



SEMC
STATE EMERGENCY
MANAGEMENT COMMITTEE

Earthquake

STATE HAZARD PLAN

RESPONSIBLE AGENCY

Department of Fire and
Emergency Services

APPROVED BY

State Emergency Management
Committee

RESOLUTION NUMBER

77/2023

VERSION NUMBER

1.02

DATE OF APPROVAL

04 OCTOBER 2023

DATE OF EFFECT

31 OCTOBER 2023

REVIEW DATE

DECEMBER 2026

Once printed, this is an uncontrolled version of the document. The current version is available on the [State Emergency Management Committee website](#).

Contact Details

To provide comment on this plan, contact:
Department of Fire and Emergency Services
20 Stockton Bend,
Cockburn Central WA 6164

Amendments Table

Date	Details	Amended by
September 2004	Review and re-write of 1999 version.	
September 2006	Amend 2004 version, congruous with the provisions of the <i>Emergency Management Act 2005</i> .	
May 2011	Complete revision.	
May 2016	Complete revision including statement of fact amendments	Department of Fire and Emergency Services and SEMC Secretariat

Date	Details	Amended by
December 2021	Version 1.00 – Initial release of State Hazard Plan Earthquake approved by SEMC (Resolution Number 100/2021).	Department of Fire and Emergency Services
December 2022	Version 1.01 – Amendments approved by SEMC Executive Officer (Resolution Number 17/2021). Statement of fact changes and updated hyperlinks to new SEMC website as per amendments table December 2022 .	SEMC Business Unit
October 2023	Version 1.02 - Consequential amendments approved by SEMC to reflect change in terminology from 'welfare' to 'emergency relief and support' and related terms (resolution number 77/2023) outlined in State EM documents amendments table October 2023 .	SEMC Business Unit

The SEMC acknowledges the Aboriginal peoples throughout the state of Western Australia as the Traditional Custodians of the lands where we live, work and volunteer. We recognise Aboriginal peoples' continued connection to land, waters and community, and pay our respects to Elders both past and present.

This document was designed to be viewed electronically and aims to meet the West Australian Government's accessibility and inclusivity standard, including meeting the World Wide Web Consortium's Web Content Accessibility Guidelines version 2.1 (WCAG 2.1) at level AA. If anything in this document is inaccessible to you, or you are experiencing problems accessing content for any reason, please contact the State Emergency Management Committee Business Unit at semc.policylegislation@dfes.wa.gov.au.

All of the State emergency management legislation and documents can be accessed via the [State Emergency Management Framework](#) page of the State Emergency Management Committee website.

Contents

Part One: Introduction 5

1.1	Background	6
1.2	Scope	6
1.3	Hazard Definition and Impact	6
1.4	Organisational Roles and Responsibilities	8
1.5	Related Documents and Legislation	8
1.6	Activities Informing the Assurance Process	9

Part Two: Prevention and Mitigation 10

2.1	Responsibility for Prevention and/or Mitigation	11
2.2	Prevention and/or Mitigation Strategies	11

Part Three: Preparedness 14

3.1	Responsibility For Preparedness	15
3.2	Capability Baseline	15
3.3	Planning and Arrangements	15
3.4	Resources	16
3.5	Community Information and Education	17
3.6	Local and District Hazard Emergency Management Plans	17
3.7	Assistance Arrangements with other Jurisdictions	17

Part Four: Response 19

4.1	Responsibility for Response	20
4.2	Response Arrangements	21
4.3	Notifications	22
4.4	Public Warnings/Information	22
4.5	Evacuation Arrangements During Response	23
4.6	Traffic Management During Emergencies	23

Part Five: Recovery 24

Appendices 26

Appendix A: Distribution	27
Appendix B: Acronyms	28
Appendix C: Roles and Responsibilities	30



Part One:

Introduction

The State Hazard Plan for Earthquake (the Plan) provides an overview of arrangements for the management of earthquake emergencies in Western Australia (WA) and contains information on arrangements to support prevention, preparedness, response and initial recovery activities relating to earthquake emergencies.

The Plan refers to a range of existing acts, regulations, policies, plans and guidelines that support the management of earthquake emergencies in WA. It does not duplicate the information contained in these, instead provides directions to websites and other sources where further information can be obtained.

The Fire and Emergency Services (FES) Commissioner is the Hazard Management Agency (HMA) for earthquakes¹. The State Emergency Management Committee (SEMC) has delegated responsibility for the development, maintenance, review and exercising of the State Hazard Plan for Earthquake (the Plan) to the FES Commissioner in accordance with the *Emergency Management Act 2005*.²

1.1 Background

WA continues to receive reminders of the earthquake threat in the form of minor structural damage to buildings and critical infrastructure. As recently as July 2019, WA experienced Australia's equal-largest earthquake, a magnitude 6.6 event that occurred approximately 200km off the coast of Broome. The Meckering earthquake in 1968 (magnitude 6.5) resulting in major damage, ranks as the nation's second largest. Other significant earthquakes include Meeberrie in 1941 (magnitude 6.3) and Cadoux in 1979 (magnitude 6.1).³ Further detail on this hazard is set out in section 1.3.

Notes

¹ *Emergency Management Regulations 2006* regulation 17(2).

² *Emergency Management Act 2005* section 20(1).

³ Historic earthquakes of Australia <http://geoscience-au.maps.arcgis.com/apps/MapSeries/index.html?appid=325bf25bf3674571890c5e2473b6bc41>.

⁴ <https://www.ga.gov.au/scientific-topics/community-safety/earthquake>.

1.2 Scope

This Plan covers emergency management arrangements within the geographic boundaries of WA, for the hazard of earthquake. It describes risk reduction strategies, preparedness for, response to and initiation of recovery arrangements following the impact of an earthquake.

1.3 Hazard Definition and Impact

An earthquake is the sudden release of energy and resulting ground shaking caused by movements within the earth's crust. This hazard is defined as the vibrations caused by rocks breaking under stress. The underground surface along which the rock breaks and moves is called a fault plane. Earthquakes in Australia are usually caused by movements along faults as a result of compression in the Earth's crust. Earthquakes can be caused by:

- underground volcanic forces
- the breaking of rock under the Earth's surface
- a sudden movement along an existing fault line.

Most earthquakes happen around the edge of tectonic plates. Despite sitting in the middle of the Australian tectonic plate, WA still experiences earthquakes due to forces exerted on the plate by the tectonic activity going on around its edges. The intraplate nature of WA's earthquakes present challenges for emergency planning, as they are less common and do not follow easily identifiable patterns.⁴

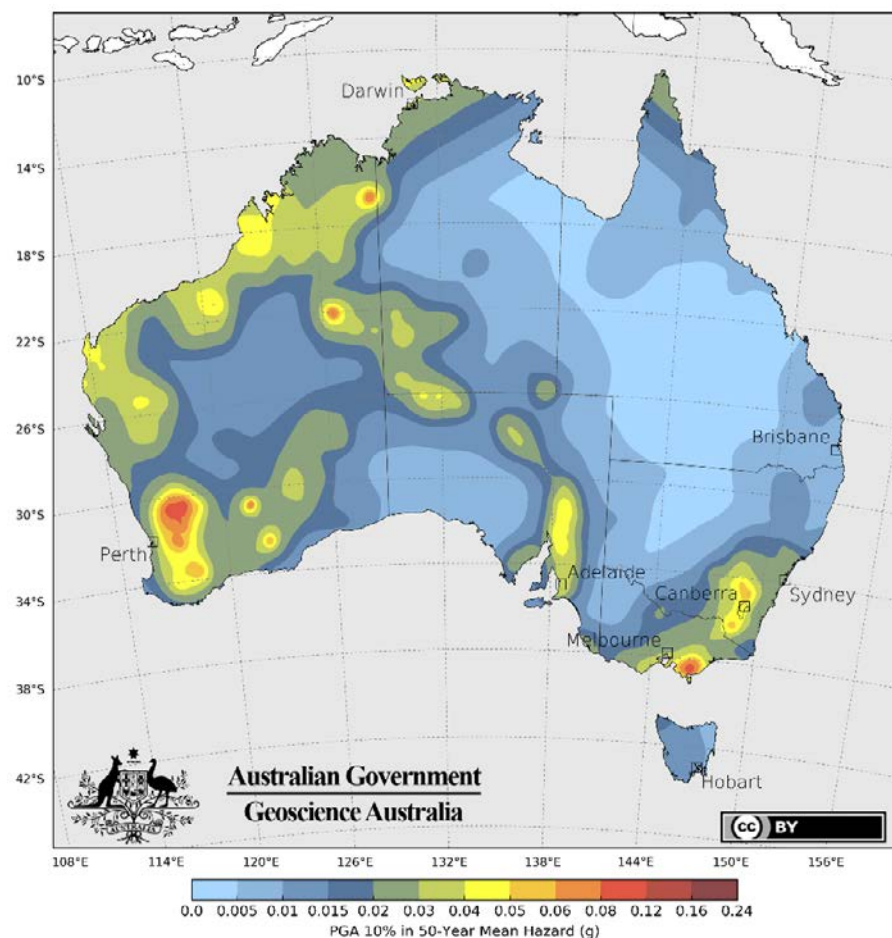


Figure 1: Hazard Map for a 10% probability in 50 years

Driven by challenges such as these, Geoscience Australia (GA) develops National Seismic Hazard Assessments (NSHA) for Australia. The NSHA18 is the most recent assessment and represents the best available understanding

Notes

⁵ Standards Association of Australia, Committee BD/6 and Standards Association of Australia, AS 1170.4-1993.

of the earthquake hazard in Australia. According to the NSHA18, large areas of WA are seismically active relative to the rest of the continent. Figure 1 represents a ten percent probability of a significant event occurring in the next 50 years, with orange and red indicating a higher probability of occurrence. For further information on the NSHA18 refer to: <https://www.ga.gov.au/about/projects/safety/nsha>.

Most earthquake deaths and injuries are caused by the collapse of unreinforced masonry or other structures. Other impacts of an earthquake can include:

- structure fires
- damage to electricity, NBN and telephone lines
- rupturing of gas, sewer and water mains
- disruption of critical services such as emergency responders, hospitals and aged care facilities
- road disruptions due to damage and collapse
- landslides, faults, liquefaction and subsidence
- tsunamis.

To mitigate such impacts, since 1994,⁵ there has been a requirement for all structures in Australia to be designed and built to:

- minimise the risk of loss of life from structure collapse or damage in the event of an earthquake
- improve the expected performance of structures
- improve the capability of structures that are essential to post-earthquake recovery to function during and after an earthquake and to minimise the risk of damage to hazardous facilities.

These requirements and standards continue to evolve in accordance with progress in our understanding of seismic activity in WA as well as developments in building technology⁶. The increased rigour in these standards have further enhanced the resilience of buildings to earthquake in WA and have helped to ensure that building resilience to rare earthquake events is proportionate to the hazard risk.

For further information on earthquakes refer to the GA website:
www.ga.gov.au/earthquakes/

1.4 Organisational Roles and Responsibilities

As HMA for earthquakes, the FES Commissioner is responsible for the management of the adverse effects of an earthquake emergency across the prevention, preparedness, response and recovery (PPRR) spectrum⁷. The Department of Fire and Emergency Services (DFES) is responsible for the development, implementation and revision of the Plan, in consultation with key stakeholders.

A coordinated response to an earthquake emergency requires emergency management agencies and support services to undertake a variety of agreed and statutory roles responsibilities. It is recommended that each agency with a role or responsibility under this Plan has appropriate operational procedures in place in accordance with this Plan. These arrangements should be complementary to the agency's operational procedures that enable them to carry out their roles and responsibilities under the State Emergency Management Plan (State EM Plan).

Agencies involved in response to the impacts of earthquakes, or those which have roles and responsibilities to provide essential services to the community should also maintain a Business Continuity Plan to ensure they maintain capabilities in the event of a major earthquake incident impacting the state.

Notes

⁶ Australian Standard - Structural Design Actions, Part 4: Earthquake Actions in Australia.

⁷ Emergency Management Regulations 2006 r 17(2)

Information regarding the roles and responsibilities of relevant agencies under this plan are detailed in Appendix C.

1.5 Related Documents and Legislation

This Plan is to be read in conjunction with the State Emergency Management Framework including the *Emergency Management Act 2005*, the *Emergency Management Regulations 2006*, State Emergency Management Policy, plans and procedures.

This Plan is to be read in conjunction with the following documents:

- Australian Government Disaster Response Plan (COMDISPLAN) 2017
- State Planning Policy 3.4 Natural Hazards and Disasters
- Department of Health WA State Health Emergency Response Plan
- DFES Western Australian Fire and Emergency Services Manual
- Local Emergency Management Arrangements (LEMA).

Legislation and codes relevant to this plan include but are not limited to:

- *Building Act 2011*
- *Building Regulations 2012*
- *Fire and Emergency Services Act and Regulations 1998*
- *Fire Brigades Act 1942*
- *Local Government (Miscellaneous Provisions) Act 1960*
- *Local Government Act 1995*
- *Mines Safety and Inspection Act 1994*

- *Occupational Safety and Health Act 1984*
- *Planning and Development Act 2005*
- National Construction Code, Australian Building Codes Board
- AS1170.4 – 2007 Structural Design Actions Part 4: Earthquake Actions in Australia
- AS 2121-1979 (SAA Earthquake Code 1979)
- AS 1170.4-1993 *Minimum design loads on structures: Part 4: Earthquake loads* (SAA Loading Code 1993).

1.6 Activities Informing the Assurance Process

The HMA engages with Geoscience Australia (GA), the Bureau of Meteorology and other subject matter experts to ensure an ongoing awareness and a contemporary understanding of the hazard and mitigation strategies.

The HMA ensures aspects of operational performance are reviewed and that a consistent and structured approach is applied to all aspects of operational performance that:

- complies with relevant State Emergency Management Policy and plans
- ensures that identified lessons and opportunities for improvement are actioned
- ensures that the HMA's service delivery meets community expectations.⁸

DFES will undertake operational lessons management activities after all incidents in accordance with DFES' Operational Lessons Management Policy and directives. DFES has adopted three types of After Action Reviews. The

Notes

⁸ DFES Operational Lessons Management Policy 2020.

⁹ DFES Directive 3.19 Operational Lessons Management.

relevant Assistant Commissioner or Command Head will determine which After Action Review is utilised.

DFES Operations applies lessons management principles in the following manner:⁹

- Observations made during operations or in support of operations are analysed to develop insights and identify lessons for consideration by DFES Operations management.
- Approved lessons are validated by relevant personnel.
- Approved lessons are implemented and tested to ensure operational improvements are embedded.
- Lessons learned and operational successes are sustained by sharing with all DFES personnel and relevant emergency management partners.

The Operational Area Manager (OAM)/Incident Controller (IC) will ensure that all agencies involved in a multi-agency emergency are able to provide input to any post operation analysis. DFES will work towards a collaborative multi-agency debrief, analysis and lesson development process that informs DFES operations.

DFES reviews operational lessons management activities to ensure ongoing effectiveness.

Post Operation Reports must be provided to SEMC in accordance with State EM Policy section 5.11 and State EM Plan section 5.7.



Part Two:

**Prevention and
Mitigation**

By proactively reducing the presence and effects of a hazard, it is possible to reduce the financial and social costs to communities over time, reduce impact to the built and natural environments and thereby improve resilience of the broader community. In WA, a range of prevention and mitigation strategies and projects have been developed and implemented to enhance planning and reduce risk associated with earthquakes.

2.1 Responsibility for Prevention and/or Mitigation

As the HMA, the FES Commissioner has overall responsibility for risk reduction aspects of earthquake events, within the limitations of legislation,¹⁰ resource capabilities and capacity.

Local governments are responsible for planning in their local communities by ensuring appropriate local planning controls. These controls need to be consistent with objectives and requirements set by the Western Australia Planning Commission (WAPC).¹¹ The WAPC is responsible for approving subdivision applications and has delegated powers for the determination of development applications to local governments and development assessment panels.

Where relevant to their jurisdiction, Local government has responsibility for developing risk treatment strategies for earthquakes within emergency risk management planning in accordance with State Emergency Management Prevention and Mitigation section 2.1. This is principally accomplished through the application and enforcement of the building codes.

Building construction standards are set by the State, usually by reference to the National Construction Code. Local governments, together with registered building surveyors, have responsibility for ensuring adherence

to building construction standards. Application and enforcement of the National Construction Code (AS 2121-1979) for new and existing construction that is subject to significant redevelopment can contribute to a reduced vulnerability profile for community buildings.

Government agencies, essential service providers, network operators and other bodies that may be involved in the management of an earthquake should establish priorities and retrofit or replace vulnerable infrastructure to ensure that functions can be resumed rapidly after earthquakes.

2.2 Prevention and/or Mitigation Strategies

While an earthquake cannot be prevented, its impacts can be mitigated through a range of strategies, including by adhering to building codes, promoting seismic reinforcement initiatives and conducting public education campaigns. This section outlines the strategies currently undertaken in WA.

2.2.1 Building Codes

The earthquake loadings code AS 2121-1979 (SAA Earthquake Code 1979) had limited application in WA following its introduction. However, the earthquake hazard was not considered in design until approximately 1995 with the release of AS 1170.4-1993 *Minimum design loads on structures: Part 4: Earthquake loads* (SAA Loading Code 1993). The SAA Loading Code 1993 also referenced a range of other building codes dealing with the design of timber, concrete and steel structures and the quality of materials used. Improvements and increased rigour in these standards have further enhanced the resilience of buildings to earthquake. Most post-1995 buildings that are not residential homes are designed for a 500-year average recurrence interval (ARI) level of ground shaking, with more important structures designed for rarer events. Tall modern buildings and structures built in the cyclonic regions of the state are more resilient as severe wind

Notes

¹⁰ *Emergency Management Act 2005, Fire and Emergency Services Act 1998*

¹¹ WAPC State Planning Policy 3.4 Natural Hazards and Disasters, <https://www.dplh.wa.gov.au/spp3-4>

demands tend to be greater than earthquake. Building regulations can ensure that building resilience to rare earthquake events is compatible with the local hazard.

2.2.2 Retrofitting

As noted in 2.2.1, changes to building standards have served to reduce the vulnerability of new construction to earthquake hazard. However, much of the pre-1995 building stock is vulnerable to earthquake. This vulnerability is particularly high for unreinforced masonry construction and poorly detailed reinforced concrete framed buildings. Structural retrofit of high-risk assets can greatly reduce community risk.

While some guidance is available for the retrofit of buildings, such as in AS 3826-1998 *Strengthening Existing Buildings for Earthquake* (AS 1998), retrofit for earthquake vulnerability is not mandated and rarely undertaken. Structural retrofit of facilities which provide essential services following a rare earthquake event is particularly important. DFES collaborates with a range of stakeholders to research and promote such strategies as outlined in “2.2.3 Research” below.

2.2.3 Research

In 2018 a collaborative project between DFES, the Bushfire and Natural Hazards Cooperative Research Centre and GA was initiated using the town of York as earthquake mitigation case study. York is a heritage townsite that has many vulnerable older masonry buildings and is located in a region of greater earthquake hazard. The project assessed the benefits of reduced economic losses versus the cost of a staged implementation of mitigation in the context of a range of programs aimed at incentivising building owner investment in reducing earthquake vulnerability. Phase 2 of this commenced in 2019. Funded partially under the Natural Disaster Resilience Program, the project examined the application of retrofit strategies to a number of identified building types in York.

Between 2017 and 2019 a project assessing the impact and risk of earthquakes for Perth was conducted drawing upon data, information and specialist expertise made available by industry to develop scenario and risk information. Lessons drawn from this project are being extended and applied to other seismically active areas of the State.

2.2.4 Community Information and Engagement

DFES, local governments and GA provide a contribution to education programmes developed to inform and educate the public on earthquake notification, earthquake risk and earthquake management.

2.2.5 Risk Treatment Strategies

The State has adopted several key risk reduction strategies associated with earthquake emergencies. These strategies are outlined in Table 1.

Strategy	Responsible Organisations
National Seismic Hazard Assessment.	Geoscience Australia (GA)
Participation in research directed towards better understanding the seismicity of the State.	DFES and GA
Participation in research directed towards understanding the impact of earthquakes on communities and critical infrastructure.	DFES and GA
Application and enforcement of the <i>Building Codes of Australia</i> and informed land use planning for vulnerable areas.	Local governments
Participation in research and development programs directed towards risk treatment strategies.	DFES, GA and local governments
Provision of earthquake advice to the community.	GA and DFES
Identification of suitable buildings for designation as Evacuation Centres.	Local governments in consultation with the Department of Communities
Ensuring the sustainability of service delivery of critical infrastructure through design and maintenance standards.	Essential services and network operators
Providing advice in relation to the design and maintenance status of critical infrastructure services and access routes in 'at risk' communities.	Essential services and network operators
Structurally retrofitting, where necessary, facilities, which provide essential services following any earthquake event.	All relevant agencies

Table 1 Earthquake Risk Reduction Strategies



Part Three:

Preparedness

3.1 Responsibility For Preparedness

As the HMA, the FES Commissioner is responsible for the development of plans and arrangements to manage emergencies in relation to earthquake. Responsibilities include, but are not limited to:

- promoting research, mitigation and resilience activities within communities to improve the management of future risks
- promoting all emergency management activities related to earthquake preparedness.

3.2 Capability Baseline

The Australian Disaster Preparedness Framework has been developed and endorsed by the Australia-New Zealand Emergency Management Committee (ANZEMC) to support the national development of the required capability to effectively prepare for and manage severe to catastrophic disasters.¹² The Framework acknowledges the responsibility of all jurisdictions to deal with disasters or emergencies within their existing arrangements.

It emphasises the importance of simulation and exercising to consider the capabilities required in terms of both the level of capability to effectively deal with the task at hand and the capacity required to sustain this level of capability over an identified time.¹³

A State-level response is initiated for any incident which will or is likely to cause severe and widespread impact on industry, the community or the environment. It usually requires a response being managed primarily at a State-level. To assist with planning and preparedness for a State-level

response to an earthquake emergency, supporting agencies are to consider the following scenarios as indicative baselines.

3.2.1 Urban Earthquake Scenario

A magnitude 4.4 earthquake impacts Perth resulting in:

- the damage of 80,500 buildings, including the complete destructions of 10 residential buildings and 1,550 being rendered uninhabitable
- no deaths but slight to moderate injuries totalling 170
- 4,350 people requiring temporary housing.

3.2.2 Regional Earthquake Scenario

A magnitude 5.3 occurs near York on a busy weekend resulting in:

- The damage of 462 buildings, including significant impact on residential buildings
- 8 deaths, 1 severe injury and a further 3 slight to moderate injuries due debris from buildings falling onto the streets and sidewalks
- 11 houses being rendered uninhabitable.

These two capability baselines are based on the 1968 6.5 magnitude Meckering earthquake, 1979 6.0 magnitude Cadoux earthquake and Perth and York scenario modelling conducted in 2020.

3.3 Planning and Arrangements

Successful earthquake operations depend on sound planning, effective resource utilisation and a coordinated response which is timely, efficient and effective. Emergency management plans are to be developed and reviewed regularly based on:

Notes

¹² ANZEMC, Australian Disaster Preparedness Framework, page 4.

¹³ ANZEMC, Australian Disaster Preparedness Framework page 18.

- best practice principles
- technical and scientific knowledge
- research, including historical data and post incident analysis
- local knowledge and experience.

The concept of this Plan is to employ and coordinate the resources of State and Australian Government departments, authorities and agencies; resources available to private industry; and resources available to volunteer groups, for earthquake operations. This concept is based on:

- availability of the 24-hour National Earthquake Alerts Centre (NEAC)
- availability of the DFES 24-hour State Operations Centre (SOC) for receipt of earthquake notification reports
- establishment of operational facilities at three levels (State, Regional and local), from which management of earthquake operations takes place
- deployment of emergency service personnel
- provision of expert technical advice on earthquake impact modelling by State and Australian Government agencies when requested by DFES
- provision of expert technical advice on essential services when requested by DFES
- tasking of agencies in a coordinated manner in support of DFES. Agency procedures are then employed to carry out tasks.

Where areas susceptible to earthquake are identified as a risk to the community, DFES may develop Local and District earthquake plans to address prevention, preparedness, response and recovery activities.

Notes

¹⁴ *Emergency Management Act 2005* section 41(1)

Local government is responsible for developing local emergency management arrangements.¹⁴ The Local Emergency Management Committee (LEMC) is to provide advice to local government in this regard. Where supplementary plans are developed at the local level, such plans should complement the State Hazard Plan - Earthquake.

Similarly, where supplementary plans are required by other agencies, these plans must be consistent with the State Hazard Plan - Earthquake.

3.4 Resources

Identifying and securing access to critical response enabling resources and expertise is an essential component of earthquake preparedness. If these resources are not able to be sourced or deployed into the impacted regions, the response effort will be compromised. Planning at all levels should reference resource identification, prioritisation, sourcing, acquisition, maintenance and management arrangements.

As the HMA, the FES Commissioner is responsible for the overall provision and management of resources and personnel required to physically respond to an earthquake event, including acquisition, pre-positioning and inventory management. Specific responsibilities include:

- establishing, equipping, training and maintaining a Urban Search and Rescue Task Force
- prioritising, procuring and allocating specialist equipment and vehicles
- safely storing equipment and vehicles in locations that provide ease of access but protection from the impacts of earthquakes, including landform or structural collapse and secondary impacts, such as fire and hazardous materials.

Emergency management agencies and support services are required to provide their own resources in the first instance and request additional

resources from DFES if required.

When the total resources of the State cannot reasonably cope with the needs of the operation, a request for assistance from other jurisdictions may be made in accordance with section 3.7 Assistance Arrangements with Other Jurisdictions.

3.5 Community Information and Education

DFES, in collaboration with local governments and GA, contributes to the development of education programs and materials to inform and educate the public on earthquake notification, risk and management.

During earthquake events, DFES will provide community information in a coordinated manner through the IC and/or the OAM.

Media and public information strategies are reviewed annually by DFES to ensure appropriate communication of earthquake information to the community.

3.6 Local and District Hazard Emergency Management Plans

Where areas susceptible to earthquakes are identified as a risk to the community DFES may develop Local and District plans to address the prevention, preparedness, response and recovery activities for earthquakes.

3.7 Assistance Arrangements with other Jurisdictions

Should the scale of an earthquake be such that the total resources of the State cannot reasonably cope with the needs of the operation, DFES and/or

the WA Government may seek assistance from other states and territories, the Australian Government or from overseas.

3.7.1 National and International Assistance Arrangements

The Australian Government Disaster Response Plan (COMDISPLAN) (activated by the Director General Emergency Management Australia, facilitates the provision of Australian Government Physical Assistance to States and Territories, following a formal request. This assistance can include but is not limited to air and maritime border control, traffic management and communications capabilities, satellite imagery capabilities, Australian Medical Assistance Team deployment and disaster victim identification.¹⁵

All requests for Australian Government Physical Assistance are to be made by the State Emergency Coordinator for consideration by the Director General Emergency Management Australia. Further detail on Australian Government Physical Assistance can be found in State EM Policy section 5.10, State EM Plan section 5.6 and State EM Response Procedure 4.20.

3.7.2 Interstate Assistance Arrangements

The Australasian Arrangement for Interstate Assistance (AIA) provides a framework for mutual assistance between Australasian fire services, emergency services and land management agencies. It supports the timely and meaningful exchange of fire and emergency management capability between Australian states and territories and between Australia and New Zealand. It does not replace any existing bilateral agreements that may exist between jurisdictions. It caters for occasions when significant resource deployments are requested for response to large scale events.

The AIA was developed and is maintained by the National Resource Sharing Centre (NRSC), a division of the National Aerial Firefighting Centre, in consultation with the Commissioners and Chief Officers Strategic Committee (CCOSC). The CCOSC of the Australasian Fire and Emergency Service

Notes

¹⁵ <https://www.homeaffairs.gov.au/emergency/files/plan-disaster-response.pdf>.

Authorities Council (AFAC) has endorsed the AIA as the basis for sharing fire and emergency service resources across state boundaries and between Australian states and territories and New Zealand. The Commonwealth, through Emergency Management Australia, co-chairs CCOSC and is integral to this arrangement. The CCOSC and NRSC are primary points of contact for any request made through the AIA for an interstate deployment.¹⁶

Requesting Interstate Assistance

Requests for interstate deployment support can be made by the FES Commissioner directly to the relevant jurisdiction as required. Deployment must be undertaken according to each agency's policies and directives.

Providing Interstate Assistance.

In accordance with agency policies and directives, DFES will consider requests for assistance from other jurisdictions via the DFES State Operations Centre. Any requests for assistance will be subject to conditions agreed between the WA Government and the requesting State or territory and/or the Australian Government.

Deployment must be undertaken according to each agencies policy and directives. The Minister must be notified prior to any deployment of any agency personnel.

Notes

¹⁶ Australasian Arrangement for Interstate Assistance, AFAC National Resource Sharing Centre (2019)
<https://www.afac.com.au/initiative/nrsc/article/principles-of-arrangement-for-interstate-assistance>



Part Four:

Response

4.1 Responsibility for Response

As the HMA, the FES Commissioner is responsible for the coordination of a response to the hazard of earthquake. To facilitate the effective execution of these responsibilities, DFES has established the following strategic control priorities and guiding principles.

4.1.1 Strategic Control Priorities

The Strategic Control Priorities for earthquake events are:

- Protection and Preservation of Life: This is the fundamental overarching priority for the State and includes prioritising the safety of:
 - emergency services personnel and
 - community members including vulnerable community members and visitors/tourists located within the incident area
- Provision of community warnings and information
- Protection of critical infrastructure and community assets
- Protection of residential property
- Protection of assets supporting the livelihood of individuals and the financial sustainability of communities
- Protection of places of environmental and heritage significance.

Where there are concurrent risks or competing priorities, the overarching principle of the Protection and Preservation of Life must drive the identification and the prioritisation of all roles, decisions and actions associated with the emergency management response.¹⁷

4.1.2 Principles

In accordance with the State Emergency Management Framework, the management of an earthquake emergency is based on a graduated approach using the following guiding principles:¹⁸

- The FES Commissioner is the HMA for earthquake emergencies in WA¹⁹
- DFES is the Controlling Agency for earthquake emergencies in WA²⁰
- DFES is responsible for activating and controlling the response to an earthquake emergency within WA
- DFES will use arrangements which employ identified emergency management agencies and support services to provide an effective and coordinated response
- Responsibility for resourcing and responding to an emergency initially rests with the IC at the local level
- An emergency beyond the capability of local resources will receive support from district resources
- State resources will be provided if district resources are inadequate
- The State, through the Chair of the SECG will seek assistance from the Commonwealth, State and Territory Governments if State resources are inadequate

Notes

¹⁷ State EM Policy section 5.1.6.

¹⁸ State EM Plan section 2.3.

¹⁹ *Emergency Management Regulations 2006* section 17(2)

²⁰ State EM Policy section 5.2 and State EM Plan section 5.1

- Communication between local, district, State, Interstate and Commonwealth authorities is essential to ensure intelligent and timely application of resources to manage the emergency.

4.2 Response Arrangements

When DFES assesses that an earthquake emergency will require a significant response, it will activate emergency resources and emergency management agencies which are proportionate to the intensity and, where possible, proximal to the location of the earthquake. This approach is consistent with DFES' commitment to incorporating local knowledge into its management structures and may include the activation of relevant local or district plans and the deployment of regionally or centrally based emergency personnel as required.²¹

4.2.1 Activation

In accordance with the State's emergency management arrangements, DFES is the Controlling Agency for the response to an earthquake event. Other agencies will support operations as detailed in this Plan. Soon after the receipt of advice of a damaging earthquake the FES Commissioner and all agencies with responsibilities in the management of an earthquake event will collectively plan for the integrated management of the impact and consequences through the SOC, All Hazards Liaison Group (AHLG), Metropolitan and relevant Regional Operation Centres (MOC/ROC), Operational Area Support Group (OASG), Incident Management Teams (IMT) and Incident Support Group (ISG) established by DFES in response to the incident.

The scale of activation is proportionate to the scale and requirements of the emergency and the level of implementation of plans and operational structures can therefore vary considerably depending upon circumstances.

Notes

²¹ DFES Western Australian Fire and Emergency Services Manual Part One.

²² DFES Western Australian Fire and Emergency Services Manual Part Five.

DFES will establish management structures according to incident level and the expectations of IMTs in regards to planning, reporting and engagement with DFES, its stakeholders and the community in accordance with Western Australian Fire and Emergency Service Manual: Part 5 Incident Management Teams.²²

If the event results in significant impact to the State and has the potential to attract national attention, DFES should send Situation Reports to the Australian Government's National Situation Room (NSR) regarding actions taken for this event. This will assist in maintaining a Whole-of-Australian-Government situational awareness and support requests for interstate and national assistance should any be required.

Should another hazard occur as a consequence of an earthquake event and, if the FES Commissioner is not the HMA or DFES is not the Controlling Agency for the consequent hazard then the provisions of State EM Plan section 5.1.2 will apply. DFES will retain responsibility for the earthquake aspects of the emergency.

4.2.2 Levels of Response

The declaration of an incident level is a critical component of emergency management in terms of triggering the responsibilities and actions of emergency management stakeholders to ensure a response in which the size of both the IMT and the coordination structure are proportional to the size of the earthquake emergency. State EM Response Procedure 4.2 outlines the process for making an incident level declaration by the IC based on the characteristic 'factors' of the emergency. Level one is the lowest level, typically a routine incident that has a single or limited multiagency response. Level three is the highest level, typically the most complex, requiring the coordination of a multi-agency response and recovery and significantly impacting the routine functioning of the community and infrastructure.

This procedure is aligned with State EM Plan section 5.1.5 and is reflected in the Western Australian Fire and Emergency Service Manual: Part 5 IMTs, section 3 Incident Level Declaration.

4.2.3 Declaration of an Emergency Situation or State of Emergency

The FES Commissioner has responsibility for the provision of emergency services for earthquake incidents under the *Fire and Emergency Services Act 1998*. These provisions are wide ranging and are normally adequate to respond to earthquake emergencies.

Should an incident occur that requires *Emergency Management Act 2005* powers to protect life, property or the environment, the State EM Plan²³ sets out arrangements for the declaration of an Emergency Situation or a State of Emergency.

4.3 Notifications

GA is Australia's national authority for earthquake information and advice. Through the National Earthquake Alerts Centre (NEAC), GA monitors, analyses and reports on significant earthquakes to alert the Australian Government, State and Territory Governments and the public about earthquakes in Australia and overseas. GA has a series of remote sensing stations which enable the determination of the severity and location of an earthquake. The sensor network is connected to alarms and instruments in Canberra which alert GA who interpret the seismic activity and pass relevant information to Australian Government's NSR and DFES. The notification system provides coverage 24 hours per day 7 days per week.

These notifications then enable emergency managers to inform the community of earthquakes in their local region and for the appropriate level of emergency response and assistance to be dispatched.

Notes

²³ State EM Plan sections 5.2.3 -5.2.4

4.4 Public Warnings/Information

4.4.1 Earthquake Services

The NEAC will send an email to DFES for all earthquakes. The NEAC will advise DFES of earthquakes 4.5 magnitude or greater for any area in WA. The NEAC will also advise DFES when an earthquake of 3.5 magnitude or less occurs, if it determined to have struck within or near heavily populated areas, or if reports of damage or felt reports are received.

4.4.2 Community Alerts

DFES will distribute earthquake notification messages to key stakeholders and responders to explain and guide immediate response actions to minimise impacts and maintain safety and security. Given the popularity and importance placed on social media by the community, DFES has incorporated several popular social media platforms into its community communication strategies, in addition to more conventional media platforms. Additionally, while DFES will engage with a range of media formats to convey information to the community, including radio, television and social media, the key platform to issue community alerts is the Emergency WA website: <https://www.emergency.wa.gov.au/>.

4.4.3 Emergency Alert

The DFES Telephone Warning System (TWS) is a web-based system designed by the Australian Government (Emergency Alert) to alert people within a specific location for any emergency where there is an imminent threat. The TWS provides warnings to fixed line phones (based on service address) and mobile phones (based on billing address and location based) in a defined area.

The IC or IC delegate can request activation of the TWS in support of incidents and emergencies.²⁴

4.4.4 Standard Emergency Warning Signal (SEWS)

The Standard Emergency Warning Signal (SEWS)²⁵ is a distinctive siren sound to alert the community to the broadcast of an urgent safety message relating to a major emergency. SEWS is intended for use as an alert signal to be played on public media such as radio, television, public address systems to draw listeners' attention to the emergency warning that follows. SEWS should only be used in emerging situations of extreme danger when there is a need to warn people that they need to take urgent and immediate action to reduce the potential for loss to life or property from emergency events. Note that it is not required for all Emergency Warnings.

4.5 Evacuation Arrangements During Response

Evacuation is a risk mitigation strategy that may be used to mitigate the effects of an emergency on a community. Evacuation arrangements will be developed according to the State EM Policy section 5.7, State EM Plan section 5.3.2, State EM Response Procedures 4.8 and 4.17 and the SEMC Western Australian Community Evacuation in Emergencies Guideline describe the State emergency management arrangements.

Refuge sites and evacuation centres should be identified in LEMAs,²⁶ and are identified and established in partnership with local government and Department of Communities. The Department of Communities is responsible for maintaining a list and providing information on evacuation centres.

Notes

²⁴ Directive 3.1 – WA Fire & Emergency Services, SAP 3.1.D – Telephone Warning System, May 2018

²⁵ <https://www.dfes.wa.gov.au/safetyinformation/warningsystems/Pages/sews.aspx>

²⁶ State EM Policy statement 5.7.4

4.6 Traffic Management During Emergencies

In order to ensure community safety, it is often necessary to alter the normal flow of traffic through an area affected by an emergency or its immediate surrounds. It is acknowledged some agencies have traffic management responsibilities under legislation other than the *Emergency Management Act 2005*. It is recommended these agencies conduct those activities consistent with the framework created by the State EM Policy, plans, procedures and guidelines. Emergency management agencies should implement appropriate agency-specific procedures and training in accordance with State EM Plan section 5.3.3 for the conduct of immediate traffic management.



Part Five:

Recovery

The HMA and Controlling Agency have a role in initiating both relief and recovery during emergencies associated with their designated hazards. It is the responsibility of the Controlling Agency to gain an understanding of known or emerging impacts during the response to an emergency and to coordinate the completion of an Impact Statement in accordance with State EM Plan section 6.4. The Impact Statement should be developed in consultation with the members of the ISG, Local Government Recovery Coordinator/s and other relevant agencies.

The Controlling Agency will assist relief agencies to deliver essential services in safe and accessible community-based locations.²⁷

Recovery activities will be undertaken in accordance with the State EM Policy section 6, State EM Plan section 6 and will commence during the response phase. As such, there needs to be high levels of understanding and cooperation between response and recovery organisations at each level (State, district, local).

Notes

²⁷ DFES, WA Fire and Emergency Services Manual – Part One: Overview, 2017, page 20.



Appendices

Appendix A: Distribution

This State Hazard Plan is available on the [SEMC website](#). The agencies below will be notified by the HMA (unless otherwise specified) when an updated version is published on this website.

- All agencies and organisations with responsibilities under this Plan
- Emergency Management Australia (SEMC Business Unit to notify)
- Minister for Emergency Services (SEMC Business Unit to notify)
- State Emergency Management Committee (SEMC), SEMC subcommittees and SEMC reference group members (SEMC Business Unit to notify)
- State Library of Western Australia (SEMC Business Unit to notify).

Appendix B: Acronyms

Terminology used throughout this document has the meaning prescribed in section 3 of the *Emergency Management Act 2005* or as defined in the State Emergency Management Glossary. In addition, the following hazard-specific acronyms apply.

Acronym	Meaning
AHLG	All Hazards Liaison Group
AIA	Arrangements for Interstate Assistance
AFAC	Australasian Fire and Emergency Service Authorities Council
ADF	Australian Defence Force
CCOSC	Commissioners and Chief Officers Strategic Committee
DACC	Defence Assistance to the Civil Community
DFES	Department of Fire and Emergency Services
DFAT	Department of Foreign Affairs and Trade
FES	Fire and Emergency Services

Acronym	Meaning
GA	Geoscience Australia
HMA	Hazard Management Agency
IC	Incident Controller
IMT	Incident Management Team
ISG	Incident Support Group
LEMA	Local Emergency Management Arrangements
LEMC	Local Emergency Management Committee
MOC	Metropolitan Operations Centre
NEAC	National Earthquake Alerts Centre
NRSC	National Resource Sharing Centre
NSHA	National Seismic Hazard Assessments
NSR	National Situation Room

Acronym	Meaning
OAM	Operational Area Manager
OASG	Operational Area Support Group
PPRR	Prevention, Preparedness, Response and Recovery
ROC	Regional Operation Centre
SEWS	Standard Emergency Warning Signal
SECG	State Emergency Coordination Group
SEMC	State Emergency Management Committee
SOC	State Operations Centre
TWS	Telephone Warning System
WAPC	Western Australia Planning Commission

Appendix C: Roles and Responsibilities

DFES, through the FES Commissioner as the HMA, has responsibility for managing the adverse effects of emergencies associated with earthquakes in WA. The assistance and cooperation of other agencies and organisations operating within their functional areas are necessary for effective emergency prevention, preparation, response and recovery.

This appendix outlines the hazard specific roles and responsibilities of agencies and organisations under this Plan, however some all-hazards information is provided. State Emergency Management Plan, Appendix E provides an outline of the all-hazards roles and responsibilities across the Prevention, Preparedness, Response and Recovery spectrum.

The *Emergency Management Act 2005*, *Emergency Management Regulations 2006*, State Emergency Management Policy, Plan and Procedures, State Hazard Plans and State Support Plans should be referenced for a comprehensive understanding of the roles and responsibilities within the emergency management framework.

The agencies will undertake the agreed responsibilities as detailed below.

Note: The capability and commitment of each local government to undertake the tasks and meet the responsibilities identified in this State Plan should be confirmed by the HMA and detailed in respective LEMAs. This will ensure the varying capabilities of individual local governments are recognised and accommodated.

Overarching

Organisation	Overarching Roles and Responsibilities
Department of Fire and Emergency Services	<p>Role: Supporting the FES Commissioner in their role as the Hazard Management Agency (HMA)</p> <ol style="list-style-type: none"> a. Manage the adverse effects of an earthquake emergency across the prevention, preparedness, response and recovery (PPRR) spectrum. b. Undertake operational lessons management activities.

Prevention and Mitigation

Organisation	Prevention and Mitigation Roles and Responsibilities
Department of Fire and Emergency Services	<p>Role: Supporting the FES Commissioner in their role as the Hazard Management Agency (HMA) in holding the overall responsibility for risk reduction aspects of earthquake events, within the limitations of legislation, resource capabilities and capacity.</p> <ol style="list-style-type: none"> a. Ensure the development and maintenance of response and risk treatment plans specific to earthquakes. b. Recommend the adoption of risk treatment strategies to State, District and Local Emergency Management Committees. c. Participate in research directed towards better understanding the seismicity of the State. d. Participate in research directed towards understanding the impact of earthquakes on communities and critical infrastructure. e. Participate in research and development programs directed towards risk treatment strategies. f. Provide earthquake advice to the community.
Department of Planning, Lands and Heritage	<ol style="list-style-type: none"> a. Incorporate earthquake risk treatment measures into state and local planning and development processes.
Essential services and network operators	<ol style="list-style-type: none"> a. Ensure the sustainability of service delivery of critical infrastructure through design and maintenance standards. b. Provide advice in relation to the design and maintenance status of critical infrastructure services and access routes in 'at risk' communities.

Organisation	Prevention and Mitigation Roles and Responsibilities
Geoscience Australia	<ul style="list-style-type: none"> a. Provide a National Seismic Hazard Assessment. a. Participate in research directed towards better understanding the seismicity of the State. b. Participate in research directed towards understanding the impact of earthquakes on communities and critical infrastructure. c. Participate in research and development programs directed towards risk treatment strategies. d. Provide earthquake advice to the community. e. Participate in research and development of earthquake models and techniques to improve earthquake forecasting notification and mitigation.
Relevant Local Governments	<ul style="list-style-type: none"> a. Develop and ensure appropriate local planning controls, consistent with objectives and requirements set by the Western Australia Planning Commission (WAPC). b. Apply and enforce the Building Codes of Australia and informed land use planning for vulnerable areas. c. Participate in research and development programs directed towards risk treatment strategies. d. Identify suitable buildings for designation as Evacuation Centres in consultation with Department of Communities.
Western Australia Planning Commission (WAPC)	<ul style="list-style-type: none"> a. Approve subdivision applications and has delegated powers for the determination of development applications to local governments and development assessment panels.
Government agencies, essential services, network operators and other relevant bodies	<ul style="list-style-type: none"> a. Are recommended to structurally retrofit, where necessary, facilities, which provide essential services following any earthquake event.

Preparedness

Organisation	Preparedness Roles and Responsibilities
<p>Department of Fire and Emergency Services</p>	<p>Role: Supporting the FES Commissioner in their role as HMA.</p> <ol style="list-style-type: none"> a. Promote research, mitigation and resilience activities within communities to improve the management of future risks. b. Promote all emergency management activities related to earthquake preparedness. c. Develop, maintain, review and exercise this Plan, in consultation with key stakeholders. d. Where areas susceptible to earthquake are identified as a risk to the community, may develop Local and District earthquake plans to address prevention, preparedness, response and recovery activities. e. Periodically test and validate local, regional/district and State earthquake plans. f. Provide and manage of resources and personnel required to physically respond to an earthquake event, including: <ul style="list-style-type: none"> - establish, equip, train and maintain an Urban Search and Rescue Task Force - prioritise, procure and allocate specialist equipment and vehicles - safely store equipment and vehicles in locations that provide ease of access but protection from the impacts of earthquakes (including landform or structural collapse, fire and hazardous materials). g. Contribute to the development of education programs and materials to inform and education the public on earthquake notification, risk and management. h. Annually review media and public information strategies to ensure appropriate communication of relevant hazard information to the community.

Organisation	Preparedness Roles and Responsibilities
Emergency Management Agencies and support services with a response role or responsibility	<ul style="list-style-type: none"> a. Are recommended to maintain appropriate public information arrangements, policy, plans and procedures in relation to their specific responsibilities. b. Are recommended to maintain a Business Continuity Plan to ensure they maintain capabilities in the event of a major earthquake incident. c. Plan to provide their own resources in the first instance and request additional resources from DFES if required.
Essential service providers	<ul style="list-style-type: none"> a. Are recommended to maintain a Business Continuity Plan to ensure they maintain capabilities in the event of a major incident impacting the state
Industry owners and operators	<ul style="list-style-type: none"> a. Are recommended to cooperate with their LEMC by participating in the local planning process.
Relevant Local Governments	<ul style="list-style-type: none"> a. Develop local emergency management arrangements with the advice of the Local Emergency Management Committee. b. Identify and establish refuge sites and evacuation centres in partnership with Department of Communities c. Participate in community awareness programs on earthquake risks.

Response

Organisation	Response Roles and Responsibilities
Department of Communities	<ul style="list-style-type: none"> a. In consultation with DFES, and consideration of available resources, determine the number and location of evacuation centres to be opened during the earthquake emergency. b. Staff evacuation centres. c. Facilitate evacuee registrations. d. Participate in the emergency recovery arrangements for people affected by earthquakes. e. Provide a liaison officer to DFES SOC if required. f. Provide a representative to the ISG/OASG/AHLG as required. g. Provide a representative for SECG if required.
Department of Fire & Emergency Services	<ul style="list-style-type: none"> a. Discharge the duties of HMA and Controlling Agency for earthquake emergencies, in accordance with the <i>Emergency Management Act 2005</i> and State EM Policy section 5 and State EM Plan section 5. b. Liaise with other relevant agencies to ensure response operations are coordinated. c. Liaise with local government in the provision of incident control centres in earthquake susceptible areas of the State. d. Facilitate the provision of assistance as required. e. Request activation of the State Emergency Coordination Group (SECG) and provide a representative for SECG if required.

Organisation	Response Roles and Responsibilities
Department of Health	<ul style="list-style-type: none"> a. Coordinate the health response in an earthquake situation, including the activation of the State Health Emergency Response Plan if required. b. Advise DFES on all medical and health aspects in relation to earthquake situation c. Through the hospital stream, provide acute medical care and relief to injured persons. d. Through the public health stream, provide environmental health, public health, mental health and communicable disease control services as required. e. Maintain an awareness of the readiness of health service infrastructure including assessment of impact on clinical services, response and/or evacuation requirements. f. Provide health advice and support to the designated recovery committee. g. Provide acute health services, particularly to those persons within the affected community who have chronic medical conditions. h. Provide a liaison officer to DFES SOC if required. i. Provide a representative to the ISG/OASG/AHLG as required. j. Provide a representative for SECG if required.
Department of Mines, Industry Regulation and Safety (DMIRS)	<ul style="list-style-type: none"> a. Assist in specific technical strategies that fall within the remit of DMIRS. b. Provide a liaison officer to DFES SOC if required. c. Provide a representative to the ISG/OASG/AHLG as required.

Organisation	Response Roles and Responsibilities
Department of Planning, Lands and Heritage	<ul style="list-style-type: none"> a. Incorporate earthquake risk treatment measures into state and local planning and development processes. b. Provide a liaison officer to DFES SOC if required. c. Provide a representative to the ISG/OASG/AHLG as required.
Department of Water and Environment Regulation (Pollution Response Unit)	<ul style="list-style-type: none"> a. To administer the pollution and waste management control provisions of the <i>Environmental Protection Act 1986</i> and the provisions of the <i>Contaminated Sites Act 2006</i>. b. To be contactable and available on a 24/7 basis. c. Provide advice on potential dangers to the environment and preferred actions with respect to contamination control measures, decontamination (where required), neutralisation, clean up, minimisation of wastes, disposal of wastes and other actions to minimise or mitigate environmental impact. d. Provide on-site representative for technical advice and other such assistance that may be appropriate and available when required by DFES. e. Provide and co-ordinate environmental monitoring (such as particulates and dust, air toxins and contaminated water) during the emergency response and recovery phase for off-site impacts in the air or water using scientific instrumentation and/or sample collection as required. f. Determine the level of clean up, disposal and site restoration required and advise of any residual environmental impacts. g. Provide a written report and/or participate in post operation debriefs on the emergency as required. h. Coordinate/monitor long term clean-up, when required. i. Provide a liaison officer to DFES SOC if required. j. Provide a representative to the ISG/OASG/AHLG as required.

Organisation	Response Roles and Responsibilities
Energy Suppliers and Network Managers	<ul style="list-style-type: none"> a. Disconnect and restore energy services as prioritised by DFES or the designated recovery authority. Restoration priority will include consideration of other lifeline interdependence requirements. b. Provide technical advice to DFES in relation to energy supply, disconnection and restoration. c. Assist in the provision of emergency energy as requested by DFES or the designated recovery authority. d. Provide a liaison officer to DFES SOC if required. e. Provide a representative to the ISG/OASG/AHLG as required.
Geoscience Australia	<ul style="list-style-type: none"> a. Provide an earthquake interpretation and notification service. b. Establish and maintain data collection networks and monitor earthquake events. c. Store and provide historical earthquake intelligence data and information. d. Contribute to the planning, installation and maintenance of new and improved earthquake warning/notification systems. e. Participate in community awareness programs on earthquakes. f. Provide advice to DFES SOC if required.
Industry owners and operators	<ul style="list-style-type: none"> a. Immediately advise emergency services via 000 of emergencies triggered by an earthquake. b. Assist the emergency services in coping with earthquake-triggered emergencies at their facility by making available their own resources. c. Provide specialist/technical advice by telephone and/or by attending the scene of an emergency. d. Provide a written report and/or participate in post operation debriefs on the emergency as may be required, by the HMA.

Organisation	Response Roles and Responsibilities
Local governments	<ul style="list-style-type: none"> a. Provide resources to assist DFES when requested. b. Make available suitable local government buildings to be used as evacuation centres. c. Close and open roads within their jurisdiction, when requested by DFES. d. Provide details on road conditions to DFES. e. Provide a representative to the IMT/ISG/OASG as required.
Main Roads WA	<ul style="list-style-type: none"> a. Provide advice to DFES of the potential and actual impacts of earthquake on the State road network. b. Close and open State roads when requested to do so by DFES. This Plan recognises that the Commissioner of Main Roads (or delegated Officers) has the power to close or open roads under the <i>Main Roads Act 1930</i>. c. Communicate road closures to the public. d. Provide a liaison officer to DFES SOC if required. e. Provide a representative to the ISG/OASG/AHLG as required. f. Provide a representative for SECG if required. g. Provide engineering support if required.

Organisation	Response Roles and Responsibilities
Public Transport Authority	<ul style="list-style-type: none"> a. Provide advice to DFES of the potential and actual impacts of earthquake on the public transport system. b. Provide a representative on local and regional/district earthquake planning committees (where practicable). c. Close and open transport services when requested by DFES. d. Communicate service closures to the public. e. Provide a liaison officer to DFES SOC if required. f. Provide a representative for SECG if required.
St John Ambulance Western Australia Ltd. (SJA)	<ul style="list-style-type: none"> a. Provide pre-hospital mass triage at the emergency site, pre-hospital care and transport of casualties to hospital by road. b. Participate in the ISG, OASG and SECG meetings as requested. c. Provide a liaison officer to the State Health Incident Coordination Centre as required. d. Responsible for tasking the emergency rescue helicopters.
Telstra	<ul style="list-style-type: none"> a. Provide advice regarding the provision of emergency communications services. b. Give priority consideration to emergency communications requirements of authorities responsible for hazard and emergency management within WA. Actual service provision and restoration priorities will depend on Telstra's network configuration, the safety and availability of staff, material availability, local community issues and national and local security issues. c. Provide a liaison officer to DFES SOC if required. d. Provide a representative to the ISG/OASG/AHLG as required. e. Provide a representative for SECG if required.

Organisation	Response Roles and Responsibilities
Water Corporation	<p>As outlined in the State Emergency Management Plan Appendix E, the Response Responsibilities are as follows:</p> <ol style="list-style-type: none"> a. Participate in ISG, OASG and SECG meetings as requested. b. Assist with the provision of potable water to affected communities until normal services are restored. c. Provide a liaison officer(s) and other trained staff to operations and coordination centres as requested and appropriate. d. Provide or assist in the acquisition of resources and engineering services including earthmoving machinery and operators. e. Provide information on local conditions and hazards, environmental and water issues associated with waste disposal. f. Assist with the supply of water to affected areas through the provision of tanker access to Water Corporation resources (e.g. standpipes, pipelines and reservoirs). g. For emergencies affecting the Water Corporation drinking water supplies and critical assets, activate the joint agency coordination team (Department of Health and Water Corporation) and to manage the incident as a security incident as required. h. Provide a written report or participate in post-operation debriefs on the emergency as required by the HMA. i. Be contactable on a 24/7 basis.
Western Australia Police Force	<ol style="list-style-type: none"> a. Assist with evacuation and/or traffic management on request. b. Maintain public order where required. c. In the event of mass casualties, provide Disaster Victim Identification. d. Provide liaison officers and/or representation to any ISG/OASG/ALHG and/or SECG as appropriate. e. Provide emergency coordinators as appropriate to assist DFES in the provision of a coordinated response.

Recovery

Organisation	Recovery Roles and Responsibilities
Department of Fire & Emergency Services	<p>Role: Supporting the FES Commissioner as HMA and DFES as Controlling Agency in initiating both relief and recovery activities.</p> <p>a. Commence recovery activities during the response phase in accordance with the State EM Policy section 6 State EM Plan section 6.</p>
Department of Health	<p>a. Provide health advice and support to the designated recovery committee.</p>
Industry owners and operators	<p>a. Assist with long term clean up, when required.</p>
Local Government	<p>a. Initiate and lead the local community through the recovery process.</p>
Main Roads	<p>a. Assist in the recovery process through State road infrastructure repair and reconstruction.</p>
Public Transport Agency	<p>a. Assist in the recovery process through rail infrastructure repair and reconstruction.</p>
Relevant agencies listed with roles and responsibilities in this plan	<p>a. Comply with their responsibilities identified in the State Emergency Management Policy section 6 and State Emergency Management Plan section 6.</p>

