



North Queensland's Severe Tropical Cyclone Larry response and recovery (A)

As dawn broke on Monday, 20 March 2006, the people of Innisfail were hunkered down in their homes, hoping to ride out the worst that Tropical Cyclone Larry could throw at them. Many of their fellow Australians were watching the storm's progress on TV, and worrying on their behalf. Cyclones were a fact of life, an annual event, for long-time residents of North Queensland. They had boarded up windows, stored food and water, and secured precious belongings. Vulnerable residents had been evacuated into temporary shelter. However, this storm was predicted to be the strongest yet experienced, with winds around 290kph like those of Hurricane Katrina which, six months earlier, had brought death and devastation to the US city of New Orleans. Sixteen hundred kilometres to the south, at the headquarters of Emergency Management Queensland (EMQ)¹ in Brisbane, Frank Pagano was at the already busy State Disaster Co-ordination Centre. The cyclone would severely test the many participants poised to play their part in the emergency response. As Executive Director of EMQ Pagano would have a central role: he was determined to set new standards of co-ordination and collaboration.

Emergencies in Queensland

With an area of 1.8 million square kilometres, Queensland is Australia's second largest state and the fastest-growing (*Exhibit 1*). Currently enjoying a boom in demand for its huge resources of coal, the traditional mainstays of the Queensland

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¹ Until May 2006 known as Queensland Counter Disaster and Rescue Services

economy have been tourism and agriculture. Some seven million tourists come each year to enjoy the tropical climate and see spectacular natural wonders like the Great Barrier Reef. Under Premier Peter Beattie, elected in 1998, Queensland reinvented itself as “The Smart State”, welcoming up to 1500 new residents each week.

Most of Queensland’s 4.2 million people live in the south-east corner centred on Brisbane, or along the coast to the north, while much of the interior is almost empty. However, “the Bush” has always had a powerful political voice, and the state has a proud history of independent stands, such as its refusal to introduce daylight saving. Queenslanders, wherever they live, expect their government to be accessible. Regular “Community Cabinets”, in which the entire business of the state government, from people to paperwork, is transported to sometimes quite remote communities, are a state institution.

Queensland stretches over 18 degrees of latitude, from just south of the Equator where at low tide it is possible to walk to Papua New Guinea, to the New South Wales border, well below the Tropic of Capricorn. Climate and location make the state a target for extreme weather events. The state is battered by the winds of cyclones of varying strength several times each cyclone season (which runs from November to April); frequently, the storms also bring significant flooding. Mass evacuations are avoided, because of the risk that people could be trapped in their cars by floods.

The state has few dedicated cyclone shelters. The focus of regular education programmes is that people should “shelter in place” in their own homes, built to withstand a storm, or with friends who live out of the reach of any flooding. “We have a mantra in Queensland: have friends in high places.” The Queensland Building Code, revised to withstand higher wind loadings in 1985, was again adjusted after Cyclone Winifred caused three deaths and destroyed 50 houses, damaging many more, in Innisfail in 1986. To be cyclone-rated, each new house must have its roof secured with extra rows of screws, and tied to the floor slab by metal cyclone rods.

“We seem to be the Disneyland of disasters in Queensland; we get our fair share of them,” according to Frank Pagano. “That’s the bad thing. The good thing is we build up a bank of experience.”

Queensland has a well-honed framework for disaster response, shaped by formative events like the floods that inundated most of Brisbane in 1974. These prompted the establishment of the State Emergency Service (SES), which now, along with fire and rescue and the ambulance service comes under the EMQ agency of the Department of Emergency Services. The department has over 8000 permanent and part-time staff, and some 50,000 trained volunteers, instantly recognisable in their orange overalls.

Leading from the local

According to the Australian constitution, Queensland, like all states and territories, has the primary responsibility for protecting the lives and property of its citizens. The *Queensland Disaster Management Act* of 2003 established a three-layer system of disaster management – local, district and state. (*Exhibit 2*). As Frank Pagano explained,

“Our arrangements are based on the fact that local governments are key to making sure that they have planned for and are able to coordinate a response to major disaster. When local systems can’t manage the district comes in and so on. It’s a seamless process...Permanent disaster management staff numbers are very low. Our job is to harness everyone else’s capability and capacity. Our experience is not to mess with the frontline agencies, which do what they do very, very well, including working together.”

Delivery is through Disaster Co-ordination Centres (DCCs) while policy comes from Disaster Management Groups (DMGs). Local DMGs are led by the Mayor. District activities are based on the 23 state police districts, with District DMGs usually headed by a senior police officer,² who is released from police responsibilities to concentrate on the mission at hand. The State Premier keeps a finger on the pulse through the State DMG, chaired by the Chief Executive of the Department of Premier and Cabinet. The State DMG includes the chief executives of most departments and agencies, and is supported operationally by the State Disaster Co-ordination Group of senior officials from response agencies. Where necessary, a Major Incidents Group may also be set up to give high level Ministerial guidance and support.

EMQ, as part of the Department of Emergency Services, provides the core policy and support staff for the State DMG, and is responsible for state-wide training and equipment support. Its regional staff assist local governments and state agencies with their disaster responsibilities. As Executive Officer EMQ, Frank Pagano is also Executive Officer of the State DMG, and the person authorised to request assistance from the Commonwealth Government.

Commonwealth commitment to assist

Though not required to in law, successive Australian governments have committed to providing physical and financial assistance when state and territory resources are “inappropriate, exhausted, or unavailable.”³ Crisis management is seen as a whole-of-government issue that begins with preparedness and continues well beyond physical repairs. A collaborative approach, looking for links, engaging communities and leveraging existing entities, is strongly endorsed by the Council of Australian Governments, the peak policy-setting body for Commonwealth, states and territories.

Emergency Management Australia (EMA), part of the Attorney-General’s department, actions the Commonwealth response. The National Emergency Management Co-ordination Centre is the delivery agency, while policy-setting structures vary according to the situation, with the starting point the multi-agency Commonwealth Counter Disaster Task Force (*Exhibit 3*).⁴ EMA contributes to whole-of-government relationships through the regular courses it conducts for emergency services personnel from all states at the Emergency Management Institute in Victoria. A fundamental training message is to “plan ahead and test the plan”, through

² Page 137, The Final Report of the Operation Recovery Task Force: Severe Tropical Cyclone Larry, Queensland Government (hereafter Final Report)

³ Australian Government Emergency Management Policy Statement, Emergency Management, downloaded from <http://www.ema.gov.au/agd/ema/emaInternet.nsf/Page/RWP11A286E12CB5FCA3CA256C480004F92F?OpenDocument> on 13-08-2008

⁴ Also referred to as the Australian Government Counter Disaster Task Force, in the Final Report.

exercises and scenarios, as well as “learn[ing] from the last crisis in planning for the next one.”⁵

Terror in Bali

A very instructive crisis for the Australia-wide response came on 12 October 2002 when terrorists bombed nightclubs in the popular holiday destination of the Indonesian island of Bali. 91 Australians, 38 Indonesians, and 73 nationals of 19 other countries were killed, and 209 injured. As well as responding rapidly to its own citizens’ needs, Australia opened the hospitals and health services of all states to victims in need of specialist burns treatment.

Inter-departmental committees, at first meeting twice daily, were at the heart of the response architecture, which consisted of two “hub and spoke” models. The Department of Foreign Affairs and Trade led the offshore response while the Department of Family and Community Services was the hub of the domestic one. While it was clear who was in charge, the model also highlighted communication difficulties between agencies without established relationships.

A 2004 report *Connecting Government*, commissioned by Peter Shergold, head of the Department of Prime Minister and Cabinet, said the Bali response showed that:

“Ironically, a crisis environment supports effective whole of government co-ordination. Disputes about mandate are set aside, decision making is accelerated by the ongoing involvement of senior agency leaders, and political will drives policy formulation and implementation.”⁶

Lessons from Bali for crisis management included: plan early and test the plan; establish clear leadership; define the roles of all players early; use formal chains of command and ensure strong public affairs management.

Exercise Weeping Maiden

As the 2005-2006 cyclone season approached, lessons from Hurricane Katrina on 25 August 2005, including the disastrous results of failures in leadership and co-ordination, were fresh in the mind of most emergency services. Three months later, in November, EMQ tested its preparedness with its most ambitious exercise to date. The five-day Weeping Maiden scenario was that the most severe type of tropical cyclone, a category 5, had hit the tourist centre of Cairns and surrounding districts, with impacts on over 150,000 people.

For Frank Pagano, the exercise highlighted the importance of having local people, with their local knowledge, involved as much as possible. Exercise Weeping Maiden also confirmed his decision that all groups on the frontline of the response should work to one incident controller, and he moved to set up a unified command structure. “I wanted to avoid any segregation or double-tasking that might arise, so fire,

⁵ “Connecting Government: Whole of government responses to Australia’s priority challenges. Australian Public Service commission, 2004. Downloaded from <http://www.apsc.gov.au/mac/connectinggovernment7.htm> on 20 June 2008.

⁶ ‘Connecting Government’ [op](#) cit.

emergency services and ambulance would all be tasked from one centre and multi-tasked, there would be no division or boundaries in relation to the work.”

Early on Friday 17 March 2006, the Bureau of Meteorology (BOM) advised that a low-pressure system in the Coral Sea, off the coast of Cairns, was developing into a tropical cyclone. It was headed for the area known as the Cassowary Coast because its rainforests were ideal habitat for the largest remaining populations of the big, flightless and extremely endangered bird.

The Cassowary Coast

The Cassowary Coast (*Exhibit 4*) stretched some 200km from Babinda just south of Cairns to Cardwell, with Innisfail at its mid-point. The road along the coast, flanked by World Heritage tropical rainforest, was known as the Great Green Way. Some 40 settlements clustered around the Cassowary Coast, Innisfail and Mareeba the largest.

The town of Innisfail, population 8500, made no claims to be a tourist attraction, and had largely missed the “seachange” population boom that had brought new, affluent residents to coastal places like Babinda and Mission Beach in the past decade. Innisfail remained a service centre for the primary industries of Johnstone Shire, banana and sugar plantations, small-scale fishing, and dairy farming.

The region’s sugar crop was just starting to make a comeback, having been hard hit by the fall in world prices. Bananas remained very important. The area produced 66 percent of Australia’s \$450 million banana crop, and employed up to 4000 people. In March 2006, the crop was close to harvest, and the labour force at its peak, increased by at least 20 percent by backpackers and other itinerant labourers.

Inland from Innisfail was the Atherton Tablelands. This 20,000 square km elevated and fertile plateau was sometimes known as the food bowl of the Far North for the range of different crops grown there, including tea and coffee.

Countdown to a cyclone

With the advice that a cyclone might be developing, the first steps to set up a State Disaster Co-ordination Centre were taken at the Department of Emergency Services’ EMQ headquarters in Kedron Park, Brisbane, including doing a desktop cyclone response. The Environmental Protection Agency arrived to monitor possible storm surges, which if they arrive at a high tide can often bring lethal flooding. Police at operations centres from Cairns to Townsville were on the alert.⁷ That evening, all EMQ regional directors and core members of the State Disaster Management Group were alerted. From Canberra, EMA was in touch and also monitoring developments.

On Saturday 18 March, the BOM confirmed the storm as a cyclone and named it Larry. At 9 am the State Disaster Co-ordination Group met in Brisbane to make initial preparations for deployment of personnel and equipment as close as possible to the target area. Emergency Services staff and SES volunteers would be called on, as well as Australian Defence Force troops based at Townsville, half an hour’s flight to the

⁷ Final Report 138.

south, and Australia's largest army base. The State Disaster Coordination Centre moved into 24-hour operation. The aim was to "be prepared by 11.59 pm on Sunday [19 March] to provide support to affected communities."⁸

EMQ's priorities for those first on the scene at a disaster are to secure the safety of the community; identify those at immediate risk; identify those harmed; ensure the hospital is operational; and restore essential services – water, power, sewage and roads. Police would do the initial assessments of damage and injuries. Queensland Transport would have a key role in ensuring that rescue services could reach the affected area, whether by air, rail or road; clearing obstructed runways and main highways as well as chartering planes or buses.

The Federal agency Centrelink, part of the Department of Human Services, had also been on high alert from the first advice of the cyclone. Centrelink's Townsville-based Area Office was, along with the state Department of Communities and a number of non-government organisations, part of the State Disaster Recovery Committee. This welfare-focussed subgroup of the State DMG met regularly each cyclone season. Centrelink's core business is to make payments ranging from the unemployment benefit to child support and student grants, to 6.5 million Australians. In emergencies, its role is to ensure continuity of these payments, as well as providing personal support and a number of special emergency payments. Teleconferences on Saturday established that a number of Queensland Centrelink staff, as well as others from around Australia, would travel at short notice to the target area if needed.

Other Queensland agencies implementing their disaster plans included the Department of Education, Training and the Arts, which set up a command centre in Brisbane from which it would communicate with all schools in the area. The Department of State Development, and Department of Primary Industries and Fisheries, would focus on the needs of town and rural businesses, with Commonwealth counterparts in support. State electricity provider Powerlink Queensland, with its local distributor Ergon Energy, put field crews on standby and secured communications channels to other agencies so the extent and location of any damage could quickly be established. Queensland Transport closed the port of Mourilyan and arranged safer moorings for the ships already there.

Cabinet watching closely

As Saturday 18 March became Sunday 19 March, the cyclone increased in intensity from level 3 to level 4. Senior police officers assumed the duties of District Disaster Co-ordinators, while key police offices, including those at Cairns, Innisfail and Mareeba, became Disaster Co-ordination Centres.⁹ Wayne Coutts, EMQ's Far North Regional Director, was on the road constantly keeping an eye on preparations.

By coincidence, the Queensland government's schedule of Community Cabinet meetings had brought Premier Peter Beattie, his Cabinet, and his departmental heads to Mackay, an hour's flight to the south of Cairns, that weekend. By the end of day

⁸ Final Report 47

⁹ Final Report p138

the Premier and several ministers had joined the teleconference briefings to the Emergency Services Minister, Pat Purcell.

On Sunday 19 March many people living in and around Innisfail went into town for the annual “feast of the senses” celebrating local craft and produce. It was a beautiful clear day. Many, like the emergency services, were following BOM reports closely and could see the cyclone tracking towards their town.¹⁰ As veterans of past cyclones, they also recalled preparing for storms that switched to another track at the last minute.¹¹ According to Barbara Bufi:

“There was the usual mad rush in the supermarkets. Trolleys were filled with canned food, UHT milk, flour, batteries, candles, matches, mosquito coils and fresh bread and milk – all the basics for survival if the cyclone hit. Gas bottles were filled, cooking equipment and lights were readied for use. At home, windows were checked, special pot plants relocated, precious mementos packed in waterproof containers, clothes hoist lowered and secured. Items in the shed were packed away, loose objects moved under cover, and we settled down to wait.”¹²

By good fortune, neap – extremely low – tides were predicted for the weekend, reducing the likelihood of dangerous storm surges. Nonetheless, by midday local disaster management, in consultation with the EMQ’s Wayne Coutts and the State Disaster Co-ordination Centre in Brisbane, decided to begin voluntary evacuations of people living along the 150 km of coast between Bramston Beach and Ingham. At Silkwood State School, principal and Red Cross member Jim Ferguson and his family cleared classrooms and set out mattresses, preparing an evacuation shelter.¹³

Aimed at Innisfail

As the day progressed the forecasters became more specific that the path of the cyclone would skirt Cairns and cross the coast near Innisfail, 80km to the south. (*Exhibit 5: BOM prediction map*). Emergency Services were then able to deploy people, equipment and essential supplies to Cairns, with its international airport and plentiful accommodation. Included among them were some emergency personnel normally living in the Innisfail area. They were moved out of the strike area so they should escape any impact of the cyclone but would be ready to respond as soon as wind strengths had returned to safe levels (less than 100kph). The advance incident management teams included fire, ambulance and SES volunteers, and two media officers. EMQ and army helicopters were on standby, while National Emergency Co-ordination Centre liaison officers were on site to manage supply deliveries.

Early in the afternoon, Johnstone Shire Mayor Neil Clarke announced to those still feasting their senses that the cyclone was pinpointing Innisfail. He advised everyone

¹⁰ 25.9% of people used radio as an information source during the warning period, 17.7 % TV and 12.9% consulted the BOM website. The site recorded over 60 million hits on the day of landfall. http://www.bom.gov.au/weather/qld/cyclone/tc_larry/LARRYMeetingTownsvilleReport.pdf downloaded 8-07-2008

¹¹ Cyclones in the Australian region are the most erratic in the world and can double back, make sharp turns or even loops (Bureau of Meteorology, Severe Tropical Cyclone Larry, 2007, p 24)

¹² An Ill Wind, by Barbara Bufi, Taken By Storm: Cyclone Larry 20/2/2006, printed February 2007 and available from the Innisfail and District Historic Society, p12. (Taken by Storm)

¹³ Our Story, by Jim and Kathy Ferguson, Taken by Storm, p 82

to go home and make preparations. Stalls and displays that had taken hours to set up were dismantled in minutes.

Throughout the day, the State DMG continued to hold regular teleconferences. Often, Premier Beattie chaired the discussion, with ministers taking part. At 4 pm, during a teleconference, the BOM warned of a severe tropical cyclone likely to reach the maximum Level 5 in strength, with winds up to 290 km an hour. Innisfail had already asked that a disaster situation be declared for its district. At 5 pm the Premier and the Minister for Emergency Services signed a declaration of disaster for six districts: Atherton, Cardwell, Eacham, Herberton and Johnstone Shires and the Cairns City Council, contacting each Mayor.

Declaration of disaster

Declaring a disaster paved the way for mandatory evacuation of vulnerable areas, which continued into the early evening. By 6 pm, Red Cross workers had arrived to register evacuees like the 32 adults and family pets sheltering at Silkwood School. Declaration of disaster also opens access to relief funding through the State Disaster Relief Arrangements (SDRA) and, in major disasters, from the Federal Government through the Natural Disaster Relief and Recovery Arrangements (NDRRA).¹⁴

At 9 pm, as residents were gathering to wait out the storm, the Prime Minister, John Howard, rang the Premier, Peter Beattie. From opposing sides of the political fence, the two had often publicly crossed swords. The Community Cabinet that same day had criticised the Commonwealth government for its “confused” stance on water reform.¹⁵ Now, Howard was calling to offer Queensland whatever help the state wanted, wherever needed, and however it was required.

In Brisbane, the State Disaster Coordination Centre met its target to be fully prepared by midnight. Now Frank Pagano and his colleagues had to wait and see how communities were affected, and whether the best strategy and resources had been put in place to support them. At 3 am the wind began to rise. When those residents who were able to sleep woke up there was no doubt the cyclone was on its way. Pam and Glen Garner remembered:

“We just had time to make coffee before the power went out [at 4.30 am]. We took the thick cushions from our lounge into the three metre by two metre toilet area off the bathroom; two on the floor to sit on, another two against the wall for backrests, and two to shelter our heads. With the door to the bathroom shut tight, we encased ourselves in a doona (bedcover) for protection and waited. The wind howled and shrieked, the building creaked and groaned, and things scraped and banged against the walls outside. The small window in the bathroom wall suddenly shattered. We were showered with glass fragments...[we] realised this wall could fail, so we moved a solid chest of

¹⁴ Defined as “a serious disruption to a community or region caused by the impact of a naturally occurring rapid onset event that threatens or causes death, injury or damage to property or the environment and which requires significant and coordinated multi-agency and community response.” Australian Government, Department of Transport and Regional Services, Natural Disaster Relief and Recovery Arrangements Determination 2007.

¹⁵ Odgers, R, “Beattie halts water charge”, Courier-Mail, 20 March 2006, accessed through Australia and New Zealand Reference Centre, 18-07-2008.

drawers up against it and huddled down in the remaining space...The roof started to leak, and water cascaded down over us.”¹⁶

The North Queensland community’s resilience was being really tested.

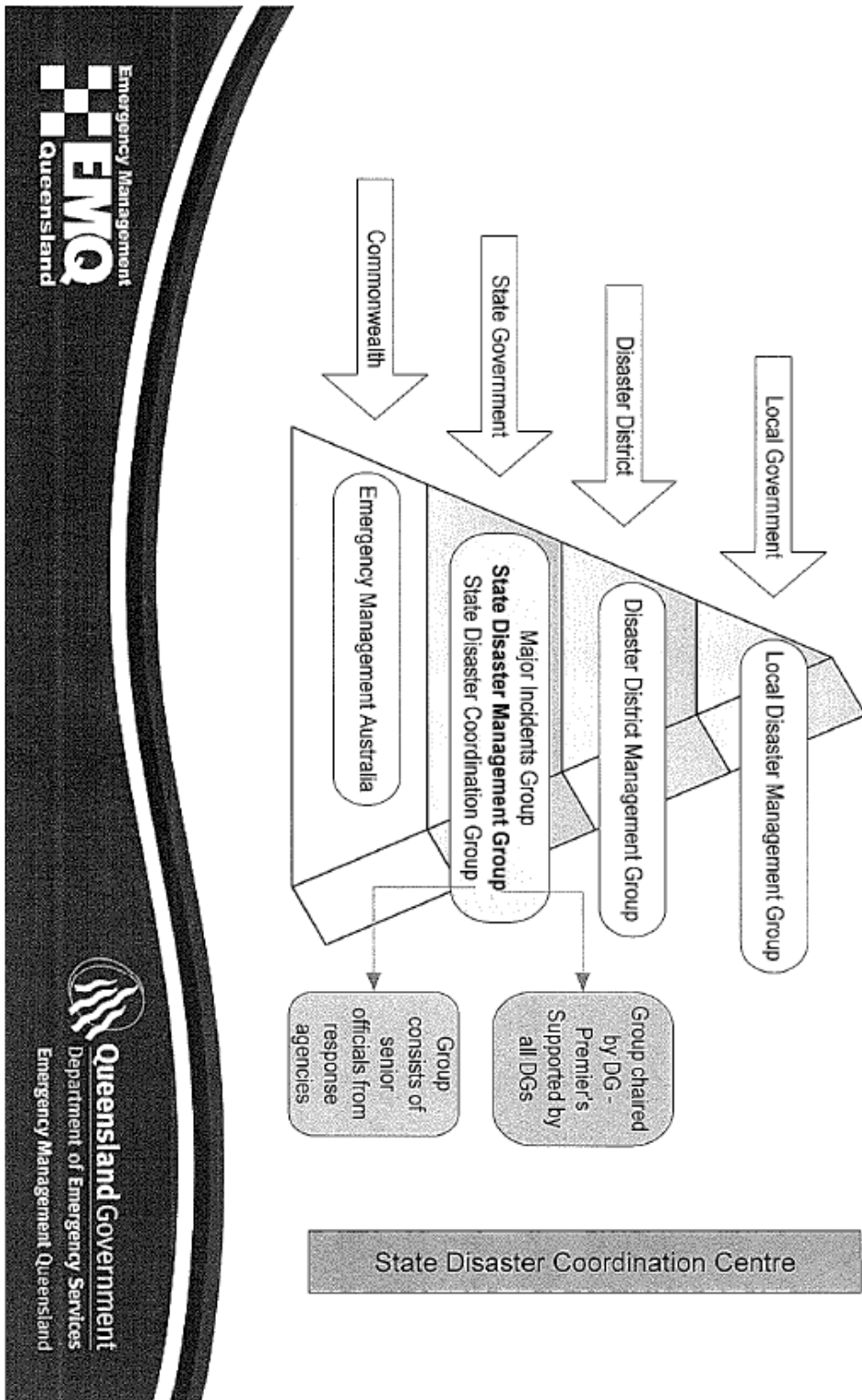
¹⁶ Our story, Pam and Glen Garner, Taken by Storm p26.

Exhibit 1: Map of Queensland



Exhibit 2

Queensland Disaster Management Framework.



Source: Pagano, F., Critical Infrastructure Presentation, 2006 v 2, Emergency Management Queensland.

Exhibit 3: Emergency Planning in Australia

All states and territories

Council of Australian Governments (COAG)

Overall policy-setting entity.

The Australian Emergency Management Committee

Peak consultative emergency management forum.

Chaired by the Attorney-General's Department.

Membership: Chairpersons and Executive Officers of State Emergency Management Committees (e.g. the Queensland State Disaster Management Group);

President of the Australian Local Government Association.

Meets twice a year to provide advice and direction on the co-ordination and advancement of Australian Government and State interests in emergency management issues. Establishes working parties on particular issues.

Emergency Management Australia (EMA)

The agency through which the Attorney-General exercises responsibility for disaster and emergency matters. Provides Australia-wide training at the Emergency Management Institute in Mt Macedon, Victoria.

Emergency Management Liaison Officers

Special designated personnel to assist with provision of skills or resources. Only in agencies which provide resources or have a key function in disaster response.

Source: <http://www.ema.gov.au> downloaded 20-08-2008

Queensland

State Disaster Management Group

Responsible for disaster mitigation and disaster planning and preparation at a State Level and for whole of government response and recovery operations prior to, during and after impact. This includes accessing interstate or Commonwealth assistance when State resources are exhausted or not available.

State Disaster Recovery Committee

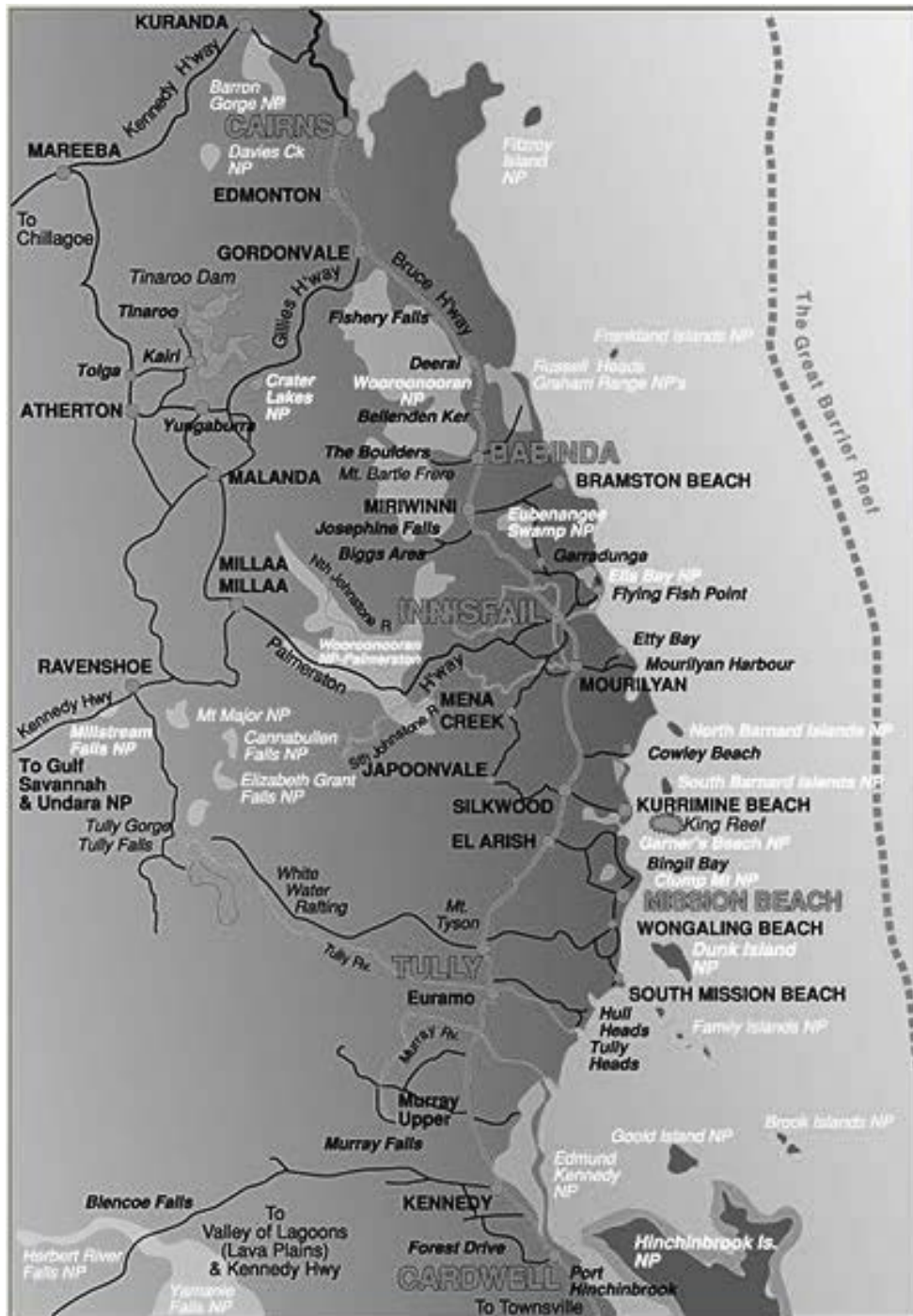
Subgroup of the Disaster Management Group, with welfare focus. Meets regularly during cyclone season.

Emergency Management Queensland

Responsible for disaster management training, management of the State Disaster Co-ordination Centre, and the State Counter Disaster Plan as well as training and equipment support to local units.

Source: www.disaster.qld.gov.au/about downloaded 20-08-2008

Exhibit 4: The Cassowary Coast



Source: <http://www.cassowarycoast.com.au/index.html> downloaded 15-7-2008