



# CAPABILITY MATURITY ASSESSMENT FACILITATORS GUIDE

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## INTRODUCTION

Catastrophic events pose unique challenges and are inevitable. Previous reviews have highlighted gaps in Australia's preparedness for catastrophic disasters. Australia has no recent experience of a catastrophe that has truly overwhelmed our society.

An essential component of planning for severe-to-catastrophic disasters is to develop an understanding of capability maturity to deliver the desired effect. Knowledge of capability gaps can then be used to enhance planning and identify alternate sources of capability.

The Royal Commission into National Natural Disaster Arrangements stated:

*Jurisdictional approaches to capacity and capability development have served fire and emergency services well in the past. However, climate and demographic changes are likely to increase the demand on fire and emergency services. The ability of individual jurisdictions to meet this demand at peak times is likely to become increasingly difficult, prompting a need for increased resource sharing. There is a need to consider capabilities nationally, and for a more consistent and connected approach to capability planning across jurisdictions.*

The Australian Disaster Preparedness Framework outlines a direction to improve understanding of national capability in the context of severe-to-catastrophic disasters.

## PURPOSE

This guide provides instructions on how to conduct a first-pass capability maturity assessment for a jurisdiction to identify capability gaps and development priorities.

## AUDIENCE

This guide is directed towards those who may manage or participate in the capability maturity assessment process.



## WHAT ARE CAPABILITY AND CAPACITY?

Planning can only be effective if it is linked to a sound appreciation of capability and capacity. Capability and capacity are defined as:

**Capability** is the collective ability and power to deliver and sustain an affect within a specific context and timeframe.

**Capacity** is the key determinant of how long capability can be sustained for a particular level of ability.

Consistent with the Australian Disaster Preparedness Framework capability consists of five elements:

**People:** All personnel involved in undertaking emergency management activities including community, all levels of government, non- government organisations, agencies, business and volunteers.

Includes people with appropriate knowledge and skills with a focus on leadership skills, technical skills and a culture of working as one.

**Resources:** The physical equipment and assets needed to undertake emergency management activities. For example, infrastructure, fleet, IT equipment, radios, communications equipment, consumables and personal protective clothing, equipment and lifecycle management.

**Governance:** The enabling factors that emergency management operates within including legislation, funding, authorising environment, emergency management arrangements, doctrine and policy.

**Systems:** The systems, including data, that are used to deliver emergency management outcomes such as learning and development, information technology, financial, infrastructure and assets management, workforce management, workplace health and safety, quality control and incident management systems (such as AIIIMS and ICCS+).

**Processes:** Documented or undocumented ways of delivering emergency management such as capacity planning, risk management, continuous improvement, information flow and planning<sup>1</sup>.

## CAPABILITY DEVELOPMENT

The Australian Disaster Preparedness Framework (ADPF) provides a framework to consider nationwide capability. The ADPF defines 21 national capabilities across the disaster management phases of prevention, preparedness, response and recovery. States and territories also maintain capability development frameworks which identify capabilities required in the context of severe-to-catastrophic disasters.

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<sup>1</sup> Australian Disaster Preparedness Framework





## CAPABILITY MATURITY ASSESSMENT

The Royal Commission into National Natural Disaster Arrangements recommended that:

*State and territory governments should have a structured process to regularly assess the capacity and capability requirements of fire and emergency services, in light of both current and future natural disaster risk.*

Through assessing the maturity of capability, we are able to identify strengths and weaknesses across different capabilities and identify actions to enhance capability and capacity.

Capability maturity assessment is a continual process and should be regularly repeated to identify emerging gaps.

The process of conducting a capability maturity assessment is illustrated in Figure 1.

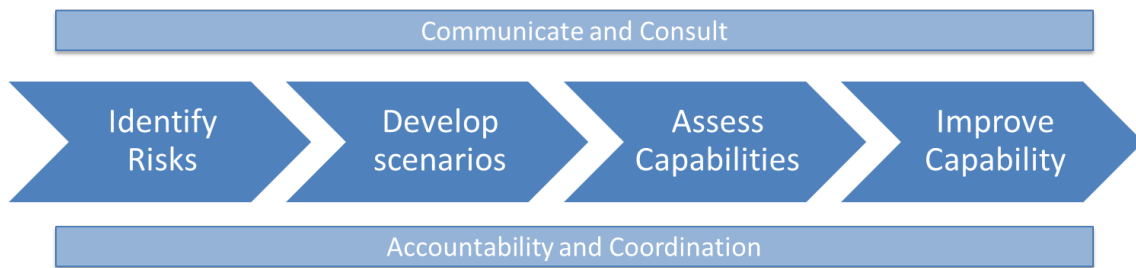


Figure 1: Capability maturity assessment process

The capability maturity assessment process comprises the following steps:

### ACCOUNTABILITY AND COORDINATION


To manage the capability maturity assessment process a specific officer should be identified as a project manager accountable for the project and overall stakeholder engagement. Accountabilities for the ownership of specific capabilities must be clear. Those with accountabilities for leading a capability are referred to as capability owners and should be responsible for ensuring the appropriate stakeholders are involved in the process.

To assist in the coordination of the process the project manager should develop, in consultation with key stakeholders, a project management plan. It is also advised to establish a steering committee to govern the process.

<p><b>Outcome</b></p> <p>Establishment of project plan and steering committee</p>
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### COMMUNICATE AND CONSULT

It is essential that all relevant stakeholders be involved in each aspect of the capability maturity assessment process. Relevant stakeholders would include lead and supporting agencies for each capability.



Communication and consultation can be planned through the development of a stakeholder engagement strategy.

It is important, before commencing the process, to define key audiences for the results of the capability maturity assessment process and how information will inform their work.

**Outcome**

Establishment of a stakeholder engagement and communication plan

## IDENTIFY AND ASSESS RISKS

The assessment of capability is made against the risks that capabilities will be deployed to manage. To identify and assess risks within the area of interest, the steps described in the National Emergency Risk Assessment Guidelines<sup>2</sup> should be followed.

**Outcome**

Understand and document the most important disaster risks relevant to the area of interest.

## DEVELOP SCENARIOS

The maturity of capabilities should be tested against severe-to-catastrophic scenarios. To illustrate the likely impacts of such events, a series of realistic severe-to-catastrophic disaster scenarios should be developed, which will test the maturity of capabilities. These should be based upon the most significant risks identified.

Scenarios might include single incident extreme events or compound disasters comprising of multiple events occurring concurrently or in sequence. Future scenarios can be utilised to test the maturity of capability within the context of a warming climate and growing exposure to hazards.

An example of a scenario is provided in Attachment 1.

**Outcome**

Detailed severe-to-catastrophic scenario/s to be developed

## ASSESS CAPABILITIES

Capabilities can be assessed utilising the Capability Maturity Assessment Tool. The tool consists of a series of criteria designed to measure the maturity of individual capabilities across their component elements of people, resources, governance, systems and processes.



Criteria are designed to measure maturity on a scale of one to four.

Score	Level	Scale
1	Informal	Least mature
2	Developing	
3	Established	
4	Self-sustaining	Most mature

Criteria include:

### Trained, exercised and skilled personnel

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Insufficient trained, exercised and skilled personnel. Capability targets are not understood	Insufficient trained, exercised and skilled personnel available, however capability targets are established and understood with pathways in place to achieve sufficient capacity	Sufficient trained, exercised and skilled personnel readily available when compared with capability targets	Number of trained, exercised and skilled personnel readily available exceeds capability targets.

### Consideration of personnel surge capacity arrangements

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Arrangements for surge capacity have not been considered	Arrangements for surge capacity are informal, reactive and untested for major emergencies	Arrangements for surge capacity are documented in plans but untested for major emergencies	Arrangements for surge capacity are documented in plans, regularly exercised and operate effectively during major emergencies when

### Personal capacity building pathways

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Capacity building pathways are informal	Capacity building pathways are organisation specific	Collective capacity building pathways exist but are reactive. Culture of working as one is maturing.	Collective capacity building pathways are strategic proactive and operating effectively. Culture of working as one is embedded.

### Sufficiency of physical resources

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Insufficient resources	Insufficient resources available, however, capability targets are established and understood with pathways in place to achieve sufficient capacity	Sufficient resources readily available when compared with capability targets	Available resources readily exceed capability targets

### Consideration of physical resource surge capacity arrangements

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Arrangements for surge capacity have not been considered	Arrangements for surge capacity are informal, reactive and untested for major emergencies	Arrangements for surge capacity are documented in plans but untested for major emergencies	Arrangements for surge capacity are documented in plans, regularly exercised and operate effectively during major emergencies when tested





## Physical resource capacity building pathways

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Resource capacity building pathways are informal	Resource capacity building pathways are organisation specific	Collective resource capacity building pathways exist but are reactive	Collective resource capacity building pathways are strategic, risk based, proactive and/or operating effectively

## Definition of roles and responsibilities

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Roles and responsibilities are not defined	Roles and responsibilities are inconsistently defined	Roles and responsibilities are mostly well defined	Roles and responsibilities are consistently well defined

## Governance, strategy, monitoring, risk management and reporting

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
No systematic governance, strategy, monitoring, risk management, and reporting	Specific project / single agency-based governance, capability planning, monitoring, risk management and reporting. Collective governance largely inconsistent and disconnected.	Collective governance, risk management, capability planning, monitoring and reporting processes are established	Collective governance, monitoring, risk management, capability planning and reporting is actively connected and exercised. Governance enables flexibility, adaptability and transformational change.

## Assurance and lessons learnt

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Assurance activities are limited and inconsistent  Poor lessons learnt culture	Assurance activities are organisation specific and lack independence  Lessons learnt culture is emerging	Assurance activities are sector wide and collaborative though lack independence  Lessons learnt culture and systems exist	Independent sector wide risk-based assurance is provided  Strong lessons learnt culture and management system

## Systems

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Systems are insufficient, operate in isolation and have suffered from previous failures	Systems are one-off, project specific or not well embedded. Systems might be connected and interoperable at an organisation level, but not across organisations	Systems are user friendly, fit for collective purpose and are interoperable across organisations. Limited ongoing resourcing for systems enhancement to meet changing purpose	Systems are user friendly, fit for collective purpose and are interoperable across organisations. Active connection with system users to enhance systems with sustainable ongoing resourcing

## Business continuity

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Business continuity and IT recovery plans are not developed or well outdated	Business continuity and IT recovery plans are being developed or reviewed	Business continuity and IT recovery plans are established	Business continuity and IT recovery plans are established, tested and proven to be robust



## Process maturity

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Processes are informal, organisation and hazard specific	Collective processes exist but with limited collective adoption across agencies/organisations. Reactive refinement when problem emerges	Collective processes documented and clearly visible. Limited appetite or capacity to refine in proactive manner	Collective processes fully embedded, tested and regularly updated with feedback loops across organisations. Proactive anticipation and resolution of problems not yet established

## Process understanding

1 = Informal	2 = Developing	3 = Established	4 = Self-sustaining
Processes are not well understood by personnel	Processes are partially understood by personnel, though efforts are underway to improve understanding	Processes are understood by personnel	Processes are well understood by personnel and have been exercised/tested and proven to be robust

The use of the tool's criteria enables a consistent first pass evaluation of capability. The tool does not replace detailed models of capability maturity assessment: instead, it allows for a faster approach to the appreciation of capability maturity.

The tool is supported by an Excel workbook to record and capture results, available from [bnhcrc.com.au/capability-maturity-assessment-tool](http://bnhcrc.com.au/capability-maturity-assessment-tool).

## WORKSHOPS

It is recommended that the tool be utilised in a workshop format to promote discussion about each capability element before it is scored. Discussion assists to build a shared understanding of capability maturity amongst stakeholders and to identify specific strengths and weaknesses, including improvement opportunities. A workshop should be undertaken for each capability to be assessed.

It is preferable that facilitation is consistent across all workshops to maintain consistent expectations and directions. The workshop process can be conducted via video conferencing or face-to-face. Where there are a large number of capabilities to assess it is recommended to prioritise capabilities and undertake workshops in stages to minimise stakeholder fatigue.

Stakeholders can be provided a copy of the criteria for review and consideration prior to the relevant workshop.

### Outcome

Discussion and scoring of each criterion in relation to the capabilities of interest.

## ANALYSIS AND REPORTING

The outcomes of the assessment should be analysed. This will include:

- Analysis of discussions regarding each capability to identify strengths and weaknesses



- Analysis of criteria scoring to identify overall maturity of capabilities as well as capability elements. Scores can be graphed for visual impact.

No standard reporting format is specifically recommended. Reporting should be based upon stakeholder needs.

Relevant recommendations should be made regarding the improvement of capability.

**Outcome**

Data is analysed and reported to support decision making.

## IMPROVE CAPABILITY

Based upon the outcomes of the assessment, capability gaps and recommendations should be prioritized. Capabilities can be improved via:

- Partnerships and arrangements with other states/territories and the Commonwealth
- Development of partnerships with the commercial and community organisations
- Development of arrangements and relationships to incorporate emergent volunteer efforts
- Additional investment to grow existing capabilities (e.g. purchase of resources or recruitment of personnel)
- Invest in innovation to enhance the productivity of capabilities.

In some instances, further detailed modelling of specific priority capabilities may be required to identify the specific extent of gaps to inform business cases.

**Outcome**

Capability is improved.



## ATTACHMENT 1 – SCENARIO EXAMPLE

### TSUNAMI

During a February heatwave, a 3.9 magnitude earthquake occurred offshore of Wollongong, triggering a landslide on the edge of the continental shelf. The landslide resulted in a large localised tsunami which impacted upon the Illawarra Region with no warning. Reports indicated that there have been at least four waves separated by 30 minutes, the first striking the area at 11am.

Severe damage has occurred from Austinmer to Sussex Inlet with moderate impacts (strong rips, inundation of beaches and low-lying infrastructure and sinking of small vessels) being experienced north to Gosford and south to Batemans Bay. There are over 6000 collapsed homes and other structures initially identified. There are reports of at least 2500 fatalities, with thousands of people now missing feared dead. Over 3500 injured persons have presented at local hospitals. Many people remain in the upper sections of buildings or have fled to higher ground.

At the time of the disaster, beaches were full and a local surf carnival was being held at North Wollongong beach. Many people are feared to have been washed into nearby lagoons and streams.

Several large ships moored off Port Kembla and other smaller watercraft are missing.

Several fires are burning in residential areas. A ship is also on fire in Port Kembla after sustaining damage and bunker fuel is leaking, threatening the local marine environment.

Infrastructure (roads, rail, power, telecommunications) in coastal areas have been destroyed, with communication and power outages impacting much of the region. Three sewage plants have been destroyed and are now discharging raw sewage into the ocean. The Albion Park airport is inoperable due to tsunami debris on the runway.

There are thousands of dead and injured animals. Thousands of cows along the lower reaches of the Shoalhaven River were washed into the sea. Many are now left injured along beaches.

Severe thunderstorms are now moving through the area and Sydney Airport has been closed due to large hail and lightning. Forecast temperatures are close to 40 degrees for the next several days.

An Australian USAR team, AUSMAT and defence resources are currently on deployment following a major cyclone that struck Fiji several days ago. Other international resources are also assisting the government of Fiji. Terror threat levels have recently been escalated following a foiled terror plot in Perth.