential role in supporting the Local Emergency Management Committee (LEMC).

The LEMC of the Young Shire created a Working Group to carry out this study and prepare this report.

Purpose

The Local Emergency Management Committee of the Young Shire is working to conduct a holistic, community based, Emergency Risk Management Study that looks at how natural, technological and biological disasters may affect this community, in order to create a better-prepared and safer community in the event of major disasters.

The Emergency Risk Management Project identifies all large-scale hazards that could pose a danger to the Young Local Government Area, be they natural, technological or biological risks. The level of risk is then evaluated for each hazard and treatment options identified and or developed based on the "Implementation Guide for Emergency Management Committees" developed by NSW State Emergency Management committee.

Authority

The Local Emergency Management Working Group has been given the task of developing this report to draft stage only. The draft report will be referred to the Local Emergency Management Committee (LEMC) for approval and adoption following consultation with the community.

Reference & Supporting Documents

See Appendix 9 of this document for a list of supporting plans.

2 Project Management Plan

The following sets out the steps taken to complete the study and prepare this report.

STAGE 1	Research, Establishment of Working Gp, Development of Project Context
STAGE 2	Hazard Identification / Risk Assessment
STAGE 3	Determine & Evaluate Treatment / Mitigation options
STAGE 4	Draft Plan Developed / Stakeholder Consultation
STAGE 5	Consultation outcome review / Plan amended
STAGE 6	Consultation / Publication of Final Report

Stage	Milestones &Activity Measures	Responsible Agency / Organisation	Target Completion Date / Comments
1	Working Group established by LEMC Process context and limitations developed Community profile developed Sources of risk identified Historical information analysed	LEMC LEMC Working Gp & Echelon	Dec 08 & Mar 09
2	Development of LGA specific risk statements	LEMC Working Gp & Echelon	April 09
3	Risk statements analysed (likelihood & consequence)	LEMC Working Gp & Echelon	May 09
4	Assessments reviewed against risk evaluation criteria Stakeholder consultation to confirm existing treatment and mitigation strategies Determine gap and additional treatment and mitigation strategies	LEMO LEMC Working Gp & Echelon	June 09
5	Working Draft document prepared and reviewed by Working Group Preliminary endorsement for Community Consultation process	Echelon LEMO LEMC Working Gp	July 09
	Public Draft advertised inviting public comment	Echelon LEMO LEMC Working Gp	July 09
	Community and Stakeholder consultation on Draft Document Draft Plan finalised - inclusive (where applicable) of amendments	Echelon LEMO LEMC Working Gp	Aug 09
6	Draft Report Finalised Emergency Risk Management document published and Adoption of Report by LEMC & endorsed by Council	LEMC Working Gp LEMO LEMC and Council	Nov 09

3 ERM Context Statement

The aim of the Young LGA Emergency Risk Management project is to develop and implement a 'Community Emergency Risk Management Plan' for the Local Government Area of Young Shire, in consultation with the wider community.

The process examines Natural, Biological and Technological, and if applicable Socio/ Political risks that in the event of an emergency, would require a "significant and coordinated multi agency emergency response" within the meaning of Section 4 of the *State Emergency and Rescue Management Act 1989* (as amended).

Local Emergency Management Committee for the Young Shire (LEMC) is managing the emergency risk management study process through a Working Group formed of relevant organisations and agencies.

The NSW State Emergency Management Committee 'Implementation Guide for Emergency Risk Management (NSW)' has been used to undertake this process.

The LEMC for Young Shire is working through a Steering Committee involving LGAs of Boorowa, Harden, Yass Valley and Young. The Emergency Risk Management Study Steering Committee comprising members from these LEMCs, has been established to coordinate the studies for the individual areas and where common needs for emergency resources are identified, the Steering Committee, will seek to investigate opportunities for funding on behalf of the four areas for common benefit.

A community consultation strategy has been developed by the Young Local Emergency Management Committee to ensure that the community is consulted during the process and adequate and equitable access is provided to all areas of the community.

3.1 Identified Problems

There is a concern that existing arrangements to deal with major disasters may not be as effective as they could be. Therefore, the Emergency Management Working Group has been charged with the task of reviewing and or identifying natural, technological and biological hazards that impact on the Young Local Government Area only, to ensure that the community is prepared.

3.2 Process Limitations

Legislation that affects the project

1. The functions of the LEMC are defined in Sections 29.1 and 29.2 of the State Emergency and Rescue Management Act 1989 (SERM Act) as *"…the preparation of plans in relation to the prevention of, preparation for, response to and recovery from, emergencies in the local government area for which it is constituted"* and the LEMC is *"responsible to the relevant District Emergency Management Committee"* (in this case the Southern Highlands District Emergency Management Committee [NSWP1].

2. The LEMC is an "emergency management organisation" in terms of the SERM Act

3. Schedule 2 of the SERM Act states the provisions relating members and procedure of emergency management organisations.

4. Other functional areas working with and through the LEMC and operating under the SERM Act also have organisation specific policy and legislative requirements that may affect their ability to share and provide operational information to the LEMC.

5. The following legislation also applies to each of the positions within the LEMC:

Chairperson	**Section 28 2(a)** Each Local Emergency Management Committee is to consist of "a senior representative of the council of the relevant local government area nominated by that council, who is to be the Chairperson of the Committee" **Section 28 3** "The Chairperson of a Committee is to be a person who has the authority of the council to co-ordinate the use of the council's resources in the prevention of, preparation for, response to and recovery from emergencies"
Emergency Services Representative	Representation on the Local Emergency Management Committee is to consist of: **Section 28 2:** b) a senior representative of each emergency services organisation operating in the relevant local government area" and c) representatives of such organisations providing services in functional areas in the relevant local government area as the council of that area may from time to time determine, and d) the Local Emergency Operations Controller for the relevant local government area. **Section 28 5** "The representative of an organisation is to be nominated by the organisation"
Functional Area Representative	**Section 28 2c** "Representatives of such organisations providing services in functional areas in the relevant local government area as the council of that area may from time to time determine"
Legislated Council Responsibilities	**See Sections 28.2a and 29 above, and Section 32:** Councils to provide executive support for Local Emergency Management Committee and the Operations Controller. (1) A council is to provide executive support facilities for the Local Emergency Management Committee and the Local Emergency Operations Controller in its area. (2) The principal executive officer is to be known as the Local Emergency Management Officer

Policy Issues

1. Members of the LEMC operate within individual policies that are specific to their organisations some of which are restricted and will not be recorded within the Emergency Risk Management Study. However, these issues are discussed at a local and district level within the management committee structure to ensure a whole of LGA response is adopted.

Scope

1. The LEMC is only required to consider hazards that impact on people, property, animals and or the environment that would have the potential to require a significant and coordinated multi-agency response
2. The Young LEMC and its Working Group is to document the process as outlined within the NSW State Emergency Management Committees' "*Implementation guide for emergency management committees*"
3. The LEMC is not required to implement treatment plans
4. Where a combat agency or functional area has been identified as having a legislative requirement to plan for and or mitigate for identified hazards the LEMC is restricted to asking that agency to produce current planning and mitigation documents or status reports
5. The SEMC comments on plans developed by a LEMC via its Assessment Checklist released in December 2006
6. As per the SEMC "Emergency Risk Management Implementation Guide", the Local Disaster Plan and this ERM Study report are approved at local level.

Resources

Many members of the LEMC are volunteers that represent their agency or private companies and attend meetings outside of normal working hours. This requires the meeting of the Working Group to be scheduled at a time that these members are available as they are a valuable resource to the process, and in many cases have a greater knowledge of the history of local events than response agencies that have periodic staff changes. Every effort has been made to ensure agency volunteer staff have been able to contribute to the ERM process.

3.3 Management Framework

1. The management framework for the Young LEMC and its relationship to the Working Group is identified in Appendix 1 of this document.
2. A summary of the project management plan appears on page 9 of this document.
3. Management framework overview:
    - Working Group formed as sub committee of LEMC and charged with undertaking the Emergency Risk Management Study
    - At each stage as identified in the project plan Working Group consensus is achieved before moving to the next stage
    - At the completion of the Study the document will be presented to the LEMC for adoption and then to Council for information. The completed document will then be forwarded to the SEMC via the DEMC.
4. A list of the members of Young Local Emergency Management Working Group is found on page 76, Appendix 2 of this document.

3.4 Risk Evaluation Criteria

As part of evaluating the consequences of potential incidents, the Working Group established the following criteria to identify events considered 'unacceptable' and where measures are required to minimise impact. It was agreed that any reasonably preventable situation:

- Resulting in loss of life is **unacceptable**.
- Resulting in serious injury is **unacceptable**.
- That will affect the health and wellbeing of a community is **unacceptable**.
- That will have a medium to long-term or permanent effect on the environment is **unacceptable**.
- That will have a long-term or permanent effect on the cultural assets and values of the community is **unacceptable**.
- That will seriously disrupt normal business activity is **unacceptable**.
- That will seriously disrupt community lifelines or services is **unacceptable**.
- That could lead to the introduction of exotic diseases or pests is **unacceptable**.
- That could lead to severe loss or financial hardship to the community is **unacceptable**.

4 Communication and Consultation Strategy

Local Government by its very nature is constantly engaging and consulting with its community on a range of issues.

It understands that working collaboratively and consulting with local community has significant benefits particularly when it comes to situations affecting their well-being.

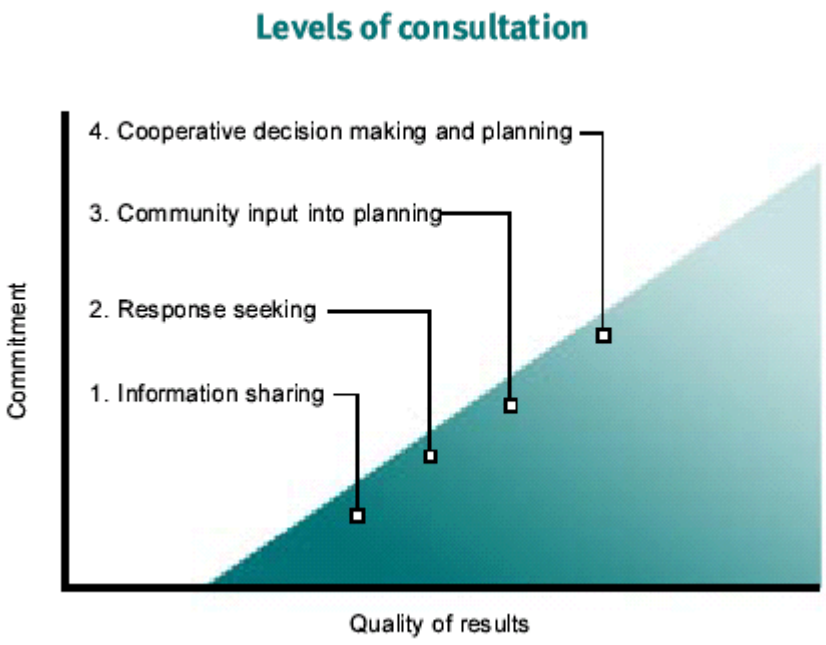
As such, a number of strategies and consultative networks existing within local government can be used to inform and consult with the community on the Emergency Risk Management Process.

Community engagement involves consultation (information sharing) and active participation between the stakeholders. It strengthens the capability of communities to take action that produces positive and sustainable changes locally.

The intent of the Local Emergency Management Committee is to tap into these existing networks to engage and consult with the community on the Emergency Risk Management Study in order to:

1. Enable the community to be better informed about hazards within their community
2. Reduce the level of misconception or misinformation about the ERM process
3. Ensure commitment and greater ownership of the final decisions reflected within the Emergency Risk Management Study
4. Encourage the community to put forward ideas and assist in the recording of hazard history for the local government area
5. Enable the Local Emergency Management Committee to gain a better understanding of local expectations in relation to Preparation Preparedness Response and Recovery issues
6. Help to identify issues that may not otherwise have been considered by the LEMC.

Consultation Model



Charter for Community Engagement Queensland Government Dept of Emergency Services 2001

Public Consultation Strategy

The LEMC of Young considered various methods available for consultation and decided on the following strategy for this project:

- Brief report to Council informing of project and report undergoing public consultation
- Publication of a series of media releases via the local print media. (template to be provided by echelon)
- Community access via Council's website providing a link to echelon's website to view document
- Community access to echelon ERM project website www.echelonaustralia.com.au and feedback received via email address as info@echelonaustralia.com.au
- Public display of documentation via Council public consultation procedures at Council's Administration Office and Library, providing facility for collection of feedback
- Public display of documentation via the local offices of Centrelink and Industry and Investment NSW (formerly DPI)
- Members of the LEMC & LEMC Working Group to inform and engage within their own agency to ensure ERM process has the widest exposure possible.

4.1 Process Documentation (Evidence of Process)

At each of the ERM Working Group meetings' minutes were taken by the Echelon Consultant and LEMO to record the content of the meeting, those present, the decision making and direction setting process.

1	Dec 08	Preliminary Meeting	Introductory meeting with ERM Steering Committee
2	Mar 09	Meeting One	"Setting the Context"
3	Apr 09	Meeting Two	"Hazard Identification and Risk Statements"
4	May 09	Meeting Three	"Risk Analysis/ assessments", vulnerable communities
5	June 09	Meeting Four	"Risk Treatment" existing mitigation strategies and additional treatment options
6	July 09	Meeting Five	Risk Treatment – Selection of Treatment Options and Treatment Plan development
7		Stage 4	"Report Consolidation"
8	August 09	Stage 5	Presentation to LEMC for endorsement of Draft Report to Council for information
9	Oct 09	Stage 6	Community Consultation
	Nov 09		Consolidation of feedback and final adoption of Report

5 Risk Identification

5.1 Young LGA Community Hazard Table

The following tables represent the initial assessment carried out by the Working Group to identify what hazards, should any of them occur, could be of such a severity that would require a significant and coordinated response by emergency services.

Hazards that have been considered but they have not been included in this study would be managed by the responsible combat agency, are also listed in the table below noting the reason for their exclusion.

The hazards included in the report have been assessed in accordance with the State Emergency Management Committee SEMC implementation guide.

Natural Hazards

	Town of Young	Villages	Rural	Significant Multi Agency Response to trigger the EOC	(if YES) Combat Agency / LEOCON
Avalanche	Considered by the Committee (April 2009) and determined that as there is no history of this hazard occurring within the Young LGA to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Snow Storm	Considered by the Committee (April 2009) and determined that as there is no history of this hazard occurring within the Young LGA to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Cyclone	Considered by the Committee (April 2009) and determined that as there is no history of this hazard occurring within the Young LGA to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Tornado	Considered by the Committee (April 2009) and determined that as there is no history of this hazard occurring within the Young LGA to a level that would warrant a significant and coordinated multi-agency response, and has not been included in this study				
Earthquake	**Y**	**Y**	**Y**	**Y**	**LEOCON**
Fire Rural	**N**	**Y**	**Y**	**Y**	**RFS/ NSWFB**
Fire Urban	**Y**	**Y**	**Y**	**Y**	**NSWFB / RFS**
Flood	**Y**	**Y**	**Y**	**Y**	**SES**
Fog	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response, and has not been included in this study				
Extreme Cold	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Extreme Heat	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				

	Town of Young	Villages	Rural	Significant Multi Agency Response to trigger the EOC	(if YES) Combat Agency / LEOCON
Landslip/Rock/ Fall/ Mudflow	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the rural areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Infestation - Animal	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Plague Locusts Infestation	**Y**	**Y**	**Y**	**Y**	**Industry and Investment NSW** (formerly DPI)
Infestation - Plant	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Severe Storm Event	**Y**	**Y**	**Y**	**Y**	**SES**
Storm Surge	Considered by the Committee (April 2009) and determined that as there is no history of this hazard occurring within the Young LGA to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Tsunami	Considered by the Committee (April 2009) and determined that as there is no history of this hazard occurring within the Young LGA to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				

Technological Hazards

	Town of Young	Villages	Rural	Significant Multi Agency Response	(if YES) Combat Agency/ LEOCON
Aeronautical	**Y**	**Y**	**Y**	**Y**	**LEOCON**
Space Debris re-entry (no impact)	Considered by the Committee (April 2009) and determined that as there is no history of this hazard occurring within the Young LGA to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Space Debris re-entry (impact)	**Y**	**Y**	**Y**	**Y**	**LEOCON**
Bridge Collapse	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Major Structure Collapse	**Y**	**Y**	**Y**	**Y**	**LEOCON**
Dam Failure	Please refer to Flood risk statement as this hazard has been considered in conjunction with a Flood occurrence				
Hazardous Materials (Spillage and or pollution)	**Y**	**Y**	**Y**	**Y**	**NSWFB**

	Town of Young	Villages	Rural	Significant Multi Agency Response	(if YES) Combat Agency/ LEOCON
Industrial Accident	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in areas of the LGA where industry operate, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Infrastructure failure – Power	**Y**	**Y**	**Y**	**Y**	**LEOCON**
Infrastructure failure - Water	**Y**	**Y**	**Y**	**Y**	**LEOCON**
Infrastructure failure – Sewerage (incl contamination)	**Y**	**N**	**N**	**Y**	**LEOCON**
Infrastructure failure - Communications	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Natural Gas Emergency (excl fire and explosion)	**Y**	**Y**	**Y**	**Y**	**NSWFB**
Mine Accident	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Radiological Hazard	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and will therefore not been included in this study				
Land Subsidence	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and will therefore not be included in this study				
Transport Emergency – airport	Considered by the Committee (May 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and will therefore not be included in this study				
Transport Emergency - rail	Considered by the Committee (May 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				
Transport Emergency – Road	**Y**	**Y**	**Y**	**Y**	**LEOCON**
Transport Emergency - Waterway	Considered by the Committee (April 2009) and determined that as there are no waterways within the Young LGA that operates transport, there is no probability of this hazard occurring and has not been included in this study				
Explosion	**Y**	**Y**	**Y**	**Y**	**NSWFB**
Fire Residential	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the built areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and will therefore not be included in this study				
Fire Industrial	Considered by the Committee (May 2009) - determined that whilst this hazard may occur in the industrial area of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response and will therefore not be included in this study				

	Town of Young	Villages	Rural	Significant Multi Agency Response	(if YES) Combat Agency/ LEOCON
Fire Commercial/retail	Considered by the Committee (May 2009) - determined that whilst this hazard may occur in the Young CBD, it would not be to a level that would warrant a significant and coordinated multi-agency response and has not been included in this study				

Biological Hazards

	Town of Young	Villages	Rural	Significant Multi Agency Response	(if YES) Combat Agency / LEOCON
Communicable Disease - Affecting Humans	**Y**	**Y**	**Y**	**Y**	**NSW HEALTH**
Communicable Disease - Affecting Animals	**Y**	**Y**	**Y**	**Y**	**Industry and Investment NSW** (formerly DPI)
Communicable Disease - Affecting Plants	Considered by the Committee (April 2009) - determined that whilst this hazard may occur in the some areas of the LGA, it would not be to a level that would warrant a significant and coordinated multi-agency response it has not been included in this study				

Socio Political / Other

	Town of Young	Villages	Rural	Significant Multi Agency Response	(if YES) Combat Agency / LEOCON
Civil Unrest	Considered by the Committee (April 2009) - determined that such an emergency would not occur in the LGA to a level that would warrant a significant and coordinated multi-agency response.				

5.2 Natural Hazards - A National Perspective

The European colonisation of Australia – and its written history – began at Sydney Cove in 1788. With only 20 million people spread across 7.7 million Km2, even today parts of the continent are not exactly overcrowded. As an example, Australia Post divides the country into 2,433 postcodes, each with an average population of about 8,200. The largest postcode (872 in Western Australia), had a population at the 2001 Census of 20,400; the postcode covers an area of 621,400 km2 an area significantly larger than continental France. While it could be argued that nothing much happens, from a natural hazards point of view, in postcode 872, that was exactly the rest of the nations view of Canberra, the national capital – except that this view changed in January 2003. (R. Blong 04).

Nearly twenty years ago, researchers at Macquarie University, in what was later to become the insurance industry-sponsored research centre known as Risk Frontiers, began compiling databases on natural hazards and their impacts in Australia. An integrated data base is the result that contains more than 5000 hazard occurrences and information about human deaths and damage to the built environment resulting from nine natural perils – Tropical cyclones, bushfires, floods, wind gusts, tornadoes, hailstorm's, earthquakes, landslides and tsunamis.

Summary of Deaths Due to Natural Hazards 1788 – 2003 (National Figures)

PERIL	YEAR OF FIRST RECORDED DEATH	NUMBER OF DEATHS	%TOTAL DEATHS
Earthquake	1902	16	0.3
Landslide	1842	95	1.6
Bushfire	1850	696	11.4
Thunderstorm	1824	774	12.7
Tornado	1861	52	0.9
Cyclone	1839	2163	35.5
Flood	1790	2292	37.6
Tsunami		0	0.0
Total		**6088**	**100**

Issues in Risk Science 2004

Tropical cyclones and floods together account for more than 70% of known natural hazard deaths since the European colonisation of Australia in 1788. Thunderstorms, particularly lightning, and bushfires each account for 11 to 13% of deaths, indicating that the other hazards considered have produced very few human deaths, at least in the last 200 years.

At the other end of the spectrum, deaths in earthquakes, landslides and tsunamis combined account for less than 2% of all deaths. This paltry total reinforces the view that Australia is a land of meteorological perils; a low lying, ancient continent with all its sea coast remote from the active boundaries of tectonic plates is unlikely to be dominated by geological hazards.

If we delve into the totals a little further we discover, for example that while flood deaths average 10-11 per year, one quarter of all flood deaths have occurred in New South Wales. Bushfire deaths have averaged about 4 per year with 50% of all deaths in just eight fires or, more accurately, on just eight days of extreme fires. Lightning deaths (that is most of the thunderstorm deaths) average about 3.5 fatalities per year, with nearly half in NSW.

Events by Zone

Further statistics on the impacts of natural hazards were sourced from the Emergency Management Australia website. The Zones view lists disasters by their Zone. Currently these are: Victoria, New South Wales, Queensland, Western Australia, South Australia, Tasmania, Northern Territory, ACT and Offshore - (All Regions / Coastal Waters / Territorial Waters / Outside Territorial Waters). Disasters which overlap Zones are referred to as Australia-wide. The database hierarchy is Zone, Region, and Map. The brief description contains a link to full details for each event.

The table below contains records of all natural and non-natural disasters within Australia (where information is available) dating back to European settlement.

No. Deaths	No. Injured	No. Affected	No. Homeless	Total Cost by Zone ($)
82	1,027	372,650	6	389,800,000
489	1,097	85,249	45,165	967,914,000
3,530	13,124	10,009,750	28,529	7,234,940,630
2,495	5,105	2,722,852	28,740	3,096,300,000
386	2,139	668,024	681	333,000,000
1,108	1,407	123,229	13,244	289,200,000
1,969	7,743	6,864,977	21,271	1,128,050,000
1,872	620	896,571	8,460	554,489,266
11,931	**32,262**	**21,743,302**	**146,096**	**13,993,693,896**

(source: www.ema.gov.au)

5.3 Natural Hazards - A Local Perspective

Significant Weather Summaries - January 2004 to December 2008
Young Local Government Area and surrounds, NSW

This information was taken from Bureau of Meteorology, Monthly Significant Weather summaries, excluding data on flooding, snow and bushfires.

- **2008** - No significant weather event recorded by the Bureau of Meteorology
- **2007** - No significant weather event recorded by the Bureau of Meteorology
- **2006** - No significant weather event recorded by the Bureau of Meteorology
- **2005** –
  - October - Wind gusts of 90 km/h or greater were reported on 30th Young 94 km/h
  - August - A cold outbreak on the 11th brought light snowfalls down to 600 metres on the Southern and Central tablelands and the higher ground of the South West Slopes
  - January - Winds greater than 90 km/h occurred at the following places: 20th Young 109 km/h
- **2004 –**
  - February - On the 15th thunderstorms from Condobolin to Young brought down trees and powerlines in Forbes, Cowra, Blayney and Bathurst. At Gungal (Hunter) strong winds uprooted large trees (near Merriwa).

5.4 Natural Hazards History and Analysis

The following tables provide information on the characteristics of each natural hazard included in the study. This information was used by the Working Group to assess the level of risk posed by each of these hazards, should they occur in the Young Local Government Area.

Information provided for each hazard includes:

History	Records of past events in the local area/community or elsewhere
Intensity	How big, how fast, how powerful, how heavy
Extent	Physical area, communities affected, population
Speed of onset	Event duration, warning time, time of year
Vulnerabilities	What other aspects of the community not directly affected by the hazard could suffer some kind of impact?
Secondary Hazards	Other hazards that may result from the occurrence of the main hazard
Mitigation in place	What the LEMC currently refers to and has implemented, to deal with such events (documents, equipment, resources, etc)

COMBAT AGENCY/ CONTROLLING AUTHORITY - LEOCON	
HAZARD	**EARTHQUAKE**
History	No significant reports of earthquake in Young Shire in living memory. Several small tremors reported in the district with only isolated small scale property damage reported. No injuries reported.
Intensity	Small scale tremors only however there is always the possibility of a major earthquake at any time.
Extent	Isolated areas usually in remote rural areas with a low population density. If occurred in a town area there is the potential for loss of life, property and services such as electricity, water and communications.
Speed of onset	Sudden & potentially can occur at any time causing almost instantaneous disruption/damage/loss of life depending on the location and severity of the earth quake.
Vulnerabilities	Depending on the location and severity of the earthquake could affect any area. No one area is more susceptible than another.
Secondary Hazards	Loss of local economy with property damage and loss of life. Potential for loss of essential services, Road closures and general widespread panic.
Mitigation in place	Local DISPLAN. State DISPLAN. Establishment of EOC. Local emergency services etc Full resources of Council.

COMBAT AGENCY/ CONTROLLING AUTHORITY - NSWRFS	
HAZARD	**FIRE – RURAL**
History	Small bush and grass fires occur frequently every year within the Young Shire generally between the months of October and April in the following year with the greatest percentage of events occurring in December, January and February. Lightning strikes and harvesting activities account for the significant numbers of fires started. The average size of these fires is thought to be between 10 and 50 hectares. Major bush and grass fires occur far less frequently. Major fires on a very rough average tend to happen every 4 to 5 years but have been recorded at closer intervals. Major fires tend to occur in years where the district receives good spring rain followed by hot dry summers.
Intensity	All bush and grass fires that occur within the Young Shire have enormous potential particularly in years of high fuel load. The fires experienced in the Young Shire are typically very fast moving fires predominantly travelling long distances in grassland in a short space of time. In years of high fuel load fires are very intense and very difficult to control but are also very dependent on weather conditions. Hot, dry and windy conditions with low

	relative humidity lead to very fast moving and intense fires.
Extent	The Young Shire has 7 villages and one major town where the population is somewhat concentrated. Fire impacting on these areas poses and immediate and substantial threat to life and property. The incidences of fires are not confined to a particular area of the shire, rather are spread across the entire Young shire. The physical area of each major fire varies significantly as does the threat to life and property. Relatively small fires in the Young area have not impacted on populated areas but have caused considerable stock losses over time. Fires such as the "Bald Hill" fire, although it was quite a large fast moving fire posed very little threat to life and property as the location did not involve a concentration of the population.
Speed of onset	The speed of onset is particularly daunting with regard to bush and grass fires within the Young Shire. Fires take hold very quickly in large fuel loads and when driven by severe weather conditions. Fires such as experienced at "Bald Hill" in 2005 travelled over 2 Km within 30 minutes driven by high fuel loads and a Westerly wind. Fire events can last from a few hours to days or weeks in the worst case. Depending on where the fire starts warning time may be very short with in many cases an immediate threat to a significant amount of life and property.
Vulnerabilities	Fires impact on the whole community, particularly large serious fires. Livestock is lost, grass and crops may be lost and income is likely to suffer as a result. This has a direct flow on effect to the whole town effecting all shops and businesses. Fires place an enormous amount of stress on individuals trying to cope with heavy losses which in turn affects a great number of local residents. Emergency management and health care may become under pressure very quickly within a small community such as Young. Councils are likely to incur a significant amount of expenditure during these times. Communications equipment across the Shire may also be at risk.
Secondary Hazards	Fires may very quickly affect roads and infrastructure within the major towns and in the villages. Panic among the public is likely to cause major problems on local roads. Motor vehicle accidents while leaving areas or while trying to return into an area are a very real possibility. Smoke is also a major factor in fires and this may affect the health and wellbeing of a significant number of residents.
Mitigation in place	There is a general reliance and an expectation for the NSW RFS to respond effectively and efficiently to bush and grass fires. The standard of the operational fire fighting fleet within the Young Shire is improving significantly. The speed of response and the response capability is improving continually. Most of the Young Shire is Bush Fire District which falls under the jurisdiction of the RFS. A small component is Fire District which is basically the town limits of Boorowa but there is also an area surrounding Young (approximately a 1 Km radius) that is under a mutual aid agreement and is identified as dual response. The mutual aid agreement also extends to major or significant assets within the Shire, but this in no way limits the level of assistance provide by either agency in the case of any type of fire. The RFS and the NSWFB have an excellent working relationship within the Young Shire. The South West Slopes Zone Bush Fire Management Committee (BFMC) also adopts a document called the Section 52 Plan of operations which sets out the cooperative fire fighting arrangements within the SWSZ. Other RFS documentation particular to the RFS includes Service Standards, operational management and incident management guidelines, internal SOP's etc. The Bush Fire Risk Management Plan will also provide some guidance on high risk areas and risk treatment measures.

COMBAT AGENCY/ CONTROLLING AUTHORITY - NSWFB	
HAZARD	**FIRE- Building in CBD**
History	NSWFB responds to an average of 6 structure fires annually. Structure fires are more frequent in the cooler months Properties affected in recent years are predominately residences, however large fires have occurred requiring external assistance from adjacent NSWFB stations and ACT Fire Brigade. Most have been single residential dwellings with minimal transfer of fire to adjoining structures.
Intensity	Structure fires vary in intensity from small fires which are contained to the room of origin, to complete destruction of the property. Main factors affecting intensity are; type of construction, type of ignition and time taken from ignition to initial application of extinguishing media. Structure fires are normally contained to one structure. Water availability to extinguish fire is difficult in areas not covered by reticulated water supply, is more likely in fires outside the town, and is usually managed through inter agency arrangements with the NSWRFS.
Extent	Potential for loss of life, property and services such as, Electricity, Water, Communications and adjoining Structures. Damage to significant structures can have flow on effects to wider infrastructure.
Speed of onset	More frequent at night and usually managed using local resources. Speed of onset varies depending on the cause of the fire and type of construction or other fuel available.
Vulnerabilities	Impact on businesses residing in building; loss of access to their goods and services. Impact on residents; displacement of residents, particularly in care facilities and higher density housing,
Secondary Hazards	Environmental damage; potential loss of economic income loss of local business;
Mitigation in place	SR&EM Act, Fire Brigades Act 1989 (NSW), NSWFB-NSWRFS MAA, ACTFB-NSWFB MOU

COMBAT AGENCY/ CONTROLLING AUTHORITY - SES	
HAZARD	**FLOOD**
History	
Intensity	
Extent	Town of Young, properties along water courses
Speed of onset	Significant flooding can occur very rapidly with local flooding affecting properties and roads within 1 to 2 hours of substantial rain in the LGA.
Vulnerabilities	Farming communities, towns, majors roads, fishing resorts
Secondary Hazards	o Fallen trees and other debris o Trees threatening dwellings or power and telephone lines o Damaged buildings o Broken windows o Loss of power and gas o Vehicle accidents o Loss of essential services, including sewerage, fresh water and communications o Lack of suitable accommodation for people from damaged houses o Looting of evacuated properties o Accommodation and welfare support for stranded motorists
Mitigation in place	Local Flood Plan

COMBAT AGENCY/ CONTROLLING AUTHORITY - **Industry and Investment NSW** (formerly DPI)	
HAZARD	**INFESTATION – INSECTS: Australian Plague Locust**
History	The Australian Plague Locust is the only insect pest that has caused problems on a large scale within and outside the Young district. Infestations are intermittent as they initially develop in SW Queensland and spread into and across NSW. The last major infestation requiring widespread and intensive control measures being implemented occurred in spring 2004. A minor infestation which also required intensive control measures in localised areas occurred in late 2008 due to remnant breeding populations that carried over from the 2004 outbreak.
Intensity	Infestations are intermittent and dependant on seasonal conditions in SW Queensland and areas to the north and west of Young. Infestations of adult locusts (swarms) usually occur in bands along flight paths mainly determined by wind direction and strength. Large bands up to 3-4 kilometres wide and 17 kilometres long have been recorded in districts to the west and south of Young in the past.
Extent	Major impact will be on rural properties due to the loss of animal feed and disruption to normal farm activities. Large scale spraying with insecticides is required to control infestations ideally after the juvenile locusts have formed into large ground dwelling 'bands' and before they begin to fly.
Speed of onset	As initial infestations usually develop in areas to the north and west of Young, there is a warning phase prior to problems being encountered in this district. Although this allows for the time for the stockpiling and supply of insecticides prior to the onset of an infestation, information cannot be provided as to exactly where a problem will occur after the locusts have begun to fly. Infestations usually occur in the spring/summer but can extend into autumn particularly if localised egg laying has occurred. Depending on the success of control measures and the level of locust survival, infestations can cause ongoing problems in subsequent years.
Vulnerabilities	Potential for disruption to traffic flow and possible motor vehicle accidents when large swarms pass over roads.
Secondary Hazards	Possible short term annoyance, including mental issues, to town dwellers due to damage to gardens etc. The widespread use of pesticides can cause concern particularly to producers of organic foods. Possible environmental damage due to the denuding of agricultural land.

COMBAT AGENCY/ CONTROLLING AUTHORITY - SES	
HAZARD	**SEVERE STORM EVENT**
History	Strong winds are prevalent in the region with speeds of up to 130km/h, and have the potential of bringing trees and powerlines down resulting in the disruption of services to the local community particularly those in the vulnerable listings including nursing homes and dialysis machine users.
Intensity	Quite significant, affecting large areas of townships.
Extent	Whilst prevalent and predictable there is little that can be done to prepare.
Speed of onset	Warning provided by Bureau of Meteorology via radio and television.
Vulnerabilities	Depending on the direction and severity of the wind, could affect any area of the region. No one area is more susceptible than another
Secondary Hazards	Property damage, generally sections of roofs blown off. Loss of local business sector

5.5 Technological Hazards History and Analysis

The following tables provide information on the characteristics of each technological hazard included in the study. This information was used by the Working Group to assess the level of risk posed by each of these hazards, should they occur in the Young Local Government Area.

COMBAT AGENCY/ CONTROLLING AUTHORITY - LEOCON	
HAZARD	**AERONAUTICAL**
History	In June 1993 an aircraft preparing for a landing approach to the Young runway in conditions of low cloud and darkness, struck trees and crashed. The aircraft which was being operated as a regular public transport service from Sydney to Young was destroyed by impact forces and post crash fire. All seven occupants including the two pilots suffered fatal injuries. This is the only large scale emergency of this type. Several small scale incidents including a helicopter crash into power lines several years ago with no significant injury or property damage.
Intensity	Sudden high intensity impact limited to local area only. Potential for even greater loss of life/property damage if crash occurred in built up area.
Extent	Crash occurred in a rural area, affecting only the victims/families/emergency services involved. Several interim safety recommendations were issued by the Bureau of Air Safety.
Speed of onset	Sudden and potentially can occur at any time.
Vulnerabilities	Depending on the location and severity of the crash could affect any area.
Secondary Hazards	Property damage & even greater loss of life in a built up area. Outbreak of bush fire in dry season. Damage to the environment.
Mitigation in place	Local DISPLAN. State DISPLAN. Establishment of EOC. Local emergency services etc. Full resources of council.

COMBAT AGENCY/ CONTROLLING AUTHORITY - LEOCON	
HAZARD	**SPACE DEBRIS RE-ENTRY (IMPACT)**
History	Have not suffered space debris re-entry.
Intensity	Sudden BUT extremely unlikely. Possibility always exists. Depending on the severity and location of the re-entry has potential for loss of life and property damage.
Extent	Dependant upon location of incident. Has potential to affect community if impact occurs in built up area.
Speed of onset	Sudden with very little warning. General area warning only. Could potentially occur anywhere at any time.
Vulnerabilities	Possible biological/radiological hazards. Health issues. Damage to the environment.
Secondary Hazards	Property damage & potential loss of life.
Mitigation in place	Local DISPLAN. State DISPLAN. Establishment of EOC etc. Local emergency services. Full resources of council.

COMBAT AGENCY/ CONTROLLING AUTHORITY - LEOCON	
HAZARD	**MAJOR STRUCTURE COLLAPSE**
History	Have not suffered any reports of a major building collapse.
Intensity	Sudden and unlikely to occur. Localised only. Possibility always exists. Depending on the severity and location of the structural collapse has potential for loss of life and property damage.
Extent	Dependant upon location of incident. Has potential to affect community if impact occurs in built up area/CBD or on transport routes.
Speed of onset	Sudden with very little warning. Could potentially occur anywhere at any time.
Vulnerabilities	May impact upon local business sector. Impact on businesses residing in the building or near structure involved. Loss of access to their goods and

	services. Road closures and general disruption to the general community & transport companies. Will require use of specialised rescue operators/equipment not readily available to local emergency services resulting in a delay on scene.
Secondary Hazards	Property damage to adjoining buildings/structures. Potential short-term loss of essential services (i.e. water, sewer, electricity etc). Disruption to the local economy.
Mitigation in place	Local DISPLAN. State DISPLAN. Establishment of EOC etc. Local emergency services. Full resources of council.

COMBAT AGENCY/ CONTROLLING AUTHORITY - HAZARDOUS MATERIALS	
HAZARD	**NSWFB**
History	NSWFB responds to an average of 12 Hazardous Materials incidents annually, which are usually associated with heavy vehicle accidents. These incidents vary from fuel spills lasting less than an hour, to large incidents spreading over several days involving as diverse materials as hydrocarbons, ammonium nitrate, and compressed gasses.
Intensity	Usually these incidents are a result of road transport accidents. Incidents associated with transport of Dangerous Goods by rail are possible.
Extent	Depending on the location; Spills upwind from populated areas may result in toxic plumes affecting residential areas, requiring evacuation. Leaks into water courses have potential to enter the Murrumbidgee River system through Yass River and may affect local water supplies. Effects of leaks into water courses will be directly dependant on water flows and capacity of Burrinjuck Dam at the time of the spill. Recent incidents on the Hume Highway at Bango Creek have identified this area as a location of concern.
Speed of onset	Incidents usually occur without warning. Depending on nature of material and type of hazard, onset is usually quite slow. Generally, there will be sufficient time to provide adequate warnings to affected areas; however, a consolidated approach will be essential to effect widespread evacuations.
Vulnerabilities	Quality of air, soil and water within the area of the spill. Toxic plume extending many kilometres depending on substance and atmospheric conditions. Degradation of water downstream from spill. Community vulnerabilities if evacuation is required.
Secondary Hazards	Evacuation zones may include populated areas requiring; temporary housing and welfare for displaced persons, security of evacuated areas to prevent opportunity crime. Closure of the Hume Highway involves detouring traffic through secondary roads, affecting local traffic conditions and increasing risk of traffic accidents. Spills of fertiliser into waterways can result in algal blooms and inturn degradation of water supplies affecting many downstream populations.
Mitigation in place	Fire Brigades Act 1989 (NSW), Environment Protection Act

COMBAT AGENCY/ CONTROLLING AUTHORITY - LEOCON	
HAZARD	**INFRASTUCTURE FAILURE - POWER**
History	There have been no reported long term power failures. Usually short term. Even after the recent violent storm in town power was restored to affected areas within a day or so. Possibility however always exists for long term power failure.
Intensity	Dependant upon the duration of the power failure and the extent of the area affected. Will have greater impact if failure occurs during the heat of summer or middle of winter.
Extent	Once again, dependant upon the duration of the power failure and the extent of the area affected. If long term, will cause widespread disruption to the business and general community. May have health implications depending on the time of year i.e. need for cooling in the extreme heat of summer etc.

	Difficulty keeping food/drinks etc fit for human consumption.
Speed of onset	Power failure could be sudden without any warning or may be predictable under certain circumstances. Power failure could occur at any time.
Vulnerabilities	Dependant upon the duration of power failure. The longer power is out the greater the problem. If long term, almost everyone would be affected in some way. Serious implications for the sick and elderly.
Secondary Hazards	Widespread panic & concern in the community. Serious health issues. Lack of communications. Potential for loss of life. Crippling of business community. Serious disruptions to local economy.
Mitigation in place	Country Energy personnel. Local DISPLAN. State DISPLAN. Establishment of EOC etc. Local emergency services. Full resources of council.

COMBAT AGENCY/ CONTROLLING AUTHORITY - LEOCON	
HAZARD	**INFRASTUCTURE FAILURE -WATER**
History	There have been no reported long term water failures. Usually only short term. Young Shire has up to 15 days water storage capacity for the town in the event of a water supply failure. Possibility however always exists for long term water failure if water supply from Burrinjuck Dam is suddenly affected by a terrorist attack or pollutant etc.
Intensity	Dependant upon the duration of the water failure and the extent of the area affected. If anything more than only short term will have major implications.
Extent	Once again, dependant upon the duration of the water failure and the extent of the area affected. If long term, will cause major widespread disruption to the whole community. Will have serious health implications.
Speed of onset	Water failure could be sudden without any warning or may be predictable under certain circumstances. Water failure could occur at any time.
Vulnerabilities	Dependant upon the duration of water failure. The longer water supply is affected the greater the problem. If anything more than short term, almost everyone would be affected.
Secondary Hazards	Widespread panic & concern in the community with the failure of an essential service for life. Serious health issues. Potential for loss of life. Crippling of business community. Serious disruptions to local economy. Serious implications for rural sector and companion animals.
Mitigation in place	Local DISPLAN. State DISPLAN. Establishment of EOC etc. Local emergency services. Full resources of council.

COMBAT AGENCY/ CONTROLLING AUTHORITY - LEOCON	
HAZARD	**INFRASTUCTURE FAILURE - SEWERAGE**
History	There have been no reported long term sewerage failures. Usually only short term. Young Shire Council has a 'forgiving' system which in the event of a failure is still able to process the sewerage to a lesser quality through the use of lagoons etc. Possibility however always exists for long term sewerage failure.
Intensity	Dependant upon the duration of the sewerage failure and the extent of the area affected. If anything more than only short term will have major implications.
Extent	Once again, dependant upon the duration of the sewerage failure and the extent of the area affected. If long term, will cause major widespread disruption to the whole community. Will have serious health implications.
Speed of onset	Sewerage failure could be sudden without any warning or may be predictable under certain circumstances. Sewerage failure could occur at any time.
Vulnerabilities	Dependant upon the duration of sewerage failure. The longer sewerage is affected the greater the problem. If anything more than short term everyone could face serious health issues.
Secondary Hazards	Widespread concern in the community with the failure of an essential service. Serious health issues. Will affect business community causing serious disruptions to local economy

Mitigation in place	Local DISPLAN. State DISPLAN. Establishment of EOC etc. Local emergency services. Full resources of council.

COMBAT AGENCY/ CONTROLLING AUTHORITY - NSWFB	
HAZARD	**NATURAL GAS EMERGENCY (excl. fire, explosion)**
History	There have been no ruptures in the transmission system within the local LGA. Continuing maintenance and surveillance will keep and maintain interference to a controllable level and also maintain the integrity of the pipeline No explosion. Fire at Burrangong abattoirs in 2006/2007. Explosion caused for evacuation of neighbouring properties minimal property damage no injuries occurred. Gas leaks are of minor nature in local supply. National gas pipeline runs through Young but there has been no history of an emergency
Intensity	
Extent	Localised. Could require the establishment of an exclusion zone affecting a larger area of the community
Speed of onset	Sudden without warning
Vulnerabilities	Nearby buildings properties businesses
Secondary Hazards	Fires could occur as a result of the gas leak. Health issues could also be experienced

COMBAT AGENCY/ CONTROLLING AUTHORITY - LEOCON	
HAZARD	**TRANSPORT ACCIDENT ROAD**
History	There have been numerous incidents of road transport accidents resulting in death/ injury and property damage in the Young Shire. Some involving heavy vehicles and resulting in HAZMAT incidents. Young is fast becoming a regional centre. The town is serviced by several main roads including the Olympic Highway which runs from Cowra in the north to Cootamundra in the south. Young does not have an adequate heavy vehicle bypass therefore all heavy vehicle traffic is required to travel through the main town area past several schools and aged care facilities.
Intensity	Dependant upon the nature and severity of the incident. Potential for significant loss of life and property damage in a 'worst case scenario' involving a collision between a coach and B-Double semi-trailer. Mostly occurring in outlining areas but the potential for a major collision within the town area is always present.
Extent	Potential for significant loss of life and damage to property. In rural areas, will be generally limited to immediate vicinity only not affecting community. If occurred in town area, may have significant impact upon surrounding community/population if the incident involves hazardous substances requiring evacuation of people.
Speed of onset	Sudden without warning at any time or location. If involves hazardous substances may take a considerable period of time to clean up and declare the area safe.
Vulnerabilities	Road closures & disruption to traffic/services. Possibility of evacuations if incident occurred in town area.
Secondary Hazards	Possibility of bush fire in rural areas. Possible HAZMAT incident. Environment damage. Property damage.
Mitigation in place	Local DISPLAN. State DISPLAN. Establishment of EOC etc. Local emergency services. Full resources of council.

COMBAT AGENCY/ CONTROLLING AUTHORITY - NSWFB / RFS	
HAZARD	**EXPLOSION (Grain Storage Incident)**
History	Major events that have occurred within in rural areas of the state include the Hunter Valley winery explosion and Parkes stockfeed plant. Notable recent local events have been restricted to dust explosions associated with grain silos. Likelihood of events linked to terrorism activity within the LGA is considered low.
Intensity	A number of deaths have been associated with the recent events outlined above. Size of explosion will be dependant on cause. Structural collapse in affected and nearby structures may occur. Explosions may start fires in structures of nearby bush and grassland.
Extent	Dust explosions associated with silos have been isolated to the silo in question; however, potential exists for explosions to spread to adjacent property or start fires in grass/bushland.
Speed of onset	Dust explosions usually occur during hot dry weather, by their nature explosions occur very quickly and may cause an associated fire. Where explosions are a result of fire, an extended warning period is likely.
Vulnerabilities	Roads and essential infrastructure may be affected depending on location. Depending on infrastructure, large parts of the community may be affected.
Secondary Hazards	If a large area or structure with injuries/fatalities is involved, rescue and crime scene investigation may cordon the area for an extended period, affecting; access to the area, transport routes, displaced persons due to evacuations and commercial activity depending on location.
Mitigation in place	SR&EM Act, EMA USAR Response arrangements, Fire Brigades Act 1989 (NSW),

5.6 Biological Hazards History and Analysis

The following table provides information on the characteristics of each biological hazard included in the study. This information was used by the Working Group to assess the level of risk posed by each of these hazards, should they occur in the Young Local Government Area.

COMBAT AGENCY/ CONTROLLING AUTHORITY - NSW HEALTH	
HAZARD	**COMMUNICABLE DISEASE – AFFECTING HUMANS**
History	Influenza A outbreak approximately 8-10 yrs ago Gastroenteritis outbreak approximately 2 years ago. Mercy Care centre closed during this outbreak in Oct 2008. Both occurred in Aged Care facility where aged and infirm are cohorted.
Intensity	Three deaths- 2 elderly, 1 worker
Extent	Vulnerable aged population in area where groups are cohorted. Carers/workers employed in these institutions.
Speed of onset	1 month
Vulnerabilities	Schools, TAFE, Child Care Centres and local clubs could be closed, Admissions to Health Service may be restricted to those without the influenza. No new admissions to Aged Care facilities for duration of outbreak. Community interaction would be restricted to a needs basis only.
Secondary Hazards	Isolated community members may require fresh food drops.
Mitigation in place	DISPLAN, local health facility Pandemic plan. Community & Health staff immunisations.

COMBAT AGENCY/ CONTROLLING AUTHORITY - Industry and Investment NSW (formerly DPI)	
HAZARD	**COMMUNICABLE DISEASE – AFFECTING ANIMALS**
History	Quarantine laws have, to date, kept the majority of communicable animal diseases out of Australia. However, in 1999 an outbreak of Newcastle Disease in poultry at Mangrove Mountain in NSW and the escape of Equine Influenza from a quarantine station in Sydney in 2007 resulted in major disruptions to affected communities for extended periods of time due to the imposition of quarantine, control and eradication measures.
Intensity	Depends on the specific disease but could involve localised or wide scale quarantine, movement restrictions of animals & humans and destruction of animals that are either infected or are/have been in close contact with or in the proximity of infected animals.
Extent	Major animal industries and facilities plus associated communities will be affected. Depending on a number of factors including the disease itself, where the outbreak occurs, previous animal movements, weather conditions etc, the impacts may be confined to a small area, e.g. in the case of an isolated intensive livestock enterprise, or spread over an extensive area e.g. as occurred with the 2007 Equine Influenza outbreak.
Speed of onset	A disease outbreak could occur at any time with no or little warning resulting in only restricted opportunity of assessing its duration.
Vulnerabilities	Major economic impacts on businesses including loss of export markets, reduced tourism, an increase in unemployment, loss of genetic diversity within animal populations.
Secondary Hazards	Restrictions in the general movement of community members leading to an increase in community anxiety, restrictions on sporting activities involving animals, increase in mental health issues.

6 Community & Environmental Description

6.1 Young Shire - Community Demographics

National Regional Profile, 2002 to 2006 - Statistical information on the Young Shire LGA from the Australian Bureau of Statistics as at 2006

POPULATION/PEOPLE						
		2002	**2003**	**2004**	**2005**	**2006**
POPULATION BY SEX - at 30 June						
Males	no.	5 960	6 005	6 059	6 126	6 199
Females	no.	5 963	6 029	6 090	6 186	6 289
Persons	no.	11 923	12 034	12 149	12 312	12 488
POPULATION BY AGE GROUP - at 30 June						
Persons - 0 to 14 years	%	23.6	23.3	23.2	23.1	23.1
Persons - 15 years to 24 years	%	11.6	11.9	12.0	12.1	11.9
Persons - 25 years to 34 years	%	11.3	11.2	11.2	11.2	11.2
Persons - 35 years to 44 years	%	13.7	13.6	13.5	13.4	13.2
Persons - 45 years to 54 years	%	13.2	13.1	12.9	12.5	12.4
Persons - 55 years to 64 years	%	10.9	11.1	11.4	11.9	12.0
Persons - 65 years to 74 years	%	8.2	8.1	8.2	8.1	8.3
Persons - 75 years to 84 years	%	5.4	5.6	5.6	5.7	5.7
Persons - 85 years and over	%	2.1	2.0	2.0	2.1	2.0
PERSONS WITH POST SCHOOL QUALIFICATIONS - Census 2006						
Percentage of total population aged 15 years and over	%	-	-	-	-	43.4
OCCUPATION OF EMPLOYED PERSONS: PERCENTAGE OF TOTAL EMPLOYED PERSONS - Census 2006						
Managers	%	-	-	-	-	19.5
Professionals	%	-	-	-	-	12.5
Technicians and Trades Workers	%	-	-	-	-	14.3
Community and Personal Service Workers	%	-	-	-	-	7.5
Clerical and Administrative Workers	%	-	-	-	-	10.5
Sales Workers	%	-	-	-	-	10.7
Machinery Operators and Drivers	%	-	-	-	-	6.0
Labourers	%	-	-	-	-	17.4
Inadequately Described/Not Stated	%	-	-	-	-	1.5
HOUSEHOLDS - Census 2006						
Households	no.	-	-	-	-	4 454
FAMILIES - Census 2006						
Total families	no.	-	-	-	-	3 186
Couple families with children under 15 and/or dependent students	no.	-	-	-	-	1 146
One parent families with children under 15 and/or dependent students	no.	-	-	-	-	372

UNPAID WORK: PERCENTAGE OF TOTAL POPULATION AGED 15 YEARS AND OVER - Census 2006						
Persons undertaking voluntary work for an organisation or group	%	-	-	-	-	24.2
Persons caring for own children without pay	%	-	-	-	-	22.5
Persons caring for other children without pay	%	-	-	-	-	7.8
Persons caring for own children and other children without pay	%	-	-	-	-	1.3
Persons providing unpaid care, help or assistance to family members or others	%	-	-	-	-	12.1
ACCESS TO INTERNET AT HOME - Census 2006						
Proportion of occupied private dwellings	%	-	-	-	-	49.3

ECONOMY						
		2002	2003	2004	2005	2006
ESTIMATES OF UNEMPLOYMENT - June quarter						
Unemployed persons	no.	454	348	312	323	277
Unemployment rate	%	8.3	5.9	5.4	5.7	4.8
WAGE AND SALARY EARNERS * - year ended 30 June						
Wage and salary earners	no.	3 760	3 908	3 965	4 001	-
Wage and salary income	$m	104.8	113.8	118.6	125.3	-
Total income	$m	110.3	119.5	125.4	130.8	-
Average wage and salary income	$	27 879	29 108	29 912	31 309	-
Average total income	$	29 333	30 572	31 618	32 696	-
WAGE AND SALARY EARNERS BY SEX * - year ended 30 June						
Males	%	56.6	55.7	54.2	53.8	-
Females	%	43.4	44.3	45.8	46.2	-
COUNTS OF BUSINESS						
Number of Businesses - at 30 June						
Non-employing businesses	no.	-	852	813	735	726
Employing businesses: 1 to 4 employees	no.	-	318	339	372	369
Employing businesses: 5 or more employees	no.	-	273	282	318	327
Total businesses	no.	-	1 443	1 434	1 425	1 422
* These data relate to persons for whom this source of income was their principal source of income for the relevant financial year						

INDUSTRY						
		2002	2003	2004	2005	2006
BUILDING APPROVALS - year ended 30 June						
Private sector houses	no.	65	54	99	53	35
Total dwelling units	no.	65	56	100	59	43
Value of total residential building	$m	8.9	7.8	18.2	11.8	10.0
Value of total non-residential building	$m	0.9	16.8	0.4	3.1	3.9
Value of total building	$m	9.8	24.6	18.5	14.9	13.9
AGRICULTURAL COMMODITIES * - year ended 30 June						
Total area						
Area of holding	ha	-	-	-	-	262 317.9
Cereals for grain	ha	-	-	-	-	70 684.6
Vegetables for human consumption	ha	-	-	-	-	11.1
Orchard trees (including nuts)	ha	-	-	-	-	3 738.7
All fruit (excluding grapes)	ha	-	-	-	-	3 745.7
Non-cereal broad acre crops	ha	-	-	-	-	9 809.8
Total number						
Sheep and lambs	no.	-	-	-	-	621 647
Milk cattle (excluding house cows)	no.	-	-	-	-	316
Meat cattle	no.	-	-	-	-	29 427
Pigs	no.	-	-	-	-	32 069

6.2 Young Council Local Government Area

The local government area of Young is approximately 2,693 square kilometres and is 130 kilometres North West of Canberra. Surrounded by Grenfell to the north, Boorowa to the east and Wagga Wagga to the south, Young has come to be known as the "Cherry Capital of Australia"

Settled in 1826, the township of Young has grown from a humble sheep station to the thriving regional centre we see today.

Rich in history and character, the area of Young was catapulted to forefront of Colonial New South Wales with the discovery of gold in 1860.

This precious metal proved to be an important catalyst in the development of Young and the surrounding area. Its first European settlement came with farming families, who, under the guidance of the native residents, the Wiradjuri people, soon found the flats along Burrangong Creek to provide perfect shelter for lambing ewes, hence Young's original name of Lambing Flat.

The Working Group offered the following information as factors that need to be considered in the management arrangements of an emergency:

- Aging population;
- Fast growing regional rural sectors
- Itinerate workers, unknown numbers and locations
- Language barriers (permanent residents and overseas seasonal employment)
- Major highway through town and district
- Lack of heavy vehicle bypass
- Very resilient rural community
- Reduced numbers of community volunteers
- Increase in vulnerable communities
- Strain on health resources
- Increased dependency on road transport (heavy vehicles) due to rail closure

Composition

Young services a population base of 56,000 people who are all within an hour's drive of the town, the town itself is just three and a half hours drive west of Sydney and the shire encompasses 2,693 square kilometres; it is home to in excess of 1,900 individual businesses and this number is constantly growing.

Population

Current population growth comparisons show a significant increase in recent years; the 2001 census showed the Young Shire Local Government area had a population of 11,274 and this increased by 710 people in 2006 to 11,984 an increase of 6.3% for the period. The current estimated population is 12,035 people.

Diversity

In 2006 91.5% of Young Shire's non-Indigenous residents were born in Australia, compared with 91.9% in 2001 and 93.2% in 1996 (Table 3). By comparison, NSW has experienced a drop of about 1% between Censuses (1996, 2001, 2006). The proportion of indigenous population for the Shire has

increased since the last report to 2.6% from 2.1% in 2001 and 1.3% in 1996. This is a slightly higher percentage compared with the rest of the state (2.2%) in 2006. The “Born overseas” group has remained relatively stable falling only 0.1% to 5.9% in the 2006 Census from 6.0% in 2001 compared with the gradual increase (0.65%) in proportion experienced by NSW.

The following table provides statistics on the rate of population growth between 1996 and 2006 as captured by the Census.

Population origins in Young Shire, Census years 1996 to 2006

Origin	1996 Census		2001 Census		2006 Census	
	No.	%	No.	%	No.	%
Indigenous persons	143	1.3	235	2.1	304	2.6
Born in Australia	10,066	93.2	10,035	91.9	10,523	91.5
Born overseas (a)	589	5.5	650	6.0	677	5.9
Total	10,798	100	10,920	100	11,504	100

Source: Australian Bureau of Statistics Census 2006 Time Series Profile Catalogue No. 2003.0

Transport

There are excellent transport, power, energy and telecommunication networks all servicing local business which enjoys the luxury of easy access to potential markets servicing in excess of 550,000 people.
The town and district's central location to Sydney, Canberra, Wagga, Bathurst, Orange and Wollongong with approximately 60% of Australia's population just 3.5 to 10 hours driving time from Young makes it the ideal location from which to do business

Climate

In relation to Climate, available data show that the shire was drier than average in all four years between 2004 and 2008. 2006/07 was the driest July-June 12 month period on record at Young. There is evidence from across the region that the period was also warmer than average, with both daytime and night-time temperatures above the long-term average in most years

Industry

Today Young's major industries of agriculture, horticulture, construction, engineering and steel fabrication, retail and service industries mean that residents enjoy stable employment and advancement opportunities along with a very comfortable standard of living.

Of the total shire area (269,370 hectares), the dominant land-use at the end of the current reporting period was agriculture (91%) (see Figure 1). Young township, which covered 2% of the total shire area, comprised the majority of urban land. There has been no change reported from 2004.

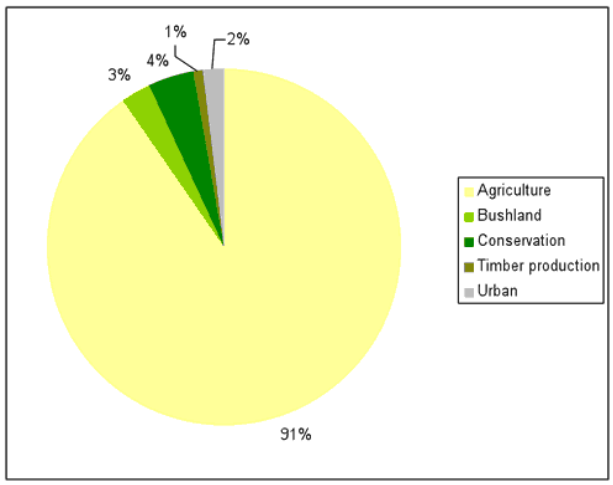


Figure 1. Major land-use in Young Shire, June 2008*

Source: Young Shire Council; *some land-use categories are too small to appear in the above figure

Employment

The agriculture, forestry and fishing sector is the highest employer in the Shire at the 2006 census at 16.8%, but this is a decrease from 21.4% since the 2001 census. Compared to NSW where this sector represented 2.7% of employment as at the 2006 census, a fall of 0.7%, this indicates the significance of this sector to the Young Shire and the affect of the drought on this industry

The retail trade sector is the second highest employer as at the 2006 census at 14.7% which was the sector with the largest increase (2.8%) since the 2001 census.

The construction sector represented 7% of the workforce in 2006 which was an increase of 1.6% since the 2001 census and the manufacturing sector also increased by 1% to 10.7% over the same period.

The following is a list of the main areas / industry of employment in the Young Shire according to the 2006 Census statistics

Industry of employment	People	%
Agriculture, forestry and fishing	824	16.8
Manufacturing	525	10.7
Construction	342	7.0
Retail trade	723	14.7
Health care and social assistance	510	10.4

Source: Australian Bureau of Statistics Census 2006 Time Series Profile, Catalogue No. 2003.0

Other areas of employment are Education and training (6.7%), Accommodation and food services (5.7%), Wholesale trade (4.1%) and Public Administration and safety (3.9%)

The following are environmental factors that may influence or be affected by a hazard:

- Drought declared region;
- Open farm land
- Large scale use of pesticides and chemicals
- Intensive animal industry
- Large proportion and diverse range of rural enterprises

Key benefits of the Young Shire are an actively involved LEMC, supportive Council, reasonably well informed community and cooperative working relations between all agencies in the Emergency management structure.

6.3 Vulnerable Communities

Vulnerable communities for the purpose of this study are those that, by their nature or location, would be at a greater disadvantage than the mainstream part of the community and would therefore require special attention in the event of an emergency.

In order for the emergency services to provide effective assistance, this part of the community was identified and its needs considered.

The degree of vulnerability was assessed in relation to the community's:

- proximity to the hazard (i.e.: fire front, flooding river, collapsing building, etc);
- age and condition of the community (health, social);
- ability to communicate with community (to understand warnings or inform of an emergency); and
- access to the community in need during an emergency (is there only one access road, no phone contact, etc).

The applicability of the above elements to identified vulnerable communities is summarised below:

Vulnerable Communities

Community	Elements of Vulnerability				Remarks/ Action*
	a) Proximity to hazard	b) Age or condition of community	c) Ability to communicate with the community	d) Access to community in need during emergency	
Child Care Centres	Yes	Yes	No	No	Investigate requirements in their emergency arrangements. Mapped on SIMS supplied by EICU to Council
Schools (3 public schools, 2 private schools, special schools all in town. 5 other schools in rural villages)	Yes	Yes	No	No	Mapped on SIMS supplied by EICU. Schools have own evacuation plans. Consider education campaign for emergencies outside school
Age care facilities and 2 hospitals (in same precinct and all near 2 schools)	Yes	Yes	No	No	Mapped on SIMS supplied by EICU. Each have own evacuation plans. Consider education campaign for emergencies

Community	Elements of Vulnerability				Remarks/ Action*
	a) Proximity to hazard	b) Age or condition of community	c) Ability to communicate with the community	d) Access to community in need during emergency	
Young Tourist Park	Yes	No	Language issue, no phones	No	Privately managed park, expected to have emergency arrangements
Itinerate workers (from overseas)	Yes	No	Language issue, some no phones	Some no transport	Employed by various orchardists, private arrangements
Individual residents that are medically dependant	Yes	Yes	No	Yes	List kept by the hospital
Elderly, low mobility residents including mentally impaired	Yes	Yes	Yes	Yes	Information through Meals on wheels, Home care, Salvation Army. Lambing Flat Enterprises
Non English speaking residents throughout Young	Could be	No	Language	No	Most would have a family member who does speak English

*****Recommended actions have been included as part of the treatment plan for monitoring and review (refer page 72).

7 Risk Analysis & Evaluation

This section of the report details the comprehensive assessment conducted on each of the 18 identified hazards.

The process used for the assessment is adapted from the Australian New Zealand AS/NZ 4360: 2004 Standard for Risk Management and AS/NZ 436:2004 Guidelines for Risk Management as well as the Implementation Guidelines for emergency Risk Management issued by the NSW State Emergency Management Committee.

The assessments of all identified hazards are given in the following tables (Sections 7.1 to Section 7.6) and include:

1- Hazard Category – Natural, Technological or Biological;

2- Hazard Identification number;

3- Name of the hazard;

4- The Risk Statement – describes how this hazard could impact on people, property, environment, etc;

5- Date when the risk statement was confirmed by the Working Group;

6- The consequences/ impact this hazard would have on the following elements at risk:

- people
- social impact
- extent of evacuation
- property
- demand on community services
- impact on animals
- impact on the environment
- financial loss
- emergency resources required (local, regional, state or national)
- level of operational management (local, state or national)

7- The likelihood of this incident occurring at this level;

8- The level this hazard risk was assessed at LOW, MODERATE, HIGH or EXTREME;

9- Agency support to deal with this emergency event;

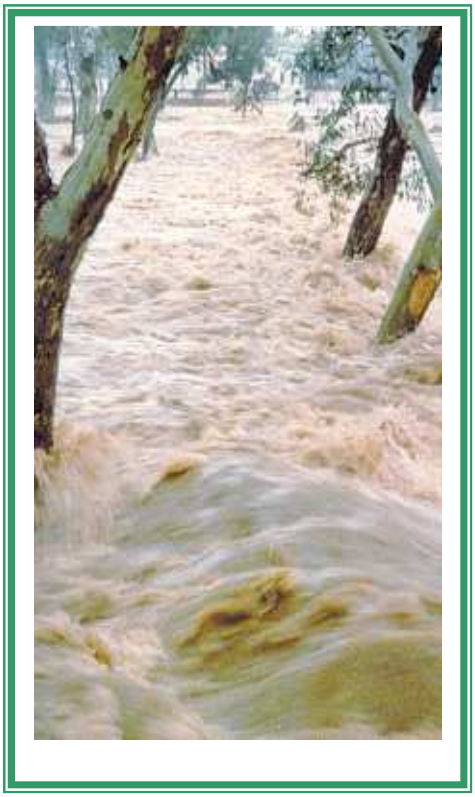
10- Existing strategies in place to deal with the emergency event;

11- Residual Risk Rating;

12- Additional treatment strategies

13- Review dates and endorsement details.

This information and the risk level in particular, are used to prioritise each hazard.



7.1 Natural Hazards

IDENTIFY	Hazard Category	**Natural**	Hazard Name	**EARTHQUAKE**		Hazard ID:	**NH01**
	Risk Statement	There is a risk that an earthquake in the Young Shire could result in significant property damage, serious personal injury, economic impact, significant transport disruption, utilities and infrastructure damage, social impact, environmental impact, severe interruption to normal community services and possible evacuation					
	Date Confirmed	4 June 2009					

	Elements at Risk:	**CONSEQUENCE**				
	People				X	
	Social			X		
	Evacuation				X	
	Property					X
	Community Services				X	
	Animal		X			
	Environmental			X		
	Financial					X
	Resources					X
	Operational Mgt					X
	Overall Rating					**X**

ANALYSE

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	**Extreme**
	Rare	Low	Low	Moderate	High	High

TREAT	Combat Agency/ Controlling Authority		**LEOCON**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	Council's DA compliance with BCA; functioning LEMC;
		Preparation	functioning LEMC; 4 local and adequately resourced and trained combat agencies; seismic station; Local Displan; District Displan; State Displan;
		Response	functioning LEMC; 4 local and adequately resourced and trained combat agencies; Local Displan; District Displan; State Displan; Ambplan; Country Energy Black Start Manual and Emergency Reponse Crisis Management Procedures; Jemena & ACTEW AGL Emergency Plan; Telstra; State Health Plan
		Recovery	functioning LEMC; 4 local and adequately resourced and trained combat agencies; Local Displan; District Displan; State Displan; State Disaster Recovery (Human Recovery) Plan
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Unlikely/ Catastrophic — **EXTREME**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES MOU with other neighbouring LEMC for EOC resources and access copies of Displans etc.; consider earthquake desktop exercise

REVIEW	Date Assessment Conducted	4 June 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

ID E	Hazard Category	**Natural**	Hazard Name	**FIRE - RURAL**		Hazard ID:	**NH02**

	Risk Statement	There is a risk that a class 2 / 3 rural fire could result in property damage, potential loss of life, personal injuries, loss of stock and fodder, environmental impact, impact on local agriculture, disruption to transport, closure of roads, potential loss of communications and power failure, impact on local community, possible evacuation
	Date Confirmed	4 June 2009

ANALYSE

Elements at Risk:	CONSEQUENCE				
People				X	
Social			X		
Evacuation		X			
Property			X		
Community Services		X			
Animal					X
Environmental					X
Financial				X	
Resources			X		
Operational Mgt			X		
Overall Rating				**X**	

LIKELIHOOD	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	High	High	Extreme	**Extreme**	Extreme
Likely	Moderate	High	High	Extreme	Extreme
Possible	Low	Moderate	High	Extreme	Extreme
Unlikely	Low	Low	Moderate	High	Extreme
Rare	Low	Low	Moderate	High	High

TREAT

Combat Agency/ Controlling Authority		**NSWRFS** (in conjunction with NSWFB in terms of the MAA)
Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
Existing Control / Mitigation / Treatment Strategies	Prevention	Hazard Complaint System incl Duty of Care assessments; advertising awareness campaigns through fire season and winter fire safety; Rural Fires Act; Council's DA approval conditions; daily weather monitoring during fire season; machinery operation ban recommendations; ongoing review of fire breaks and access trails by RFS
	Preparation	Continual improvement in fire fighting fleet; RFS Section 52 Plan of Operations; pre incidents plans; MOU and MAA with NSWFB for assistance; on call Duty Officer; Fire Control Centre fully equipped and operational 24/7; Bush Fire Mgt Ctee; Bush Fire Risk Mgt Plan; Functioning LEMC; Rural Fires Act; Section 44 Bush Fire Emergency; Local Displan; access to Aircraft.
	Response	Two functioning fire fighting agencies in Shire; Section 52 Plan of Operations (as guide); active recruitment and retention participation by volunteers in local Bush fire brigades (11) and operational readiness; NSW Health Plan; Industry and Investment NSW (formerly DPI) Plans; MOU with NPWS; Country Energy Black Start Manual and Emergency Reponse Crisis Mgt Procedures; Telstra; Council Emergency Plans for infrastructure; ARTC emergency arrangements; Ambplan; EPA; access to aircraft; Jemena Gas Company plan
	Recovery	NSW Disaster Recovery (Human Services) Plan; MOU between NSWRFS and NSWFB; Industry and Investment NSW (formerly DPI) Plans; EPA
(After consideration of existing mitigation strategies) - Residual Risk Rating		Likely/ Major — **EXTREME**
Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES promotion of safety zones for stock; promotion of asset protection zones

REVIEW

Date Assessment Conducted	4 June 2009	Assessment Conducted by:	LEMC Working Group
Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Natural**	Hazard Name	**FIRE - URBAN**	Hazard ID:	**NH03**
	Risk Statement	There is a risk that a large fire in urban and CBD areas would result in property damage, potential loss of life, personal injuries, environmental impact, impact on local businesses, disruption to transport, closure of roads, potential loss of communications and power failure, impact on local community, economic impact, possible evacuation				
	Date Confirmed	4 June 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People				X	
	Social				X	
	Evacuation				X	
	Property				X	
	Community Services				X	
	Animal		X			
	Environmental				X	
	Financial					X
	Resources				X	
	Operational Mgt			X		
	Overall Rating				**X**	

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	**Extreme**	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Controlling Authority		**NSWFB** (in conjunction with NSWRFS in terms of the MAA)
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	Pre incident plans; Fire safety concern report, Australian Fire Safety Regulations (smoke alarms); council conditions for fire safety (for new or renovated buildings); fire plan inspections; SABRE program for elderly residents; regular training; Hydrant and booster inspections
		Preparation	Pre incident plans; Local Displan; SOPs; Training; continual upgrading of equipment; MOU and MAA with NSWRFS; Communication Centre at Wollongong; RTA traffic diversions; Council resources for road closures; Country Energy Black Start Manual and Emergency Reponse Crisis Management Procedures; Telstra; Hospital emergency plans; functioning LEMC
		Response	Pre incident plans; Local Displan; MOU and MAA with NSWRFS; accessibility of resources; ambplan;
		Recovery	NSW Health Plan; Recovery Ctee; State Disaster Recovery (Human Services) Plan; Centrelink; Coroner
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Likely/ Major — **EXTREME**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES investigate commercial/ multi purpose buildings compliance with fire evacuation arrangements (i.e.: use Chamber of Commerce for promotion)

REVIEW				
	Date Assessment Conducted	4 June 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Natural**	Hazard Name	**FLOOD**	Hazard ID:	**NH04**
	Risk Statement	There is a risk that a major flood in lower lying areas could result in property damage, potential (rare) loss of life, personal injuries, loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation and possible impact on livestock				
	Date Confirmed	4 June 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People				X	
	Social			X		
	Evacuation		X			
	Property		X			
	Community Services			X		
	Animal		X			
	Environmental			X		
	Financial				X	
	Resources			X		
	Operational Mgt			X		
	Overall Rating			**X**		

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	**High**	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Controlling Authority	**SES**	
	Support Agencies/ Functional Areas	All emergency services and agencies undertaking a role within a functional area	
	Existing Control / Mitigation / Treatment Strategies	Prevention	General Storm awareness campaigns statewide via media
		Preparation	State Flood Plan; Local Displan; weather warnings to local SES; functioning LEMC; equipped and trained local SES agency
		Response	local Displan; State flood plan; functioning LEMC; equipped and trained local SES agency; Industry and Investment NSW (formerly DPI) response Plan
		Recovery	NSW Health Plan; Recovery Ctee; State Disaster Recovery (Human Services) Plan; Industry and Investment NSW (formerly DPI) response Plan; Coroner
	(After consideration of existing mitigation strategies) - Residual Risk Rating	Possible/ Moderate	**HIGH**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)	YES Enquire with Council if there are any flood zone areas and if they considered in their bldg approval conditions; if there is a local flood plan; consider community education/awareness and other prevention strategies; review road crossings/causeways; assessment of local roads during flash flooding; update gauge readers by local farmers	

REVIEW				
	Date Assessment Conducted	4 June 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Natural**	Hazard Name	**PLAGUE LOCUSTS INFESTATION**	Hazard ID:	**NH05**
	Risk Statement	There is a risk that an insect infestation could result in potential motor vehicle accidents, potential economic loss including the need for farmers to purchase fodder, environmental damage, impact on community				
	Date Confirmed	4 June 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People	X				
	Social		X			
	Evacuation	X				
	Property	X				
	Community Services	X				
	Animal	X				
	Environmental			X		
	Financial				X	
	Resources				X	
	Operational Mgt		X			
	Overall Rating		**X**			

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	**High**	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Functional Area		**Dept of Industry and Investment NSW** (formerly DPI)
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	Industry and Investment NSW (formerly DPI) awareness campaigns; monitoring of plague movements and egg beds;
		Preparation	Order and supply of insecticides; LHPA distribution of chemicals; functioning LEMC
		Response	Industry and Investment NSW (formerly DPI)Response Plan; assistance from other agencies (i.e.: SES)
		Recovery	NSW Farmers Association coordination of stock fodder;
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Likely / Minor — **HIGH**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Liaise with Industry and Investment NSW (formerly DPI) re assistance required from LEMC

REVIEW				
	Date Assessment Conducted	4 June 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Natural**	Hazard Name	**SEVERE STORM EVENT**	Hazard ID:	**NH06**
	Risk Statement	There is a risk that a severe storm would result in property damage, potential loss of life, personal injuries, loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation				
	Date Confirmed	4 June 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People				X	
	Social			X		
	Evacuation			X		
	Property				X	
	Community Services				X	
	Animal			X		
	Environmental			X		
	Financial				X	
	Resources			X		
	Operational Mgt			X		
	Overall Rating				**X**	

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	**Extreme**	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Controlling Authority		**SES**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	Statewide and Local advertising campaign; street tree pruning program near power lines (Country Energy);
		Preparation	State Storm Plan; Local Storm Plan; functioning LEMC; weather warnings monitored; Council assistance for road closures; Country Energy Black Start Manual and Emergency Reponse Crisis Management Procedures; well equipped local SES
		Response	State Storm Plan; Local Storm Plan; Ambplan; well equipped local SES; functioning LEMC; Country Energy Black Start Manual and Emergency Reponse Crisis Management Procedures
		Recovery	Council resources; Disaster Recovery (Human Services) Plan; Coroner
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Almost Certain/ Moderate — **EXTREME**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Council to consider regular maintenance of drain and culverts; awareness campaign to alert of trees close to houses

REVIEW				
	Date Assessment Conducted	4 June 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

7.2 Technological Hazards

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**AERONAUTICAL**	Hazard ID:	**TH01**
	Risk Statement	There is a risk that an aeronautical emergency involving a commercial / freight airline event anywhere in the shire could result in loss of life, serious personal injuries, potential property damage. Depending on the location, there is a risk that there would be additional loss of life and personal injuries, significant property damage, loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation				
	Date Confirmed	4 June 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People					X
	Social			X		
	Evacuation		X			
	Property				X	
	Community Services				X	
	Animal		X			
	Environmental			X		
	Financial				X	
	Resources					X
	Operational Mgt					X
	Overall Rating				**X**	

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	**High**	High

TREAT			
	Combat Agency/ Controlling Authority		**LEOCON**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	CASA regulations and Air Transport Safety Bureau regulations
		Preparation	EOC made available as required; ENVIRONPLAN; Local Displan; State Displan; ongoing training in Hazmat event; proximity to further resources; functioning LEMC
		Response	CASA; each emergency agency incl USAR; State Health Plan; ambplan; ENVIROPLAN; Coroner; 4 local and adequately resourced and trained combat agencies
		Recovery	Disaster Recovery (Human Services) Plan; Recovery Ctee established if required, Coroner
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Rare/ Major — **HIGH**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Liaise with CASA as to the requirement of the LEMC in such an event; consider desktop exercise

REVIEW				
	Date Assessment Conducted	4 June 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**SPACE DEBRIS RE-ENTRY (IMPACT)**	Hazard ID:	**TH02**
	Risk Statement	There is a risk that a space debris re-entry event anywhere in the shire could result in loss of life, serious personal injuries, and potential property damage. Depending on the location, there is a risk that there would be additional loss of life and personal injuries, significant property damage, loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation				
	Date Confirmed	4 June 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People				X	
	Social		X			
	Evacuation		X			
	Property				X	
	Community Services			X		
	Animal	X				
	Environmental					X
	Financial					X
	Resources					X
	Operational Mgt					X
	Overall Rating				**X**	

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	**High**	High

TREAT			
	Combat Agency/ Controlling Authority		**LEOCON**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	No prevention strategy could be identified
		Preparation	EOC made available as required; EnvironPlan; Local Displan; State Displan; ongoing training in Hazmat event; proximity to further resources; warning of possibility of re-entry
		Response	Dept of Defence or appropriate Federal Agency; each emergency agency incl USAR; State Health Plan; ambplan; EnviroPlan; Coroner; 4 local and adequately resourced and trained combat agencies; functioning LEMC
		Recovery	Disaster Recovery (Human Services) Plan; Recovery Ctee established if required, Coroner
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Rare/ Major — **HIGH**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Liaise with Federal Government through the SEMC to find out as to the requirement of the LEMC in such an event; consider desktop exercise

REVIEW				
	Date Assessment Conducted	4 June 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**MAJOR STRUCTURE COLLAPSE**		Hazard ID:	**TH03**
	Risk Statement	There is a risk that a major structure collapse could result in loss of life, serious personal injuries, and potential property damage. Depending on the location, there is a risk that there would be loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation					
	Date Confirmed	4 June 2009					

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People				X	
	Social			X		
	Evacuation				X	
	Property				X	
	Community Services				X	
	Animal	X				
	Environmental			X		
	Financial				X	
	Resources			X		
	Operational Mgt			X		
	Overall Rating				**X**	

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	**Extreme**	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Controlling Authority	**LEOCON**	
	Support Agencies/ Functional Areas	All emergency services and agencies undertaking a role within a functional area	
	Existing Control / Mitigation / Treatment Strategies — Prevention	Council's DA compliance with BCA	
	Existing Control / Mitigation / Treatment Strategies — Preparation	Functioning LEMC; four local and adequately resourced and trained combat agencies; Local Displan; State Major Structure Collapse; USAR	
	Existing Control / Mitigation / Treatment Strategies — Response	Functioning LEMC; four local and adequately resourced and trained combat agencies; Local Displan; Ambplan; Country Energy Black Start Manual and Emergency Reponse Crisis Management Procedures; Jemena & ACTEW AGL Emergency Plan; Telstra; State Health Plan; Dept of Commerce (engineering section); State Major Structure Collapse; USAR; Council resources	
	Existing Control / Mitigation / Treatment Strategies — Recovery	Functioning LEMC; four local and adequately resourced and trained combat agencies; Local Displan; State Disaster Recovery (Human Recovery) Plan; Ambplan; Council resources; Coroner	
	(After consideration of existing mitigation strategies) - Residual Risk Rating	Unlikely/ Major	**HIGH**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)	YES Enquire with major business owners are to their arrangements in an emergency; conduct a desktop exercise	

REVIEW				
	Date Assessment Conducted	4 June 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**HAZARDOUS MATERIALS (Spillage and or pollution)**	Hazard ID:	**TH04**
	Risk Statement	There is a risk that hazardous material event could result in loss of life, serious personal injuries, potential property damage. Depending on the location, there is a risk that there would be loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact; possible evacuation and exclusion zones				
	Date Confirmed	8 July 2009				

ANALYSE

Elements at Risk:	**CONSEQUENCE**				
People				X	
Social		X			
Evacuation				X	
Property			X		
Community Services				X	
Animal		X			
Environmental				X	
Financial				X	
Resources			X		
Operational Mgt			X		
Overall Rating				**X**	

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	**Extreme**	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT	Combat Agency/ Controlling Authority		**NSWFB**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	Fatigue management; hazmat safety guidelines (industry and transport standards); signage requirements; pre incident plans; appropriate engineering standards on road design; Govt Chemical collection program; RTA guidelines for dangerous goods transport; functioning LEMC
		Preparation	Hazmat Plan; Local Displan; training; expert hazmat team and back up team; local hospital trained in Hazmat emergency; decontamination procedures; ENVIROPLAN
		Response	Hazmat Plan; training; expert hazmat team and back up team; local Displan; ambplan; EPA plans; RTA transport alternate diversion routes; ARTC emergency plan; MAA with RFS; proximity to additional resources; evacuation mgt; ENVIROPLAN
		Recovery	Disaster Recovery (Human Recovery) Plan; Coroner;
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Possible/ Major — **EXTREME**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Enquire about hazmat arrangements with NSWFB at Goulburn and Local; conduct desktop exercise; LEMC to familiarise with various plans to deal with such an emergency

REVIEW	Date Assessment Conducted	8 July 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**INFRASTRUCTURE FAILURE – POWER > 2 DAYS**	Hazard ID:	**TH05**
	Risk Statement	There is a risk that an extended power failure greater than 2 days, particularly in summer or winter, could result in public health issues, impact on vulnerable communities, major impact on business and community, impact on communications, domestic food supply and preparation, civil disruption, security issues (including property crime), impact on intensive livestock industries and loss of fuel supply				
	Date Confirmed	8 July 2009				

ANALYSE

Elements at Risk:	**CONSEQUENCE**				
People			X		
Social					X
Evacuation				X	
Property					X
Community Services					X
Animal			X		
Environmental				X	
Financial					X
Resources				X	
Operational Mgt				X	
Overall Rating				**X**	

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	**Extreme**	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT

Combat Agency/ Controlling Authority		**LEOCON**
Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
Existing Control / Mitigation / Treatment Strategies	Prevention	Country Energy regular maintenance/ monitoring program and community awareness programs
	Preparation	Hospital Disaster Plan; Local Displan; Country Energy Black Start Manual and Emergency Reponse Crisis Management Procedures; Country energy have portable generators; Hospital has generator power; Police EISOPs; functioning LEMC
	Response	Local Displan; Country Energy Black Start Manual and Emergency Reponse Crisis Management Procedures; Ambulance and hospital bus transport; Council arrangement for continued water supply; Police EISOPs
	Recovery	Disaster Recover (Human Services) Plan;
(After consideration of existing mitigation strategies) - Residual Risk Rating		Unlikely/Major **HIGH**
Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES enquire what arrangements Country Energy have in place in terms of prevention, response, priorities and access to portable generators; Council to consider development of an emergency plan for failure of Sewerage and Water supply

REVIEW	Date Assessment Conducted	8 July 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**INFRASTRUCTURE FAILURE - WATER**	Hazard ID:	**TH06**
	Risk Statement	The villages of Koorawatha, Bendick Murrell, Crowther and Wirrimah have reticulated water provided by Cowra Shire Council (note: all these villages are on septic waste systems) If Goldenfields Water (GWCC) supplier was disrupted, the Young water reticulation system would have between 2 – 20 days supply. If local water infrastructure was damaged, there may be immediate disruption to water supply for Young. There is a risk that water infrastructure failure would result in potential serious public health issues, impact on rural and urban community, businesses, vulnerable communities, hospital, displacement of people, potential financial, major disruption to the Burrangong Meat Processors (use 20% of town water supply in operations) and social impact				
	Date Confirmed	8 July 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People			X		
	Social				X	
	Evacuation				X	
	Property					X
	Community Services					X
	Animal		X			
	Environmental			X		
	Financial				X	
	Resources			X		
	Operational Mgt			X		
	Overall Rating				**X**	

LIKELIHOOD		**Insignificant**	**Minor**	**Moderate**	**Major**	**Catastrophic**
	Almost Certain	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	**Extreme**	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Controlling Authority		**LEOCON**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	Council's maintenance program in place incl security measures; Council's Drought Mgt Plan
		Preparation	Local Displan; State Major Infrastructure Collapse Plan; State Energy and Utilities Supporting Plans; Council's emergency arrangements; Council's Drought Mgt Plan; functioning LEMC
		Response	Local Displan; Ambplan; Police EISOPs; Council's arrangements for transporting water in; Council's Drought Mgt Plan
		Recovery	Disaster Recovery (Human Services) Plan, GSAHS Emergency Plan
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Possible /Major — **EXTREME**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES LEMC to enquire with Goldenfields as to what preventative and warning arrangements are in place to prevent or warn of such an emergency; Council to consider the development of an emergency plan

REVIEW				
	Date Assessment Conducted	8 July 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**INFRASTRUCTURE FAILURE – SEWERAGE (incl Contamination)**	Hazard ID:	**TH07**
	Risk Statement	Young Sewerage is a gravity system and would still be able to operate without power but to a lesser quality. There is a risk that a sewerage infrastructure failure could result in potential contamination of water courses, impacting on properties downstream and living space in residential areas, public health issues, isolation, displacement of people, impact on vulnerable communities, impact on businesses, and damage to the environment				
	Date Confirmed	8 July 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People			X		
	Social				X	
	Evacuation				X	
	Property					X
	Community Services					X
	Animal	X				
	Environmental				X	
	Financial				X	
	Resources			X		
	Operational Mgt			X		
	Overall Rating				**X**	

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	**High**	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Controlling Authority		**LEOCON**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	Council's inspection and maintenance program; compliance with EPA licence
		Preparation	Local Displan; State Major Infrastructure Collapse Plan; State Energy and Utilities Supporting Plans; State Health Plan; State Enviroplan; functioning LEMC
		Response	Ambplan; Police EISOPs; Local Displan, State Major Infrastructure Collapse Plan; State Energy and Utilities Supporting Plans; State Health Plan; State Enviroplan;
		Recovery	Disaster Recovery (Human Services) Plan, GSAHS Emergency Plan
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Rare/Major — **HIGH**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Conduct a desktop exercise; Enquire with Council about their maintenance program and emergency arrangements to prevent an emergency

REVIEW				
	Date Assessment Conducted	8 July 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**NATURAL GAS EMERGENCY EVENT**	Hazard ID:	**TH08**
	Risk Statement	There are two types of gas companies in the Young LGA; APA Group who provide Transmission Gas and Jemena & ACTEWAGL who provide Distribution Gas There is a risk that a natural gas emergency could arise from infrastructure failure leading to a total or partial loss of supply (this excludes Fire, explosion and contamination -refer to other hazards) There would be a lack of supply with local and/or state-wide impact resulting in impact on continuity of businesses, governments, community and impact on the environment				
	Date Confirmed	8 July 2009				

	Elements at Risk:	**CONSEQUENCE**				
	People		X			
	Social					X
	Evacuation		X			
	Property					X
	Community Services					X
	Animal	X				
	Environmental	X				
	Financial					X
	Resources			X		
	Operational Mgt			X		
	Overall Rating			**X**		
		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT	Combat Agency/ Controlling Authority		**NSWFB**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	Jemena maintenance and inspection program: APA Group, maintenance and inspection programs
		Preparation	State Displan; Local Displan; State Major Infrastructure Collapse Plan; State Energy and Utilities Supporting Plans; State Health Plan; State Enviroplan; APA Group Emergency Plan functioning LEMC
		Response	State Displan; Ambplan; Police EISOPs; Local Displan, State Major Infrastructure Collapse Plan; State Energy and Utilities Supporting Plans; State Health Plan; State Enviroplan; Jemena & ACTEW AGL Emergency Plan; APA Group Emergency Plan
		Recovery	Disaster Recovery (Human Services) Plan, GSAHS Emergency Plan
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Unlikely/ Moderate — **MODERATE**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		NO

REVIEW	Date Assessment Conducted	8 July 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**TRANSPORT EMERGENCY - ROAD**	Hazard ID:	**TH09**
	Risk Statement	There is a risk that major road emergency involving passenger vehicles would result in personal injuries and potential loss of life, social impact, environmental impact, road closures and disruption of traffic services, possible evacuations and potential property damage				
	Date Confirmed	8 July 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People				X	
	Social		X			
	Evacuation			X		
	Property		X			
	Community Services			X		
	Animal	X				
	Environmental		X			
	Financial			X		
	Resources			X		
	Operational Mgt			X		
	Overall Rating			**X**		

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	**High**	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Controlling Authority		**LEOCON**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	RTA traffic regulations (driver fatigue); RTA Guidelines for Dangerous Goods Transport; Police/ RTA Enhanced Enforcement Program
		Preparation	Local Displan; functioning LEMC; GSAHS Emergency Mgt Plan; functioning LEMC; trained and resourced combat agencies; HAZMAT Plan; State Displan; ongoing training of emergency services personnel
		Response	Hospital emergency Plan; GSAHS Plan; Ambplan; Council road closures; Industry and Investment NSW (formerly DPI) Plan; Enviroplan; Local Rescue Service
		Recovery	Ambplan; Coroner; Disaster Recover (Human Services) Plan;
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Possible/ Moderate — **HIGH**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Desktop exercise; enquire with agencies about alternative arrangements for personnel if directly affected

REVIEW				
	Date Assessment Conducted	8 July 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Technological**	Hazard Name	**EXPLOSION (including Grain Storage Incident)**	Hazard ID:	**TH10**
	Risk Statement	There is a risk that an explosion could result in loss of life, serious personal injuries, and potential property damage. Depending on the location, there is a risk that there would be loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact and evacuations				
	Date Confirmed	8 July 2009				

ANALYSE

Elements at Risk:	**CONSEQUENCE**				
People				X	
Social				X	
Evacuation				X	
Property				X	
Community Services				X	
Animal		X			
Environmental				X	
Financial				X	
Resources			X		
Operational Mgt			X		
Overall Rating				**X**	

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	**High**	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT

Combat Agency/ Controlling Authority		**NSWFB**
Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
Existing Control / Mitigation / Treatment Strategies	Prevention	OHS requirements; Legislative requirements for businesses using combustible/hazardous material??
	Preparation	Local Displan; State Major Infrastructure Collapse Plan; State Energy and Utilities Supporting Plans; State Health Plan; State Enviroplan; functioning LEMC; functioning LEMC
	Response	Ambplan; Police EISOPs; Local Displan, State Major Infrastructure Collapse Plan; State Energy and Utilities Supporting Plans; State Health Plan; State Enviroplan; Country Energy Black Start Manual and Emergency Reponse Crisis Management Procedures
	Recovery	Disaster Recovery (Human Services) Plan, GSAHS Emergency Plan
(After consideration of existing mitigation strategies) - Residual Risk Rating		Unlikely/ Major — **HIGH**
Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Enquire with NSWFB as whether it has identified potential explosion sources and what arrangements they have in place to prevent / deal with an emergency

REVIEW	Date Assessment Conducted	4 June 2009	Assessment Conducted by: LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency: Refer to Section 9 of this report for various review dates and frequency

7.3 Biological Hazards

IDENTIFY	Hazard Category	**Biological**	Hazard Name	**COMMUNICABLE DISEASE – AFFECTING HUMANS**	Hazard ID:	**BH01**
	Risk Statement	There is a risk that a communicable disease (pandemic) affecting humans would result in multiple deaths and severe community and economic impact, isolation, exclusion zones, major civil unrest and major financial impact				
	Date Confirmed	8 July 2009				

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People					X
	Social					X
	Evacuation	X				
	Property					X
	Community Services					X
	Animal	X				
	Environmental	X				
	Financial					X
	Resources					X
	Operational Mgt					X
	Overall Rating					**X**

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	**Extreme**
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Controlling Authority		**NSW Health**
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	State Pandemic Plan; awareness campaigns;
		Preparation	GSAHS prepared, resourced and ready to act; Local Displan; State Displan; State Health Plan
		Response	GSAHS Plan implemented as per DoH guidelines; LEMC and local combat agencies available as required
		Recovery	GSAHS; Disaster Recovery (Human Services) Plan;
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Unlikely/ Catastrophic — **EXTREME**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Enquire with NSW Health as to their arrangements and the requirements of the LEMC

REVIEW				
	Date Assessment Conducted	8 July 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

IDENTIFY	Hazard Category	**Biological**	Hazard Name	**COMMUNICABLE DISEASE – AFFECTING ANIMALS**		Hazard ID:	**BH02**
	Risk Statement	There is a risk that a communicable disease affecting animals would result in multiple deaths of stock and severe community and economic impact, isolation, exclusion zones, major civil unrest, major financial impact and environmental impact due to stock disposal					
	Date Confirmed	8 July 2009					

ANALYSE	**Elements at Risk:**	**CONSEQUENCE**				
	People	X				
	Social					X
	Evacuation		X			
	Property			X		
	Community Services				X	
	Animal					X
	Environmental					X
	Financial					X
	Resources					X
	Operational Mgt					X
	Overall Rating					**X**

		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
LIKELIHOOD	**Almost Certain**	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	**Extreme**
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

TREAT			
	Combat Agency/ Functional Area		**Dept of Industry and Investment NSW** (formerly DPI)
	Support Agencies/ Functional Areas		All emergency services and agencies undertaking a role within a functional area
	Existing Control / Mitigation / Treatment Strategies	Prevention	Federal Govt Quarantine regulations; AQIS awareness programs
		Preparation	Ausvet Plan; DII Plan; Local Displan; RTA traffic plans
		Response	Ausvet Plan; DII Plan; Local Displan; exclusion and quarantine zones established; RTA traffic control; Industry and Investment NSW (formerly DPI) disposal arrangements; Council and local combat agencies assistance (people and equipment resources); GSAHS
		Recovery	Ausvet Plan; DII Plan; Federal and State Govts Recovery Plans; GSAHS
	(After consideration of existing mitigation strategies) - Residual Risk Rating		Possible/ Catastrophic **EXTREME**
	Additional Treatment Options required? YES/NO (refer to Treatment Option Selection table)		YES Enquire with Industry and Investment NSW (formerly DPI) as to their arrangements and requirements on the LEMC

REVIEW	Date Assessment Conducted	8 July 2009	Assessment Conducted by:	LEMC Working Group
	Date Approved by LEMC	5 August 2009	Review Date / Frequency:	Refer to Section 9 of this report for various review dates and frequency

7.4 Summary of Assessments

This is the table used to rate the 18 hazards in terms of the likelihood of the hazard occurring and if it did occur, how bad it would be (consequences)

LOW	0	MODERATE	1	HIGH	9	EXTREME	8

RISK MATRIX

Likelihood	Consequences				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	High	High	Extreme NH6	Extreme	Extreme
Likely	Moderate	High NH5	High	Extreme NH2, NH3	Extreme
Possible	Low	Moderate	High NH4,TH9	Extreme TH4, TH6	Extreme BH2
Unlikely	Low	Low	Moderate TH8	High TH3, TH5, TH10	Extreme NH1, BH1
Rare	Low	Low	Moderate	High TH1, TH2, TH7	High

7.5 Hazard by Risk Rating Priority

This list is a summary of all the 18 hazards that have been assessed in the previous pages in order of highest risk rating (extreme) to lowest (low).

Rating Priority	Hazard Id.	Hazard Name	Reference Page
EXTREME	NH02	Fire - Rural	41
EXTREME	NH03	Fire - Urban	42
EXTREME	BH02	Communicable Disease – Affecting Animals	59
EXTREME	TH04	Hazardous Materials (spillage or pollution)	50
EXTREME	TH06	Infrastructure Failure – Water	52
EXTREME	NH06	Severe Storm Event	45
EXTREME	NH01	Earthquake	40
EXTREME	BH01	Communicable Disease – Affecting Humans	58
HIGH	TH03	Major Structure Collapse	49
HIGH	TH05	Infrastructure Failure – Power > 2 days	51
HIGH	TH10	Explosion (including Grain Storage incident)	56
HIGH	NH04	Flood	43
HIGH	TH09	Transport Emergency – Road	55
HIGH	NH05	Plague Locusts Infestation	44
HIGH	TH01	Aeronautical	47
HIGH	TH02	Space Debris Re-Entry (Impact)	48
HIGH	TH07	Infrastructure Failure – Sewerage (incl contamination)	53
MODERATE	TH08	Natural Gas Emergency Event	54

7.6 Hazards by Combat Agency/ Controlling Authority

This is a list of the 18 hazards and the individual agencies responsible for responding to these.

Emergency Operations Controller (LEOCON)

HAZARD ID	HAZARD	RISK RATING	DATE REFERRED
NH01	Earthquake	Extreme	4 June 2009
TH01	Aeronautical	High	4 June 2009
TH02	Space Debris Re-entry (impact)	High	4 June 2009
TH03	Major Structure Collapse	High	4 June 2009
TH05	Infrastructure Failure – Power > 2 days	High	4 June 2009
TH06	Infrastructure Failure – Water	Extreme	4 June 2009
TH07	Infrastructure Failure – Sewerage (incl contamination)	High	4 June 2009
TH09	Transport Emergency - Road	High	4 June 2009

New South Wales Rural Fire Service

HAZARD ID	HAZARD	RISK RATING	DATE REFERRED
NH02	Fire – Rural	Extreme	4 June 2009

New South Wales Fire Brigade

HAZARD ID	HAZARD	RISK RATING	DATE REFERRED
NH03	Fire Urban	Extreme	4 June 2009
TH04	Hazardous Materials	Extreme	4 June 2009
TH08	Natural Gas Emergency Event	Moderate	4 June 2009
TH10	Explosion (incl Grain Storage Incident)	High	4 June 2009

State Emergency Service

HAZARD ID	HAZARD	RISK RATING	DATE REFERRED
NH04	Flood	High	4 June 2009
NH06	Severe Storm Event	Extreme	4 June 2009

New South Wales Health

HAZARD ID	HAZARD	RISK RATING	DATE REFERRED
BH01	Communicable Disease Affecting Humans	Extreme	4 June 2009

Industry and Investment NSW (formerly DPI)

HAZARD ID	HAZARD	RISK RATING	DATE REFERRED
NH05	Plague Locusts Infestation	High	4 June 2009
BH02	Communicable Disease – Affecting Animals	Extreme	4 June 2009

8 Treatment

Treatments are the strategies in place that assist the LEMC and individual agencies to manage a particular emergency. Existing treatment strategies, also referred to as Existing Control/Mitigation/Treatment strategies, have been identified and included within the individual hazard risk assessments in Section 7 of this report (refer to page 38).

Residual Risk

The first risk rating (depicted in the assessment matrix) was assessed based on the inherent risk of the hazard. The second rating was the result after considering all existing treatment and mitigation strategies available to the LEMC. This is called the Residual Risk Rating. Due to the unpredictable nature and potential severity of the hazards identified in this study, a level of residual risk remains regardless of the treatments implemented, particularly given that natural hazards that cannot be controlled. Nonetheless, additional treatments have been considered for those High and Extreme rated risks.

This being the initial stage of the study, it is believed that future reviews may see an impact on the residual risks, more likely to occur following an actual emergency. Review of the residual risk has been included as part of the Monitoring and Review Process (refer Section 9)

In accordance with the Evaluation Criteria on page 12 of this report, hazards rated as **Extreme** and those rated **High** whose consequence rating ranked Major and Catastrophic, additional treatment options were developed and those meeting the evaluation criteria, were included in the treatment plan developed.

8.1 Additional Treatment Options and Evaluation Criteria

The following criteria have been used to determine the effectiveness of additional treatment options for hazards rated **EXTREME** or those hazards rated **HIGH** whose consequence rating ranked Major and Catastrophic in accordance with the evaluation criteria of unacceptable risks (found on page 12):

a) Cost – the cost of implementing the action (correspondence, invite to meeting, etc)

b) Effectiveness to treat the hazard – how effective will the proposed treatment be in reducing the impact of the hazard;

c) How quickly it could be implemented the proposed action (as per a above); and

d) Percentage of the affected community that would benefit from this treatment.

This evaluation criteria was then used to prioritise the suggested treatment options, noting that the lower the score for each of the above criteria, the more effective the treatment option was considered.

The score was placed in 4 different priority categories as follows:

- 1 to 5 = treatment option is most effective
- 6 to 10 = treatment option is very effective
- 11 – 15 = treatment option has some effectiveness
- 16 – 20 = treatment option is least effective.

Only those treatment options scoring 10 or below would be included in the Treatment Plan.

Any treatment options rated NA have automatically been included in the Treatment Plan.

The following tables show the treatment evaluation and assessment of the Extreme and High hazards. The treatment option plans can be found in Section 8.2.

Treatment Option Selection – Evaluation Criteria

Evaluation Criteria					
	1	**2**	**3**	**4**	**5**
a) Cost	less than $10,000	$10,000 - $100,000	$100,000 - $500,000	$500,000 - $1,000,000	greater than $1,000,000
b) Effectiveness (residual)	risk eliminated	significant reduction	moderate reduction	minor reduction	no effect
c) Period of implementation	within 6mths	within 6mths – 12 mths	within 1 yr – 3yrs	within 3yrs- 5yrs	more than 5yrs
d) Impact on affected community (positive)	80% - 100%	60% - 79%	40% - 59%	20% - 39%	0% - 19%
Total Score (add the value of the column of the chosen answer for each category)					

TREATMENT OPTION EFFECTIVENESS (PRIORITY)							
1 - 5	most effective/ highest priority	**6 - 10**	very effective	**11 - 15**	some effectiveness	**16 - 20**	least effective/ lowest priority

The Working Group/ LEMC agreed that a treatment plan will be developed for those treatment options with a with a Risk Rating level equal to or greater than ***Note*** *that hazards with a primary Combat Agency identified, or owned by an agency are referred to that Agency for risk treatment and the LEMC will only* *1- plan for an emergency arising from that hazard; and or* *2- monitor the implementation of risk treatment by that agency*	**EXTREME** and any **HIGH** with a Consequence of Major or Catastrophic	Date of endorsement by LEMC Working Group	8 July 2009
AND for those treatment options with a score between:	**1 to 10**		

Selection of Treatment Options

Hazard No	Hazard name	Selected Treatment Option	Criteria Scores				Priority	Agency / Authority	Treatment Plan Required? YES / NO	Date Determined
			a	b	c	d				
Natural Hazards										
NH01	Earthquake	Consider conducting an earthquake desktop exercise	1	4	3	5	13	LEMC	NO	8 July 2009
NH02	Fire - Rural	Promotion of safety zones for stock and asset protection zones	1	3	3	2	9	RFS	**YES**	8 July 2009
NH03	Fire - Urban	Investigate commercial/ multi purpose buildings compliance with fire evacuation arrangements (i.e.: use Chamber of Commerce for promotion)	1	4	2	5	12	NSWFB	NO	8 July 2009
NH04	Flood	Enquire with Council if there are any flood zone areas and if considered in their building approval conditions	1	5	2	5	13	LEMC	NO	8 July 2009
		Enquire with Council if a local flood plan is likely to be developed	1	5	2	5	13	LEMC	NO	8 July 2009
		Conduct community education/awareness and other prevention strategies;	1	4	3	5	13	SES	NO	8 July 2009
		Review condition and signage for road crossings/causeways	1	4	2	5	12	COUNCIL	NO	8 July 2009
		Conduct assessment of local roads during flash flooding	1	4	2	5	12	COUNCIL	NO	8 July 2009
		Update gauge readers by local farmers	1	4	2	5	12	SES	NO	8 July 2009
NH05	Plague Locusts Infestation	Liaise with Dept of Industry and Investment NSW re assistance required from LEMC	1	4	2	5	12	LEMC	NO	8 July 2009
NH06	Severe Storm Event	Conduct awareness campaign to alert residents of the danger of trees close to houses/ power lines during severe storms	1	3	3	1	8	SES	**YES**	8 July 2009
Technological Hazards										
TH01	Aeronautical	Liaise with CASA as to the requirement of the LEMC in such an event;	1	4	1	5	11	LEMC	NO	29 July 2009

Hazard No	Hazard name	Selected Treatment Option	Criteria Scores				Priority	Agency / Authority	Treatment Plan Required? YES / NO	Date Determined
			a	b	c	d				
		Conduct desktop exercise incorporating the impact of an aeronautical emergency	1	4	4	5	14	LEMC	NO	29 July 2009
TH02	Space Debris Impact - re entry	Liaise with DEMO as to the requirement of the LEMC in such an event;	1	5	2	5	13	LEMC	NO	29 July 2009
		Conduct desktop exercise incorporating the impact of this type of emergency	1	4	4	5	14	LEMC	NO	29 July 2009
TH03	Major Structure Collapse	Enquire with major business owners as to what arrangements they have in place to deal with an emergency;	1	4	2	5	12	LEMC	NO	29 July 2009
		Conduct a desktop exercise incorporating the impact of this type of emergency	1	4	4	5	14	LEMC	NO	29 July 2009
TH04	Hazardous Materials	Enquire about hazmat arrangements with NSWFB Zone Commander at Goulburn and local NSWFB and inform LEOCON	1	2	2	4	9	NSWFB	**YES**	29 July 2009
		Conduct a desktop exercise incorporating the impact of this type of emergency					NA	LEMC	**YES**	29 July 2009
		LEMC to become familiar with various plans from other authorities					NA	LEMC	**YES**	29 July 2009
TH05	Infrastructure Failure – Power > 2 days	Enquire as to what arrangements Country Energy have in place in terms of prevention, response, priorities and access to portable generators;	1	3	3	3	10	LEMC	**YES**	29 July 2009
		Council to consider development of an emergency plan for failure of Sewerage services and Water supply	1	3	2	4	9	COUNCIL	**YES**	29 July 2009
TH06	Infrastructure Failure - Water	LEMC to enquire with Goldenfields as to what preventative and warning arrangements are in place to prevent or warn of such an emergency	1	3	2	2	8	LEMC	**YES**	29 July 2009
		Council to consider development of an emergency plan for failure of Water supply	1	3	2	2	8	COUNCIL	**YES**	29 July 2009
TH07	Infrastructure Failure – Sewerage (incl contamination)	Conduct a desktop exercise using this situation as a scenario;	1	4	3	4	12	LEMC	NO	29 July 2009
		Enquire with Council about their maintenance program and emergency arrangements to prevent an emergency	1	3	2	2	8	LEMC	**YES**	29 July 2009

Hazard No	Hazard name	Selected Treatment Option	Criteria Scores				Priority	Agency / Authority	Treatment Plan Required? YES / NO	Date Determined
			a	b	c	d				
TH09	Transport Emergency - Road	Conduct a field exercise using this situation as a scenario	1	3	2	2	8	LEMC	**YES**	29 July 2009
		Enquire with agencies about alternative arrangements if LEMC members and or EOC liaison officers and staff are directly affected by an emergency event	1	3	2	1	7	LEMC	**YES**	29 July 2009
TH10	Explosion	Make enquiries with NSWFB as to whether it has identified possible explosion hazards and what arrangements/ plans are in place: 1- to deal with an explosion emergency, 2- to identify and define trigger points for requesting emergency management support 3- in regards to any specific local requirements within the LGA	1	2	2	2	7	NSWFB	**YES**	29 July 2009
Biological Hazards										
BH01	Communicable Disease – Affecting Humans	Make enquiries with NSW Health as to whether it has identified arrangements/ plans are in place: 1- to deal with such an emergency, 2- to identify and define trigger points for requesting emergency management support 3- in regards to any specific local requirements within the LGA	1	2	2	2	7	NSW Health	**YES**	29 July 2009
BH02	Communicable Disease – Affecting Animals	Make enquiries with Dept of Industry and Investment NSW as to whether it has identified arrangements/ plans are in place: 1- to deal with such an emergency, 2- to identify and define trigger points for requesting emergency management support 3- in regards to any specific local requirements within the LGA	1	2	2	2	7	Dept of Industry and Investment NSW (formerly DPI)	**YES**	29 July 2009

Hazard No	Hazard name	Selected Treatment Option	Criteria Scores				Priority	Agency / Authority	Treatment Plan Required? YES / NO	Date Determined
			a	b	c	d				
General Recommendations: Scoring for the following recommendation is not applicable (NA) as the Working Group had already agreed to undertake these actions**.**										
	General	Formalise arrangements with neighbouring LEMCs for resources and to hold copies of plans etc					NA	LEMC	**YES**	29 July 2009
		Include action items on LEMC agenda to follow up					NA	LEMC	**YES**	29 July 2009
	Vulnerable Communities	Investigate what Emergency Services requirements are stated in the emergency arrangements of Child Care Centres and schools					NA	LEMC	**YES**	29 July 2009
		Investigate if there is a liaison person available who could provide information identifying people who are medically dependant living at home that would be available to the EOC if required. (NSW Health and Country energy may maintain register for people relying on electricity but it's up to the people themselves to register)					NA	LEMC	**YES**	29 July 2009

Treatment options given a priority score of 10 points or below have been included in the Treatment Plan that follows.

8.2 Risk Treatment Plan for selected treatment options

As a result of the Selection Option Criteria table in the previous section, the following table is a list of actions to be undertaken for the selected treatment options.

RISK TREATMENT PLAN FOR SELECTED TREATMENT OPTIONS

Hzrd ID.	Hazard Name	Risk Rating	Selected Treatment Options	Priority Score	Actions	Agency Responsible (for the action)	Agency Contact	Timeframe/ Milestones	Monitor & Review
Natural Hazards									
NH02	Fire – Rural	Extreme	Promotion of safety zones for stock and asset protection zones	9	Request that RFS conduct promotion and report to LEMC on outcome	LEMC/ RFS	Zone Manager	Feb 2010	Aug 2010
NH06	Severe Storm Event	Extreme	Conduct awareness campaign to alert residents of the danger of trees close to houses/ power lines during severe storms	8	Request that SES conduct awareness campaign and report to LEMC on outcome	LEMC/ SES	Local Controller	Feb 2010	Aug 2010
Technological Hazards									
TH04	Hazardous Materials	Extreme	Enquire about hazmat arrangements with NSWFB Zone Commander and local NSWFB and inform LEOCON	9	NSWFB to provide information to LEMC on the Hazmat arrangements	NSWFB	Station Officer	Feb 2010	Aug 2010
			Conduct a desktop exercise incorporating the impact of this type of emergency	NA	Action already undertaken during the Emergency Risk Management study period	LEMC	NSWFB	Completed	
			LEMC to become familiar with various plans from other authorities	NA	LEMC advised plans available at www.emergency.nsw.gov.au	LEMC	NSWFB	Completed	
TH05	Infrastructure Failure – Power > 2 days	High	Enquire as to what arrangements Country Energy have in place in terms of prevention, response, priorities and access to portable generators;	10	DEMO to discuss at District level with representative of Country Energy and report to LEMC meeting	DEMO	DEMO	Nov 2009	Feb 2010
			Council to consider development of an emergency plan for failure of Sewerage services	9	LEMC to request Council develop an emergency plan for the failure of Sewerage Services	LEMC	LEMO	May 2010	Nov 2010

Hzrd ID.	Hazard Name	Risk Rating	Selected Treatment Options	Priority Score	Actions	Agency Responsible (for the action)	Agency Contact	Timeframe/ Milestones	Monitor & Review
TH06	Infrastructure Failure - Water	Extreme	LEMC to enquire with Goldenfields as to what preventative and warning arrangements are in place to prevent or warn of such an emergency	8	Correspond with/ invite representative of Goldenfields Water to an LEMC meeting to provide information on current arrangements	LEMC	LEMO	May 2010	Nov 2010
			Council to consider development of an emergency plan for failure of Water supply	8	LEMC to request Council develop an emergency plan for the failure of Water Supply	LEMC	LEMO	May 2010	Nov 2010
			Enquire with Council about their maintenance program to prevent an emergency	8	Council representative on LEMC to investigate and report to LEMC	COUNCIL	Council Representative on LEMC	May 2010	Nov 2010
TH09	Transport Emergency - Road	High	Enquire with agencies about alternative arrangements if LEMC members and or EOC liaison officers and staff are directly affected by an emergency event	8	Each agency to enquire with their agency as to their own arrangements to deal with such a situation and inform LEMC of arrangements in place	All Agencies	Nominated Representative	Feb 2010	May 2010
			Conduct a field exercise using this situation as a scenario	7	Action already undertaken during the Emergency Risk Management study period	LEOCON	LEOCON	Completed	
TH10	Explosion	High	Make enquiries with NSWFB as to whether it has identified possible explosion hazards and what arrangements/ plans are in place: 1- to deal with an explosion emergency, 2- to identify and define trigger points for requesting emergency management support 3- in regards to any specific local requirements within the LGA	7	NSWFB to investigate and report to LEMC	NSWFB	Station Officer	Nov 2009	Feb2010

Hzrd ID.	Hazard Name	Risk Rating	Selected Treatment Options	Priority Score	Actions	Agency Responsible (for the action)	Agency Contact	Timeframe/ Milestones	Monitor & Review
Biological Hazards									
BH01	Communicable Disease – Affecting Humans	Extreme	Make enquiries with NSW Health as to whether it has identified arrangements/ plans are in place: 1- to deal with such an emergency, 2- to identify and define trigger points for requesting emergency management support 3- in regards to any specific local requirements within the LGA	7	NSW Health to investigate and report to LEMC	NSW Health	HSFAC	Feb 2010	May 2010
BH02	Communicable Disease – Affecting Animals	Extreme	Make enquiries with the Dept of Industry and Investment NSW (DII) as to whether it has identified arrangements/ plans are in place: 1- to deal with such an emergency, 2- to identify and define trigger points for requesting emergency management support 3- in regards to any specific local requirements within the LGA	7	DII to investigate and report to LEMC	Dept of Industry and Investment NSW (formerly DPI)	DII / LEMC Representative	May 2010	Aug 2010

TREATMENT PLAN FOR GENERAL RECOMMENDATIONS

This table refers to general recommendations identified during the study process and the assessment carried out on the identified Vulnerable Communities.

Gen Rec Id.	Hazard Name	Treatment Option	Actions	Agency Responsible (for the action)	Agency Contact	Timeframe/ Milestones	Monitor & Review
	General	Formalise arrangements with neighbouring LEMCs for resources and to hold copies of plans etc	LEMC to refer this matter to the Yass Valley Alliance Steering Ctee for discussion and development of formal arrangements. Also discuss with DEMO in regards to control/ coordination arrangements at District / State level	LEMC	LEMO	Nov 2009	Feb 2010
		Include action items on LEMC agenda to follow up	Extract Treatment Plan table from this report and include it as a standing item of review at LEMC meetings to monitor progress of actions	LEMC	LEMO	Feb 2010	Ongoing
	Vulnerable Communities	Investigate what Emergency management requirements are stated in the emergency arrangements of Child Care Centres and schools	Correspond with local Childcare centres and schools to establish the demands on Emergency management arrangements in accordance with their own arrangements	LEMC	LEMO	Feb 2010	May 2010
		Investigate if there is a liaison person available who could provide information identifying people who are medically dependant living at home that would be available to the EOC if required. (NSW Health and Country energy may maintain register for people relying on electricity but it's up to the people themselves to register)	LEMC to make appropriate enquiries through NSW Health and Country Energy in regards to respective vulnerable communities. Also make arrangement to ensure information is maintained current	LEMC	LEMO	Nov 2009	Feb 2010
			LEMC to plot identified vulnerable communities on a mapping system for easy identification during an emergency.	LEMC/ COUNCIL	LEMO	May 2010	Aug 2010

9 Monitor and Review

The Emergency Risk Management Project is a continuous process. Monitoring and reviewing are integral parts of the process. Risks and the effectiveness of the treatment strategies need to be monitored to ensure risk levels reflect the positive impact of those strategies.

The LEMC of Young Shire is committed to monitor and review the Emergency Risk Management Report and its content, taking into consideration:

- Changes to context
- Changes to legislative requirements
- Changes to stakeholder involvement
- Changes to hazards, the community and the environment
- The emergency risk management project
- Actual emergencies arising from risks.

It is pertinent to mention that in different sections within this document, such as the risk assessments and the treatment plan, there are specified monitoring and review timeframes to be noted by the LEMC and the respective combat agencies.

The following is an action table for monitoring and reviewing the various elements of the ERM:

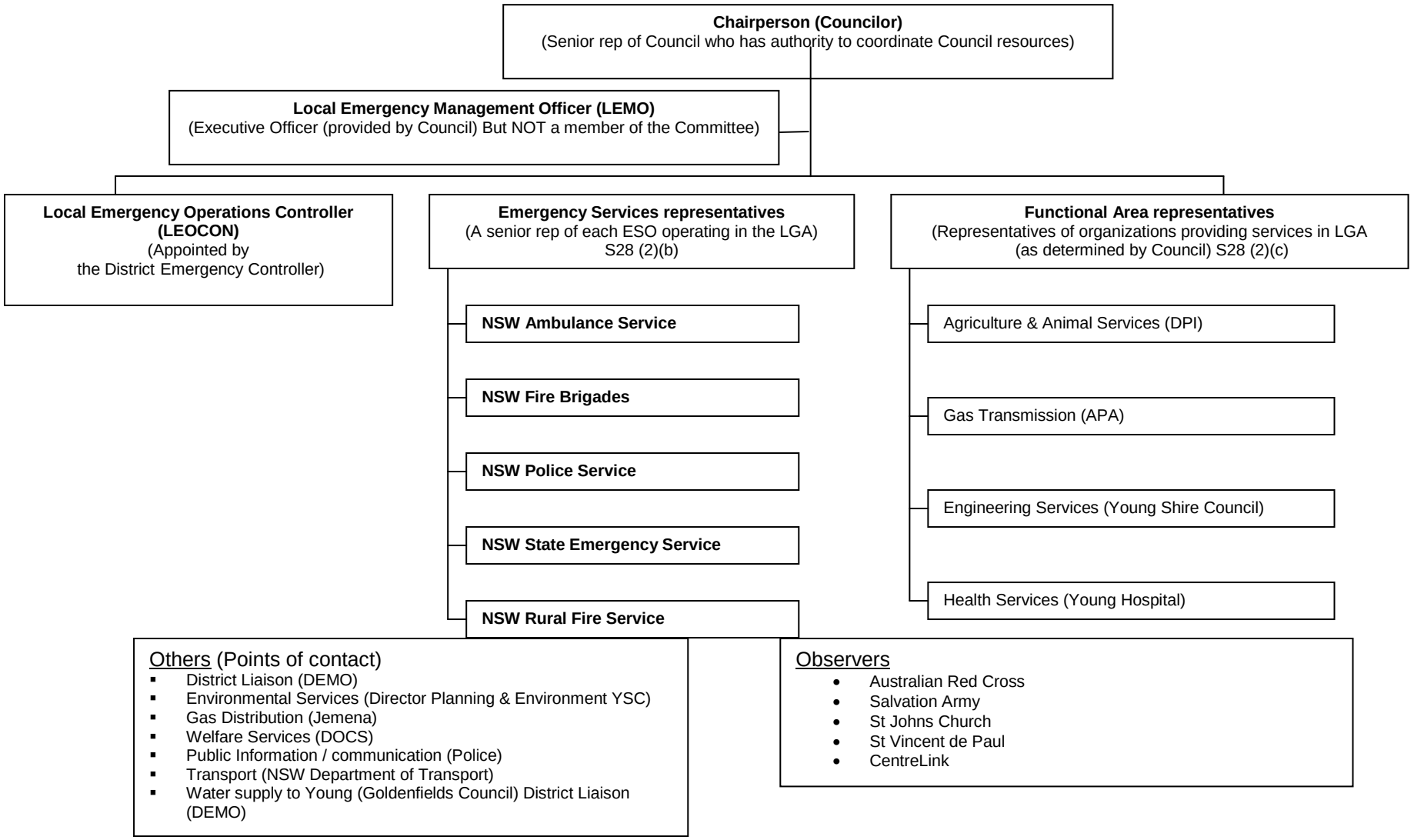
	Activity for Review	Accountability	Timeframe
1	ERM Report: Administrative review	LEMO & LEOCON	Annually
2	ERM Report: Content review	LEMC	Every 5 years
3	Hazards: assessment, rating etc.(Pg 38 - 59)	Lead Combat Agencies respectively and LEMC in general	Every 3 years
4	Treatment Plan (including Treatment Options)	Lead Combat Agencies respectively and LEMC in general	As per review dates for individual items (refer pgs 69 - 72)
5	ERM Report following an actual emergency	LEMC	Monitor annually and action as required
6	Legislative requirements	Lead Combat Agencies respectively and LEMC in general	Monitor annually and action as required
7	Community influences	Lead Combat Agencies respectively and LEMC in general	Monitor annually and action as required
8	Environment (direction from higher EMCs, studies etc))	LEMC	Monitor annually and action as required
9	Residual Risk (refer pg 63)	Combat Agencies respectively and LEMC in general	Following an actual emergency

10 Appendices

Appendix No.	Title
1	Management Framework
2	Members of the Young Local Emergency Management Committee Working Group of the Emergency Risk Management Project
3	Members of the Young Local Emergency Management Committee
4	Consequence Descriptors
5	Likelihood Descriptors
6	Risk Statements
7	Press Release template
8	Tsunami and Earthquake Zone within Australia
9	Supporting (emergency management) Plans
10	Definitions
11	Abbreviations

Appendix 1 Management Framework

Young Shire Local Emergency Management Committee



NOTE: Schedule 2 (2)(1)&(2) provides for any Member to appoint a Deputy who, in the absence of the Member, has all the functions of the Member

Appendix 2 Members of the Emergency Risk Management Working Group for the Emergency Risk Management Project of Young Shire

Title	First Name	Last Name	Agency
Mr	Pat	Smith	LEOCON
Mr	John	Walker	Council - Chairperson
Mr	Phillip	Glover	LEMO (and Alternate Chairperson)
Mr	Andrew	Caldwell	NSWFB
Mr	Barrie	Miller	SES – alternate Local Controller
Mr	Paul	Parker	Dept of Industry and Investment NSW (formerly DPI)

Facilitators

Title	First Name	Last Name	Agency
Ms	Ellie	Diaz	Echelon Australia
Mr	Bob	Walker	Echelon Australia

Appendix 3 Members of the Local Emergency Management Committee of Young Shire

Title	First Name	Last Name	Agency
Mr	Pat	Smith	LEOCON
Mr	John	Walker	Council - Chairperson
Mr	Phillip	Glover	LEMO (and Alternate Chairperson)
Mr	Andrew	Caldwell	NSWRFS
Mr	Barrie	Miller	SES – alternate Local Controller
Mr	Paul	Parker	Dept of Industry and Investment NSW
Mr	John	Harpley	Ambulance
Mr	Graham	Jarrett	NSWFB
Mr	John	Sheehan	NSW Police
Mr	Dirk	Wymer	Engineering – Cl
Ms	Sandra	Groat	Young Health Services
Mr	Peter	Rushby	Gas Supply
Observers:			
Ms	Gladys	Hancock	Red Cross
Mr	Chris	Cudmore	St Vincent De Paul
Ms	Debbie	Lognhurst	Centrelink
Mr	Justin	Davies	Salvation Army
	J	McKnight	NSWFB

Appendix 4 Consequence Descriptors

These are the definitions for the consequence ratings on the Risk Matrix table found on page 60 and were used for each assessment of the hazards in Section 7 (commencing on page 39).

Area No. 1: PEOPLE – Fatalities / Injuries	
Catastrophic	Significant fatalities / large number severe injuries.
Major	Fatalities / Extensive injuries / Significant number hospitalisation.
Moderate	No fatalities. Medical treatment required.
Minor	No fatalities. Small number of injuries.
Insignificant	No fatalities. No injuries.

Area No. 2: SOCIAL IMPACT – Number of people impacted	
Catastrophic	80 – 100% of community.
Major	40 – 80% of community.
Moderate	20 – 40% of community.
Minor	5 – 20% of community.
Insignificant	Less than 5% of community.

Area No. 3: EVACUATION	
Catastrophic	Widespread displacement for extended periods / relocation to areas outside of community.
Major	Large number displaced for more than 24 hours.
Moderate	Localised displacement – return within 24 hours.
Minor	Some displacement – less than 24 hours.
Insignificant	Small number moved from area – no persons displaced.

Area No. 4: PROPERTY – Impact / Damage	
Catastrophic	Key Infrastructure / Utilities – Water, electricity , sewerage, gas, communications.
Major	Hospitals, Nursing Homes, major road / air / rail facilities, emergency service centres.
Moderate	Government sector, key business / industry, schools, factories.
Minor	Small number of public and private business / industry.
Insignificant	Small number of residential homes.

Area No. 5: COMMUNITY SERVICES – Loss / Damage	
Catastrophic	Essential Services: Medical / Health and Food / Water.
Major	Essential Services: Energy, gas, fuel supplies, communication.
Moderate	Transportation Services: public & private.
Minor	Pharmaceutical supplies, key retail outlets, key industry.
Insignificant	Other products & services.

Area No. 6: ANIMALS – Fatalities / Injuries	
Catastrophic	Significant deaths / large number severe injuries and humane destruction, relocation with no likelihood of return / possible disposal.
Major	Deaths / Significant injuries and humane destruction, disposal / return from relocation with 1 week to 1 month return.
Moderate	Some injuries with displacement and return - 48 hours to 1 week. Some disposal.
Minor	Displacement with short term return – 24 hours to 48 hours.
Insignificant	No fatalities. No relocation.

Area No. 7: ENVIRONMENT – Loss / Damage	
Catastrophic	Significant impact and / or permanent damage.
Major	Some impact with long-term effects.
Moderate	Some impact with no long-term effect or small impact with long-term effect.
Minor	Some impact but no lasting effects.
Insignificant	No measurable impact.

Area No. 8: FINANCIAL IMPACT – Cost / Damage.	
Catastrophic	$10 to $100 million and above.
Major	$1 to $10 million.
Moderate	$100,000 to $1 million.
Minor	$10,000 to $100,000.
Insignificant	Under $10,000.

Area No. 9: RESOURCES – Availability	
Catastrophic	Multi-Agency: Coordinated and obtained at National or State level.
Major	Multi-Agency: Coordinated and obtained from within the District.
Moderate	Multi-Agency: Coordinated and obtained from within the Local area.
Minor	Combat Agency only – Coordinated and obtained from outside the Local area.
Insignificant	Combat Agency only – Coordinated and obtained within the Local area.

Area No. 10: OPERATIONAL MANAGEMENT	
Catastrophic	Management at National or State level.
Major	Management at District DEOCON level.
Moderate	Management at Local LEOCON level.
Minor	Management by Combat Agency at District or Region level.
Insignificant	Management by Combat Agency at Local level.

Appendix 5 Likelihood Descriptors

These are the definitions for the consequence ratings on the Risk Matrix table found on page 60 and were used for each assessment of the hazards in Section 7 (commencing on page 39).

Rating	Description
Almost Certain	Expected to occur, many recorded incidents, strong anecdotal evidence, great opportunity, reason, or means to occur; may occur or be exceeded once every 1 to 5 years.
Likely	Will probably occur; consistent record of incidents and good anecdotal evidence; considerable opportunity, reason or means to occur; may occur or be exceeded once every 20 years.
Possible	Might occur; a few recorded incidents in each locality, some anecdotal evidence within the community; some opportunity, reason or means to occur; may occur or be exceeded once every 100 years. Will generally be close to or exceed past records of severity.
Unlikely	Is not expected to occur; isolated recorded incidents in this country, anecdotal evidence in other communities; little opportunity, reason or means to occur; may occur or be exceeded once every 250 years. Will almost always break previous records of severity.
Rare	May only occur in exceptional circumstances, some recorded events on a worldwide basis, may only or be exceeded once every 500 years or more. Can approach the theoretical upper limits of severity.

Appendix 6 Risk Statements

This table is a summary of the risk statements for each of the 18 hazards found in Section 7 of this report (page 39) for easy reference.

HAZARD	COMBAT AGENCY/ CONTROLLING AUTHORITY	RATING	RISK STATEMENT
NATURAL			
Earthquake	LEOCON	EXTREME	There is a risk that an earthquake in the Young Shire could result in significant property damage, serious personal injury, economic impact, significant transport disruption, utilities and infrastructure damage, social impact, environmental impact, severe interruption to normal community services and possible evacuation
Fire – Rural	NSWRFS	EXTREME	There is a risk that a class 2 / 3 rural fire could result in property damage, potential loss of life, personal injuries, loss of stock and fodder, environmental impact, impact on local agriculture, disruption to transport, closure of roads, potential loss of communications and power failure, impact on local community, possible evacuation
Fire – Urban	NSWFB	EXTREME	There is a risk that a large fire in urban and CBD areas would result in property damage, potential loss of life, personal injuries, environmental impact, impact on local businesses, disruption to transport, closure of roads, potential loss of communications and power failure, impact on local community, economic impact, possible evacuation
Flood	SES	HIGH	There is a risk that a major flood in lower lying areas could result in property damage, potential (rare) loss of life, personal injuries, loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation and possible impact on livestock
Plague Locusts Infestation	DEPT OF INDUSTRY & INVESTMENT NSW (formerly DPI)	HIGH	There is a risk that an insect infestation could result in potential motor vehicle accidents, potential economic loss including the need for farmers to purchase fodder, environmental damage, impact on community
Severe Storm Event	SES	EXTREME	There is a risk that a severe storm would result in property damage, potential loss of life, personal injuries, loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation

HAZARD	COMBAT AGENCY/ CONTROLLING AUTHORITY	RATING	RISK STATEMENT
TECHNOLOGICAL			
Aeronautical	LEOCON	HIGH	There is a risk that an aeronautical emergency involving a commercial / freight airline event anywhere in the shire could result in loss of life, serious personal injuries, potential property damage. Depending on the location, there is a risk that there would be additional loss of life and personal

HAZARD	COMBAT AGENCY/ CONTROLLING AUTHORITY	RATING	RISK STATEMENT
			injuries, significant property damage, loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation
Space Debris Re-Entry (Impact)	LEOCON	HIGH	There is a risk that a space debris re-entry event anywhere in the shire could result in loss of life, serious personal injuries, and potential property damage. Depending on the location, there is a risk that there would be additional loss of life and personal injuries, significant property damage, loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation
Major Structure Collapse	LEOCON	HIGH	There is a risk that a major structure collapse could result in loss of life, serious personal injuries, and potential property damage. Depending on the location, there is a risk that there would be loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact, possible evacuation
Hazardous Material	NSWFB	EXTREME	There is a risk that hazardous material event could result in loss of life, serious personal injuries, potential property damage. Depending on the location, there is a risk that there would be loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact; possible evacuation and exclusion zones
Infrastructure Failure - Power	LEOCON	HIGH	There is a risk that an extended power failure greater than 2 days, particularly in summer or winter, could result in public health issues, impact on vulnerable communities, major impact on business and community, impact on communications, domestic food supply and preparation, civil disruption, security issues (including property crime), impact on intensive livestock industries and loss of fuel supply
Infrastructure Failure – Water	LEOCON	EXTREME	The villages of Koorawatha, Bendick Murrell, Crowther and Wirrimah have reticulated water provided by Cowra Shire Council (note: all these villages are on septic waste systems) If Goldenfields Water (GWCC) supplier was disrupted, the Young water reticulation system would have between 2 – 20 days supply. If local water infrastructure was damaged, there may be immediate disruption to water supply for Young. There is a risk that water infrastructure failure would result in potential serious public health issues, impact on rural and urban community, businesses, vulnerable communities, hospital, displacement of people, potential financial, major disruption to the Burrangong Meat Processors (use 20% of town water supply in operations) and social impact
Infrastructure Failure – Sewerage (incl contamination)	LEOCON	HIGH	Young Sewerage is a gravity system and would still be able to operate without power but to a lesser quality. There is a risk that a sewerage infrastructure failure could result in potential contamination of water courses, impacting on properties downstream and living space in residential areas, public health issues, isolation, displacement of people, impact on vulnerable communities, impact on businesses, and damage to the environment
Natural Gas	LEOCON	MODERATE	There are two types of gas companies in the Young LGA; APA Group who provide Transmission Gas and Jemena &

HAZARD	COMBAT AGENCY/ CONTROLLING AUTHORITY	RATING	RISK STATEMENT
Emergency			ACTEWAGL who provide Distribution Gas There is a risk that a natural gas emergency could arise from infrastructure failure leading to a total or partial loss of supply (this excludes Fire, explosion and contamination - refer to other hazards) There would be a lack of supply with local and/or state-wide impact resulting in impact on continuity of businesses, governments, community and impact on the environment
Transport Emergency – Road	LEOCON	HIGH	There is a risk that major road emergency involving passenger vehicles would result in personal injuries and potential loss of life, social impact, environmental impact, road closures and disruption of traffic services, possible evacuations and potential property damage
Explosion	LEOCON	HIGH	There is a risk that an explosion could result in loss of life, serious personal injuries, and potential property damage. Depending on the location, there is a risk that there would be loss of infrastructure and utilities, environmental impact, impact on local businesses, disruption to transport, closure of roads, impact on local community, economic impact and evacuations.

HAZARD	COMBAT AGENCY/ CONTROLLING AUTHORITY	RATING	RISK STATEMENT
BIOLOGICAL			
Communicable Disease – Affecting Humans	NSW HEALTH	EXTREME	There is a risk that a communicable disease (pandemic) affecting humans would result in multiple deaths and severe community and economic impact, isolation, exclusion zones, major civil unrest and major financial impact.
Communicable Disease – Affecting Animals	INDUSTRY & INVESTMENT NSW (formerly DPI)	EXTREME	There is a risk that a communicable disease affecting animals would result in multiple deaths of stock and severe community and economic impact, isolation, exclusion zones, major civil unrest, major financial impact and environmental impact due to stock disposal

Appendix 7 Press Release

YOUNG SHIRE
COMMITS TO EMERGENCY RISK MANAGEMENT

Emergency Risk Management aims to reduce the potential effects of emergency events through a comprehensive approach of prevention, preparedness, response and recovery. All Local Government areas are required to use emergency risk management processes in developing and reviewing emergency management arrangements for their communities. This is to be undertaken through the Local Emergency Management Committees, for which councils have the responsibility of executive support, preparation and maintenance of plans and other documentation, public education, and assistance during emergencies.

Young Shire Council has engaged the services of Echelon Australia Pty Ltd to facilitate the development of the Emergency Risk Management Plan in concert with the Local Emergency Management Committee.

A key factor to the project is community & stakeholder consultation to ensure that planning and management arrangements are well understood by the community and relevant to their needs. Events that cause disruption and damage to communities may occur at any time and without warning. Your Local Emergency Management Committee is working to ensure the community, emergency services personnel, recovery workers and administrators are adequately prepared.

Your Council's Local Emergency Management Committee is now engaging key stakeholders to gain their input throughout the process, as well as exhibiting the *Draft Emergency Risk Management Report* for public comment. In order to provide the community adequate access to the Report, the Public Consultation process will include the following elements:

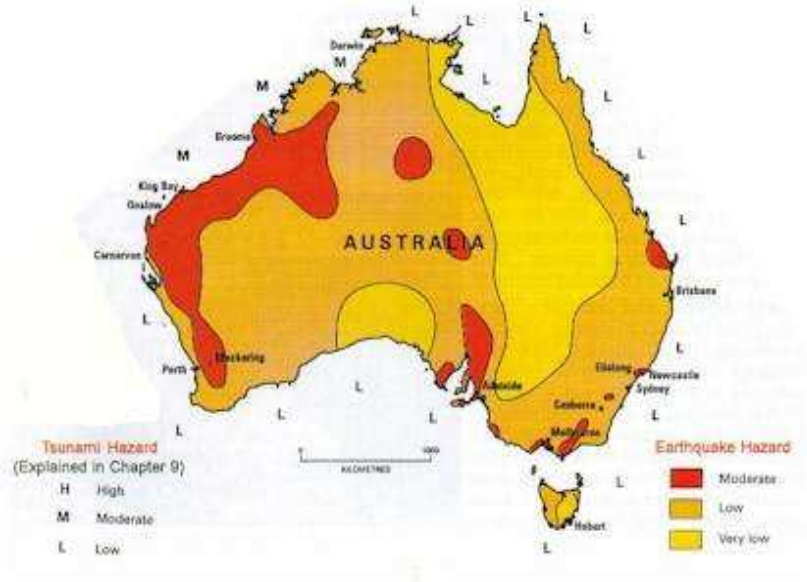
xxxxxxxxxxxxxxxxxx

Further information and access to the document can be obtained by visiting Young Shire Council's website www.young.nsw.gov.au, and Echelon's website www.echelonaustralia.com.au/erm/councils.aspx where the report will be available for you to view and where you can provide feedback on the study to Council, via email address or directly to the Local Emergency Management Committee. Your input will be duly considered before the finalisation of the report.

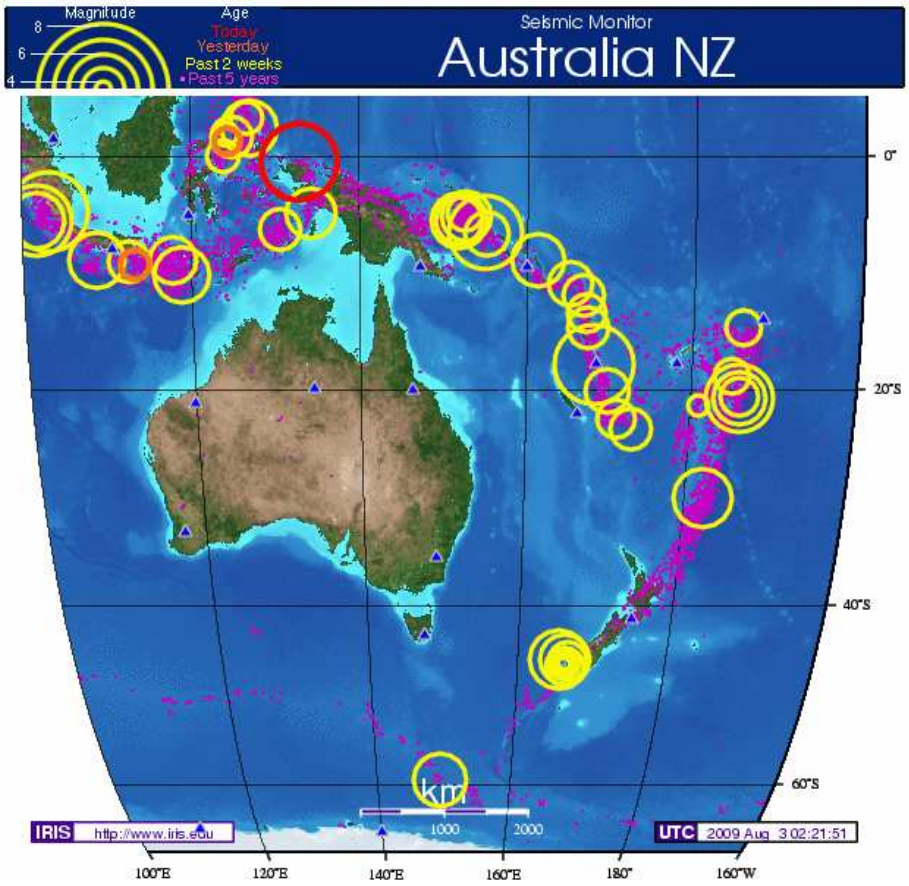
Closing date for submissions/ feedback is (insert date).
Authorised by the Local Emergency Management Committee of Young Shire

(Insert Date)

Appendix 8 Tsunami and Earthquake Zone within Australia.



Records of Earthquakes in the last 15 days as at 3 August 2009



Source - Incorporated Research Institutions for Seismology www.iris.edu

Appendix 9 Supporting Plans

This is a list of the existing plans available to manage different situations and incidents. These plans have been included as existing treatment strategies used for the 18 hazards identified in this report (refer to Section 7, page 39).

Current list of Sub plans and Supporting plans can be found at www.emergency.nsw.gov.au/plans

Sub Plans

Name of Sub Plan	Agency Responsible
NSW State Disaster Plan	SEMC
NSW State Bush Fire Sub Plan	NSWRFS
NSW State Storm Plan	SES
NSW State Flood Plan	SES
NSW State Tsunami Plan	SES
NSW State Major Structure Collapse Sub Plan	SEMC
NSW Food Industry Emergency Sub Plan	SEMC
NSW State Hazmat/CBR Subplan	NSWFB
NSW State Human Influencza Pandemic Sub Plan	NSW Health
NSW Disaster Recovery (Human Services) Plan	DOCS
AMBPLAN	NSW Ambulance Service
NSW Animal Health Emergency Sub Plan	Dept Industry & Investments NSW
NSW State Aviation Emergency Sub Plan	SEMC
Southern Highlands District DISPLAN	DEMC
USAR Sub plan	NSWFB

Supporting Plans

Name of Supporting Plan	Agency Responsible
Agriculture & Animal Services Plan	Dept of Industry and Investment NSW
Environmental Services Plan (ENVIROPLAN)	SEMC
Public Information Services Plan	SEMC
Transport Services Plan	SEMC

Name of Supporting Plan	Agency Responsible
Energy and Utilities Plan (EUSPlan)	SEMC
NSW Healthplan	NSW Health
Gas Supply and Disruption Plan (Sub Plan to Energy & Utilities Funcitonal Area Supporting Plan)	SEMC
Engineering Services Plan	SEMC
Wires Down Sub Plan (Sub Plan to Energy & Utilities Funcitonal Area Supporting Plan)	SEMC
RTA Guidelines for Dangerous Goods Transport	RTA

Regional and Local Plans

Name of Local Plan	Agency Responsible
Young Shire Local DISPLAN	LEMC
Southern Highlands District DISPLAN	DEMC
Standard Operating Guidelines for NSW Fire Brigade	NSWFB
Standard Operating Guidelines for Emergency Services	NSWFB
Pre-incident Plans	NSWFB
Alarm Response Protocol	NSWFB
Memorandum of Understanding Between Emergency Services	various
Business Continuity Plans for Emergency Services	various
Site Emergency Plans	Various
Country Energy Black Start Manual and Emergency Response Crisis Management Procedures	Country Energy

Appendix 10 Definitions

NOTE: The definitions used in this plan are sourced from the State Emergency and Rescue Management Act, 1989 (as amended), other New South Wales legislation, and The Macquarie Dictionary (Second Edition, 1991). Where possible, the reference source is identified as part of the definition (e.g. The State Emergency and Rescue Management Act, 1989 (as amended) is identified as SERM Act).

Act

Means the State Emergency and Rescue Management Act, 1989. (As amended / SERM Act).

Agency

Means a government agency or a non-government agency.

Annual Expedience Probability

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.

Combat Agency

Means the agency identified in the State Disaster Plan as the agency primarily responsible for controlling the response to a particular emergency. (Source: SERM Act).

Disaster

Means an occurrence, whether or not due to natural causes, that causes loss of life, injury, distress or danger to persons, or loss of or damage to property.

DISPLAN

In this plan means the Disaster Plan for Young Shire Local Government area. The object of DISPLAN is to ensure the co-ordinated preparation for, response to and recovery from emergencies by all agencies having responsibilities and functions in emergencies.

District Emergency Management Committee (DEMC)

Means the Committee, constituted under the State Emergency & Rescue Management Act, which at the District level is responsible for the preparation and maintenance of plans in relation to the prevention of, preparation for, response to and recovery from emergencies in the District, including the District DISPLAN. In the exercise of its functions, this committee is responsible to the State Emergency Management Committee (SEMC).

Emergency

Means an emergency due to an actual or imminent occurrence (such as a fire, flood, storm, earthquake, explosion, accident, epidemic or warlike action) which:

- 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 co-ordinated response.

(Source: SERM Act).

Emergency Risk Management

A systematic process that produces a range of measures that contributes to the well being of communities and the environment.

Emergency Risk Management Working Group

A subcommittee to the relevant emergency management committee established to undertake the emergency risk management process.

Environment

Conditions or influences comprising social, physical and built elements, which surround and interact with the community.

Functional Area

In this plan means a category of services involved in preparations for an emergency, including:

- Agriculture and animal services
- Communication services
- Engineering services
- Environmental services
- Health services
- Transport services
- Utility & Energy Services
- Welfare services
- Media services.

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 Government Area

In this plan means a local government area within the meaning of the Local Government Act, 1993 (as amended), or combination of local government areas as referred to in Section 27 of the State Emergency and Rescue Management Act, 1989 (as amended).

Local Emergency Management Committee (LEMC)

In this plan means the Committee, constituted under the SERM Act, which is responsible for the preparation and maintenance of plans in relation to the preparation for, response to and recovery from emergencies in the local government area, for which it is constituted. In the exercise of its functions, this committee is responsible to the relevant District Emergency Management Committee.

Local Emergency Management Officer (LEMO)

In this plan means the person, appointed by Council under the Act to act as Principal Executive Officer to the LEMC and the Local Emergency Operations Controller for emergencies affecting that particular local area.

Local Emergency Operations Controller (LEOCON)

Means a Police Officer appointed by the District Emergency Operations Controller as the Local Emergency Operations Controller for the Local Government Area.

Mitigation

Measures taken in advance of a disaster aimed at decreasing or eliminating its impact on society and environment.

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 Treatment Options

Measures that modify the characteristics of hazards, communities or environments.

Appendix 11 Abbreviations

AMSA	Australian Maritime Safety Authority
ARP	Alarm Response Protocol
ASNSW	Ambulance Service of New South Wales
CASA	Civil Aviation Safety Authority
DECC	Department of Environment and Climate Change
DEMO	District Emergency Management Officer
DEOCON	District Emergency Operation Controller
DISPLAN	Disaster Plan
DLWC	Department of Land and Water Conservation
DOCS	Department of Community Services
DII	Department of Industry and Investment NSW (formerly DPI))
EOCON	Emergency Operations Centre
HAZMAT	Hazardous Materials
LDCC	Local Disease Control Centre
LEMC	Local Emergency Management Committee
LEMO	Local Emergency Management Officer
LEOCON	Local Emergency Operations Controller
LGA	Local Government Area
MAA	Mutual Aid Agreement
MOU	Memorandum of Understanding
NSWFB	New South Wales Fire Brigade
NSWPF	New South Wales Police Force
NSWRFS	Rural Fire Service
RTA	Road Transport Authority
SEMC	State Emergency Management Committee
SERM ACT	State Emergency & Rescue Management Act, 1989 (as amended)
SES	State Emergency Services
USAR	Urban Search and Rescue
VRA	Volunteer Rescue Association NSW