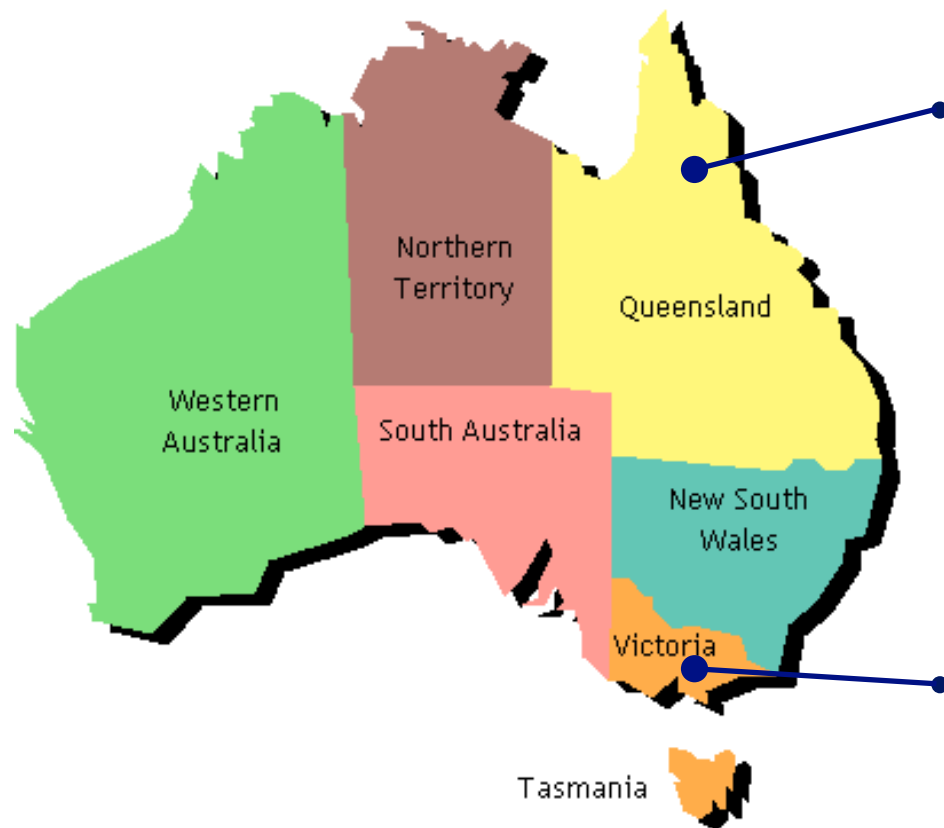# Emergency Management Systems in Natural Disasters

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Emergency Preparedness Manager

Australian Government Department of Agriculture, Fisheries and Forestry

Recent experiences

Tropical Cyclone Larry (2006)

Black Saturday Bushfires (2009)

Tropical Cyclone Larry

Tropical Cyclone Larry
crossed the Queensland
coast around 7.00 am on
20 March 2006.

Tropical Cyclone Larry

Innisfail state school

Bureau of Meteorology 2006

Bureau of Meteorology 2006

Damage to homes in Mourilyan

Tropical Cyclone Larry

Banana crops broken and
flattened (10 km from Innisfail)

Bureau of Meteorology 2006

Bureau of Meteorology 2006

Damaged Infrastructure.
Snapped power pole Mourilyan

Tropical Cyclone Larry

Destruction of the Mourilyan sugar mill

http://en.Wikipedia.org/...

Tropical Cyclone Larry

Floodwaters inundate the
Leichardt River

Burke Shire Council 2006
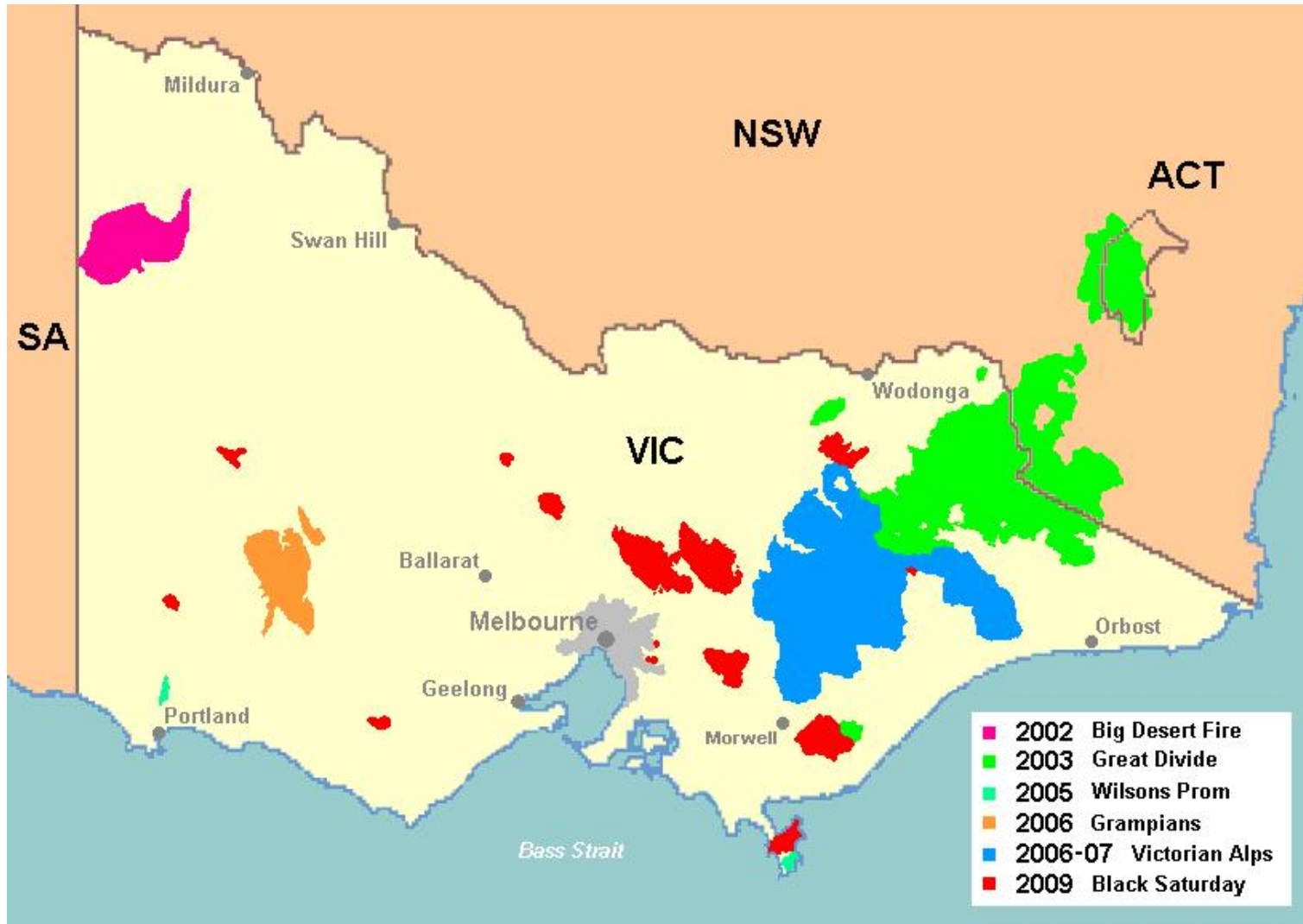
Burke Shire Council 2006

Tropical Cyclone Larry

Some newspaper headlines:

- Rural Queenslanders count the costs, contemplate a tough future, while towns start return to normal life
- 4000 homes and buildings too damaged to have power restored
- Wide spread flooding, enormous farm losses in gulf country
- Sharks swim up flooded rivers into farm district

Black Saturday Bushfires

	2002	Big Desert Fire
	2003	Great Divide
	2005	Wilsons Prom
	2006	Grampians
	2006-07	Victorian Alps
	2009	Black Saturday

Black Saturday Bushfires

Black Saturday Bushfires

Black Saturday Bushfires

Black Saturday Bushfires

Black Saturday Bushfires

Headlines:

- Millions of animals died in fires: Wildfire Victoria
- Burns of foot, emaciated and misplaced, wildlife's on the hop for food
- Ginger [the cat] uses up all her nine lives
- Pipa [the horse] almost home after fires
- Australian horse owners bush fire hell

Emergency Management

Comprehensive:

encompasses all hazards, including programs for

- Prevention
- Preparedness
- Response, and
- Recovery

Integrated:

ensures the effort of governments, all relevant organisations and the community are coordinated.

What are the hazards?

Natural	Technological	Human caused
• Avalanche	• Dam failure	• Civil disturbance
• Drought	• HAZMAT release	• Sabotage
• Earthquake	• Radiological	• Terrorism
• Epidemic	• Transport	
• Flood	Plane crash	
• Hurricane	Train derailment	
• Landslide	• Urban	
• Severe storm	conflagration	
• Tsunami		
• Volcanic eruption		
• Wildfire		

Sample Hazard List, adapted from

FEMA, Comprehensive Preparedness Guide, March 2009

Prevention

Prevention (or mitigation) seeks to eliminate or reduce the impact of hazards themselves and/or to reduce the susceptibility and increase the resilience of the community subject to the impact of those hazards;

Preparedness

Preparedness establishes arrangements and plans and provide education and information to prepare the community to deal effectively with such emergencies and disasters as may eventuate;

Preparedness

Response

Response activates preparedness arrangements and plans to put in place effective measures to deal with emergencies and disasters if and when they do occur
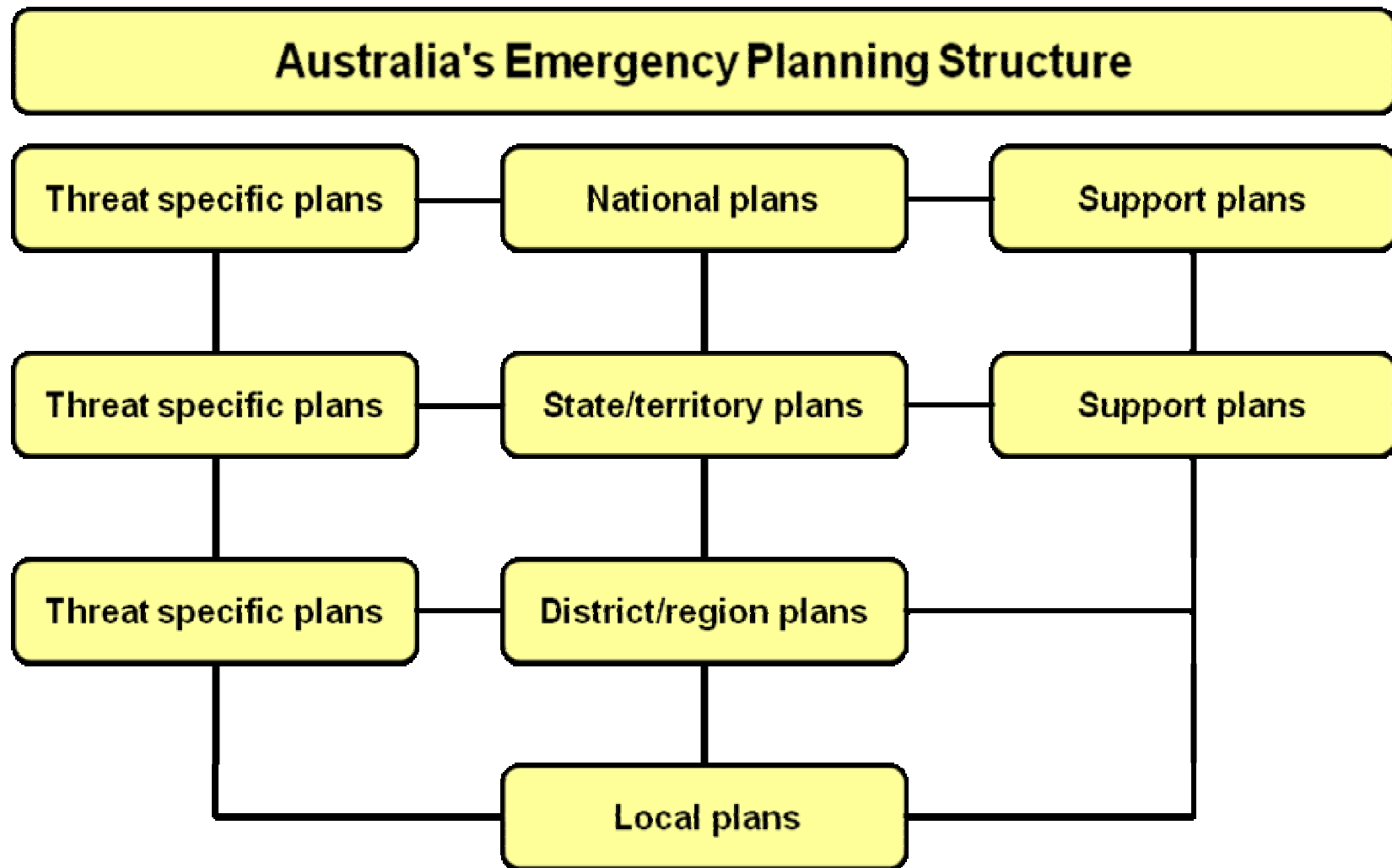
Recovery

Recover activities assist a community affected by an emergency or disaster in reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical well-being

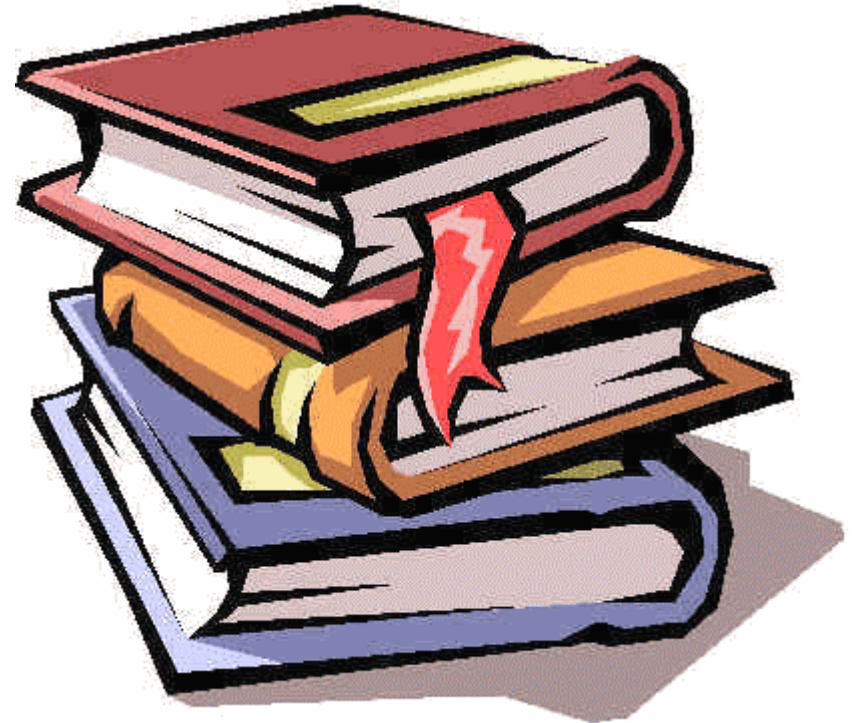Note: recovery should start as soon as possible.

Planning

Australia's Emergency Planning Structure

Threat specific plans	National plans	Support plans
Threat specific plans	State/territory plans	Support plans
Threat specific plans	District/region plans	
	Local plans	

Planning

- Emergency management Plans

- Threat specific plans

- Supporting plans

Planning Process

Communicate and consult

Establish planning committee

Conduct risk assessment

Identify responsibilities

Identify resources and services

Develop arrangements and systems

Document the plan

Monitor and review
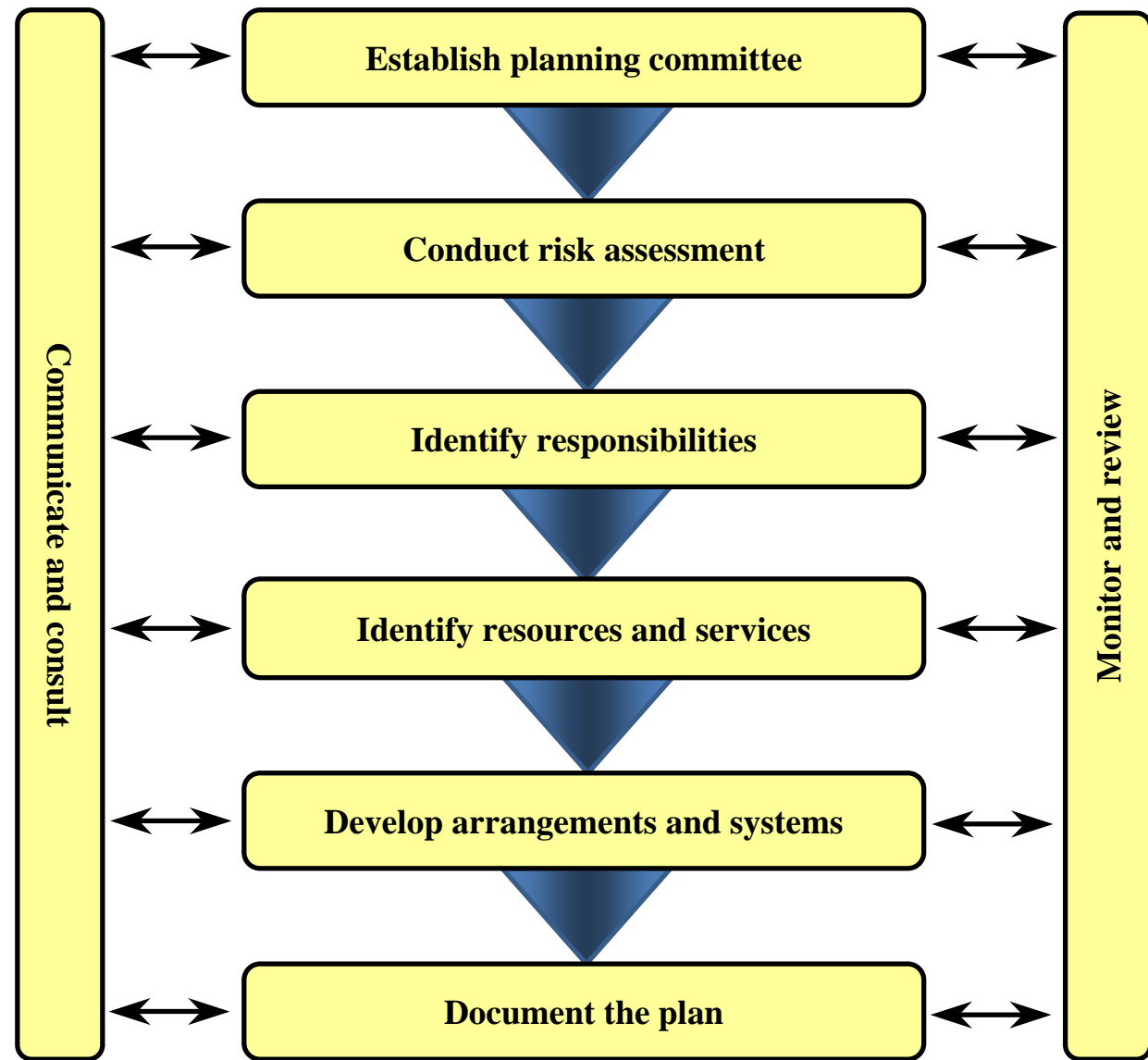
Planning Committee

Emergency agencies

- Police
- Fire
- Ambulance
- Rescue
- etc.

Supporting agencies

- Agriculture
- Communication
- Engineering
- Health
- Public works
- Transport
- Welfare
- etc.

Conclusion

Comprehensive:

encompasses all hazards, include programs for

- Prevention

- Preparedness

- Response, and

- Recovery

Integrated:

ensures the effort of governments, all relevant organisations and the community are coordinated.