

Shire of Yarra Ranges: Community Risk Based Emergency Management Plan

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Abstract

In 1986 the State of Victoria, Australia, enacted legislation requiring each local government to form and administer a Municipal Emergency Management Planning Committee (comprising of stakeholders including emergency services and the community) chartered to devise a Municipal Emergency Management Plan. A need to undertake a comprehensive all hazards approach to emergency management was motivated by State and National Governments in the notification that disaster relief funding may be affected if the municipality had not adopted a risk management process. In keeping with the Shire of Yarra Range's philosophy of empowering its community with its role in emergency management and to meet State and National Government requirements, the Shire embarked upon a strategy titled the Community Risk Based Emergency Management Plan. The plan involved extensive community consultation including telesurveys, face to face interviews, the media and targeted community group participation to explore the community's perception of the risks that impacts upon it. The results were then analysed and prioritised according to the Australian/New Zealand Standards of Risk Management AS/NZS 4360:1999 involving identification of the risks and prioritisation according to likelihood and consequence factors. Treatment plans were then compiled for high and extreme risks followed by specific action plans assigning the responsible agencies involved and time frames. The Shire's plan has been targeted as a case study to educate other emergency management professionals on a national scale.

Introduction

In the State of Victoria, Australia, legislation in the form of the Emergency Management Act 1986 was enacted with the objective to "ensure that [prevention, response and recovery] are organised within a structure which facilitates planning, preparedness, operational co-ordination and community participation." (Section 4A) The Act sets out emergency management responsibilities at State, Regional and Municipal levels.

In accordance with Section 21 of that Act each municipal council is required to form a Municipal Emergency Management Planning Committee (MEMPC) for the purpose of formulating, monitoring and reviewing a Municipal Emergency Management Plan (MEMP) in relation to the prevention of, response to and recovery from emergencies within the municipality. The MEMP must contain provisions identifying resources & must specify how the resources are to be used in emergencies. The municipality accepts responsibilities for management of municipal resources and the co-ordination of community support to counter the effects of an emergency.

On the 14th of October, 1998 the then Minister for Police and Emergency Services, Hon. Bill McGrath MLA, wrote to all municipal mayors advising “of changes to the conditions for financial assistance provided to councils by the State under the Commonwealth/State Natural Disaster Relief Arrangements.” The letter continued “In brief, financial assistance towards costs of a second and subsequent emergency would be conditional upon the council demonstrating that a structured risk management approach had been applied to the hazard/source of risk associated with the emergency.”

In addition to response and recovery responsibilities the Victorian State Emergency Service (VicSES, a State agency) is vested with the task of providing advice and training to assist municipalities in developing their emergency management plan. VicSES are also charged with the responsibility to audit Municipal Emergency Management Plans.

Further guidelines for emergency management practitioners and other interested parties are provided in the Emergency Management Manual Victoria which is issued by the Co-ordinator in Chief of Emergency Management, the State Minister for Police and Emergency Services. The following agencies are involved in the Shire of Yarra Ranges Municipal Emergency Management Planning Committee:

Agencies/Organisations (Municipal Emergency Management Planning Committee)

Shire of Yarra Ranges

Department of Natural Resources & Environment

(A State Authority responsible for managing Crown Land)

Country Fire Authority

(A State Authority predominantly volunteer based rural fire fighting service)

Department of Human Services

(A State Organisation dealing with the welfare of the community)

Australian Red Cross

Yarra Valley Broadcasters Inc

(A local Radio Station)

Mountain District Radio

(A Local Radio Station)

Victoria Police

(The State Police Agency)

TXU

(A regional Electricity Utility)

VicSES

(A State Agency for Emergency Planning Response and Recovery)

Metropolitan Ambulance

(A Metropolitan based service)

Telstra

(A State Agency for Telecommunications)

Centrelink

(A State Agency for welfare support)

Melbourne Water

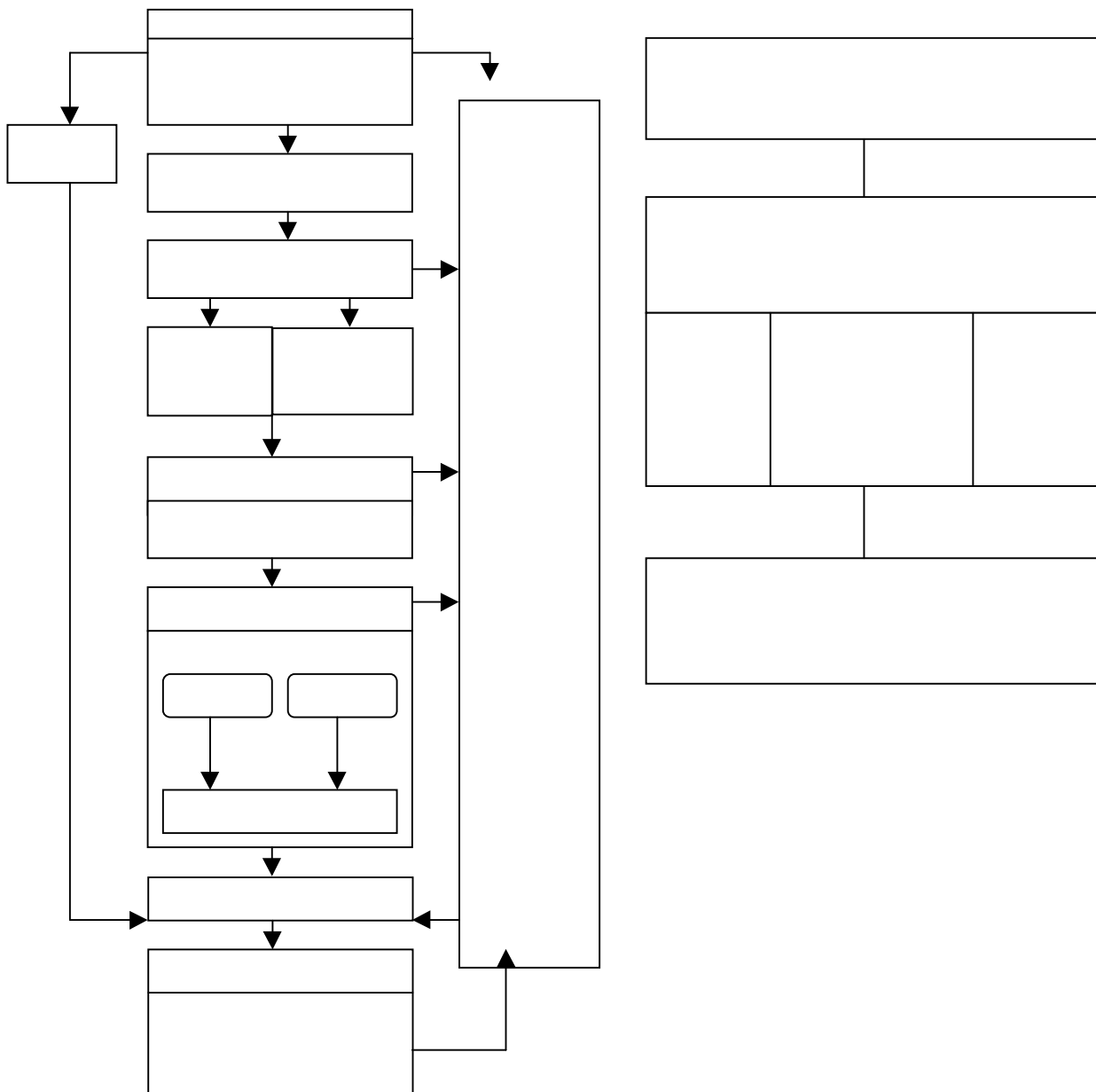
(Responsible for water catchment and supply)

Others, as required

The Shire of Yarra Ranges Community Risk Based Emergency Management Plan has been modelled against the Australian and New Zealand Standards for Risk Management AS/NZS 4360:1999 and the Victoria State Emergency Service Community Emergency Risk Management Model (Risk Management and Municipal Emergency Management Planning 1998 p.vi)., creating a transparent process and auditable trail in recording the identification, analysis, evaluation and treatment and decision making. This process relies on community consultation and the Shire recognises that the completed plan will be available to the community. With the integration of 'risk management' into Municipal Emergency Management Plans, (MEMP) the Shire of Yarra Ranges fulfils the recently revised funding requirement under the Commonwealth/State Natural Disaster Relief Arrangements.

Community Emergency Risk Management Model

The Victoria State Emergency Service provided a model for the development of the Community Risk Based Emergency Management Plan as a three phase process (Figure 1).



*Figure 1
Community Emergency Risk Management Model*

APPLICATION OF THE COMMUNITY RISK MANAGEMENT MODEL BY THE SHIRE OF YARRA RANGES

PHASE 1

Development of Policies, Procedures and Terms of Reference.

The Shire of Yarra Range identified all key stakeholders and established reference group comprising all key stakeholders and developed key goals. This process was highlighted as a Key Result Area in the Shire Corporate Plan and resources were allocated to undertake the process. Policies and procedures are in accordance with the Emergency Management Act 1986, Emergency Management Manual Victoria and the Australian and New Zealand Standards on Risk Management AS/NZS 4360:1999.

Terms Of Reference

The Terms of Reference established by the working group for the project was to draft a holistic Emergency Management Plan for the Shire of Yarra Ranges that covers prevention, preparedness, response and recovery and is based on risk management principles, to consult with the community and other agencies in the preparation of the plan and to report to Council via the MEMPC.

Context Statement

The context statement has been recognised as a key component as it provides the structure and parameters to ensure a focussed reference for the process. After much deliberation the working party established the following context:

To create a safer community, the Shire of Yarra Ranges will work in partnership with the community, agencies and other stakeholders in order to create a holistic community risk based emergency management plan which will address risks that may affect the community, property and the environment.

The objective will be achieved by identifying analysing, evaluating risks and recommending treatment options based on Standard AS/NZ 4360:1999 and is underpinned by the Emergency Management Act 1986. The Shire of Yarra Ranges recognises that the risk based emergency management planning process may lead to suggested risk treatments that may effect or be an effect of social, political, economic and/or environmental aspects of the community and that risk treatment recommendations may be affected by the reality of political and financial constraints.

The Shire also recognises that risks which are assessed as extreme or high need to be reviewed to consider treatments which may reduce the risk to an acceptable level.

The community risk based emergency management planning process relies on community consultation and the Shire recognises that the completed plan will be available to the community.

PHASE 2

Investigation, Information Gathering and Analysis Phase

This phase includes profiling the community to identify vulnerable elements of the community and to identify sources of risk.

Demography

The Shire of Yarra Ranges is located on metropolitan Melbourne's eastern fringe. With an area of almost 2,500 square kilometres the Shire is the largest of any metropolitan or fringe Council in the State. The Shire has a population currently estimated to be 141,170 people. In terms of population it is the seventh largest municipality in the metropolitan area and the eighth largest in the State in terms of population. While considered as an "urban" council for funding purposes the Shire balances a mixture of both urban and rural communities. Approximately 80% of the Shire's population lives in the 10% of the Shire that is classed as urban, while the remaining population is unevenly dispersed throughout the remaining area. There are over 50 suburbs, townships, small communities and rural areas within the Shire. Population growth is expected to remain constant over the foreseeable future, with a projected growth rate of approximately 0.1% per annum over the next 20 years.

Topography

The Shire of Yarra Ranges can be divided into three zones, the undulating country to the west with suburban development, the forested hills to the east and the valley of the Yarra River, which runs east to west and is surrounded by farmlands. There are four major water reserves in the mountainous areas which supply drinking water for the Shire and metropolitan Melbourne: the Silvan Reservoir in the Dandenong Ranges, Maroondah Reservoir above Healesville, the smaller O'Shannassy Reservoir north-east of Warburton and the Upper Yarra Reservoir further east again.

The majority of the suburban areas are found in the western part of the Shire around Mooroolbark, Montrose and Lilydale. The Dandenong Ranges are moderately populated, especially, the Belgrave-Upwey area. Even though much of these hills are heavily wooded approximately one third of the Dandenong Ranges is given over to forest parks, the remainder being zoned for residential or agricultural purposes. Forested mountainous areas also stretch from the surrounds of Healesville in the north-central part of the Shire across almost the entire eastern section. This forms part of the Great Dividing Range. The highest point is Snowy Hill at 1380m above sea level and is located at the northern most point of the Shire. The other major geographical feature of the Shire is the Yarra River, which flows along the eastern part of the Shire and runs through the Melbourne CBD into Port Phillip Bay.

There are 1116 kilometres of sealed roads and 838 kilometres of unsealed roads crossing the Shire. Approximately 60 road bridges providing major links to townships throughout the Shire. Many of the bridges carry essential services such as water and communication cables. Electricity is supplied to all residences with natural gas covering the majority of residences.

Unique Natural Environment

The Shire of Yarra Ranges contains some of the most environmentally significant areas in the State which are a significant factor in attracting residents and tourists. The mountainous landscapes and the Yarra River valley, contain significant areas of remnant native vegetation, much of which is botanically and zoologically significant and forms an important habitat for wildlife. Council has recognised that the physical diversity of the Shire, in particular the mountainous terrain and large floodplains, also creates challenges in developing and maintaining the infrastructure and in servicing the residents to the desired levels.

Our Local Economy

There are over 6,300 businesses in the Yarra Ranges employing over 28,200 people. Economic activity in the Shire is based on tourism, manufacturing industries (in the metropolitan suburbs) and rural industries - particularly agriculture (including horticulture, floriculture and viticulture), and forestry and timber milling. By any standards the highly intensive agriculture of the primary producers within the Shire contributes significantly to the State's rural output and economy. The Shire and in particular the 'Yarra Valley' is being promoted and is gaining local and international acceptance as an area for the production of fine food and wine. Its reputation as a food region is approaching that of Gippsland and King Island and it can hold its own with any rural wine producing area.

Over 3 million tourists visit the Shire each year (over 9,000 each day). They are attracted to the unique landscape and environment, the vineyards and wineries of the Yarra Valley and the townships and gardens of the Dandenong Ranges. Major tourist attractions include the Healesville Sanctuary, Puffing Billy Railway, larger wineries and the reservoir parks and National Parks managed by Parks Victoria. The growing cultural tourism market is catered for with the festivals and diversity offered by several of the Shire's communities. Short break visits (bed & breakfast) are increasing and the focus is now on encouraging longer stays and expanded tours to the Shire.

History of Disasters/Emergencies

The Shire of Yarra Ranges has a long history of naturally occurring emergencies including bushfire, floods, storms and landslide. Other include light plane crashes, road accidents on major highways, and outbreaks of infectious disease. The impact of these emergencies, particularly bushfires, have included loss of life and serious injury, loss of property including homes, disruption to whole communities, devastation of the natural environment and long-term rehabilitation of affected communities.

The Dandenong Ranges is recognised as one of the most bushfire prone areas in the world due to its mountainous topography, highly flammable native vegetation and climatic patterns that combine to create severe fire hazard conditions almost every year. Another factor that makes this area particularly hazardous is the combination of forest/urban environments and the number of residents and tourists. "Black Friday" in 1939 was the most disastrous bushfire ever recorded in Victoria. At Woods Point the whole town was destroyed totalling 143 houses. In Warburton, 16 men were killed, 20 houses were lost and every sawmill in the area was burnt to the ground. The second most destructive fire in Victoria was "Ash Wednesday" in 1983 when at Belgrave Heights and Upper Beaconsfield, 21 people died including 11 CFA volunteers. Approximately 300 houses were destroyed and 1800 Ha of bushland and pastures burnt out. In Warburton 13 houses were destroyed along with 41,000 Ha of forest. (Murray et al, 1995 p.228)

Major floods of the Yarra River occurred in 1891, 1904, 1909, 1923 and 1934 (the worst ever recorded). The 1934 peaks were used to determine the flood plain along the Yarra River. Minor flooding in Yarra Glen and along the Watts River at Healesville occurs on an almost annual basis. Launching Place and areas at Warburton are also susceptible to minor flooding. In Lilydale, flood mitigation works have reduced the flood prone areas adjacent to Brushy Creek and Olinda Creek. Heavy rainfall has also caused landslip events in unstable soil areas in the Shire, particularly on steep slopes around Warburton.

There is a history of significant landslips within the Shire of Yarra Ranges. The type of landslips that have occurred in the Shire include falling boulders, debris flows, slow long-term earth movements, small landslips up to the size of a residential block and large landslips involving an entire hillside. Some landslips move relatively frequently whereas others have not moved for hundreds, perhaps thousands of years. The Montrose landslip of August, 1891, involved the movement of 30,000 cubic metres of earth and rock. Damage was recorded over 1.4 kilometres and the estimated speed of the debris flow was up to 40 kilometres an hour. In comparison the 1997 Thredbo landslip displaced 2,000 cubic metres of liquefied soil (Shire of Yarra Ranges – Geotechnical Survey Report, Coffey Geosciences Pty Ltd 1999 p.18)

Storms of considerable severity (including windstorms and hail storms) have occurred throughout the Shire. These events have resulted in property damage and minor flooding. The State Emergency Service and local resources have effectively responded to these events in the past.

The Shire of Yarra Ranges has four state highways and numerous arterial roads. The traffic is a mixture of light vehicles (local and tourist), heavy vehicles (logging and other trucks), and buses (both school and tourist). In 2000 the Shire gained the unenviable reputation for the highest road toll of 26 fatalities in the State of Victoria (Source: Victoria Police statistics).

In response to growing concern the Shire has adopted a further initiative with the community in devising the Community Road Safety Strategy and the appointment of a dedicated Road Safety Officer position.

Given the combination of the Shire's topography, the history of natural disasters, the socio demographic trends in the communities, the Shire faces arguably more potential natural disasters than most other municipalities throughout the State. In addition, there is an increasing incidence of vulnerable populations and social hazards in the community, therefore, the Shire has responded to the importance in the development of the Shire of Yarra Ranges Community Risk Based Emergency Management Plan and made it a priority activity.

The hazard identification workshop

The Shire of Yarra Ranges conducted the first step of this phase in September 1999 when it held a workshop with local stakeholders and experts from all emergency services, service and support organisations, and the Shire. The purpose of this workshop was to discuss the community's vulnerable elements and identify the sources of risk.

These risks became the source data for the community consultation phase. Given the importance of emergency management to the Shire community, it was decided to design a cost effective methodology which would not just identify the information required but also raise the awareness and level of discussion within the community.

The goals of the process were to ensure the community had a range of options to contribute to the process, engage the community and to elicit the required information with some statistical rigour.

Key questions were designed which would clarify & enhance on the hazards already identified. The information required included identification and rating of likelihood of risks occurring, identification and rating of the consequences of these events, preventative and protective actions being undertaken and awareness and take up of existing mitigation activities. This was developed into a core questionnaire which could be adapted to suit different surveying processes.

Community Consultation Process

The underlying philosophy of the consultation was based on good will assurances and opportunity, the need to have statistical rigour and to ensure that information was sought by location & age to enable correlation with risk. There was a strong need to include a range of opportunities for participation to ensure consultation was broad, acceptable and would generate public discussion through good public relations and press coverage for the process. Above all there was a strong commitment to encourage a sense of ownership of the process within the community. The quantitative (statistical rigour) information included four cost effective methods to maximise the coverage across the Shire.

The telesurvey of 777 residents, conducted in March/April 2000 by a market research company, was designed to statistically indicate the total Shire view of these issues. The information was also broken down by the four main geographical areas and by age. Four geographical areas were selected as the risks in each of those areas are somewhat different. The two age groups were chosen to see if older persons perceive the issues differently. Additional information such as breaking down the information by both age and area will enable targeting of treatments in due course on a more meaningful basis.

Face to face interviews of 424 residents took place largely on Saturday mornings in March 2000 at shopping precincts in all of the Shire's townships. They were conducted by Year 12 students from 13 of the 15 Secondary Schools in the Shire. Every township was involved with the numbers of interviews conducted weighted depending on the population. The interviews further involved the community through providing residents with an opportunity to participate on a face to face basis in their own township and an opportunity for younger residents in the Shire to participate in this process and to gain valuable work practice and life skills. It also had the by-product of engaging much larger sections of the community ie schools, the students' friends and parents and was important to achieve the awareness raising goal. Students were rewarded for their efforts with movie tickets and certificates of participation signed by the Mayor.

Volunteer Community groups play a vital part in the life of the community. **Surveying a sample of community groups** provided another method of participation and another perspective. 112 groups were surveyed and 47 responded. These groups represented all aspects of community life and were selected from all geographical areas of the Shire. This took place in March/April 2000.

To provide a final method of participation to the process the questionnaire was printed in **local newspapers**. 33 persons responded but it had the more important purpose of again providing information about the process and the awareness of the issues and process.

Risk Analysis

The objective of risk analysis is to separate the acceptable minor risks from the major risks and to provide data to assist in the evaluation and treatment of risks. A qualitative analysis was used to determine the level of each risk. Risks were identified from the responses received during the community consultation and the risks currently recognised within Shire of Yarra Ranges Municipal Emergency Management Plan. All risks were then assessed against the Australian and New Zealand Standard for Risk Management AS/NZS 4360:1999, by applying risk criteria of likelihood (Table 1) and consequences (Table 2) or impact to a qualitative risk analysis matrix.

Risk Criteria

The Municipal Emergency Management Planning Committee developed specific measures under the categories of likelihood and consequence that were relevant to the risk environments.

Level	Descriptor	Description of Event
A	Almost Certain	The event is expected to occur in most circumstances (daily/weekly) – 100% probability of occurrence High level of known incidents (records/experiences) Strong likelihood or re-occurring, with high opportunities/means to re-occur
B	Likely	The event will probably occur in most circumstances (monthly) – 50% probability of occurrence Regular incidents known (recorded/experienced) Considerable opportunity, means to occur
C	Moderate	The event should occur at some time (over 12 months) – 10% probability of occurrence Few infrequent, random occurrences (recorded/experienced) Some opportunity or means to occur
D	Unlikely	The event could occur at some time (2-5 years) < 2% probability of occurrence No known incidents recorded or experienced Little opportunity, mean or reason to occur
E	Rare	The event may occur only in exceptional circumstances (10 years) < 0.1% probability of occurrence Highly unheard of Almost no opportunity to occur

*Table 1
Measure of Likelihood*

L e v e l	Descriptor	Description of Impacts			
		Areas of Impact			
		People	Financial	Property	Environment
5	Catastrophic	<ul style="list-style-type: none"> Many injuries, fatalities and widespread medical attention required. Community impact severe and lasting, not functioning without support. 	<ul style="list-style-type: none"> Huge \$ loss - >\$100m at National level, Significant/ongoing \$ assistance required 	<ul style="list-style-type: none"> Extensive physical damage requiring extended external assistance 	<ul style="list-style-type: none"> Environmental disaster – significant environmental impact/permanent damage EMA involvement Major threat to many species and habitats
4	Major	<ul style="list-style-type: none"> Extensive injuries, hospitalisation, possible fatalities, long term disability General and widespread impact on community functioning 	<ul style="list-style-type: none"> Major \$ loss > \$10 m at State level, financial assistance required 	<ul style="list-style-type: none"> Significant physical damage requiring external assistance 	<ul style="list-style-type: none"> Some environmental impact long-term, requires help outside site DISPLAN involvement Threat to individual species or habitat
3	Moderate	<ul style="list-style-type: none"> Medical treatment, but no fatalities Normal community functioning with some inconvenience 24-48 hours 	<ul style="list-style-type: none"> Significant financial loss > \$1 million at Regional level 	<ul style="list-style-type: none"> Localised physical damage which is rectified in a routine fashion 	<ul style="list-style-type: none"> Some environmental impact short-term, requires outside help EPA involvement
2	Low	<ul style="list-style-type: none"> Minor injuries, no fatalities, first aid treatment required Some community disruption for duration less than 24 hours 	<ul style="list-style-type: none"> Some financial \$ loss < \$100,000 at local level 	<ul style="list-style-type: none"> Some physical damage 	<ul style="list-style-type: none"> Small impact on environment, on site release contained immediately Major clean up of local area required
1	Insignificant	<ul style="list-style-type: none"> No injuries or fatalities, little or no personal support required Little or no disruption to community 	<ul style="list-style-type: none"> Little or no financial loss < \$10,000 	<ul style="list-style-type: none"> Inconsequential or no physical damage, short duration 	<ul style="list-style-type: none"> No measurable impact on environment Minor on-site clean up required

Table 2
Measure of Consequence

Through the risk analysis matrix, hazards were ranked into categories of Extreme (Immediate action required), High (Senior management attention needed), Moderate (Management Responsibility must be specified) and Low (Manage by routine procedures). . The sources of risk for the extreme and high risks ranged from: Natural risks such as bushfire, landslip, floods; Human Behaviour risks such as robbery, assaults and drugs; Environmental risks such as water or air pollution, Technological risks such as hazardous materials; and Infrastructure risks such as road or aircraft accidents.

PHASE 3

The Decision Making and Treatment Phase

This final phase determined the actions that can be done to prevent, mitigate, accept, avoid or transfer risk, recommendations, appropriate treatment options and then devised implementation actions. Having identified extreme, high and moderate risks the next step was to devise treatment plans. The treatment plans were devised during dedicated planning days with the Municipal Emergency Management Planning Committee members and other interested parties.

A template (Table 3) was utilised for each of these risks providing a treatment plan to address the risk. Specific action plans were then compiled using this information.

RISK: BUSHFIRE	RISK RATING EXTREME	ACTION PLAN No: 1 DATE COMPILED: 22/5/00
RISK SUMMARY: Bushfire includes FOREST, GRASS, UNDERSTOREY Seasonal annual event, large area URBAN/FOREST interface, dispersed over the whole municipality. Long history of bushfires in area. Those most vulnerable: Interface residents, specifically Persons who are unable to implement an effective fire Plan eg. frail/aged not limited. Travelling public, persons employed, Emergency Service Workers, Schools/Camps, Frail aged facilities & special accommodation. Other: Stock, general infrastructure, crops		
Can Likelihood be reduced:Yes How: Fuel reduction burning Fire prevention strategy Education – awareness/preparedness Building Regulations Town Planning permit approval TFB/Fire restrictions – Municipal/State Police fire patrols	Can Consequences and /or vulnerability be reduced:Yes How: Fuel reduction burning Fire prevention strategy Education – awareness/preparedness Building Regulations Town Planning permit approval TFB/Fire restrictions – Municipal/State Early warning Effective Fire suppression activities Timely response from Emergency Services & Community Timely & accurate information to the community Integrated Communication systems & networks	
What agency, organisation, group or person has risk management responsibilities for this risk? Country Fire Authority, Department of Natural Resources and Environment & Parks Victoria, Metropolitan Fire & Emergency Services Board, Shire of Yarra Ranges, Residents/Business/Property owners, Utilities & Service Authorities, Department of Education, Victoria Police		
What responsibilities does the Council have to manage this risk? Fire Prevention Strategies – development, implementation & review, (Joint) Community Education, enforcement of Fire related Legislation, Resourcing Emergency Services (response) & general Community (recovery), (Joint) Community information, Emergency Planning and Implementation		
RECOMMENDATIONS: Review Fire Management Strategies – within the next three years or following major fire Continue Education Programs Continue to apply current regulatory controls Continue to support the development of Integrated Fire Management Plan Strategy Continue Training and Exercises for Staff and Agencies		
APPROVAL TO IMPLEMENT RECOMMENDATIONS REQUIRED FROM		
COUNCIL	MEMPC	MFPC
Following approval implementation plan developed & monitored by: MEMPC		Priority & Time Frame for implementation: High Priority. To be implemented by 2003

*Table 3
Risk Template*

Completing the Community Consultation Loop

The final initial stage of the process was to ensure appropriate feedback to the stakeholders and in particular the general community. Feedback was provided to the Community by through forwarding Executive Summaries of the draft paper to all Community Groups and Schools involved in the process, advertising in local papers, placing a copy of the draft plan on the Shire's website and placing copies of the document for perusal by the community at the five Shire Service Centres located across the municipality.

Review Process

The Community Risk Based Emergency Management Plan has now been incorporated into the Municipal Emergency Management Plan which has a three year action and review cycle and is audited by the Victorian State Emergency Service. Progress of the treatment actions is monitored by the Municipal Emergency Management Planning Committee at quarterly annual meetings.

Conclusion

The Shire of Yarra Ranges Community Risk Based Emergency Management Plan is an example of the Shire's commitment to a consultation process which involves the community raising its awareness of the risks it faces and enhancing a sense of ownership in the emergency management process. In a document entitled Vision 2020 the Shire identified a number of themes as a future planning reference for the community. One of these themes relates to a safe Shire in the year 2020. The guiding principles of this theme include "that residents and communities need to take a greater personal responsibility for their own safety and need to be provided with the capacity to do so"... "that the Shire has a major role in facilitating local networking between emergency service providers"...and "... that improved communication and education will reduce the risks to individuals and the community." The Community Risk Based Emergency Management Plan has provided a strong foundation to meet this philosophy.

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Authors' Biography

Norm Free is a Senior Executive Officer appointed to manage the Shire of Yarra Ranges' Emergency and Safety Planning Team. The Team is responsible for administering the Municipal Emergency Management Planning Committee and Municipal Fire Prevention Committee and to conduct research and implement emergency management projects. Norm previously served for over twenty years as an officer with the Victoria Police Force and was awarded the Australian National Medal and Victoria Police Service Medal & 1st Clasp Associate. He holds an Associate Diploma of Arts (Police Studies) Monash University.

Steve Donner is employed as the Emergency Management Co-ordinator within the Emergency and Safety Planning unit for the Shire of Yarra Ranges. He is the project officer for the Community Risk Based Emergency Management Plan. Steve holds a Associate Diploma of Applied Science (Fire Technology) Swinburne University and is a Graduate Member of the Institute of Fire Engineers. He is also a current serving lieutenant with a local volunteer brigade of the Country Fire Authority within the Dandenong Ranges and was previously employed for ten years as a consultant to the fire protection industry on active and passive fire systems.