

# South West (Barwon)

## Region

### Emergency Response Plan



Earthquake Sub Plan

## Published by Victoria State Emergency Service

Melbourne, June 2018.

This publication is intended to be consistent with the State Emergency Response Plan (SERP) Earthquake Sub-Plan, published by Emergency Management Victoria EMV) in 2016.

### Authorised by:

Victoria State Emergency Service (VICSES)  
168 Sturt Street, Southbank, VIC, 3006.

An electronic version of the plan can be obtained at: [ses.vic.gov.au/em-sector/vicses-emergency-plans](http://ses.vic.gov.au/em-sector/vicses-emergency-plans).

### Version Control

Title	Version Date	Nature of amendment
Barwon South West Region Emergency Response Plan Earthquake Sub- Plan	V1.0 July 2018	Conversion to new template

## South West (Barwon) Region Emergency Response Plan – Earthquake Sub-plan Certification

The South West (Barwon) Region Emergency Response Plan – Earthquake Sub-plan deals with response to earthquake incidents within the South West (Barwon) area of responsibility.

The following plan is intended to provide the framework for the South West (Barwon) Region to effectively and efficiently respond to future emergencies caused by earthquakes and will remain current until rescinded by authority of VICSES Chief Officer Operations.

\_\_\_\_\_ Date: \_\_\_\_\_

**Tim Wiebusch**

*Chief Officer Operations*

This plan is produced by VICSES and has been adapted from the SERP – Earthquake Sub-plan. All information contained in this plan was current at time of publication.

VICSES would like to acknowledge the significant contribution of key stakeholders to ensure the content contained within this plan is of a high quality to support response activities.

For further details about this plan, please contact the South West (Barwon) Region:

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## State Emergency Management Priorities

The State Emergency Management Priorities are:

- Protection and preservation of life is paramount. This includes:
  - Safety of emergency response personnel.
  - Safety of community members, including vulnerable community members and visitors/tourists.
- Issuing of community information and community warnings detailing incident information that is timely, relevant and tailored to assist community members to make informed decisions about their safety.
- Protection of critical infrastructure and community assets that support community resilience.
- Protection of residential property as a place of primary residence.
- Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability.
- Protection of environmental and conservation assets that considers the cultural, biodiversity, and social values of the environment.

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# 1. Introduction

## 1.1. Purpose

The purpose of this plan is to provide strategic guidance for the effective emergency management of an earthquake in the South West (Barwon) Region.

## 1.2. Objective

The objective of the South West (Barwon) Region Emergency Response Plan – Earthquake Sub-plan is to outline the arrangements for ensuring an integrated and coordinated approach to the management of earthquake events in the South West (Barwon) Region, in order to reduce the impact and consequences of these events on the community, infrastructure and services.

## 1.3. Scope

This South West (Barwon) Region Emergency Response Plan – Earthquake Sub-plan includes:

- Description of potential risks and consequences of earthquakes to the social, built, economic and natural environments.
- Region-specific emergency management arrangements for the management of earthquakes.
- Links to sources of information where the reader can obtain further detail.

## 1.4. Authorising environment

The *Emergency Management Act (1986 and 2013)* is the empowering legislation for the management of emergencies in Victoria.

The Emergency Management Manual Victoria (EMMV) contains policy and planning documents for emergency management in Victoria and provides details about the roles different organisations play in the emergency management arrangements.

The SERP (Part 3, EMMV) identifies Victoria's organisational arrangements for managing the response to emergencies.

The South West (Barwon) Region Emergency Response Plan will detail specific arrangements for the management of emergencies within South West (Barwon) Region. This plan has been developed as a subordinate plan of South West (Barwon) Region Emergency Response Plan and the SERP – Earthquake Sub-plan. This plan has been shared with the Regional Emergency Management Planning Committee for comment and approved by the VICSES Chief Officer Operations.

Other relevant legislation includes:

- *Victoria State Emergency Service Act 2005.*
- *Essential Services Act 1958.*
- *Planning and Environment Act 1989.*
- *Local Government Act 1989.*

## 1.5. Activation of the plan

The arrangements in this plan apply on a continuing basis and do not require activation.

## 1.6. Audience

The audience for this plan comprises the Victorian Government and agencies within the emergency management sector, including business and community groups with a significant role in the management of the emergency.

Although the wider community is not the primary audience, community members may find the contents of this plan informative.

## 1.7. Linkages

This plan is a sub-plan of the SERP – Earthquake Sub-plan and the South West (Barwon) Region Emergency Response Plan. It reflects legislation, the arrangements in the SERP, the strategic direction for emergency management in Victoria and the accepted State practice for managing emergencies.

Arrangements in this plan have not been repeated from afore mentioned plans, unless necessary to ensure context and readability. The SERP – Earthquake Sub-plan can be accessed at [www.ses.vic.gov.au](http://www.ses.vic.gov.au).

Arrangements for the management of secondary consequences are contained in the following:

- For health response – State Health Emergency Response Plan (SHERP).
- For rescue – the Victorian Urban Search and Rescue Response Arrangement (USAR).
- Flood response resulting from dam failure – SERP – Flood Sub-plan, and South West (Barwon) Region Emergency Response Plan Flood Sub-plan.
- Tsunami response – SERP – Tsunami Sub-plan, and the South West (Barwon) Region Emergency Response Plan – Tsunami Sub-plan.

## 1.8. Exercising and evaluation

This plan will be exercised within one year from the date of approval and once every three years thereafter as part of a phased cycle. A South West (Barwon) Region Earthquake Scenario has been created to support this function available in Attachment 1 – South West (Barwon) Region Earthquake Scenario. The exercise will be evaluated and, where improvements to the emergency management arrangements in this plan are required, the plan will be amended and a revised version issued. Exercises will be conducted in accordance with the State Exercising Framework.

Any operational activity in the South West (Barwon) Region requiring the management of an earthquake event will be regarded as exercising of the plan. The event is to be evaluated and reviewed, as outlined above.

## 1.9. Review

This plan was current at the time of publication and remains in effect until modified, superseded or withdrawn.

This plan will be reviewed and updated every three years. Consideration will be given to an earlier revision if the plan has been applied in a major emergency or exercise or following a substantial change to the relevant legislation or arrangements.

## 2. Earthquake risk within the South West (Barwon) Region

### 2.1. Region description

The South West (Barwon) Region of Victoria stretches from Little River, to the tip of the Queenscliff Heads and to the border of South Australia. It is home to Victoria's largest provincial centre, Geelong, and regional cities including Aireys Inlet, Anglesea, Apollo Bay, Camperdown, Colac, Hamilton, Lorne, Port Campbell, Port Fairy, Portland, Torquay and Warrnambool. South West (Barwon) Region covers an area of 32,340 square kilometres.

The region has a population of approximately 420,000 people and includes the Local Government Areas (LGAs) of Queenscliffe, Greater Geelong, Surf Coast, Colac Otway, Corangamite, Moyne, Warrnambool, Southern Grampians and Glenelg.

The region has 800km of coastline, which represents 40% of Victoria's coast line, and has access to key transit services including a port at Geelong and deep-water port at Portland, an established rail network with interstate connections and several commercial airports with Avalon being the biggest.

South West (Barwon) Region is highly regarded as a centre for excellence in education. With both government and independent options available at primary and secondary level, the region is home to TAFE and university institutions including RMIT in Hamilton, and the expanding Deakin University in Geelong and Warrnambool.

The region's rich soil provides the basis for thriving horticulture, viticulture, dairy production, timber plantation/harvesting, cattle grazing and wool production. The world famous Great Ocean Road attracts thousands of tourists throughout the year.

The region is home to a variety of nationally and internationally recognised sporting events including the Rip Curl Pro World Surfing Titles and the world's largest organised swim, the Lorne Pier to Pub. The region hosts year-round cultural events including Toast to the Coast, the Geelong region's annual festival devoted to food, wine and music. The Port Fairy Folk Festival, a vibrant and exciting cultural celebration featuring more than 100 musical acts and around 500 artists. The Warrnambool Fun4Kids Festival, an eight-day festival that aims to celebrate the imagination and creative spirit of children, and the biennial Australian International Airshow held at Avalon Airport.

Climate change poses significant challenges for the region. Coastal towns, buildings and infrastructure are at risk from of higher sea levels, erosion, flooding and storm surges.

The region also includes the following:

- The Greater Geelong business district and regional area.
- Some of the fastest growing population pockets in Australia including the City of Greater Geelong.
- Some of the state's major events including the Australian International Air Show, AFL Games and Final series, World Surfing Championships, the Falls Festival and other Music events.
- Development of alternative energy sources (such as gas, wind, geothermal and wave energy power plants), which may also help to maintain the region's presence in aluminum production.
- A gas-fired power plant is located near Mortlake.
- Continued growth in wind-farm construction of wind farms in the region, with wind turbine development centered in Portland and other areas of the region.



## 2.2. The earthquake hazard

An earthquake is the shaking and vibration at the surface of the Earth caused by energy being released along a fault plane, at the edge of a tectonic plate or by volcanic activity. Earthquakes, unlike many other natural hazards, have the potential to cause catastrophic losses. Although Australia is popularly considered to have a low earthquake risk, a major earthquake could still occur under a heavily developed and populated area in Victoria. The impact of such an earthquake could have widespread consequences throughout the relevant township and surrounds. Whilst there is a low probability that this event will occur in the foreseeable future, it is important to recognise the potential for such catastrophic impacts.

Victoria is located away from geologically-active tectonic plate boundaries, which lay hundreds of kilometres seaward of the eastern coastline. However, Victoria regularly experiences small earthquakes that are felt and reported. Stresses and strains develop in the Indo-Australian plate (of which Australia is a part) as it drifts northward; as sediment loads continually transfer from upper catchment areas to lower basins and coastal areas due to erosion; and as fluctuating sea levels load and unload the continental shelf.

The size of an earthquake is referred to as its magnitude (M). For every unit increase in magnitude, there is roughly a thirty-fold increase in the energy released. For instance, a magnitude 2.0 earthquake (M 2.0) releases about 30 times more energy than a magnitude 1.0 earthquake (M 1.0), while a magnitude 3.0 earthquake (M 3.0) releases 900 times (30x30) more energy than a magnitude 1.0 (M 1.0).

In Australia, seismologists (people who study earthquakes) prefer the use of the moment magnitude scale, which calculates the magnitude of an earthquake based on physical properties such as the area of movement (slip) along the fault plane.

A M 6.0 earthquake can be anticipated for all of Australia, on average, every five years and a M 5.0 earthquake once per year. The probable maximum earthquake magnitude for Australia is approximately M 7.5.

Australia is not immune from damaging earthquakes causing significant human and economic loss, as shown in the list below:

- In July 1903, a M 5.3 earthquake caused extensive minor damage in Warrnambool, Victoria.
- In 1932, a M 4.5 event caused considerable damage on the Mornington Peninsula.
- In 1996 a M 5.2 earthquake was centred near Mt Baw Baw, the shock was felt up to 100km away with minor damage reported in Melbourne.
- In August 2000, a M 5.0 earthquake in Boolarra caused minor damage and was felt throughout Gippsland.
- In 2009, Korumburra experienced two earthquakes within two weeks of each other on 6 March and then 18 March. Both earthquakes were recorded at M 4.6.
- In June 2012, a M 5.3 earthquake occurred in the La Trobe Valley, Gippsland. The earthquake caused minor damage. The earthquake epicentre was 16 kilometres southwest of Moe and was the strongest earthquake recorded since the 1982 Wonnangatta Valley earthquake. It was felt across the state including in Melbourne and as far away as Wodonga.

## 2.3. Major dams with credible earthquake risk

A list and description of major dams located within the Region that have a known credible risk to earthquakes:

Dam name	Location	Capacity (megalitres)	DSEP available
West Barwon Reservoir	Forrest	21504	Yes
Wurdee Boluc Reservoir	Winchelsea South	38056	Yes
Bostock Reservoir (Grampians)	Ballan	7455	Yes
Allen Reservoir	Lorne	196	Yes
Lal Lal Reservoir (Grampians)	Lal Lal	59056	Yes
Stony Creek Reservoirs	Anakie	9494	Yes
West Gellibrand Dam	Beech Forrest	1856	Yes
Painkalac Reservoir	Aireys Inlet	532	Yes
Olangolah Reservoir	Barramunga	152	Yes
Marengo Basin	Apollo Bay	125	Yes
Apollo Bay Basin	Apollo Bay	250	Yes
Rocklands Reservoir	Balmoral	296000	Yes
Hayes Reservoir	Hensley Park	1200	Yes
Cruckoor Reservoir	Hamilton	990	Yes
Hartwicks Reservoir	Hamilton	380	Yes
Donald's Hill Reservoir	Camperdown	207	Yes
Jubilee Lake	Skipton	16	Yes

## 2.4. Regional resources

VICSES Resource processes are set out in the '*VICSES Operations Management Manual*'.

Regional Resources remain under the command of the Regional Agency Commander (RAC) until they arrive at the incident.

Key regional resources that are used for storm response include:

- Attachment 2 – Regional Resource List.
- Attachment 3 - VICSES Regional Control Centre Footprint and VICSES Unit Map.
- Attachment 4 – SES General Response Boundaries Map.
- Attachment 5 – Divisional Command Location Map.

Additional expert multi-agency resources may be accessed during operations through the Australasian Inter-Service Incident Management System (AIIMS) structure. These resources are requested via the State Resource Request System.

A map of VICSES Unit General Response Boundaries are provided in Attachment 3 – VICSES Regional Control Centre Footprint and VICSES Unit Map and Attachment 4 – VICSES Unit General Response Boundaries Map or accessible via Emergency Management – Common Operating Picture (EM-COP) for registered users.

## 3. Consequences

### 3.1. Possible earthquake consequences

The effects of an earthquake depend on many factors, such as the magnitude of the earthquake, its depth and the distance from the epicentre. The below summarises the possible types of damage and disruption that may result in a major earthquake. Detailed information about the effect of earthquakes is contained in the SERP – Earthquake Sub-plan.

**Built infrastructure damage (e.g. buildings)** – Information on building critical infrastructure resilience can be found in the Victorian Critical Infrastructure Resilience Strategy available at [www.emv.vic.gov.au/our-work/critical-infrastructure-resilience](http://www.emv.vic.gov.au/our-work/critical-infrastructure-resilience).

**Casualties** – Casualties and injuries are likely to result from large damaging earthquakes. People may also become trapped requiring rescue. Secondary public health impacts may occur if essential services are not readily available after the impact of an earthquake.

**Displacement and isolation** – As a consequence of damage, people can become displaced requiring temporary accommodation. Areas can become isolated requiring resupply of essential items.

**Transport access** – Roads may be blocked as a consequence of debris from fallen buildings.

**Trams and trains** – Some rail and light rail bridges may be extensively damaged.

**Electricity** – The complete failure of large power components, such as transformers or substations, may occur in the proximity of the epicentre.

**Water supply** – Major water facilities such as pumping stations and reservoirs may experience damage. Damage may occur across the network. In case of liquefaction, breakage of pipes is likely to be widespread and concerns over contamination may render the water not suitable for drinking.

**Waste water** – Extensive damage may occur to waste water systems even without the occurrence of liquefaction.

**Communications** – Communications infrastructure may suffer damage and be overloaded. Loss of communication can be due to a variety of reasons such as the crashing of telecommunication services, website crashes, and loss of power, meaning mobile phones cannot be charged or cordless home phones will not work.

**Chemical and high risk industrial plants** – It is expected that high risk facilities will be designed for increased resilience to earthquake damage, thus the probability of an accident induced by an earthquake is classified as low.

**Hazardous material release** – Hazardous materials are not exclusive to heavy industry and may be released as a consequence of building collapse. These may include carcinogenic or corrosive gases, poisonous liquids that contaminate the water table. Asbestos may be exposed as a result of earthquake building damage.

**Fire following earthquake** – Fire following earthquake will likely be localised to high risk sites such as industry.

**Long series of aftershocks** – A series of aftershocks are possible after an earthquake event and may result in increased damage levels as well as seriously disrupting recovery activities.

**Other impacts** – Consideration should also be given to: land or mud slide, tsunami, floods from dam and levee failure and subsidence.

## 3.2. Earthquake history

The table below provides information about historical occurrence of earthquake within the South West (Barwon) Region. **Note:** *this list is only for earthquakes above 3.5ML*

Year	Locality impacted	Description
5 April 1939	South West of Lorne	M 4.5 earthquake 43km offshore
1 June 1961	South West of Lorne	M 4.1 earthquake 24km offshore
14 September 1965	South West of Lorne	M 5.7 earthquake 32km offshore
14 September 1965	South West of Lorne	M 5 earthquake 32km offshore
14 September 1965	South West of Lorne	M 3.5 earthquake 26km offshore
3 December 1977	North of Anakie	M 4.7 earthquake North of Anakie, several brick walls were reported cracked in the epicentral area, at Mt Anakie a 50-ton granite slab fell 15m from the hill
22 July 1978	North East of Anakie	M 3.5 earthquake 9km North East of Anakie
17 June 1981	South West of Lorne	M 5.1 earthquake 43km offshore
26 August 1984	South of Warrnambool	M 3.7 earthquake 86km offshore
20 December 1986	South of Cape Otway	M 3.5 earthquake 37km offshore
11 July 1992	South of Dartmoor	M 3.6 earthquake 10km South of Dartmoor
8 November 1992	East of Dunkeld	M 3.9 earthquake 40km East of Dunkeld
30 December 2000	South West of Lorne	M 3.6 earthquake 38km offshore
15 July 1903	Warrnambool	M 5.3 earthquake 3km offshore from Logan's Beach. Reports of damage to properties in the thousands of pounds, with many properties chimneys sustaining damage
01 July 2005	South of Port Fairy	M 3.5 earthquake 84km offshore
01 June 2011	North of Dunkeld	M 3.8 earthquake 19km north of Dunkeld in Grampians National Park
28 March 2015	South of Nelson	M 3.5 earthquake 27km offshore

## 4. Community resilience

### 4.1. Shared and individual responsibility for action

The National Strategy for Disaster Resilience, developed by the Council of Australian Governments (COAG), provides high-level guidance on disaster management to agencies with a role in emergency management.

Foremost in the strategy is the principle of all of society taking responsibility for preparing for disasters. Examples in the context of earthquake include:

- Individuals being aware of their earthquake risk, and following advice from emergency services when responding to warnings.
- Local governments and communities including earthquake risk within their Community Emergency Risk Assessment (CERA) activities, including consideration within emergency management planning and land use planning.
- Industry and businesses planning for the risk of disruption, and ensuring arrangements are in place to maintain critical services and assist communities where possible.

Government agencies undertaking:

- Risk assessments to gain an appreciation of earthquake risk.
- Engaging with the community regarding earthquake risk.
- Working with communities to plan the management of earthquake risk.
- Providing emergency information and earthquake warnings.
- Ensuring an effective, well-coordinated response to an earthquake event.
- Helping communities to recover and learn following an earthquake and build their resilience to future events.

VICSES has developed a Community Resilience Strategy and delivers programs to at-risk communities to provide information on what to do before, during and after earthquakes. Information can be found at [www.ses.vic.gov.au/get-ready](http://www.ses.vic.gov.au/get-ready).

### 4.2. Earthquake notifications

Earthquake notifications are provided by Geoscience Australia, who analyse and report on earthquakes within Australia and internationally. This is done on a 24/7 basis by Duty Seismologists for the purposes of earthquake warnings and to alert governments, emergency services and the general public of earthquakes in Australia and overseas.

There is no accepted method to predict earthquakes; however, some regions are more prone to earthquakes than others due to their location in proximity to earthquake faults. When an earthquake occurs, Geoscience Australia and VICSES will work together to notify the community.

Geoscience Australia monitors seismic data from the Australian National Seismic Network and stations worldwide. This is done in near real-time, 24 hours a day. Seismic data is also freely provided by overseas governments who have national seismic networks. Geoscience Australia uses data provided by the Governments of New Zealand, Indonesia, Malaysia, Singapore and China. Data from global seismic networks are also provided by USA, Japan, Germany and France.

The seismic data is collected and analysed automatically and then immediately reviewed by Geoscience Australia's Duty Seismologist. For earthquakes that have the potential to generate a tsunami, preliminary earthquake details are computed within 15 minutes. All other earthquakes are generally computed within 30 minutes.

Earthquakes that can be located in Australia are catalogued and published on the Geoscience Australia website. The analysis includes the origin time and date of the earthquake, its location (latitude, longitude and depth) and its magnitude. Earthquakes outside Australia, but within our region, are published only for earthquakes with a magnitude of 5 or greater. Earthquakes occurring anywhere internationally with a magnitude of 6 or greater are also catalogued and published on the Geoscience Australia website at [www.ga.gov.au/earthquakes/](http://www.ga.gov.au/earthquakes/)

### **4.3. Building codes**

Australia's building codes set out data and procedures for determining earthquake loads on structures and their components, while detailing minimum requirements for structures. Local Government is responsible for the application of building code provisions.

### **4.4. Municipal Earthquake Emergency Planning**

Where earthquake is identified through the emergency risk management process as a priority risk to a community, VICSES will provide advice and support to the Municipal Emergency Management Planning Committee (MEMPC) to ensure the Municipal Emergency Management Plan (MEMP) contains, at a minimum, arrangements for the response to an earthquake event based on all-hazards and all-agency response.

### **4.5. Community engagement**

Community engagement programs to build community resilience for storm are conducted in accordance with the VICSES Community Resilience Strategy, as outlined in section 4.1 Shared and Individual Responsibility for Action.

Programs to build resilience in South West (Barwon) Region include local engagement activities and initiatives such as attending local community events, school fetes, local and regional shows, as well as unit identified activities.

### **4.6. Household and business plans**

The Emergency Management Commissioner advises that every household and business should have the written emergency plan. Information on the development of these plans can be found at [www.ses.vic.gov.au](http://www.ses.vic.gov.au).

The South West (Barwon) Region also supports local caravan owners prepare for emergencies by supporting use of the online planning tool which can be found at: [www.ses.vic.gov.au/get-ready/caravan-park-information](http://www.ses.vic.gov.au/get-ready/caravan-park-information).

### **4.7. Community safety advice**

VICSES provides advice to community in the form of key safety messages for earthquake including advice for safe evacuation. A full list of community safety advice messages can be viewed online via EM-COP, located in the IMT Toolbox.

## 5. Managing an earthquake event

### 5.1. Roles and responsibilities

Roles and responsibilities of agencies involved in responding to earthquakes are detailed in the SERP – Earthquake Sub-plan.

### 5.2. Concept of operations

The concept of operations is detailed in the SERP – Earthquake Sub-plan.

### 5.3. Escalation and notification

Geoscience Australia publishes any earthquake activity, as detailed in section 4.2 Earthquake Notifications, on its public website [www.ga.gov.au/earthquakes/](http://www.ga.gov.au/earthquakes/) and notifies pre-identified agencies, organisation and media outlets, including pager and email notification message to the VICSES State Duty Officer (SDO).

The VICSES SDO will acknowledge any Earthquake Notification, confirm details with Geoscience Australia and notify relevant internal personnel, including Regional Duty Officers (RDOs).

Upon receipt of an Earthquake Notification, RDOs will acknowledge the pager message and notify the RAC to notify the Regional Controller (RC) and/or Regional Emergency Management Team (REMT) members for earthquake response, and any relevant units.

### 5.4. Strategic response planning

The actions listed below are the responsibility of VICSES at the regional and State tiers. Responsibility for these actions may transition to the RC to support multi-agency response when significant impacts caused by an earthquake event occur.

On receipt of an Earthquake Notification the RAC will undertake strategic level planning. Key considerations will include:

- Establishing the control structure for managing the event.
- Supporting consistent emergency warnings and provision of information to the community.
- Implementation of evacuation and emergency relief plans and identification of evacuation points.
- Confirming agencies at all tiers are activated and appropriate arrangements are in place.
- Identifying the likely consequences of the earthquake and any interdependencies that may affect planning.
- Confirming agencies have adequate resources in place to fulfil their responsibilities and are planning for sustainment and surge capacity, including identification of need for inter-state or international assistance.
- Identifying mass gatherings and large public events that may be at risk, and arrangements to ensure the safety of individuals attending.
- Confirming agencies with call-taking responsibilities have resources in place and back up arrangements to cope with the expected call load.
- Positioning of Emergency Management Liaison Officers (EMLOs) from key support agencies to Regional Control Centres (RCCs), where appropriate.
- Arranging for regular meetings of the REMTs and Incident Emergency Management Teams (IEMTs).
- Providing situation reports to the State Control Team (SCT).



## 5.5. Cross border arrangements

Part 8 of the EMMV explains the procedure for requesting emergency support from other states.

During significant storm events, it is common for South West (Barwon) Region units to be deployed to the Mid West (Grampians) Region, with reciprocal arrangements for Mid West (Grampians) Region units to be deployed to support South West (Barwon) Region.

Bannockburn Unit (Golden Plains Shire Council) sits in the Mid West (Grampians) Region but is managed by the South West (Barwon) Region due to its proximity to Geelong and part of the Golden Plains Shire is located in the Geelong Incident Control Centre (ICC) footprint.

## 5.6. Regional Control Centre

The following pre-determined facilities are suitable for the establishment of a RCC for the management of storm events.

### South West (Barwon) Regional Control Centre

CFA Regional Office  
61-63 Separation Street  
North Geelong, 3215

A map of the RCC footprint can be viewed at Attachment 3 – VICSES Regional Control Centre Footprint and VICSES Unit Map.

## 5.7. Incident Control Centres

VICSES has two Incident Control Centre (ICC) locations that have been pre-determined for earthquake response (see table below). The requirement to establish, and level of resourcing for, ICCs is outlined in Joint Standard Operating Procedure (JSOP) 2.03 Incident Management Team Readiness Arrangements. A map of the ICC footprint can be viewed at Attachment 4.

Location	LGA within footprint
Warrnambool – District 5 CFA Service Centre Cnr Walsh Road & Princes Highway Warrnambool, 3280	Corangamite, Glenelg, Moyne, Southern Grampians Shires and Warrnambool City Council
Geelong – VICSES Regional Office 90 Furner Avenue Bell Park, 3215	City of Greater Geelong, Borough of Queenscliff, Colac Otway, Surf Coast and part Golden Plains Shires

Additional ICCs, capable of running Level 3 Incidents, are located within the South West (Barwon) Region that may be used by VICSES personnel in the event of localised incidents (see table below). These ICCs may act as redundancies should the Warrnambool or Geelong ICCs become non-functional (i.e. if affected by the incident).

Location	LGA within footprint
Colac – DELWP Office 83-85 Gellibrand Street, Colac, 3250	Within Geelong ICC footprint
Heywood – DELWP Office 12 Murray Street, Heywood, 3304	Within Warrnambool ICC footprint

## 5.8. Divisional Command Points

Facilities suitable for use as Division Command Points (DCPs) are listed in the table below.

Location	VICSES Units within footprint	LGA within footprint
Hamilton Regional Office	Dartmoor/ Heywood/ Portland	Glenelg
	Balmoral/ Dunkeld/ Hamilton	Southern Grampians
Warrnambool – VICSES Unit LHQ	Mortlake/ Port Fairy/ Warrnambool	Moyne Shire and Warrnambool City Council
	Camperdown/ Cobden/ Lismore/ Port Campbell/ Terang	Corangamite Shire
South Barwon – VICSES Unit LHQ	Colac/ Otway	Colac Otway Shire
	Lorne/ Torquay/ Winchelsea	Surf Coast Shire
	South Barwon	City of Greater Geelong
Geelong – VICSES Unit LHQ	Bellarine/ Corio /Geelong	City Greater of Geelong
	Bannockburn	Golden Plains Shire (Mid West Region)

A map of DCPs can be viewed in Attachment 6 – Division Command Location Map.

## 5.9. Regional resource requirements

Likely resource requirements for responding to an earthquake event within ICC footprints are detailed in:

- Attachment 2 – Regional Resource List
- Attachment 7 – Agency Contact Details

## Glossary

<b>CERA</b>	Community Emergency Risk Assessment
<b>CFA</b>	Country Fire Authority
<b>DCP</b>	Divisional Command Point
<b>DELWP</b>	Department of Environment, Land, Water and Planning
<b>EM-COP</b>	Emergency Management – Common Operating Picture
<b>EMLO</b>	Emergency Management Liaison Officer
<b>EMMV</b>	Emergency Management Manual Victoria
<b>EMV</b>	Emergency Management Victoria
<b>ICC</b>	Incident Control Centre
<b>ICP</b>	Incident Control Point
<b>IEMT</b>	Incident Emergency Management Team
<b>JSOP</b>	Joint Standard Operating Procedure
<b>LGA</b>	Local Government Authority
<b>M</b>	Magnitude
<b>MEMP</b>	Municipal Emergency Management Plan
<b>MEMPC</b>	Municipal Emergency Management Planning Committee
<b>RAC</b>	Regional Agency Commander
<b>RC</b>	Regional Controller
<b>RCC</b>	Regional Control Centre
<b>RDO</b>	Regional Duty Officer
<b>REMT</b>	Regional Emergency Management Team
<b>SCT</b>	State Control Team
<b>SDO</b>	State Duty Officer
<b>SERP</b>	State Emergency Response Plan
<b>USAR</b>	Urban Search and Rescue
<b>VICSES</b>	Victoria State Emergency Service

# Attachments

# Attachment 1 – South West (Barwon) Region Earthquake Scenario

A South West (Barwon) Region Earthquake Scenario has been developed to support periodic training requirements (outlined in section 1.8), provide opportunity to document anecdotal and/or known earthquake impacts based on historic events, and provide an indication of the resource requirements and associated gaps for operational response.

The below scenario is based on a likely earthquake scenario in the South West (Barwon) Region.

\*Note; the structures and resources set out for managing this event highlight the key personnel/ equipment that should be considered and are a guide only. The actual structure and resources used will depend on the State and Regional Controllers' priorities (e.g. such events may be accompanied by extreme fire danger risk in South West Victoria).

## **RCC Structure**

The Geelong RCC will be operational in this instance, with staffing as per rostered arrangements. Full REMT should be notified with key agencies in place at the RCC by request of the RC.

## **IMT Structure**

As per JSOP 2.03 RL 1, the IEMT should include representatives from municipalities (or a single representative from a municipality with connections to other municipalities in the ICC footprint), Vic Roads, Victoria Police (Traffic Manager and EMLO), and Ambulance Victoria. EMLOs from other emergency services (in particular Department of Environment, Land, Water and Planning (DELWP) and the Country Fire Authority (CFA)).

## **DIV COM Structure**

DVCs (set out in Attachment 6) should operate as Incident Control Points (ICPs) in the first instance with transition to DCPs when the emergency activity within the division exceeds the capacity of the ICPs management structure, or at the direction of the Regional or Incident Controller (at the nominated readiness ICCs). ICPs should include an Incident Controller and cover the Operations Planning (including OIMS operators) and logistics functions. Representatives from Shires and CFA/ DELWP may assist with ensuring appropriate resource use at the division level).

## **Resource Requirements**

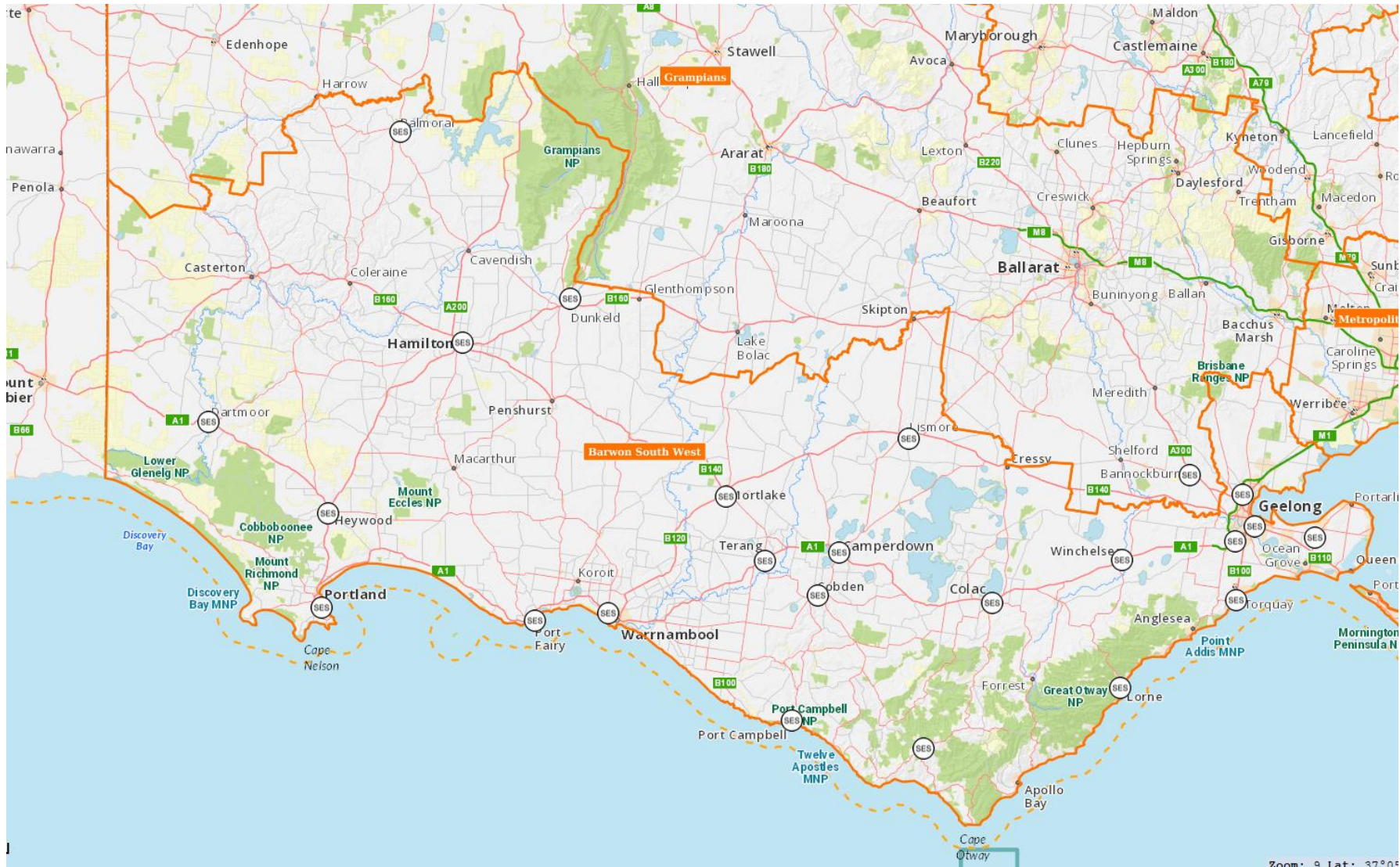
Resources listed are those that would be required at the peak of an event and would represent the resources of all agencies with responsibilities under the SERP – Storm Sub-plan. SES Resources required are listed in Attachment 2. Sub-plan. SES Resources required are listed in Attachment 2.

External Agency	Resources
CFA	Chain Saw Operators – Trim and Cross Cut
	Sand Bag Crews
	Ground Observers – (Initial impact Assessment)
	IMT Roles
	Ladder Platform – Specialist Access
DELWP (see BSW Region Readiness and Response Plan – DELWP)	Chain Saw Operators / Tree fallers
	Sand Bag Crews
	IMT Roles
DHHS	Recovery
Local Government	Chain Saw Operators / Arborists
	Plant
	Relief and Recovery
	Traffic Management
VicPol	Traffic Management
	Evacuation Management
VicRoads	Chain Saw Operators / Arborists
	Traffic Management





# Attachment 3 – VICSES Regional Control Centre footprint and VICSES Unit map





# Attachment 4 – VICSES Unit general response boundaries map

## South West SES Response Structure

### Warrnambool ICC

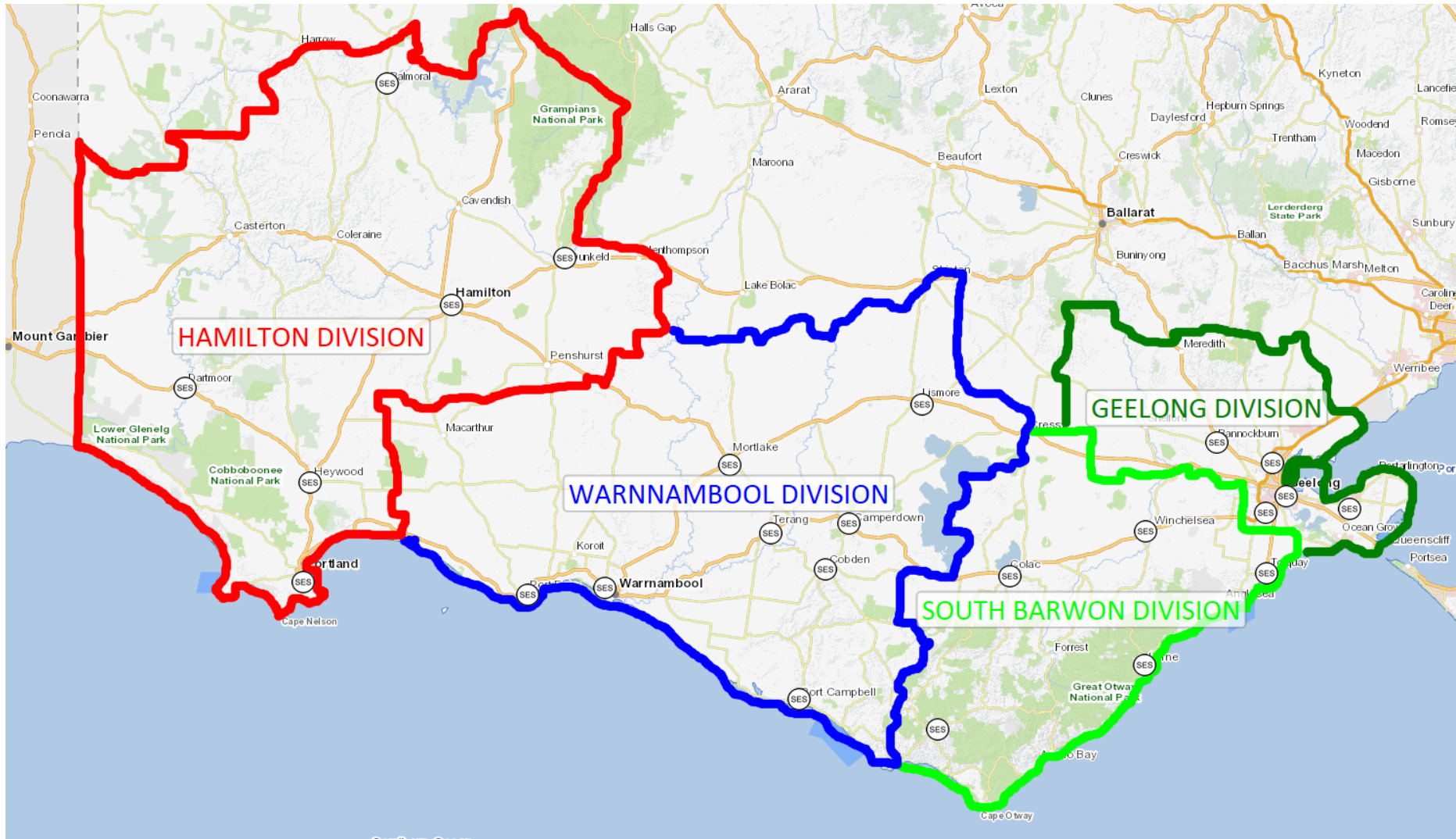
Hamilton Division		Warrnambool Division	
Dartmoor	1	Port Fairy	7
Portland	2	Warrnambool	8
Heywood	3	Mortlake	9
Hamilton	4	Terang	10
Balmoral	5	Port Campbell	11
Dunkeld	6	Cobden	12
		Camperdown	13
		Lismore	14

### Geelong ICC (Black Boundary)

South Barwon Division		Geelong Division	
Colac	15	Bannockburn	20
Otway	16	Corio	21
Lorne	17	Geelong	22
Torquay	18	Bellarine	24
Winchelsea	19		
South Barwon	23		



# Attachment 5 – Division Command Location map



## Attachment 6 – Agency contact details

### Emergency Management Contacts

Refer to BSW Emergency Management Contact Directory updated by DHHS (Terry Murrhly 0419389372).

### VICSES Contacts

Refer to BSW Unit Profiles.

Other useful contacts			
ABC	Emergency Hotline (Radio Master Control)	1300 737 102	
Ambulance	Medical Emergency	000	
Control	Train Control	03 9619 4350	1800 023 668
DEDJTR	Animal Disease Hotline	1800 675 888	
DEDJTR	Plant Pest and Disease Hotline	1800 084 881	
DET	Emergency Duty Officer	1300 333 232	1300 DEECD 2
DELWP	Customer Service Centre	136 186	
Energysafe Victoria	Electrical Emergencies	1800 000 922	
Energysafe Victoria	Gas Emergencies	132 771	
EPA	Litter Hotline	1800 352 555	
EPA	Pollution Hotline	1800 444 004	
ESTA	Ballarat	03 5337 3520	1300 705 911
Fire	CFA or MFB	000	
Help for Wildlife	Wildlife Rescue	0417 308 687	
Livestock	24hr National Assist Hotline Livestock Truck Roll over and Emergency Vet	136 186	
NOCC	Network Operations Control Centre – SMR Radio	03 9632 5595	1800 678 121
Parks Victoria	Call Centre	13 19 63	
Police	Emergency	000	
PowerCor	Power Outages	m.powercor.com.au	
Public Transport Victoria	Crisis and Emergency Response	03 9027 4241	03 9027 4011 (facsimile)
SES	Flood or Storm	132 500	
SES	Life Threatening	000	
SES	Rescue	132 500	
SES	Emergency Information Line	1300 842 737	
Transport Safety Victoria	Incident Reporting	1800 301 151	
VBIL	Victorian Bushfire Information Line	1800 240 667	
VicFish	Fisheries Offences	13 FISH	13 3474
VicRoads	Emergencies and Road Closures	131 170	
VLine / VicRail	24/7 Duty Officer	03 9619 1077	
Worksafe	Incident Notification	13 23 60	

