5 Emergency response

5.1 Local government response

Disaster response is based on the principle that local governments should be primarily responsible for managing disasters within their region, with support from the district and state disaster management groups.[1] Councils are statutorily required to maintain the ability to deal effectively with a disaster;[2] but they can seek assistance from the district group when they do not have the necessary resources. Disaster response operations involve co-ordination between council, police, emergency services and government departments under the management of the council's local disaster management group.[3] They are carried out at an operational level through a local disaster co-ordination centre, while response agencies (police, State Emergency Service (SES), the fire service) perform operational activities under their own command structures.[4] (For more information about the disaster response agencies see *3.1 Disaster management framework*.)

The 2010/2011 floods highlighted the fact that councils have differing abilities to respond to disaster. Generally speaking, councils' abilities vary according to a range of interrelated factors: geographic differences and vulnerability to particular kinds of disaster; the priority given to disaster management; experience in dealing with disasters (a number of councils in central and south-west Queensland had recently experienced flooding before the floods in December 2010 and January 2011); the resources available for disaster management; and the expertise and training of staff. Some councils were well-prepared and well-equipped to handle the events which confronted them during the floods. Others were less capable; but it must be borne in mind that the events to which councils had to respond differed dramatically in size, severity, suddenness and duration (as described in chapter 1).

For example, because of Rockhampton's location on the Fitzroy River, the council had ample time to prepare for impending flooding, which ultimately isolated the city for several weeks. By contrast, predicted flood levels in Ipswich escalated dramatically over the course of hours on 11 January 2011. As a result, the council had to scramble to warn residents, prepare evacuation centres and otherwise respond before the Bremer River peaked on 12 January 2011. Toowoomba Regional Council received little warning of the catastrophic flash flooding of 10 January 2011. Events in the Lockyer Valley were sudden and overwhelming, causing widespread destruction and tragic loss of life. (Events in Toowoomba and the Lockyer Valley, and the councils' responses to them, are described in detail in chapter 7.) The Somerset region also faced large-scale disaster. The council's entire region (the largest in south-east Queensland) was affected;[5] it was effectively divided into multiple isolated areas.[6] The council did not anticipate the scale of the event or the extent of isolation that occurred,[7] and a number of communities had to initiate their own responses (discussed in *5.1.2 Locality-based disaster management*).

The Lockyer Valley and Somerset councils, both less well-resourced councils, struggled in their respective responses. In the case of the Somerset council, the Ipswich district disaster co-ordinator responsible

for the Somerset region observed that events were beyond the council's capacity to manage.[8] A number of factors limited the Somerset council's effectiveness:

- The council did not have sufficient resources to deal with the size of the event and the isolation of many towns, including Kilcoy, Fernvale, Lowood, Esk, Toogoolawah, Glamorgan Vale, Moore and Wivenhoe Pocket.[9] In particular, it did not have enough staff trained in disaster management.[10] However, it received assistance from Gold Coast City Council, discussed below.

- The local group was not able to operate cohesively.[11] It had planned to meet on 10 January 2011, but members could not attend because they were cut off by floodwaters.[12] The mayor, chief executive officer and local disaster co-ordinator were isolated for a number of days.[13] The group's first meeting occurred on 12 January 2011, by which time numerous towns had been isolated for a period of days.

- The council office and planned disaster co-ordination centre in Esk were flooded, unexpectedly, on 10 January 2011 (the day of the events in Toowoomba and the Lockyer Valley), rendering the co-ordination centre unusable and disabling the council's email system.[14] A makeshift co-ordination centre was established at Fernvale, but because of power and communications failures, co-ordinating activities was 'extremely difficult'. Main operations were consequently moved back to Esk on 13 January 2011.[15]

- Deployment of resources was difficult because many roads in the region were closed.[16]

- Although lack of power did not prevent activities, it limited their timeliness and effectiveness.[17]

- Perhaps most importantly, because of loss of communications, the local disaster co-ordinator had no contact with the district co-ordinator between the morning of 11 January 2011 and late on 12 January 2011 (at least).[18] The local co-ordinator indicated that he did not have contact with other agencies during this interval;[19] however, he did have some contact with Seqwater, the operator of Wivenhoe and Somerset dams.[20] He explained that 'meaningful organisation' started when the ability to 'communicate out' was restored on 12 January 2011.[21] (This issue is discussed further in *5.2 Communication between local, district and state groups.*)

The circumstances in the Somerset region demonstrate that councils' disaster management plans should encompass contingency planning, with arrangements for alternative co-ordination centres, and back-up sources of power and means of communications, so that if facilities, power or communications are lost in a disaster, local groups can continue to function. They also demonstrate that councils need the ability, in large-scale flooding, to respond to simultaneous events in different places, a situation a number of councils faced during the 2010/2011 floods. This issue is discussed in *5.1.2 Locality-based disaster management.*

Notwithstanding the difficulties that Lockyer Valley, Somerset and some other councils experienced during the 2010/2011 floods, the role of councils under the *Disaster Management Act 2003* should not change. Nor is it necessary to add to the statutory powers which presently exist to give directions to local groups.[22] Generally, councils performed capably during the 2010/2011 floods. A great deal of evidence, from many parts of the state, confirmed that disaster responses (and other aspects of disaster management) should continue to be conducted at a local level. The importance of local knowledge in responding to disaster was a constant theme in the evidence presented to the Commission. The case for local stewardship is reinforced by evidence demonstrating the need for locality-based disaster management arrangements, discussed below (see *5.1.2 Locality-based disaster management*).

Accepting that councils should have primary responsibility as the Act prescribes, the focus, before the next wet season and in the longer term, should be on ensuring that all councils are well-prepared for disaster and able to perform their role effectively during disaster events. (Recommendations directed at these objectives are made in sections 3.3 and 3.4.) It is important that in times of disaster those at district and state levels have confidence in the ability and judgment of those co-ordinating local responses (the issue of communication between the three levels is discussed in section 5.2). This can be achieved through development of strong working relationships between the local and district levels. There must also be means of assisting councils when they experience significant difficulties during a disaster.

5.1.1 Council-to-council assistance

On a number of occasions during the 2010/2011 floods, councils provided disaster management personnel (and other resources) to other councils in need of assistance with response and recovery operations. Gold Coast City Council provided staff to help run the disaster co-ordination centre and manage the response in Somerset. While working in the co-ordination centre, Gold Coast personnel trained the Somerset staff. Murweh Shire Council assisted Lockyer Valley Regional Council with staff (discussed in *7.2.5 Lockyer Valley Regional Council response*). Mackay Regional Council sent personnel to assist in the Central Highlands disaster co-ordination centre and relieve its staff. This inter-council assistance was effective during the floods, and should be similarly used to support councils in difficulty (and to manage staff fatigue) during future disasters.

Assistance between councils during the floods was facilitated through the disaster management system, by request from the local disaster co-ordination centre through the district disaster co-ordinator to the state disaster co-ordination centre. In some cases, this process followed direct communications between councils. The Local Government Association of Queensland was also heavily involved in co-ordinating assistance between councils, through its Council to Council (C2C) program, established in early 2010 as a result of floods in south-west Queensland. The program is designed to facilitate assistance to councils during larger-scale disasters, when neighbouring councils are also affected and cannot provide it, by linking councils in need of help with other councils that are in a position to assist.

One of the larger councils expressed a concern that the C2C program involved an interruption in the chain of responsibility under the disaster management arrangements, with requests for help coming from both the state disaster co-ordination centre and the Local Government Association. This, it said, created confusion. The C2C program should be used in future disasters, to facilitate deployment of personnel and other resources to councils in need of assistance. Improvements to ensure effective co-ordination can be made, however: the program should be integrated with the state disaster co-ordination centre; and all participants must clearly understand how it operates. Emergency Management Queensland and the Local Government Association expressed an intention to work together to ensure the program's effectiveness.

The Gold Coast City Council explained that having its co-ordination centre active for the purpose of responding to requests for help enabled it to provide assistance more efficiently. It suggested that, in future disasters, non-affected councils that are able to assist should do the same, a view Ipswich City Council also propounded. In addition, a number of councils indicated that assistance between councils could be provided more easily and effectively if councils used uniform disaster management software.

Some councils intend to develop ongoing relationships with other councils for disaster management purposes; some have already done so. The Commission supports these arrangements.

Recommendations

5.1   When a local government cannot effectively manage its response to a disaster, disaster management personnel from local governments in a position to assist should be deployed to help the local disaster management group.

5.2   Local governments should consider adopting uniform disaster management software, to enable inter-council assistance to be given more easily and effectively.

5.3   To ensure effective co-ordination in larger-scale disasters, deployment of personnel (and other resources) between local governments should be facilitated through the Council to Council (C2C) program.

5.4   The C2C program should be incorporated into the state disaster management arrangements and operate within the structure of the state disaster co-ordination centre.

5.5   The state disaster management group, Emergency Management Queensland and the Local Government Association of Queensland should do further work before the next wet season to ensure that during a disaster:

•   the C2C program meets requests for assistance as efficiently as possible

•   local governments and other prospective participants understand how the C2C program works.

5.1.2 Locality-based disaster management

In many cases, the 2010/2011 floods affected numerous communities within council regions. The resulting challenges were compounded in some regions by distances between communities and their isolation by floodwaters. Some councils struggled to cope. Somerset Regional Council, Lockyer Valley Regional Council and Moreton Bay Regional Council did not provide well for isolated communities. Other councils, however, had the foresight to establish sub-groups of local disaster management groups before the 2010/2011 floods, giving them a means of managing multiple or distant events. Such sub-groups were an effective part of the disaster response.

These groups, which generally included local councillors or council staff, local police and representatives of local emergency services, operated in a number of locations, such as Tara, Miles and Chinchilla, in the Western Downs area; Theodore, in the Banana Shire; Inglewood in Goondiwindi Regional Council's region (a group has been formed in Texas following the floods); and Springsure, in the Central Highlands. They were formed, because of the size of councils' regions (greatly expanded by amalgamation), in order to provide organisation in communities distant from the council's major centre in times of disaster. Banana Shire Council established sub-groups after it experienced flooding in March 2010, in response to community concerns about lack of information from the council. Sub-groups were therefore formed to provide direct information to isolated communities distant from the local disaster management group (but the process had not been formalised before the onset of the floods).

Sub-groups performed this communication role effectively during the 2010/2011 floods, acting as a link between the community and the local disaster management group. They conveyed information about local conditions, allowing a more efficient response, and relayed information from the local disaster management group back to the community. They also provided a level of organisation in the community and, in some cases, co-ordinated resources and response activities. For example, the chairperson of the Springsure group (the local councillor) was involved in organising re-supplies of food and medicines. The chairperson of the sub-group in Theodore remarked that the response to the floods was better than in March 2010 because of the group's existence.

In some places where sub-groups did not exist, arrangements which served similar purposes emerged during the floods. Teleconferences between the Maranoa local disaster management group in Roma and a councillor and local emergency services in the isolated town of Surat were held on a daily basis; and the councillor kept the Surat community informed. In the Southern Downs region, significant flooding occurred in two towns: Warwick and Stanthorpe. The local disaster management group and co-ordination centre were in Warwick. An additional co-ordination centre had to be established in Stanthorpe, isolated from Warwick, to manage events in that town. This demonstrated to the council the need to have resources based in Stanthorpe to ensure the capacity to respond should disaster occur there in future.

Some isolated communities co-ordinated their own responses, independent of local disaster management groups, for want of any other option: they were cut off from assistance. These community responses were led by local SES volunteers, police, rural fire brigade officers, church and community groups or, in some cases, local residents. Some were highly organised, and successful; for example, those in parts of the Somerset region (Fernvale, Wivenhoe Pocket, Linville), Murphys Creek in the Lockyer Valley, Moggill and Mt Crosby in Brisbane, and Woodford in the Moreton Bay region. For more detailed information on the community response in Murphys Creek see chapter 7. The activities these communities managed included assisting in evacuations and rescues of residents; opening and running makeshift evacuation and relief centres (discussed in section 5.5.4); and procuring supplies and organising food drops. The ways in which these communities (and others) coped with their situations were a positive aspect of the response to 2010/2011 floods.

Some communities did run into problems, however. In Woodford and Wivenhoe Pocket, requests to authorities for supplies were not met. The communities instead obtained what they needed by their own means.[23] Residents in Moggill and surrounding areas did not believe they were kept informed as they should have been; they felt that authorities were not aware of their situation.[24] An organiser of the relief centre at Moggill had some difficulty in dealing with the council when trying to procure food supplies, and sought the help of his local councillor.[25] She contacted the local disaster co-ordination centre, which already had arrangements afoot, and supplies were later delivered.[26]

Similar issues will arise whenever a community becomes isolated and immediate assistance is not available. Communities in these circumstances would be aided by established processes for obtaining information and supplies.

The councillor for the Pullenvale Ward in Brisbane (into which Moggill falls) had, in fact, created a community-based group in 2009, because of the risk of the community's becoming isolated and having to manage a response during a disaster. The Pullenvale group was not part of the council's disaster management arrangements and had not reached a stage of organisation which would allow it to operate during the 2011 floods; although the councillor herself took on the role of communicating the needs of the community to the local disaster co-ordination centre. It is advisable that links are established between groups such as this and local disaster management groups.

Some councils have established or intend to establish local arrangements in the wake of the 2010/2011 floods, to deal with large distances (Barcaldine Regional Council) or the risk of isolation. As to the latter, Gladstone Regional Council is seeking to form community-based groups in Agnes Water and the Baffle Creek area as conduits for communication with the local disaster management group. It intends that these groups will ameliorate communication problems which occurred during the floods. Ipswich City Council is developing specific plans for communities susceptible to isolation, such as Goodna, Redbank, Rosewood and Karalee. This may involve establishing groups capable of co-ordinating a response. Moreton Bay Regional Council intends to establish arrangements in Woodford (and other communities) based on that which was organised by the community in January 2011. Brisbane City Council is also developing a plan for the Pullenvale Ward, following a recommendation of the independent review into the council's response.[27]

Other communities affected by the 2010/2011 floods would benefit from specific disaster management arrangements. Murphys Creek (discussed in section *7.2.5 Lockyer Valley Regional Council response*), Oakey and communities in the Somerset region are examples. This is not to say councils should necessarily create sub-groups as other councils have done. But the useful functions such groups performed during the floods demonstrate the advantages of having some arrangements in place in communities distant from, or likely to be isolated by flooding from, regional centres. These arrangements should at least ensure, in the event of disaster, communication between the community and local disaster management group and some level of organisation in the community. They could also assist in preparing the community for disaster generally, providing warnings to residents, and operating evacuation centres (discussed in *5.5.4 Makeshift evacuation centres*). Where councils create formal sub-groups, it is important that the respective roles and responsibilities of the sub-groups and local disaster management groups are clearly understood. Written terms of reference proved to be useful to the Theodore sub-group during the floods, for instance.

Permanent or pre-existing arrangements will not always be possible, however. Isolation may occur in areas not anticipated. In these situations, local disaster management groups, at the very least, need to make contact with the community as early as possible. It is also important that communities understand what to do to cope with their circumstances. Community preparedness is therefore essential (discussed further in *3.5 Community education and driving in floodwaters*).

Recommendations

5.6   As part of their planning before the next wet season, local disaster management groups should identify communities which, because of distance, the potential for isolation by disaster, or any other reason, may require specific disaster management arrangements, and take steps to establish them. Such arrangements may include forming disaster management sub-groups in those communities.

5.7   Whatever form arrangements take, they should seek to ensure that, in the event that flooding causes isolation:

- there are lines of communication between the local disaster management group and the community
- the community has the basic resources it needs to cope with its situation
- the local disaster management group is aware of what supplies the community may need in prolonged disaster, and can respond to requests for assistance in a timely way
- potential evacuation routes and centres are known.

5.8   Where a local government forms a sub-group of its disaster management group:

- the responsibilities of the sub-group must be clearly defined within the local disaster management arrangements
- each member of the sub-group must clearly understand his or her role.

The Commission recommends that sub-groups and local disaster management groups set out their respective roles and responsibilities in writing.

5.2 Communication between local, district and state groups

Communication is essential to effective disaster response. During a disaster, the disaster management system depends on the flow of information between the local, district and state disaster management groups.[28] Communication from the local group to the district group, in particular, is critical. The local group reports on the disaster situation. The district and state groups depend on this local information; demands for information were high during the 2010/2011 floods. When the local group requires assistance, it communicates its request to the district; and, since disaster responses are to be managed primarily at the local level, ordinarily the local group receives assistance from the district and state only if the former requests it.[29] A disaster response can therefore be hindered if a local group is prevented from communicating information or requests to the district, as happened in the Somerset region.

The Somerset local group had no contact with the Ipswich district group between (at least) early on 11 January 2011 and late on 12 January 2011, because of loss of communications.[30] The district group received information from local police in some areas of the region, who were in contact with some members of the council.[31] The district co-ordinator was aware some 'activities [were] occurring in parts' of the region,[32] and of the status of water and power supply in some areas.[33] But his knowledge was limited as to the extent of the situation, the degree to which the local group was functioning, and what assistance it needed.[34] Physical access to affected areas was restricted, if not prevented, by road closures and scarcity of helicopters.[35] (Further information about the response in the Somerset region is provided in *5.1 Local Government Response.*)

Disaster response has the potential to break down if communication between the local and district groups is lost. When this occurs, a district co-ordinator should take action to ascertain the situation as completely as possible; establish communication with the local disaster co-ordinator or otherwise satisfy himself or herself that the local group is functioning; and ensure the local group receives necessary assistance.

5.2.1 Communication with local groups

Just as the district and state levels rely on local groups for information, local groups rely heavily on information from the district and state levels. As the bodies with primary responsibility for managing disasters, local groups should be informed of all matters relevant to the performance of their functions. On occasions during the 2010/2011 floods, local groups were not kept as informed as they should have been. In some cases, for instance, information was not forthcoming about the status of requests local groups had made. This made their planning more difficult.[36]

In other instances, local groups were not consulted when that would have been prudent. For example, an emergency alert text message was sent to residents of the Moreton Bay region at the state group's direction, without the local group's having been informed. (This is discussed further in *4.1.1 Warnings.*) Local groups were not consulted on some occasions where the state group sent resources which had not been requested (a departure from the usual process by which local groups receive assistance, but contemplated by the state disaster management plan).[37] In one such case, arrangements were made at state level with the Australian National Retailers Association for a food re-supply to Rockhampton, but the local group (which had a food re-supply process in place) and the district group were not informed of the arrangements.[38] In another case, the state group sent an Emergency Management Queensland helicopter (see *5.3.8 Emergency Helicopter Network*) from Townsville to St George, anticipating that it might be required in that region.[39] Neither the local group nor the district co-ordinator had requested it. The helicopter was not required and was sent elsewhere the next day. Defence force helicopters were also sent to St George and Roma on a different occasion.[40] While these helicopters provided assistance, the local groups were not initially aware of the decision to deploy them to their regions. This apparently caused some logistical difficulties.[41]

The Commission is not critical of the state group's actions in these cases. Pre-emptive actions may be advisable, and indeed necessary, in times of disaster, and the Commission does not wish to discourage the state group's taking precautionary steps in future. Where the state group proposes to take such action, however, it should consult with local groups and district groups unless it is simply not possible to do so, in order to assist local level planning and avoid unnecessary deployment of resources. As the O'Sullivan Review said on this topic:

> [It is essential] that District and Local levels are fully informed about the State's requirements, intentions and actions so that they don't compromise, but enhance, District and Local arrangements already in place.[42]

The Commission also notes, in this context, that consultative decision-making is an important principle under the state disaster management plan,[43] which also states that 'all deployments should be co-ordinated with [local groups] and should not be a drain on local resources'.[44]

A state-wide information and communication technology system, to which all levels of disaster management (and other disaster management agencies) are connected, could address some of these issues.[45] Presently different systems are used by councils, police, emergency services and government agencies. The O'Sullivan Review considered this an impediment to effective co-ordination during a disaster, and a matter requiring 'urgent attention'.[46] Emergency Management Queensland is developing the All Hazards Information Management System, which will provide participants in the disaster management system with a single source of information.[47] The Commission notes that funds were allocated in the 2011/2012 State Budget towards its development. Among other functions, the system will enable local, district and state groups to track the status of requests for assistance.[48] This function will not be available by the next wet season, however. The system is being developed progressively, because of the significant work and costs involved.

The Commission supports the development of the All Hazards Information Management System as the state's integrated communication and information system for disaster management.

Recommendation

5.9   Until the All Hazards Information Management System is in place and allows the status of requests for assistance to be tracked, other means should be used to keep local disaster management groups informed of the progress of requests for assistance.

5.2.2 Participation in teleconferences

The large scale of the 2010/2011 floods resulted in numerous local and district groups participating in regular state-wide state disaster co-ordination centre teleconferences. The large number of participants meant that the meetings could last for more than three hours at a time, making them time-consuming. Concerns were expressed about the potential this had to distract both local and district level participants from their immediate operational responsibilities, which was particularly frustrating if the contribution required of them was minimal. The effect was exacerbated in smaller districts where there were typically fewer disaster management personnel available to respond to an event.[49]

Nevertheless, the Commission acknowledges that the teleconferences provide a vital forum for the exchange of up-to-date first-hand information, and remain the single most important means for doing so at a state-wide level. Not only can a strategic overview be developed at the state level, but critical intelligence can be conveyed to local level participants. By way of an example of the disadvantages of non-involvement, the Ipswich City Council was not present at a state teleconference on 11 January 2011 to hear advice from the Bureau of Meteorology about a significant increase in its predictions for the height of the Bremer River. (This is discussed further in *4.2.7 Bureau communication with Ipswich City Council on 11 January 2011*.)

There is a need to strike a balance between the competing imperatives of using the time of local and district level personnel to best effect on the one hand, and the need to maintain the timely flow of important information within the disaster management system on the other. To this end, a communication protocol could be developed by the state disaster management group to govern, and make more efficient, participation in the state-wide teleconferences.

There are a number of ways by which the duration of the teleconferences, for individual participants at least, could be shortened without compromising the effectiveness of the meetings. The Local Government Association of Queensland proposed that local groups participate in state teleconferences only when faced with a specific or immediate threat, so that the state group could obtain the most current advice as to the local situation in those cases. Outside these occasions, the relevant district disaster co-ordinator could represent the local group at the state teleconference.[50] Should arrangements of this nature be implemented, clear communication protocols between local and district groups would also need to be developed and applied during disaster events.

Alternatively, and ideally, the development of the All Hazards Information Management System could enable the focus of the state disaster management group teleconferences to move from data collection to data presentation and strategic response.[51] This could reduce the length of the meetings, so that broad participation could be maintained. It could also enhance the quality and timeliness of the strategic-level response.

However, the Commission understands that the All Hazards Information Management System may not provide this function by the next wet season. In the meantime, communication protocols are an appropriate interim measure.

> ## *Recommendation*
>
> 5.10   A clear protocol should be developed for managing the participation of local and district disaster management groups in the state level teleconferences, to govern and make more efficient participation in the teleconferences.

5.3 Rescue

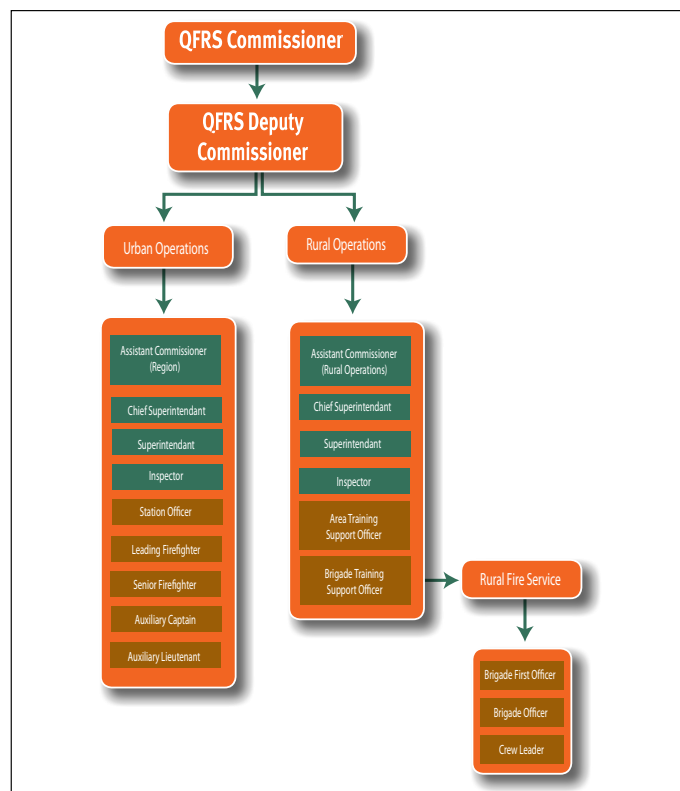### 5.3.1 Queensland Fire and Rescue Service

The Queensland Fire and Rescue Service was heavily involved in the response and rescue effort in the 2010/2011 floods. The fire service is one of four operational divisions of the Department of Community Safety and provides a range of rescue services in addition to its firefighting capabilities. It is the only agency in Queensland that performs swift water rescue, a capability that was in unprecedented demand during the floods across Queensland, especially in Toowoomba and the Lockyer Valley. The floods revealed some particular limitations in the fire service's capacity to provide swift water rescue.

The Commission has been advised that the fire service is conducting a state-wide review of swift water rescue considering: training and numbers of staff trained based on regional risk assessments; equipment; current procedures and compliance with them; deployments; and possible future growth; and that the findings of that review are to be implemented before the next wet season.[52]

Background – fire service operations

The fire service is divided into urban and rural operations, overseen by the Commissioner and Deputy Commissioner, as illustrated in figure 5(a).

Figure 5(a)

Source: Foundations of Queensland Fire and Rescue Service, p30 [amended]

Urban Operations is divided into seven regions, each managed by an Assistant Commissioner. The seven regions, illustrated in figure 5(b) are:

- far northern region
- northern region
- central region
- north coast region
- south-western region, spanning from Toowoomba in the east, west to the South Australian border and south to the New South Wales border
- south-eastern region, including Ipswich, Logan City and the Gold Coast
- Brisbane region.

Figure 5(b)
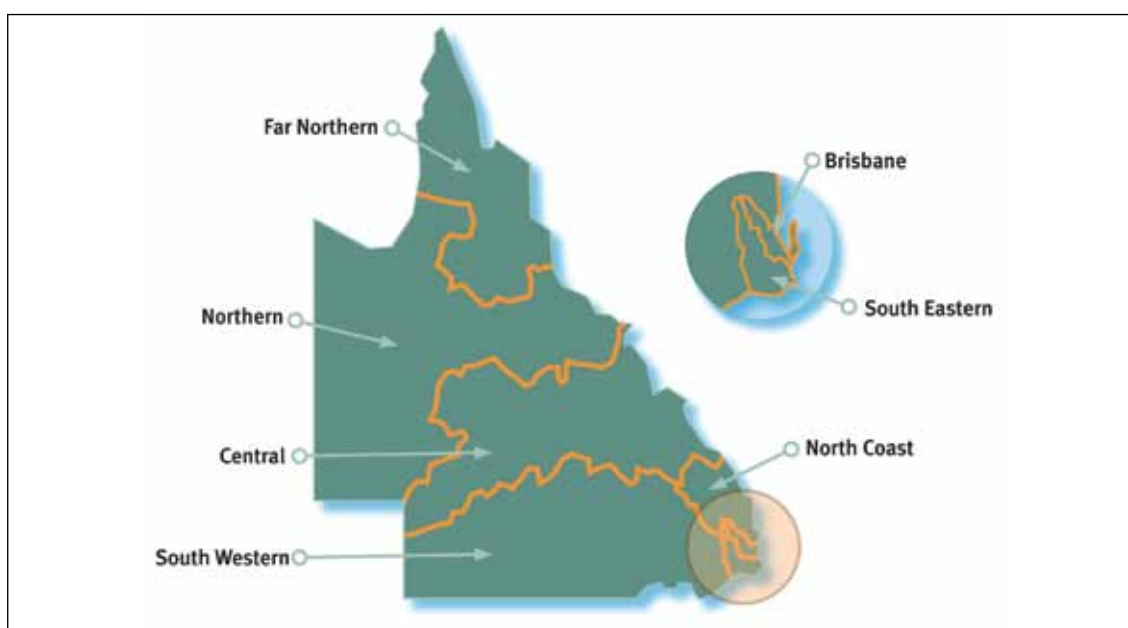
Source: Foundations of Queensland Fire and Rescue Service, p28

The regions are further divided into areas, each of which houses a combination of permanent and auxiliary fire and rescue stations. The permanent fire stations are staffed by full-time firefighters and the auxiliary stations are served by part time (auxiliary) firefighters who are on call and respond to incidents as required. Approximately 4000 full time and auxiliary firefighters staff the 243 urban stations in Queensland.[53]

The rural fire service, comprised of 34 000 volunteers across 1519 rural fire brigades, supplements the urban operations of the fire service.[54] Operating in the seven regions depicted in figure 5(b), the rural fire brigades serve localities that do not have urban stations. Rural Operations, led by the Assistant Commissioner (Rural Operations), provides support to the volunteer-run rural fire brigades. The term 'appliance' is used in this section to refer to fire trucks and other specialty vehicles used in its firefighting operations (see the glossary in Appendix 3).

Swift water rescue – training

Swift water is defined as water moving down a gradient and flowing at a speed in excess of two kilometres per hour.[55] Swift water rescues, often performed during flood seasons, can be dangerous for rescuers and those to be rescued.

Select firefighters are trained as specialist rescue technicians, receiving training across five disciplines including swift water rescue. The swift water rescue training, known as 'Level 2', is the highest level of training available and comprises 20 hours of pre-course learning and five days of face-to-face training. It is usually undertaken after the technician has completed training in the four other specialty rescue disciplines and assumes advanced knowledge of

vertical rescue (rope rescue skills). Firefighters who have completed Level 2 swift water rescue training are referred to as swift water rescue technicians.[56]

Swift water technicians are trained to locate, reach, stabilise and rescue people from swift water using a variety of land-based and water-based tactics. Water-based tactics, which entail entering the water and wading, swimming or using special boats ('inflatable work platforms'), pose the highest risk to both the rescuer and those to be rescued and can only be performed by swift water technicians.

All full time firefighters and selected auxiliary firefighters receive 'Level 1' swift water training.[57] This level of training ensures firefighters are aware of potential hazards and teaches land-based techniques including:

- communicating with the person to be rescued to keep him or her calm and to stabilise the situation
- attempting to reach the person with equipment, such as a pole, to perform a rescue without entering the water
- using throw bags or other lines to rescue a person
- providing land-based support to swift water technicians performing water-based rescues.

The lowest level of swift water rescue training, known as 'Swift Water Rescue Awareness', is made available to auxiliary and rural firefighters.[58] Awareness training is said to provide firefighters with the knowledge necessary to:

- ensure their personal safety and assess the scene
- undertake activities to stabilise the situation, such as preventing bystanders being swept away and conducting searches from the bank to identify any people who need rescue
- understand what equipment they need for a given rescue
- make appropriate requests for specialty equipment required.

At this level, firefighters are not instructed in any skills or techniques necessary to assist in performing land-based or water-based rescues. The training consists of watching a 20 minute DVD presentation, followed by discussion.

Swift water rescue – numbers and deployment

Swift water rescue technicians (Level 2)

The fire service did not have enough firefighters trained as swift water rescue technicians (Level 2) to meet the demands of the 2010/2011 floods.

As at 25 October 2010, there were 203 Level 2 swift water technicians trained across Queensland, 50 fewer than the approved total of 253.[59] The fire service had available another 43 rescue technicians who had not received swift water training, but had received training in other rescue disciplines. Thirty-one technicians were scheduled to undertake Level 2 swift water rescue training in July 2011.[60] The state manager for technical rescue explained that the approved numbers of rescue technicians are determined 'according to a business case based on a regional risk assessment'.[61]

The prevailing view among operational staff was that at least two Level 2 technicians with additional Level 1 support personnel were needed to safely perform a swift water rescue.[62] The rescue co-ordinators for the south-eastern and south-western regions both advocated an increase in the number of Level 2 swift water technicians. They argued that a base roster of two technicians per shift does not allow for complex swift water rescues, which need more than two technicians, or for the multiple swift water incidents which may occur at the same time during the wet season.[63]

There are 11 swift water technicians in the south-western region; 10 based in Toowoomba and one in Warwick. Under the present staffing model, it is not possible to ensure a minimum of two technicians are rostered at all times in the Toowoomba area.[64]

A swift water technician gave evidence that the number of swift water technicians in Toowoomba was 'manifestly inadequate through the wet period' and that rescues were delayed or carried out by members of the community because there were not enough staff to respond to the scale of the incidents.[65] Of the 39 swift water rescues that were recorded in the south-western region during the period 26 December 2010 to 11 January 2011, 24 were rescues in which only one or no Level 2 technicians took part. Of those 24 rescues:

- four were rescues in which Level 1 trained firefighters participated, with only one Level 2 technician
- five involved only Level 1 trained firefighters
- three involved Level 1 and Swift Water Awareness trained firefighters, with only one Level 2 technician
- six were performed by a combination of Level 1 and Swift Water Awareness trained firefighters, without any Level 2 technicians
- six were rescues performed by Swift Water Awareness trained firefighters only.

On 10 January 2011 in Toowoomba, there were two Level 2 technicians rostered at the city's Kitchener Street station and none at Anzac Avenue station. Having unsuccessfully sought extra technicians for the day, the Kitchener Street station officers decided to split the technicians between the two fire trucks to respond to swift water incidents in Murphys Creek, in the hope that at least one fire truck would get to the job.[66] Ultimately, both trucks were prevented by floodwaters from reaching Murphys Creek and the firefighters were redirected to other swift water incidents in Toowoomba. Both station officers gave evidence of performing rescues that were made significantly more difficult and dangerous by having only one swift water technician involved. In one case, a Level 1 trained station officer and a swift water technician attempted to rescue up to 11 people at the one time from swift water.[67] Another rescue was performed with only one swift water technician, assisted by Level 1 trained firefighters standing in chest-deep water. The technician remained in the water for 30 to 45 minutes, communicating with the person he was attempting to rescue and eventually attaching a float rope to him, but was unable to complete the rescue until a second technician arrived.[68]

The south-eastern region is one of the two regions in which the approved quota of swift water technicians has been filled, but the regional rescue co-ordinator for that region gave evidence that there are still not enough technicians.[69] An Ipswich based swift water technician also gave his view that there were not enough Level 2 technicians available during the floods.[70] The problem seems to have been exacerbated by the fire service's reliance on deploying technicians to meet swift water demands across the state, especially in areas that do not have permanently staffed stations (considered further in the section *Areas without permanently staffed stations* in 5.3.1 below). The south-eastern region was one of those required to send firefighters to assist elsewhere, and as a result, was under-resourced to respond to the floods in its own region.[71] One Ipswich based technician described being nearly on constant deployment for swift water rescue between Christmas and mid-February.[72] On 10 January 2011, of the 10 swift water technicians based in the Ipswich area, two were returning from a seven day deployment to Emerald, and another two were still on deployment to other parts of the state.[73] There was only one swift water technician at each of the Ipswich and Beenleigh stations.[74] According to the south-eastern regional functional plan for swift water rescue, when the level of swift water preparedness is elevated on the basis of wet weather, at least two swift water technicians should be on duty at the Ipswich and Beenleigh stations.[75]

There is a lack of clarity in the instructions given to firefighters about how many Level 2 swift water rescue technicians and Level 1 support personnel are required to safely perform a swift water rescue, and what to do if those minimum numbers are not available. Each of the firefighters who gave evidence on this issue believed at least two Level 2 technicians with additional support personnel were required to perform a swift water rescue in accordance with the fire service's Operations Doctrine, which governs the service's emergency response and incident management.[76] Some firefighters apprehended that if they decided to perform a rescue when the minimum numbers were not available, they were operating outside of the Operations Doctrine and potentially without the support of the fire service.[77]

The Operations Doctrine provides minimal guidance. The matter is addressed in one Fire Communications Centre Directive and one Incident Directive. *Fire Communications Centre Directive Q-3.13* states that the initial despatch to a swift water incident should be one pumper and one specialty rescue/rescue appliance.[78] (For more information about 'appliances' see the glossary in Appendix 3.) A pumper is crewed by four firefighters and a rescue appliance by two; thus, the initial despatch to a swift water incident is six firefighters.[79] *Incident Directive 24.1.5* states that 'under deployment conditions, a minimum of two (2) Level 2 Swiftwater Floodwater Rescue Technicians are to be mobilised with Level 1 Swiftwater Floodwater Rescue Technicians (for support) to all swift water rescue incidents; or to standby at areas identified as a risk'.[80] Although it is not obvious from the expression, the state manager for technical rescue explained that 'under deployment conditions' did not refer to responding to a particular incident, but only to situations where teams of firefighters were sent to an area in advance of anticipated demand.[81]

Each region also has its own functional plans for technical rescue and swift water rescue.[82] However, a comparison of the south-eastern regional functional plan, which includes a detailed section on elevated levels of preparedness for swift water rescue and the staffing of swift water technicians, and the south-western plan, with no such detail, shows the potential for variation between regions. The fire service must ensure the guidelines for swift water rescue are consistent between the regions to avoid unnecessary confusion.

Auxiliary and rural firefighters

Because there were not enough swift water rescue technicians available to respond to the swift water incidents during the 2010/2011 floods, auxiliary and rural firefighters were operating in swift water environments without the necessary training.

The state manager for technical rescue explained that the Swift Water Awareness package is available to all auxiliary and rural firefighters, but did not give evidence about how many firefighters have actually received the training.[83] The south-eastern regional rescue co-ordinator said in evidence that the majority of auxiliaries in that region have not received any training of that type.[84] In any case, awareness training only provides firefighters with sufficient knowledge to ensure their own personal safety and to perform a limited range of back up tasks to support Level 1 and Level 2 trained firefighters. They do not have the skills to assist in land-based or water-based rescues.

The figures from the south-western region set out above in the section *Swift water rescue technicians (Level 2)* show (in the last three categories listed) that 15 rescues involving auxiliary or rural firefighters with Awareness Level training, were performed with only one or no Level 2 technicians. There was evidence that in Dalby firefighters had entered flood waters with SES crews in SES flood boats to conduct rescues.[85] (SES members are untrained in swift water rescue.) A swift water technician who was both a permanent firefighter and a captain at an auxiliary station in the south-eastern region gave evidence that auxiliary firefighters performed swift water tasks when there were no technicians available because of a sense of obligation as firefighters to protect life.[86] There was also evidence that firefighters felt the pressure of community expectations to respond if they were at the scene of an incident, rather than waiting for the technicians to arrive.[87]

Because of the number of instances where auxiliary firefighters have entered swift water to conduct rescues, current and former rescue co-ordinators in the south-eastern and south-western regions recommended that all auxiliary firefighters should receive Level 1 training.[88] The south-eastern co-ordinator also advocated Awareness Level training for all rural firefighters.[89]

Areas without permanently staffed stations

The fire service faces a challenge to provide adequate swift water capability in areas that do not have permanently staffed stations; which rely on the deployment of swift water technicians from other centres.

Dalby, served only by auxiliary firefighters, was an example of an area with a history of swift water rescue incidents and yet no permanent swift water capability. While the fire service was able to deploy a team of technicians to Dalby on 27 December 2010 on the basis of flood forecasts, deployment from elsewhere is not a satisfactory or permanent solution. In the event of an unpredicted swift water incident, technicians must come from Toowoomba or Warwick, approximately one hour away by road. The Commission heard evidence of a swift water rescue in Dalby on 20 December 2010 where this delay was compounded when the first swift water team (in an SES flood boat with its driver) got into difficulties and had to await the arrival of a second team from Toowoomba. That rescue took two and a half to three hours in these circumstances.[90] Other towns face similar issues in the south-western region without permanently staffed stations, such as Roma and Goondiwindi.[91]

Recommendations

5.11 The Queensland Fire and Rescue Service should increase the number of swift water technicians (Level 2) to at least meet the quota for the approved number of rescue technicians in each region.

5.12 The Queensland Fire and Rescue Service should consider whether the approved number of swift water technicians in each region is appropriate to meet the demands of that region.

5.13 The Queensland Fire and Rescue Service should revise the Operations Doctrine to clarify:

- how many Level 2 swift rescue technicians and Level 1 support personnel are required to safely perform a swift water rescue
- the options available to an incident controller at a swift water incident with fewer than the required personnel and what considerations they should take into account in their decision-making.

5.14 The Queensland Fire and Rescue Service should consider providing Level 1 swift water rescue training to all auxiliary firefighters stationed in areas susceptible to flooding.

5.15 The Queensland Fire and Rescue Service should ensure all rural fire service volunteers and auxiliary firefighters stationed outside areas susceptible to flooding receive Awareness Level swift water rescue training.

5.16 The Queensland Fire and Rescue Service should identify areas that are likely to require, but do not have, swift water capability during the wet season and consider how it can best provide a permanent capability to any such area.

5.3.2 Queensland Fire and Rescue Service preparedness for and response to the events of 10 January 2011

Evidence from the south-eastern region

An Ipswich station officer gave evidence of the difficulties he encountered on the morning of 10 January 2011 in trying to recall additional staff, including swift water rescue technicians, for duty at Ipswich, where only one swift water technician was rostered on.[92] He was aware that there was also only one swift water technician rostered at Beenleigh. The station officer's reading of the Bureau of Meteorology website had prompted him to begin making phone calls to the duty manager of operations, from 7.30 am. He was twice told that his request for additional staff would have to wait until a management meeting later in the day. The station officer went outside the usual chain of command and made phone calls to the regional technical rescue co-ordinator and to the acting assistant commissioner for the region. He made personal contact with one swift water technician, who agreed to report for duty and arrived at Ipswich station at approximately 9.00 am. The acting assistant commissioner gave evidence of a direction given at around 8.30 am to bring in additional resources after ascertaining there would be difficulties obtaining the support usually available from Toowoomba, due to the floods.[93] Another swift water technician was called in for duty at Ipswich, reporting at approximately 12.00 pm, and a rescue appliance travelled from Beenleigh to assist in a rescue near Ipswich.

A swift water technician and two auxiliary firefighters were called in for duty at Gatton station.[94] They attended a swift water rescue in Murphys Creek at 1.40 pm. There they encountered three units from Ipswich: the rescue appliance, the pump truck and a small four wheel drive vehicle carrying the two swift water technicians called in to duty. An appliance from Helidon was also in the area.

The acting assistant commissioner gave evidence of another two appliances deploying into the Lockyer Valley later that day.[95] One, crewed by two swift water technicians from Cannon Hill in Brisbane, was diverted there after trying unsuccessfully to reach Toowoomba; the other was crewed by one swift water technician from Roma Street. There is no evidence about the time these technicians were deployed to or arrived in the Lockyer Valley, although the Cannon Hill appliance was reported as being seen at the Lockyer Creek Bridge on the Warrego Highway probably at about 6.30 pm.[96] According to the regional rescue co-ordinator, after it became apparent that there was a major disaster occurring in the Lockyer Valley, three additional units – a swift water support vehicle from Ipswich

with two swift water technicians, a utility carrying swift water rescue crew from Beenleigh and a rescue appliance brought up from Helensvale – were sent to the Gatton area between 5.00 pm and 8.00 pm.[97]

The fire service has also provided some evidence of contact made with auxiliary brigades and volunteer rural fire brigades in the south-eastern region on the morning of 10 January 2011 to warn of severe weather forecasts and check availability to report for duty.[98] A spreadsheet detailing deployment of all personnel in the south-eastern region on 10 January 2011 has been provided. The utility of this spreadsheet is limited by the fact that it does not show when people and appliances were sent, or when they arrived at their destinations. The evidence tends to indicate that significant numbers of additional personnel were deployed by the end of the day, but that the fire service would have been in a stronger position to meet the demands of 10 January 2011 if action had been taken more promptly in response to calls for additional personnel made early in the day by the Ipswich station officer.

Evidence from the south-western region

Six staff, including two swift water technicians, were rostered to Kitchener Street station in Toowoomba on 10 January 2011.[99] There were no swift water technicians on duty at Anzac Avenue station. During the previous evening, Kitchener Street staff had responded to a number of swift water incidents in Grantham. On the basis of these incidents, the station officers on 10 January 2011 decided that more swift water technicians were needed. From mid-morning, they tried unsuccessfully to contact the area inspector to authorise additional staff deployments. They left messages to which they received no response.[100] The station officers gave evidence that they received no warning from fire service management about the weather events approaching Toowoomba on 10 January 2011; the first time they became aware of the severity of the events was when they were called to a swift water rescue in Murphys Creek at 1.30 pm.[101] The difficulties they faced when performing swift water rescues without enough technicians have already been described in *Swift water rescue technicians (Level 2)* in section 5.3.1.

A tabularised summary of information of fire communications voice logger tapes provided by the fire service shows that fire communications received information that the Oakey air base was being evacuated due to forecast floods at 11.37 am and records observations of the impending storm cell on the Bureau of Meteorology website at 12.02 pm and 12.47 pm. There is no evidence that any of this information was passed onto station officers.[102]

At 12.50 pm, an additional staff member was called in to the fire communications centre. Auxiliary stations were stood up at Oakey, Pittsworth, Highfields, Millmerran and Inglewood. A Toowoomba swift water technician gave evidence of being contacted by fire communications at approximately 1.45 pm to attend for duty some hours ahead of his scheduled shift and of making efforts to mobilise other technicians.[103] Other than the call to him, there is no evidence of calls being made by fire communications to recall permanent staff to duty.

The fire communications summary indicates that a number of staff, including five additional swift water technicians, contacted fire communications and made themselves available for duty from 2.00 pm onwards. A firefighter who went to Kitchener Street station at about 1.45 pm found three appliances, though no crew.[104] The staff deployment spreadsheet for the south-western region provided by the fire service is of limited use because it does not show times of staff deployment and whether staff were recalled or self-responded. The evidence tends to indicate that management took significant steps to recall auxiliary staff (who are not trained to perform swift water rescue) to duty, but that additional permanent staff and swift water technicians responded on their own initiative.

Conclusion

The persuasive and consistent evidence of firefighters in the south-eastern and south-western regions was that the fire service management did not act in a timely manner to prepare permanent fire stations for the events of 10 January 2011 by passing on warnings about the approaching weather events and recalling additional staff to duty. This evidence suggests that the fire service management response was, in general, by way of reaction to events and that the successes of 10 January 2011 were largely attributable to the responses of operational staff to the unfolding emergency.

The Commission explicitly sought information from the fire service to respond to the allegations that it did not respond adequately to the events of 10 January 2011. The Commission also provided the fire service with draft findings on this point, indicating that it was not able to come to a conclusive view about the allegations without this information. The fire service has provided the Commission with some evidence in response to the allegations.

Unfortunately, whether through unwillingness or inability, it has not provided sufficient detail for the Commission to reach clear factual findings on the allegations, for the purposes of this report.

In particular, the Commission has not been provided with sufficient information to answer the following questions:

- whether management staff of the Queensland Fire and Rescue Service responded promptly to station officer requests for more staff on 10 January 2011

- whether management staff of the Queensland Fire and Rescue Service took all reasonable steps to recall staff to ensure operational preparedness for the events of 10 January 2011

- whether management staff of the Queensland Fire and Rescue Service communicated weather forecasts and warnings to station officers in order to give stations some forewarning of what local conditions were likely to be and ensure that stations were as prepared as possible for the events of 10 January 2011.

This is an interim report. The Commission is prepared to review this issue if the fire service provides evidence which allows the Commission to answer these questions.

5.3.3 Helicopter training for swift water technicians

During the 2010/2011 floods, swift water technicians were using helicopters to perform rescues and evacuations (for example, evacuations from Forest Hill using an Australian Defence Force helicopter and an emergency services helicopter)[105] without having any training in the safe performance of rescues from helicopters. One of those technicians identified a need to train swift water technicians in basic helicopter procedures, including how to use winches and how to manoeuvre in and out of the aircraft.[106]

The fire service provided a draft memorandum of understanding with Emergency Management Queensland for joint helicopter operations.[107] The memorandum envisages the development of a training program that would be compulsory for all staff from the two agencies who may be involved in joint operations. Emergency management staff will receive training about land and water-based swift water rescue operations, safety issues for swift water rescue technicians and the equipment used for rescues. Fire service staff will receive training to become familiar with the various types of aircraft used for joint operations and to understand winching and emergency procedures. The memorandum provides a basic framework for co-operation. The details of training and operational procedures will need to be formulated separately.

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Recommendations

5.17   The memorandum of understanding between the Queensland Fire and Rescue Service and Emergency Management Queensland should be finalised.

5.18   The joint helicopter operations training program contemplated by the memorandum should be devised and provided to all relevant staff of the Queensland Fire and Rescue Service and Emergency Management Queensland.

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5.3.4 Equipment for swift water rescue

Radio equipment

A number of firefighters gave evidence of the difficulties they faced operating during the floods without waterproof radios. They explained that the water resistant radios available to firefighters do not work in the rain and can fail completely if dropped in water.[108] As most of the work during the floods involved working in rain or floodwaters, it was impractical for firefighters to carry their radios on their persons. Instead they could use them only from sheltered positions, usually inside the fire truck from which they were working.[109] Many crews did not have additional helpers who could stay inside the truck and operate the radio while others were performing rescues. Consequently, these crews were working on 10 January 2011 without reliable radio communication.[110] It was also stated that the radios currently used hinder operations, because they are difficult to hear and to keep secure when firefighters are moving around.[111] It was suggested that even if those radios had waterproof covers, they would still be hard to use; waterproof radios were the preferred solution.[112]

Firefighters during floods at Helidon, 10 January 2011 (photo courtesy Martin Thomas)

The state manager for technical rescue responded by saying that most regions had purchased waterproof covers for the radios.[113] None had been obtained for Toowoomba as at 10 January 2011, but they have subsequently been purchased.[114] A research and development project is currently under way in preparation for the next wet season, testing waterproof radios linked to in-helmet headsets to allow swift water technicians hands-free communication.[115]

A particularly serious example of the dangers of operating in swift water environments without appropriate radio equipment occurred in Toowoomba on 10 January 2011. A Level 1 trained firefighter was assisting a Level 2 technician in a rescue in fast-flowing water when the latter was swept away with the two people he was attempting to retrieve. As they were performing the rescue without any land-based helpers, and had no waterproof radio that they could take into the water, the firefighter still on his feet had to wade back to the fire truck to make a 'code red' call (which signals that a firefighter is in immediate danger) over the radio. This process took about 90 seconds.[116] Another team was performing a rescue in water 50 metres away, but they similarly did not have radios usable in water and did not receive the 'code red' call.[117] In the event, the technician was able to rescue himself from the water and the people he was trying to rescue were intercepted further downstream.

A swift water technician working in the south-eastern region, where waterproof bags had been purchased, said that there were only a limited number of bags available. Consequently, he and his partner had no means of radio communication when they entered floodwaters to perform a rescue in the Ipswich area because the available bags had been deployed with another swift water team to Gatton.[118] He made the further point that when swift water teams are deployed to regions other than their own, they are given a communications pack containing one radio to be shared between four technicians, rather than the usual allocation of one radio per firefighter. Logically, firefighters performing rescues on deployment need the same equipment to ensure safe operation as they do when working from their home stations.[119]

Recommendations

5.19   The Queensland Fire and Rescue Service should purchase waterproof radio equipment that:

- is appropriate for swift water and normal fire fighting environments
- will attach securely to firefighters in a way that does not hamper their operations.

5.20   The Queensland Fire and Rescue Service should work towards providing hands-free means of communications to swift water technicians for in-water operations.

5.21   The Queensland Fire and Rescue Service should ensure that rescue technicians on deployment are provided with individual radios, rather than sharing a communications pack.

Personal floatation devices

Spare personal floatation devices are carried on specialty rescue appliances but not on urban pump trucks. Urban pump trucks, which are sent to assist at swift water incidents, carry between two and four personal floatation devices. Consequently, there may not be enough floatation devices for each of the four firefighters crewing the vehicle and there will only be spare floatation devices for people to be rescued once a specialty rescue appliance reaches the incident.[120]

The state manager for technical rescue gave evidence that personal floatation devices suitable for children or infants had been purchased by most regions and are now carried on some, but not all, specialty rescue appliances. He agreed that it would be desirable to have child-sized devices on all rescue appliances.[121]

There are differences between the personal floatation devices provided to Level 1 and Level 2 trained firefighters. Only Level 2 floatation devices can release from an attached rope. This is important if a firefighter is in the water and the rope gets caught in a way that puts the firefighter in danger. Although only Level 2 technicians are trained to enter the water, if a firefighter enters or falls into the water wearing a Level 1 floatation device, he or she will be unable to release the device in the event of danger.[122]

> ## *Recommendations*
>
> 5.22 Permanent urban appliances should carry at least five personal floatation devices to ensure there is a floatation device for each firefighter and a spare for rescues.
>
> 5.23 Every rescue appliance should carry personal floatation devices suitably sized for children or infants.
>
> 5.24 The Queensland Fire and Rescue Service should consider upgrading all personal floatation devices to a type which allows the firefighter to release himself or herself from an attached rope in the event of getting caught, or in other life threatening situations.

Inflatable work platforms

The fire service has a number of special boats used for swift water rescue, called inflatable work platforms. Work platforms, often used with rope systems, can remove the need for technicians to enter the water, thus reducing the risk to them and to the people they are rescuing.[123] The rescue co-ordinator for the south-eastern region gave evidence that these work platforms are inadequate for some rescues because they are unmotorised and must be powered by paddle.[124] When technicians need a powered watercraft, the only option is to use SES flood boats. These boats are not suitable for swift water; they are very heavy and sit low in the water, are susceptible to being taken by the current, and use unguarded propellers which are dangerous to technicians in the water.[125] One swift water technician gave evidence of having previously used the Coast Guard's motorised platforms with guarded propellers and said they were very successful.[126]

The state manager for technical rescue advised that the fire service is currently investigating the possibility of using motorised inflatable work platforms with guarded propellers for swift water rescue.[127]

> ## *Recommendation*
>
> 5.25 The Queensland Fire and Rescue Service should investigate the feasibility of acquiring motorised inflatable work platforms with guarded propellers to improve the safety of swift water rescue.

Vehicles

Firefighters from the south-eastern region and the regional rescue co-ordinator raised concerns about the command rescue vehicles that are used for swift water rescue.[128] These vehicles are typically two wheel drives that are low to the ground and not suitable for traversing country roads, dirt tracks or floodwaters. During the floods, many vehicles became stranded or were unable to cross floodwaters to reach incidents. The region does not have many four wheel drive vehicles with high clearance. The light and medium attack four wheel drive vehicles used by the rural fire brigade are too light for use in floodwater and in any case are not readily available for use by urban-based firefighters.[129]

Stores of equipment

Each region keeps additional swift water rescue equipment at strategic locations for deployment during larger scale events.[130] An additional cache of technical rescue equipment for the south-eastern region, including swift water rescue equipment, was established at Beenleigh in November 2010.[131]

In the past, additional swift water equipment has been stored at Ipswich, but according to an Ipswich station officer, it was relocated to another store in the south-eastern region in October/November 2010.[132] Ipswich station officers were not aware where the equipment was relocated to or how to obtain it. They were also not aware of the additional equipment located at Beenleigh.[133] One of those station officers also raised the difficulty of firefighters in Ipswich obtaining equipment stored on the Gold Coast, especially if the entire region is in response mode as occurred during the 2010/2011 floods.[134]

5.3.5 Communications

Firefighters use two radio networks for communications, the official UHF fire communications network and a localised VHF network for communicating between trucks and stations. Normal communications occur through the fire communications network, are voice logged and can be heard by all fire service members tuned into the network. Due to overloading on the fire communications network during the floods, however, firefighters responding to incidents used the localised channels to communicate with each other and their incident control centre, and only used the fire communications network to log in and out of incidents. As the localised networks are not monitored by the fire communications centre, this resulted in a loss of information to the fire communications centre and meant that data was not captured unless handwritten notes were made at incident control centres. It was an inefficient system as firefighters needed to transmit twice, through the fire communications network and the localised network. In addition, firefighters working in a region other than their own did not know which frequency to use for the localised network.

A station officer suggested that a solution to the problem was to isolate repeaters in areas responding to a large scale disaster, which, he said, was within the fire service's capacity.[135] Isolating repeaters would limit the communication of messages to other fire service members in that area and would enable a designated communications officer to handle all the calls for that area and gain a better sense of what was occurring there. Firefighters could then communicate on the fire communications network at all times and would automatically be switched to a different isolated repeater if they moved into another area, without needing to tune into a different radio frequency. Senior officers monitoring multiple areas could tune into multiple channels and make themselves familiar with the circumstances in each area. The localised network could still be used for less critical matters such as logistics. No evidence was put before the Commission to suggest that this solution would not work.[136]

> ## Recommendation
>
> 5.29 The Queensland Fire and Rescue Service should consider isolating repeaters during a large scale emergency response. If this solution is found to be feasible, it should be implemented as protocol as soon as possible. If it is not, the Queensland Fire and Rescue Service should explore other solutions to the issue of the fire communications network being overloaded and firefighters resorting to localised networks during large scale emergency response situations.

5.3.6 The role of the rural fire brigade in responding to disasters other than fire

The Grantham rural fire service and the 2010/2011 floods

The Grantham rural fire brigade is made up of volunteer firefighters who are members of the Queensland Rural Fire Service. They undertake training in accordance with the 'Volunteer Learning and Development Framework'[137] offered by the service, engage primarily in rural firefighting and also assist in educating the community about fire and related hazards. The town of Grantham has a station and resources including two rural fire brigade trucks, but its rural fire brigade members receive instruction, guidance and command from the area office at Ipswich.

Between Boxing Day, 26 December 2010, and 10 January 2011, Grantham experienced a number of floods that rose and receded, affecting roadways and houses throughout the town.[138] (For more detailed information about flooding affecting Grantham, see Chapter 7.) In this period, the Grantham rural fire brigade drove fire brigade vehicles through floodwaters to assist members of the Grantham community in sandbagging their homes.[139] The fire brigade members performed the task because the SES, Lockyer Valley Regional Council and Queensland Police Service were unavailable.[140] Members of the brigade also obtained barriers from the Lockyer Valley Regional Council which they erected to prevent vehicles from entering floodwaters on the roads.[141]

On 10 January 2011 the acting area director for rural operations, Queensland Fire and Rescue contacted the officer in charge of the brigade to discuss the driving of fire trucks through floodwaters. There is some divergence in the evidence as to whether the call was made in consequence of video footage of a Grantham fire truck driving through water having been aired on the nightly news on 8 January 2011, or whether it was a response to an incident in which a fire truck became stranded in floodwaters on 9 January 2011. For present purposes, the difference is immaterial. More significant is the content of the conversation. The acting area director described it in general terms as being about safety and in particular the risks of driving appliances through floodwaters.[142] The brigade officer said that she was directly instructed that brigade vehicles were not to be driven through floodwaters and were only for fighting fires; that the rural fire brigade was to react only if activated by the SES and was not otherwise to respond; and that community calls for assistance were to be referred to the SES.[143]

Soon after the conversation, the acting area director issued a direction to all brigade training and support officers to contact their respective rural fire brigades to discuss: the importance of directing the public to appropriate response agencies (the SES for non-urgent flood problems, and the triple zero call number for emergencies); the need for brigades to log all their activities with the fire communications system; and the dangers of driving appliances through floodwaters.[144] Notwithstanding the intention evident in that direction to dissuade rural fire brigade members from intervention in crises caused by flooding, counsel representing the State of Queensland put to the brigade officer in cross-examination (and she accepted) that nothing stopped her, as a rural fire brigade member, from responding in an emergency.[145]

There remains obvious uncertainty as to what is expected of rural fire brigade volunteers in responding to disasters other than fire.

The Grantham rural firefighters were responding to flood events in their community where people were reporting they could not contact SES and were asking them directly for assistance. There was no other service available to assist.

In submissions provided by the State of Queensland, the Queensland Fire and Rescue Service is said to 'deliberately operate under an "All Hazards" approach whereby preparation and planning is conducted for all foreseeable

hazards'.[146] In a town such as Grantham, historically prone to flooding (although not on the scale of the disaster experienced on 10 January 2011), there appeared to be little regional preparation and planning for how the rural fire service would respond to the 2010/2011 floods and nothing was done to equip its members with relevant skills.

Grantham Rural Fire Brigade, 6 January 2011 (photo courtesy Geoff Purton)

Recommendations

5.30   The Queensland Fire and Rescue Service needs to define clearly what its protocol is for volunteer firefighters in disaster scenarios other than fire when they are the only or primary rescue service in a community.

5.31   The Queensland Fire and Rescue Service should clarify in practical terms the role of firefighters in sandbagging, the provision of road blocks and similar activities.

5.3.7 State Emergency Service

In Queensland, the SES is the primary response agency for storm and flood emergencies. It also provides support to other emergency service agencies.[147]

SES volunteers were vital in the response to the 2010/2011 floods. Of course, the SES did not, and could not possibly, respond in every affected area; there were simply not enough SES volunteers to do so. Moreover, the capabilities of SES units vary, depending on their set functions, size, training and equipment. Some shortcomings in training and equipment were identified during the 2010/2011 floods.

Emergency Management Queensland is responsible for training SES volunteers. Every volunteer is given initial basic training on joining the SES; further training then depends on the agreed functions of the SES unit which he or she has joined, and the preferences and capabilities of its members.[148] The content of SES training programs, which is based on national criteria, has not been criticised before the Commission. However, the availability of training opportunities is considered to be an issue in some locations,[149] while the lack, or limited number, of trained volunteers with specialised skills in flood boat operations became evident in places such as Dalby and Goondiwindi.[150] In the case of Goondiwindi, it was suggested that the SES capacity to respond during the flooding there was adequate because flood boat operators could be brought in from Warwick and Inglewood.[151] Moving additional SES personnel and equipment into areas of need was a tactic also used in Theodore and the Somerset

region.[152] Such instances highlight the need for an agile state organisation that can act quickly to support any SES unit whose capabilities are too small for the response required.[153]

The adequacy of SES equipment is a related issue. In Chinchilla, Surat, Jericho and the Somerset region, SES units did not have access to flood boats that were appropriate for the prevailing conditions.[154] Concerns were also expressed in a number of areas about the capacity and reliability of existing flood boat engines, with the suggestion that twin or at least auxiliary engine capacity was desirable.[155]

Some areas did not have any local SES unit. Woodford is an example: once cut off, it remained without SES assistance until the area became accessible again. An SES presence there, with a flood boat, would have been of great benefit to the community.[156]

Having sufficient numbers of properly trained and equipped SES volunteers who can respond in the event of disaster is vital, particularly in rural communities. The Commission acknowledges that some councils have taken steps already, in preparing for the next wet season, to improve membership levels and address the equipment and training issues identified above,[157] while Emergency Management Queensland has begun a volunteer recruitment campaign.

The issues of SES training and equipment raise questions about how Emergency Management Queensland and local government provide funds and resources to the SES. Arrangements around the state appear to be variable and to some degree uncertain. They warrant further examination, as does the issue of the 'command and control' of the SES during disaster events; both will be considered in the Commission's final report.

Recommendations

5.32   Before the next wet season, councils, SES controllers and Emergency Management Queensland should work together to identify and address deficiencies in the ability of the SES to respond effectively to flooding. At the very least, suitable flood boats and flood boat training should be provided to SES units which require them.

5.33   The Queensland Government and councils should take measures, as soon as possible, to attract more SES volunteers, particularly in areas susceptible to flooding which do not have sufficient numbers. New SES units should be established where possible.

5.34   The Commission acknowledges that it may not be possible to recruit and train sufficient numbers of SES volunteers to the extent needed before the next wet season. However, this should not prevent steps being taken as soon as possible to identify the factors impeding the recruitment and retention of SES volunteers, action being taken to address them, and the commencing of recruitment activity.

132 500 number

The 132 500 number is the dedicated telephone service by which members of the public can contact the SES for emergency assistance in non life-threatening situations.

Calls to this service are answered by the Smart Service Queensland call centre, which is operated by the Department of Public Works, except in the case of calls placed in the Brisbane metropolitan area, which are directed to the Brisbane City Council call centre.[158] The Smart Service Queensland call centre answers calls on behalf of more than 200 State Government agencies as well as to the 132 500 service.

It is apparent that callers, at certain times and in certain locations, could not contact the SES during the 2010/2011 floods.[159] It is also apparent that the Smart Service Queensland call centre could not cope with the increased demands made of the 132 500 service at critical periods during the floods.[160]

The Commission understands that the 132 500 service experienced major technical difficulties, following a large increase in the number of calls received by the Smart Service Queensland call centre from the evening of 9 January 2011. The technical problems were not resolved fully until 17 January 2011. In the meantime, Telstra provided a temporary solution enabling callers to contact the call centre again. Once it was in place, calls to the SES number were prioritised and answered before other types of calls.

The Commission notes that the Department of Public Works is proposing to improve Smart Service Queensland's operations in a number of ways. These include establishing a new call centre at Zillmere in Brisbane to provide greater capacity, refining call overflow arrangements and making various technical improvements to the service to cater for increases in the number of calls to it. The Commission endorses these steps.

> ## Recommendation
>
> 5.35 Before the next wet season, the Department of Public Works should ensure that Smart Service Queensland can manage a significant increase in calls to the 132 500 number, to at least the level that occurred during the 2010/2011 floods.

5.3.8 Emergency Helicopter Network

The Emergency Helicopter Network consists of a number of helicopters available from Emergency Management Queensland Helicopter Rescue, a private contractor serving the Torres Strait area, and community helicopter providers. As well as the private contractor's base at Horn Island, Emergency Management Queensland Helicopter Rescue has bases at Archerfield, Townsville and Cairns Airports.[161] The community helicopter providers have bases along the Queensland coast:

- CareFlight (Qld) has bases at the Gold Coast and Toowoomba Airports.
- Sunshine Coast Helicopter Rescue Service has bases at the Sunshine Coast and Bundaberg Airports.
- Capricorn Helicopter Rescue Service is based at Rockhampton Airport.
- Central Queensland Helicopter Service is based at Mackay Airport.[162]

These network helicopters can be given tasks by any of the following state and Commonwealth organisations:

- Queensland Health
- Queensland Ambulance Service
- Queensland Police Service
- Queensland Fire and Rescue
- district disaster co-ordination centres
- the state disaster co-ordination centre
- the Australian Maritime Safety Authority.[163]

Helicopters are deployed in accordance with guidelines that were created in 2003. Since this time there has been a number of draft updates to these guidelines; however, none of these versions has been endorsed.[164]

Neither the original guidelines, nor the later draft versions, prescribe a system of 'single point tasking'; that is, a central organisation exercising ultimate command and control of all helicopters in the network, according to availability, task, priority and location. Although the most recent draft guidelines of April 2011 provide for more co-ordinated deployment of helicopters, they fall short of implementing this system.[165]

The network's helicopters are mainly used for medical tasks for Queensland Health and the Queensland Ambulance Service.[166] Any helicopter undertaking these medical tasks is deployed and tracked by the Queensland Emergency Medical System Co-ordination Centre.[167] Helicopters performing non-medical tasks, such as search and rescue, law enforcement and disaster operations are deployed on direct request by the relevant state or Commonwealth organisations.[168] The fact that a number of different agencies have the capacity to seek helicopter deployment has the potential to place pilots in the invidious position of having to consider and prioritise multiple requests for urgent assistance.[169]

That lack of central co-ordination can result in delay and confusion while time is taken to resolve competing agency demands. On 11 January 2011, there was some delay in deploying an Emergency Management Queensland helicopter to the Lockyer Valley as competing priorities had to be determined between the Queensland Police Service requiring a helicopter in the Lockyer Valley and the Queensland Emergency Medical System Co-ordination Centre requiring a helicopter for a hospital transfer from Dalby.[170] In that case the Queensland Police Service and Queensland Emergency Medical System Co-ordination Centre both contacted Emergency Management

Queensland Helicopter Rescue directly, and the pilot then had to be a part of the decision-making process, assessing the respective needs of the two agencies.[171] This example is not an isolated event. The potential for delay and uncertainty inherent in direct agency deployment exists both during defined disaster events and in normal operations.[172]

Helicopter pilots are also, on occasion, placed in the position of having to be involved in assessing priorities during operational tasks. For example, during the 2010/2011 floods, a pilot from Sunshine Coast Helicopter Rescue Service, while being deployed by Queensland Emergency Medical System Co-ordination Centre, heard reports on the Queensland Police Service radio channel of people being trapped by rising floodwaters. Before being permitted to assist with any rescues, the pilot had to convince the Queensland Emergency Medical System Co-ordination Centre operator that his crew should be released from performing medical tasks.[173] The network requires a single point of co-ordination that can quickly assess competing demands within the network and deploy helicopters accordingly.

Had the network been able to provide a more co-ordinated response, it is possible that more helicopters could have been able to respond in the Lockyer Valley on 11 January 2011;[174] although it should be said that poor weather conditions may ultimately have prevented helicopters flying in this region.[175]

Helicopter rescue at Grantham, 10 January 2011 (photo courtesy Geoff Purton)

Recommendations

5.36   As a matter of priority, the Emergency Helicopter Network requires a system of 'single point tasking'; that is, a central organisation exercising command and control of all helicopters in the Emergency Helicopter Network, according to availability, task, priority and location. This is a change, which will require all the government agencies concerned to consider the operational needs, resources, protocols, guidelines and training required for its implementation. Ideally, those steps should be completed and the change made before the next wet season.

5.37   At the very least, by the beginning of the wet season, an interim structure needs to be formally in place under which one organisation is informed of the status, location, capabilities and allocated task of each helicopter in the Emergency Helicopter Network at any given time. The deployment of helicopters should be made through this organisation.

5.4 Emergency calls

5.4.1 Background

Telstra emergency call operators

Members of the public can dial 'triple zero' to obtain assistance from emergency service organisations (fire and ambulance) and police. All triple zero calls go through to a Telstra emergency call operator in one of two national call centres, located in Melbourne and Sydney. The call operator must answer the call by saying *'Emergency - police, fire or ambulance?'* When a call is made from a landline or payphone, Telstra's Enhanced Calling Line Identification Processing System will display the caller's phone number and address on the call operator's screen. Once the caller nominates the desired emergency service, the system automatically provides the call operator with the emergency service centre of that type closest to the caller's town or postcode.

If a call is made from a mobile phone, the telephone number, the mobile service area, and the state from which the call is being made appear on the operator's screen. Having identified the required emergency service, the operator asks the caller for his or her location by saying '*What state and town is the emergency in?'* Once that location is manually entered, the system will again match the location with the requested emergency service organisation which is closest.

The operator will then say *'connecting police' (or 'fire' or 'ambulance')* and connect to the relevant service. All the information held by Telstra is displayed on the screen of the police or emergency service's call operator. Only when the call has been answered by the next operator and the conversation commenced will the Telstra operator exit the call.[176]

The Telstra system stores alternative numbers for emergency services and police in an order provided to Telstra by the relevant organisation ('overflow arrangements'). If a line is busy or remains unanswered, the Telstra operator advises the caller that he or she is trying another number and rings the next number on the list. The operator continues the process until all numbers are exhausted and then recommences at the beginning of the list. The Telstra operator is required to stay on the call and not answer other calls until it is connected.

Where a caller requests 'police' as the relevant service and nominates the Toowoomba area, the operator will attempt connection, until the call is answered, in the following order: to each of two lines at the Toowoomba Queensland Police Service communications centre, to the police service communications centre at Yamanto, Ipswich, and to the police service communications centre at Brisbane. In each case the attempt is made for a maximum period of 45 seconds.[177]

Where a Toowoomba caller answers 'fire', the operator first tries, for 27 seconds, to connect to the Queensland Fire and Rescue Service communications centre at Toowoomba, before attempting a fresh call to the same centre. If the second call remains unanswered for 27 seconds, it is transferred to the fire service communications centre at Brisbane, and if it is not taken there, it will be transferred to the Queensland Police Service communication centre at Brisbane. The police call operator will then take the details of the emergency and assume responsibility for transmitting them to the Toowoomba fire service communications centre.[178]

Queensland Fire and Rescue Service

The Department of Community Safety is responsible for the Queensland Fire and Rescue Service, as well as the Queensland Ambulance Service. The Queensland Fire and Rescue Service has seven communications centres – at Brisbane, Cairns, Townsville, Rockhampton, Maroochydore, Southport and Toowoomba – where fire communications officers answer triple zero calls.

The Department of Community Safety uses the Emergency Services Computer Aided Despatch (ESCAD) system, which enables fire communications officers (and ambulance service officers) across the state to have access to callers' data wherever it is taken and entered. (This becomes important when a major incident causes a communications centre in a particular region to be overwhelmed by triple zero calls, requiring the transfer of calls to other regions.) The system displays available resources on screen, recommends the closest and most appropriate vehicle to be despatched for the type of emergency, and allows real time monitoring of incidents and mapping of vehicles responding to incidents.[179]

All fire communication officers are trained to take emergency calls and despatch assistance. From January 2010, training for fire communication officers became centralised. Officers are required to obtain a Certificate III in Fire Communications Operations which involves a week of familiarisation within their deployment region and five weeks at the School of Fire and Rescue Service Training, Queensland Combined Emergency Service Academy. An annual core skills maintenance program, run centrally, is to be introduced this year; presently maintenance of fire communications officers' skills is left to the regions.

In accordance with Certificate III training, triple zero calls are answered by saying *'Queensland Fire and Rescue, what is the location of your emergency?'* The officer must then seek the following information to ensure appropriate resources are despatched: location, clarification of that location, type of emergency, persons involved and caller details. Having obtained that information, the operator creates an 'incident', or entry, on the computer system, which automatically assigns the emergency a priority, the highest being 1 and the lowest, 5. The system also identifies the most appropriate vehicle for response, according to the type of equipment it carries and how close it is to the emergency.[180]

This information sits on a waiting incident queue, with each call colour coded depending upon priority, until a despatching fire communications officer retrieves the entry and sends the recommended fire truck or other appliance to the incident.[181]

Queensland Police Service

The Queensland Police Service has 22 communications centres across Queensland. They are staffed by emergency call operators who may be police officers or civilians. Numbers vary from region to region. Police officers at the level of sergeant (variously referred to as 'communications co-ordinators' or 'communications room supervisors') oversee all call operator shifts.

The communication centres in Brisbane, Beenleigh, Broadbeach, Townsville and Cairns use a computer system called the Emergency Services Communications and Operational Response Tasking (ESCORT) computer aided despatch system. This system connects the five regions, enabling call operators to view data entered by an operator in another region and to despatch the required assistance to a local emergency.

Communication centres outside these five regions work on 'stand alone' computer systems, which are not compatible with each other or with the ESCORT computer aided despatch system. If, in a region without the benefit of the computer aided despatch system, there is a major incident of such proportions that triple zero calls are transferred to another region, call operators in the second region must manually create records of the calls received. Details are then sent back to the communications centre in the first region by fax, email or phone so that help can be sent. The ESCORT system automatically generates data for more fields requiring completion than a stand alone system, so that the task of a call operator working on the latter type of system is more onerous: there are more fields in which he or she must manually enter information.

The ESCORT system is also incompatible with the ESCAD system which allows both the fire and ambulance services to share information. So, for example, if the fire service needs to provide incident details to the police, it must do so by telephone. The Commission's final report will consider proposals for the extension of the computer aided despatch system across all police regions and the development of a communications system which will allow for sharing of information and despatching of assistance between the Queensland Police Service and the Department of Community Safety.

There is no standardised training across Queensland for Queensland Police Service call operators, whether they be police officers or civilians. In Brisbane, call-takers undergo a minimum of nine weeks of training, followed by one to two weeks of mentoring, in the Brisbane Police Communications Centre Education and Training Unit. Outside Brisbane, call operator training is a regional responsibility. Trainers in the regions are said to use the Brisbane training manual and course content, adapted to regional conditions; but there is no system for monitoring how it is done.

The *Queensland Police Communications Centres Call Taking Standards*[182] prescribe the method by which police call-takers are to answer triple zero calls. The call-taker must say, *'police, emergency',* state his or her rank and surname, (or, in the case of civilian operators, first name) and ask, *'what is the location of your emergency?'* Once the location is ascertained, the call-taker must ask, '*what is your emergency*?' According to the standard operating procedures, the call-taker is then to obtain information as to 'nature of incident, offender status, threats, identifiers, computer checks and external agencies'.

The call taking standards also describe the manner in which call-takers are expected to deal with callers. The caller is to be addressed 'in a respectful manner' and treated 'with fairness, equality and respect'; the call-taker is to 'not sound condescending regardless of [the caller's] race, religion, position, circumstance... language or attitude'.

A triple zero call may be assigned any one of four priority codes. Code 1, the most urgent, applies where danger to human life is imminent; Code 2 involves injury or threat of injury to person or property; Code 3 is for routine matters; and Code 4 is negotiated response (such as suggesting alternative services to the caller).

In the Brisbane communications centre, a call-taker who allocates a priority of 1 or 2 to a call will send the task immediately to a radio operator. The senior officer on duty will receive a copy of the entry to check, but a crew may be assigned immediately to an urgent job.[183]

In contrast, in the Toowoomba communications centre, a call operator wanting to give a call a priority of 1 or 2 must raise his or her hand and attract the attention of the supervising officer to seek approval. The senior officer can then direct the job to a radio operator for immediate despatch of police to the emergency.[184] Precluding a call operator from sending jobs directly to radio operators creates delay when there are large numbers of urgent priority 1 or 2 calls; the senior officer may also be answering calls, or may have a backlog of jobs to review.

5.4.2 Emergency calls in the Toowoomba region on 10 January 2011

Queensland Police Service

The Toowoomba communications centre usually receives, on average, 350 triple zero calls in a week. For a major incident, it would expect to receive 20 or 30 such calls.[185] On 10 January 2011, information provided by Telstra to the Queensland Police Service shows that Telstra operators endeavoured to connect 640 calls to the Toowoomba district communications centre, of which 328 were answered on the first attempt and the balance, in accordance with the overflow arrangements, were directed to Yamanto, Ipswich, which took 201 calls, and Brisbane, which took another 62 calls. The remaining 49 calls were answered in Toowoomba on further attempts at connection there.[186]

According to Telstra's data, 87 triple zero calls were received in the Toowoomba centre between 1.00 pm and 2.00 pm, and another 186 between 2.00 pm and 3.00 pm. Forty-one per cent were answered on the first attempt at connection and 45 per cent were answered on the second to fourth attempt. The remaining 14 per cent of calls were answered between the fifth and seventeenth presentation.[187]

The officer in charge of the Toowoomba communications centre gave different numbers for calls made and taken, based on information retrieved from the Toowoomba computer system. On her account, staff there answered 601 emergency calls in total on 10 January 2011, while another 845 calls were abandoned by the caller.[188] (The differing figures may reflect the inclusion of calls coming in direct to the centre on ordinary landlines, rather than through the dedicated triple zero lines.)

Flash flooding at the intersection of Kitchener and James streets, Toowoomba, 10 January 2011 (photo courtesy Troy Campbell)

Although it had been raining in Toowoomba throughout January 2011, there was no reason to anticipate any unusual demand for emergency services on 10 January 2011. On that morning, there were three call-takers and a communications room supervisor (sergeant) on duty at the Toowoomba centre. The usual practice is for the call operators to take calls and be supervised by the sergeant on duty, but because of the large number of calls received the sergeant was also taking calls. After a change of shift at 1.30 pm, the morning staff remained to assist those coming on duty, and an additional operator was brought in from the Toowoomba police station. In total, eight call-takers were available, after the shift change, to receive calls on the 11 available lines (of which five were dedicated triple zero call lines and six ordinary landlines).[189] The supervising sergeant described the situation as 'out of control'; there were not enough staff or lines to handle the calls.[190]

Queensland Fire and Rescue Service

On 10 January 2011 fire communications officers in the Toowoomba region received 102 triple zero calls,[191] 62 of them between 2.00 pm and 3.00 pm. (In previous years, over the same hour on 10 January 2011, it had received fewer than 10 calls.)[192] Eighty per cent of calls were answered on the first attempt at connection, 2 per cent on the second and 15 per cent on the third. Only two calls had to wait for a fourth or fifth presentation to be answered by a fire communications officer.[193]

Usually the Toowoomba fire communications centre has two consoles operating at which call-takers can receive calls and despatch assistance. There is a spare console that can take calls only; it is usually used for training. At 1.40 pm on 10 January 2011, an additional call operator came into work from leave to answer calls from that console.[194]

5.4.3 Emergency calls made by Ms Donna Rice and her son Jordan Rice

Ms Donna Rice's vehicle became stalled in floodwaters at the intersection of James and Kitchener Street, Toowoomba. Her sons, aged 11 and 13, were passengers in the vehicle. Ms Rice made a triple zero call at 1.49 pm on 10 January 2011.[195] Her call was put through to the Queensland Police Service communications centre at Toowoomba.

Ms Rice's call was answered by a call-taker who was a senior police constable recently deployed to the police communications centre. That deployment was the result of what was described as a 'management decision', prompted by an 'incident' rather than any experience or suitability on his part for the position.[196] The call-taker had undertaken a three day communications room supervisor's course but had no specific call operator training.[197] He had worked previously as a relieving communications room supervisor for different periods totalling four or five months over the preceding three years, and had performed the duties of call-taker for about three weeks leading up to 10 January 2011. His supervisors said that in neither capacity had he given any cause for concern. At the time the call-taker answered Ms Rice's call, he had been on duty for about 40 minutes.

Ms Rice informed the call-taker that her vehicle was 'stuck', with the water 'just about ready to come up the door' and asked him to ring a tow truck for her, something which was impracticable in the circumstances. However, the call-taker wasted time by repeatedly asking Ms Rice why she had driven into floodwater, and failed to ask obvious and relevant questions as to the exact height of the water on the car and whether it was rising; whether there were other people in the vehicle and if so how many; whether they were able to make their way from the vehicle to safety; and whether there were other people in the vicinity who could assist.

The call-taker ended the call by telling Ms Rice that she should not have driven into floodwaters in the first place. The call was allocated a Code 3,[198] which represents a 'routine matter'.

Seven minutes later, Ms Rice's teenage son made another emergency call and this time was put through to an experienced Queensland Fire and Rescue Service emergency call operator who responded properly to the call. At 2.03 pm fire trucks were despatched to help Ms Rice, but they were not able to reach the intersection before she and her elder son were swept away and drowned.

The Commission accepts the evidence of the Queensland Police Service call-taker who dealt with Ms Rice that he believed the call was an unexceptional stalled car complaint, and that he assumed, given his knowledge that flooding at the intersection was usually minor, that the caller was in no danger. That does not excuse his failure to ask the essential questions to ascertain Ms Rice's position and to test the correctness of his assumption that she was in no danger, whether as a matter of compliance with the relevant Queensland Police Service standards or as a matter of ordinary prudence. Nor does it justify his repeated raising of the inessential question of how she came to be in floodwaters.

As already outlined, there is no standardised training for Queensland Police Service call-takers throughout the state. The training provided to call operators in Toowoomba is considerably inferior to that provided in Brisbane. The only training this officer received was a three day communications room supervisor's course devised by the officer in charge of the Toowoomba communications centre. That was neither appropriate nor adequate training for the position of call-taker.

Given the vital role which call-takers perform, their deployment to it should always be based not on administrative convenience, but on whether the person in question has the appropriate skills and training to perform the duties of call-taker.

Recommendation

5.38   Queensland Police Service call-takers across the state should be trained to a uniform standard, consistent with the standard of the training provided by the Brisbane Police Communications Centre.

5.5 Evacuation

During the 2010/2011 floods, people throughout the state evacuated from their homes to friends or family on higher ground, to official evacuation centres established by councils, and to makeshift evacuation centres set up by community groups. Some people made their own decision to evacuate with no direction from authorities, some voluntarily evacuated on the advice of councils, and others were mandatorily evacuated under the authority of the district disaster co-ordinator following a declaration of a disaster situation.[199]

5.5.1 Evacuation plans

Section 58 of the *Disaster Management Act 2003* requires a local disaster management plan to be consistent with disaster management guidelines, which are made under section 63 of the Act. The *Queensland Disaster Management Planning Guidelines for Local Government 2005* nominate evacuation plans among a list of plans which should be prepared in the response phase 'to detail arrangements for functional support'.

In 2009 the O'Sullivan Review recommended that Emergency Management Queensland work with local, district and state disaster management groups to prepare risk-based evacuation plans supported by community education programs.[200]

Following the O'Sullivan Review, Emergency Management Queensland circulated a consultation draft of evacuation guidelines for disaster management groups in October 2010. Gladstone's local disaster co-ordinator suggested that evacuation planning was made more difficult by the release of these draft guidelines immediately before the wet season.[201] The guidelines remain in draft form; their timely finalisation would help councils to refine their own evacuation plans before the next wet season. The general issue of timely finalisation of disaster management plans is further discussed in chapter *3 Disaster frameworks, preparation and planning.*

The draft guidelines recommend that local disaster management groups work with the Queensland Police Service, the Queensland Ambulance Service, the Australian Red Cross, the SES and other agencies with a role in evacuation to develop an evacuation sub-plan identifying:[202]

- the hazards for which evacuation might be required
- the areas that may be affected by those hazards
- whom within those areas would be unable to evacuate without assistance
- when evacuation will be voluntary or mandatory
- evacuation centres and assembly points
- safe evacuation routes
- estimated evacuation timelines
- transport requirements
- traffic management strategy
- level of security to be provided to evacuated areas
- strategy for pets.

The guidelines propose that councils divide their region into evacuation zones. For floods, it is recommended that zones be based on flood inundation levels and marked by colour-coding on evacuation maps to be distributed to disaster management response agencies and to the public.[203]

The draft guidelines recommend that local disaster management groups formulate a separate evacuation centre management sub-plan to allocate roles and responsibilities for opening and staffing centres, registering evacuees, caring for elderly, ill and disabled people, caring for pets, and providing food, bedding, security, and first aid at evacuation centres. Evacuation centre management sub-plans could also address concerns that were raised about security, misconduct and mental health issues at evacuation centres during the 2010/2011 floods.[204]

Some councils, including Balonne and Banana Shire Councils, and Gladstone, Goondiwindi,[205] Lockyer Valley, Moreton Bay, South Burnett, Southern Downs and Western Downs Regional Councils, had not finalised evacuation sub-plans or incorporated informal plans into their disaster management plans before the 2010/ 2011 floods. They now need to review and formalise their evacuation plans. Other councils that did have evacuation sub-

plans are reviewing them to incorporate lessons learned during the 2010/2011 floods. In some instances this is part of a broader review of councils' local disaster management plans (as discussed in section 3.3.1).

The 2010/2011 floods demonstrated that evacuation plans need to be specific and supported by community education, effective warning systems, and disaster management training. By way of illustration, Rockhampton Regional Council's evacuation plan includes flood maps with evacuation zones, details of the location and facilities of evacuation centres, and evacuation routes. It also lists contact details for aged care facilities, disability service providers, and representatives from non-English speaking communities. The plan is supported by a community education program that includes distributing DVDs on disaster preparedness to 10 000 residents. The council had also prepared for the event by undertaking a practical exercise on disaster management for flooding with the local disaster management group, Australian Red Cross and other disaster response agencies. The plan lists the likely impact of flooding at different river gauge heights so that council is able to predict inundation and warn residents likely to be affected. During the 2010/2011 floods the council warned residents by publishing flood inundation maps in newspapers, shopping centres and on its website, and by sending letters to 2000 residents likely to be inundated.

Not all evacuation sub-plans included such practical information. During the 2010/2011 floods, Somerset Regional Council's evacuation sub-plan did not include detailed flood maps, evacuation zones or evacuation routes. It listed aged care facilities but did not include contact details for those facilities. It did give details of the location and resources of 15 evacuation centres, but only two of those centres were among the five which the council actually decided to use in the wet season.[206] Somerset Regional Council's strategy for advising people of the location of these five evacuation centres was that residents should contact emergency service providers, such as the SES, the Queensland police or the fire service.[207]

The Lockyer Valley Regional Council's evacuation sub-plan was a pro forma document into which no substantial detail had been inserted. This is discussed further in chapter 7.4.

The O'Sullivan Review recommended that evacuation plans should have triggers in the form of water level heights. The issue arose during the 2010/2011 floods, when the state disaster co-ordinator requested that the local disaster management group in Goondiwindi formulate a staggered evacuation plan based on triggers in the form of water level heights.[208] Neither the chair of the local disaster management group nor the mayor of the council had considered it necessary to develop such a plan because they did not think the flood would breach Goondiwindi's levee banks.[209] Although they promptly developed a three-stage plan as requested, they emphasised, in giving evidence, that every flood is different; trigger points would need to be decided on a case-by-case basis depending on the event.[210] Ultimately in Goondiwindi the floodwaters did not breach the levee banks. It is certainly true that the circumstances of floods and the indications for evacuation will vary, but evacuation plans should at least identify those river levels at which it is known from experience that evacuation is necessary, while making it clear that the need to evacuate may also arise in other circumstances.

Recommendations

5.39 Emergency Management Queensland should finalise the draft evacuation guidelines for approval by the state disaster management group as soon as possible, addressing the issues identified from the 2010/2011 floods.

5.40 Each council should develop an evacuation sub-plan in accordance with the Emergency Management Queensland guidelines. This includes involving local groups and people in the planning process.

5.41 Councils with existing evacuation sub-plans should review them to ensure they address the issues identified from the 2010/2011 floods.

5.42 Where flooding is governed by a particular watercourse, the evacuation sub-plan should identify triggers in the form of those water level heights at which it is known that preparation for evacuation will be necessary.

5.5.2 Informing the community about evacuation centres

During the 2010/2011 floods, councils took different approaches to publicising the location of evacuation centres. For example:

- Barcaldine Regional Council,[211] Central Highlands Regional Council,[212] Maranoa Regional Council[213] and Mackay Regional Council[214] doorknocked residents to warn them to evacuate and advise them of evacuation centre locations.

- Rockhampton Regional Council sent letters to approximately 2000 residents informing them of the evacuation centre location and opening time.[215]

- Somerset Regional Council's plan was that the SES, the local police and fire service would tell people about the five predetermined evacuation centre locations when asked.[216]

- In the Southern Downs region the SES put up signs at the Warwick town hall displaying the locations of evacuation centres. [217]

For a discussion of the Lockyer Valley Regional Council's approach to publicising the location of evacuation centres, see chapter 7.

Before the 2010/2011 floods, most councils had not publicised the location of evacuation centres. There are differing views on the merits of publicising evacuation centre locations before a disaster.

There is a risk that people may not know where to go if the location is not publicised. This is especially relevant if power or telecommunications fail or if the council cannot or does not publicise the information quickly. Residents,[218] community radio station managers, [219] police officers[220] and fire officers[221] in council regions including Moreton Bay, Ipswich and Somerset, were frustrated at not being able to obtain information about evacuation centre locations before or during the 2010/2011 floods.

However, by not announcing the location of evacuation centres before a disaster, councils retain flexibility to decide on a case-by-case basis which centres are more suitable. Publicising the location of evacuation centres before a disaster may result in people going to a centre that is unsuitable for a particular event.[222] Concerns were raised that people might endanger themselves by crossing floodwaters to reach a designated centre[223] or by sheltering in a centre which was in a place of danger or was not structurally safe.[224] That argument has greater force for larger council regions with many possible evacuation centres, than for smaller councils.[225] Most people in smaller towns and council regions, such as Alpha in Barcaldine Regional Council[226] and Theodore in Banana Shire Council,[227] knew where to go to evacuate even when the council had not publicised evacuation centre locations before the 2010/2011 floods.

However, it would (as the state disaster co-ordinator pointed out in evidence) be feasible for even larger councils to notify the public in advance of potential evacuation centres, provided they also communicated the need to confirm during a disaster event which of those centres were in operation, and ensured that information as to centre activation was effectively disseminated during the event.[228]

Since the 2010/2011 floods, some councils that did not previously provide information on evacuation centre locations have now published that information or decided to publish it before a disaster. Somerset Regional Council plans to list all of its evacuation centres on its website.[229] Similarly, Moreton Bay Regional Council has since published on its website a list of evacuation centres, identifying whether the centre is currently open or closed.[230] Barcaldine Regional Council plans to publish evacuation centre locations on its website, although it expects that the information is already generally known in the community.[231] Central Highlands Regional Council's local disaster co-ordinator recognised that the council's flood booklets for residents should in the future include evacuation centre locations (further information on these booklets is provided at chapter 3.5.1 community education).[232]

Whether or not councils choose to publicise the location of evacuation centres before an event, they must ensure that, during a disaster, information about the location of evacuation centres is accurate, and publicised quickly.[233] Methods of providing information to the community during a disaster are discussed further in *4.1.1 Warnings*.

Recommendations

5.43 It is a matter for councils whether or not they choose to publicise the location of evacuation centres before a disaster but there is a good deal to be said for doing so, particularly in smaller communities where the options are limited. Whether or not councils publicise the location of evacuation centres before a disaster, they should include in their disaster education programs information on evacuation procedures, and how to ascertain evacuation centre locations and safe evacuation routes.

5.44 During floods, councils should as quickly as possible provide people in the relevant areas with advice as to the location of and routes to evacuation centres.

5.45 That advice should be given using as many mechanisms as appropriate, including text message, radio and door knocking.

5.5.3 Official evacuation centres

Councils are responsible for selecting evacuation centres and opening them during a disaster. Councils are also responsible for organising bedding, food and security at the centres.

Emergency Management Queensland's draft guidelines recommend that councils assess proposed evacuation centres on the following criteria:

- the suitability of the location for the particular disaster
- the maximum capacity of the facility based on building codes, proposed length of stay of evacuees and the facilities available
- availability of communications including telephone access, facsimile and battery operated radio
- amenities including toilets and showers
- disability access and amenities
- kitchen facilities including access to clean drinking water and cooking facilities (unless plans cater for externally prepared meals to be provided)
- ventilation
- vehicular access
- suitable housing of pets within close proximity
- alternative power supply
- alternative water supply.

The guidelines recommend that councils include this information, along with contact details of people who have keys to the centre, in their evacuation sub-plan.

Before the 2010/2011 floods, some councils, such as Rockhampton and Goondiwindi Regional Councils, had audited and classified potential evacuation centres according to size, facilities and location.[234] In addition, some councils, such as the Brisbane City Council, worked with the Australian Red Cross to identify appropriate evacuation centre locations.

In some instances, evacuation centres were only available because the floods occurred during the holiday season. Examples included the Theodore evacuation to the mining residences in Moura,[235] evacuations in Emerald to the Agricultural College,[236] and the many evacuation centres operating in schools across the state.[237]

Since the floods, many councils have recognised the need to review their plans for evacuation centres.[238] For example, Ipswich City Council is now reviewing the advantages and disadvantages of its centralised evacuation model as part of a comprehensive review of its evacuation plans before the next wet season. During the flood, the council had used the model, registering evacuees at the Ipswich showgrounds and then transporting some of them to evacuation centres elsewhere. However, the council found that people went directly to their local evacuation centres once the media publicised their locations, either because they could not reach the showgrounds or because they preferred to stay close to home.[239] Ipswich City Council will also consult with the Australian Red Cross in auditing all proposed evacuation centres to ensure the location and facilities are appropriate.

Other councils have recognised that they need to identify more appropriate and better resourced evacuation centres,[240] to ensure the ready availability of necessary resources (such as bedding),[241] or to upgrade facilities at existing centres, as has been done at the Woodford Town Hall.[242]

Recommendations

5.46   Councils should identify a range of evacuation centres as part of their disaster preparation and planning.

5.47   Councils should audit identified evacuation centres to ensure the facilities and location are appropriate, preferably in consultation with the Australian Red Cross and the Department of Communities.

5.48   Councils should be aware of what facilities are available at each evacuation centre, at particular times of the year.

5.5.4 Makeshift evacuation centres

The 2010/2011 floods demonstrated that makeshift evacuation centres were a useful addition to the formal disaster management arrangements.[243] These informal centres arose from a need in the community for accommodation, information and community support. They had to be established quickly, with little or no planning, often by members of the community as a response to isolation. Many communities across the state depended on these centres during the floods.

Disaster management groups worked to re-supply makeshift centres as they became aware of them.[244] However, people operating some of these centres reported difficulty obtaining supplies,[245] including food[246] and bedding.[247] Issues of re-supply in Brisbane's far western suburbs are discussed further in *5.1.2. Locality-based disaster management*.

Some of these difficulties with re-supply may be alleviated in the future if councils work with community groups to make them aware of, and incorporate them into, disaster management arrangements. (This is also discussed in *5.1.2. Locality-based disaster management*.) Many local, district and state disaster management groups have recognised the benefit of incorporating these informal centres into their disaster management planning and response in the future.[248] This would enable councils to assess the suitability of the facilities and the people operating the centres[249] and to plan how to communicate with and re-supply the centres during a disaster.

Councils need to identify where community groups established makeshift evacuation centres during the 2010/2011 floods and where similar centres may be required in the future. Many councils have already begun this process.

Makeshift evacuation centre, Postman's Ridge Pioneers Memorial Hall, photographed after floods (photo courtesy Ruby Jensen)

Ipswich City Council is identifying areas that became isolated during the 2010/2011 floods, such as Karalee, Riverview, Goodna and Redbank, and developing local areas plans for these areas before the next wet season.[250] The council also recognised that residents who need medical assistance in these areas should receive warnings early enough to enable them to leave the area before it becomes isolated.[251] Warnings are discussed further in section 4.5.

Moreton Bay Regional Council is formalising the makeshift arrangements that developed in Woodford during the 2010/2011 floods and extending that model of community partnership to other areas susceptible to isolation.[252] The council will create local disaster plans for these areas, ensure the areas have appropriate resources and means of communicating during a disaster, and identify and conduct training with community groups.

Brisbane City Council is also developing an 'Isolated Communities Sub-Plan' for communities including those in the Pullenvale Ward. The council will engage with locally elected officials, community groups and the Queensland Police Service to develop the plan.

In other regions, community groups are taking the initiative. For example, in the Somerset Regional Council region a community group at Glamorgan Vale, where there are distinct areas of potential isolation, has encouraged five people to nominate their residences as 'safe havens'; they are not at risk of flood and have generators to guarantee a power supply.[253]

Locality-based disaster management is discussed further in section 5.1.2.

Makeshift evacuation centres established in the Lockyer Valley are discussed in detail in chapter 7.

Recommendations

5.49   Councils should identify areas that are susceptible to isolation, including locations in which community groups established informal evacuation centres during the 2010/2011 floods, with a view to incorporating evacuation centres at those locations into their evacuation sub-plans.

5.50   Councils should identify community groups who may take responsibility for establishing and operating evacuation centres in the future.

5.51   The identified groups and councils should, before the next wet season, establish cooperative arrangements as to how the centres should operate, and to ensure the centres have appropriate facilities.

5.52   Councils should recognise that community groups may establish makeshift evacuation centres during a disaster. When this occurs, councils need to identify and establish communications with the centres as soon as possible.

5.53   Councils should develop plans for the effective and timely re-supply of makeshift centres.

5.5.5 Indemnity insurance for makeshift evacuation centres

People or institutions running makeshift evacuation centres or on whose premises they were established were placed at risk of litigation in the event of injury to those being housed. This raises the question of how makeshift evacuation centres could be indemnified or insured.[254]

The situation of the proprietors of the Murphys Creek tavern is an example. The owner of the tavern received advice from his insurance provider that the tavern would not be covered for public liability while it was being used as a community centre. Although he consulted politicians visiting the tavern and other authorities, no one was able to assist. Subsequently another insurance company agreed to provide the necessary cover.[255] The situation of the Murphys Creek tavern is discussed further in chapter 7.

Recommendation

5.54   The Queensland Government should investigate the possibility of providing indemnity or obtaining insurance for makeshift evacuation centres established in good faith, and in the absence of official alternatives, to meet community needs.

5.5.6 Australian Red Cross involvement in evacuations

The Australian Red Cross plays an integral role in disaster management by managing evacuation centres. During the 2010/2011 floods the Australian Red Cross managed 27 evacuation centres throughout the state, ranging in size from 15 evacuees registered at the St George high school to 2367 registered at the Ipswich showgrounds.

The Australian Red Cross's role in evacuation centres is to:

- co-ordinate the activities of the centres and the other volunteer agencies involved (including Salvation Army, Lifeline and Save the Children)
- establish and enforce centre rules (such as times for meals, briefings, and lights out), register evacuees, and assign accommodation
- co-ordinate with the Queensland police and Queensland Health.

The Australian Red Cross staff and volunteers have undergone criminal history checks and undertaken training in managing evacuation centres.[256]

The Australian Red Cross is represented on, or is a member of, a number of state, district and local government disaster management groups, as well as some disaster management sub-committees. It says that this representation has enabled it, to varying degrees, to contribute to emergency management planning and preparation.[257]

To formalise their respective roles, the Australian Red Cross has memoranda of understanding with some councils, including Brisbane City Council, Burdekin, Murweh and Hinchinbrook Shire Councils, and Sunshine Coast, Central Highlands, Tablelands, Cairns, Moreton Bay and Rockhampton Regional Councils.[258] However, the Australian Red Cross noted that some councils with which it had memoranda of understanding did not always honour obligations in the memoranda, such as providing it with a list of evacuation sites each year.[259] And notwithstanding the existence of memoranda of understanding, in some council regions there was confusion about the role the Australian Red Cross could play in managing evacuation centres.[260]

According to the Australian Red Cross, there were occasions during the 2010/2011 floods when, because of inadequate notice of evacuation centre activations, it was unable to deploy teams to evacuation centres other than by helicopter or charter plane. Those delays caused some anxiety to local authorities who were expecting the Australian Red Cross to manage evacuation centres.[261]

These difficulties did not arise in Brisbane or Rockhampton where the council and the Australian Red Cross had both a memorandum of understanding and a good working relationship.[262] The Rockhampton Regional Council, for example, undertook a training exercise on flood scenarios with the Australian Red Cross and other disaster response agencies. The Executive Director of Australian Red Cross Queensland recommends these exercises as a way to clarify respective roles and responsibilities.[263]

At least ten councils, including Ipswich and Banana, which did not have memoranda of understanding with the Australian Red Cross during the 2010/2011 floods are now seeking to establish them.[264] Such memoranda of understanding should clearly set out the roles and responsibilities of the parties in planning and responding to evacuation requirements in a disaster.

Recommendations

5.55 All councils should consider entering a memorandum of understanding for evacuation centres with the Australian Red Cross which clearly sets out the roles and responsibilities of the parties in planning and responding to evacuation requirements in a disaster.

5.56 Each council with a memorandum of understanding with the Australian Red Cross should consider undertaking practice exercises with the Australian Red Cross to ensure both parties understand their respective roles and responsibilities.

5.57 Local disaster management groups and district disaster management groups of which the Australian Red Cross is not currently a member should include the Australian Red Cross in disaster preparation and planning as well as response, whether as a member or otherwise (see also recommendation 3.1).

5.58 Local and district disaster management groups should notify the Australian Red Cross of their evacuation needs as soon as possible in a disaster.

5.5.7 Registration of evacuees

The Queensland Police Service is responsible for registering evacuees in a disaster, with the assistance of the Australian Red Cross.[265] The Australian Red Cross collects registration information at evacuation centres or by people self-registering through its website or by telephone, and enters it into the National Registration Inquiry System. (The National Registration Inquiry System is an effective centralised registration system managed by the Australian Red Cross on behalf of the Commonwealth Attorney-General's Department; it is currently under review by the Department.)

Inquiries from the public are managed through the State Inquiry Centre located at the Queensland police headquarters in Brisbane.

It is important that evacuees are registered, whether they shelter in an official evacuation centre, a makeshift centre, or with friends or family. Centralised registration of evacuees is important for four reasons:

- to avoid emergency services searching for people unnecessarily
- to avoid evacuees having to register or provide their details to different emergency services multiple times[266]
- to enable friends and family easily to locate people in a disaster[267]
- to enable agencies such as the Department of Communities to target greater assistance to evacuees in the recovery phase.[268]

During the 2010/2011 floods, the Queensland Police Service encouraged people who had voluntarily evacuated as well as those at evacuation centres to register with the National Registration Inquiry System. Councils including the Mackay[269] and Central Highlands[270] regional councils also encouraged people to register. Other local and district disaster management groups identified the importance of registration following the 2010/2011 floods, especially for people who have self-evacuated to family or friends or to a makeshift evacuation centre.[271]

> ## *Recommendations*
>
> 5.59 Disaster response agencies should use the National Registration Inquiry System.
>
> 5.60 During a disaster, councils and the Queensland Police Service should encourage individuals to self-register with the National Registration Inquiry System.
>
> 5.61 Councils should include information about the National Registration Inquiry System as part of their community education.

5.5.8 Assisted evacuations

People in hospitals and aged care facilities,[272] government-owned housing, schools and childcare centres, caravan parks,[273] isolated settlements[274] and people with a disability may be unable to evacuate without assistance.

People living in facilities

Local authorities need to know the location and requirements of facilities (hospitals and aged care and nursing homes) that may require assisted evacuation in areas susceptible to flooding.[275]

These facilities must have their own evacuation plans. However, it is important that they co-ordinate with councils to ensure their plans are appropriate and that they understand their responsibilities and the role of councils. Working together at a planning stage allows councils to know whether these facilities require any early warnings, and whether additional resources, such as ambulances or helicopters, may be required to evacuate. Planning to evacuate people in these facilities to appropriate accommodation also reduces the burden on evacuation centre staff and resources.[276] The preparation and planning required for assisted evacuations of these facilities will depend on the type and size of facility, whether they are a state-owned or privately-owned facility, and whether they provide a high or low level of care. Preparation and planning may need to involve other agencies including Queensland Health,[277] the Queensland Police Service, the Queensland Ambulance Service, and Emergency Management Queensland.

An example of the planning and preparation necessary for assisted evacuations was demonstrated by the experience of the Kaloma Home for Aged Care in Goondiwindi, which required evacuation during the 2010/2011 floods. However, there was misunderstanding about who was responsible for evacuating and caring for residents.[278] The evacuation from Kaloma had to be undertaken rapidly and its planned accommodation for evacuations was inaccessible due to flooding. There was a considerable delay at the airport before some of the residents could be flown out, and some residents had to be housed in unsuitable accommodation – a hall at Inglewood which was not air-conditioned or fly-screened – which caused understandable distress. Since the floods, the confusion about what each organisation does when residents require evacuation has been resolved. Kaloma has updated its emergency plan to identify trigger events to commence evacuations and nominated suitable and accessible accommodation.[279] It has also participated in council disaster planning[280] and has been reassured that there will be better communication with the local disaster management group during disasters.[281]

People at home

People who have a disability or depend on home-based care may also need assistance to evacuate. Although for most councils it would not be feasible to have a register of every person who required assistance evacuating from their home, all councils must be alert to the special evacuation requirements of these people.[282]

Those requirements begin with ensuring evacuation messages are communicated to people who have a disability or depend on home-based care. Emergency Management Queensland recommends that councils work with service providers such as home-care service agencies and electricity and telecommunications providers (which maintain lists of people whose health needs require continuity of communications and electricity supply) who could disseminate evacuation messages to these people during a disaster.[283]

Privacy considerations may preclude the identifying of, and obtaining of personal details about, people in this category. However, ascertaining the numbers of people involved and the general nature of their needs through service providers would allow councils to anticipate requirements for special transport, access to medical supplies and equipment, or special care during an evacuation. Councils would be in a better position to provide timely warnings, recommend early evacuations, arrange additional resources, and provide special assistance at evacuation centres.

Tourists, temporary residents, the deaf community and non English speaking people

Councils and the State Government also need to consider tourists and temporary residents, who may be unfamiliar with the local environment and may not have access to private vehicles in which to self-evacuate. Tourists, temporary residents, refugees, people who are homeless, non English speaking people, and the deaf community may not have access to information about emergency preparedness, warnings and evacuation.[284]

Examples of providing information to people in these groups during the 2010/2011 floods include the following:

- Southern Downs Regional Council contacted local motels, service stations and the visitor information centre to distribute information to travellers.[285]
- Multicultural Development Australia – a Queensland settlement agency for migrants and refugees – contacted all of its clients to provide regular flood updates and guidance on whether evacuation was necessary. It also worked with leaders in migrant and refugee communities to disseminate information.[286]
- Auslan interpreters were present during the Premier's press conferences.[287]
- The Australian Communications and Media Authority produced, at short notice, a video in Auslan to advise the deaf community that the National Relay Service – a national phone service for the deaf community – was out of action because of floodwaters affecting its Brisbane headquarters.[288]
- The Department of Communities made information available in over twenty 20 languages.[289]

All Hazards Information Management System

Information about facilities housing people who require assistance to evacuate, disability and home-care services, language groups in the community, and tourism providers could be contained on the All Hazards Information Management System currently being developed by the Queensland Government.[290]

Recommendations

5.62   In areas susceptible to flooding, councils should identify facilities housing people who may require assistance to evacuate. Councils should work with the operators of these facilities to ensure they have appropriate evacuation plans and that they are aware of the council's disaster management arrangements.

5.63   Councils should identify the specific evacuation needs of these facilities, such as increased timeframes for withdrawal or transport by ambulance.

5.64   Councils should include the location, contact details, and specific evacuation needs of these facilities in their evacuation sub-plans.

5.65   Councils should identify organisations (for example, Meals on Wheels and Bluecare) that provide services to people in the community who may be unable to evacuate without assistance. Councils should include the contact details of these organisations in their evacuation sub-plans.

5.66   Councils should work with these service providers to identify: the number of people who may require assisted evacuation; the general nature of their needs, including any necessary medical supplies and equipment; warning message formats and dissemination; increased timeframes needed for evacuation; transportation requirements; and shelter requirements. Councils should include this information in their evacuation sub-plans.

5.67   Facilities housing people who may be unable to evacuate without assistance should develop evacuation plans to ensure residents are provided with appropriate transportation, emergency accommodation, trained carers and medical support if necessary. Where possible, residents of those facilities should be relocated to other similar facilities or accommodation other than evacuation centres. These plans should be developed in consultation with councils and relevant agencies such as Queensland Health.

5.68   Facilities housing people who may be unable to evacuate without assistance should prepare disaster recovery plans, particularly for the provision of back up power and emergency supplies, including medical oxygen and common medications, to minimise the need for evacuation where there is no direct threat from natural disaster.

5.69   The Queensland Government and councils should ensure information about emergency preparedness, warnings and evacuation is available in the different languages of ethnic groups in the community and in Auslan.

5.70   As part of their community education strategy, councils should ensure tourists are made aware of evacuation procedures, how to ascertain evacuation centre locations and safe evacuation routes. That may be done through tourism boards, operators and accommodation providers.

5.5.9 Arrangements for animals

During the 2010/2011 floods, some pet owners were reluctant to evacuate if they could not take or make arrangements for the care of their pets.[291] This was made easier where councils had plans for sheltering pets, as for instance in Rockhampton, where the council worked with the RSPCA to shelter pets in a facility alongside the evacuation centre. Similarly the Ipswich City Council had an animal management team who were able to care for pets at the Ipswich showgrounds evacuation centre and the Lockyer Valley Regional Council worked closely with the University of Queensland Veterinary School at Gatton to care for domestic and farm animals.

The draft Emergency Management Queensland evacuation guidelines require local disaster management groups to develop a policy on the management of pets. The draft guidelines encourage local disaster management groups to consider local solutions, such as schemes for fostering pets from high-risk areas with families in low-risk areas. The RSPCA is able to assist local disaster management groups to develop these plans.

Chinchilla residents relocating chickens, 28 December 2010 (photo courtesy Sylvia Nayler)

Recommendations

5.71 Councils, as part of their community education program for disaster preparation, should encourage pet owners to consider what they will do with their pets if they need to evacuate.

5.72 Councils should work with the RSPCA to develop plans about transporting and sheltering pets should they need to be evacuated with their owners.

5.73 Animal shelters, zoos, stables, and similar facilities should develop plans for evacuating or arranging for the care of animals in consultation with their local council. Local disaster co-ordinators should be aware of what plans exist.

5.6 Boundaries

Disaster management, and disaster response in particular, involves the interplay of a number of boundaries:

- local government boundaries
- disaster district boundaries
- police district boundaries
- other emergency services boundaries (such as those of the Queensland Fire and Rescue Service)
- government agency boundaries (such those of Queensland Health and the Department of Community Safety).

These multi-layered boundaries can complicate co-ordination during a disaster response. Some councils and district disaster co-ordinators raised concerns about inconsistent boundaries,[292] particularly the anomalies which result from some local government, police district and disaster district boundaries.

Disaster districts completely encompass one or more local government regions, so that their boundaries correspond with local government borders. But they are also based loosely on police districts, and the senior officer of the police district ordinarily serves as the district disaster co-ordinator. However, police districts and disaster districts can overlap; police districts can be covered by more than one disaster district. Consequently, the boundaries of disaster districts and local governments, on one hand, and police districts, on the other, do not necessarily align.

For example, in the case of the Roma *disaster* district:[293]

- The district officer of the Roma *police* district serves as the disaster co-ordinator for the Roma *disaster* district (and as the chairperson of the Roma district disaster management group).
- The Roma *disaster* district encompasses the regions of the Balonne Shire Council and Maranoa Regional Council.
- The police divisions of Taroom, Wandoan, Dulacca and Miles come within the Roma *police* district, but not the Roma *disaster* district.
- Taroom, located in the Banana Shire, falls within the Gladstone *disaster* district. During the 2010/2011 floods, the Gladstone district co-ordinator managed disaster operations, while the Roma *police* district was responsible for policing matters.
- Condamine, in the Miles police division, lies within the Western Downs region and Dalby disaster district. It therefore came under the responsibility of the Dalby district co-ordinator during the floods, but the Roma *police* district continued to manage policing.

There is a risk that a lack of conformity between disaster and police district boundaries could cause confusion and inefficiency in managing disaster response operations, on the one hand, and core policing activities on the other.

The Ipswich *disaster* district, which consists of the regions of Somerset Regional Council and Ipswich City Council, provides another example:[294]

- The Ipswich *police* district includes communities which fall within the Brisbane *disaster* district (Karana Downs, within the jurisdiction of Brisbane City Council) and the Logan *disaster* district (Boonah, Kalbar and Harrisville, in the Scenic Rim council region).
- The towns of Moore and Kilcoy, in the Somerset region, come within the Ipswich *disaster* district, but belong in the Caboolture *police* district. The latter also covers areas of Moreton Bay Regional Council, in the Redcliffe *disaster* district. (Before council amalgamations, Kilcoy had its own shire council which was part of the Redcliffe *disaster* district.)

The district co-ordinators of these disaster districts have arrangements for co-ordinating disaster responses in these locations where disaster districts and police districts overlap. The practical difficulties which can occur, and the means by which they are presently managed, were demonstrated during the 2010/2011 floods, in the case of Kilcoy. Kilcoy police sent requests for assistance to the Moreton Bay local disaster management group, which informed them to direct their requests to the Somerset local group. It was not activated, however, or in a position to assist. Following liaison between the Redcliffe and Ipswich district co-ordinators, the Redcliffe district group responded to requests from Kilcoy until the Somerset local group was operating.[295]

The O'Sullivan Review considered the issue of disaster district boundaries.[296] It recognised that changing disaster district boundaries was not a simple task and needed to take into account a range of factors. It also observed that in times of disaster flexibility in disaster district arrangements was necessary to allow an effective response to the 'nature and geographic spread' of a disaster.

Section 28A of the *Disaster Management Act 2003*, inserted in the recent amendments to the legislation, provides this flexibility. It allows for the creation of a temporary district disaster management group when a disaster affects (or is expected to affect) two or more disaster districts. Consideration was given to using this innovation during the 2010/2011 floods, but it was not adopted because many district groups were already operating. Certainly, creating a temporary district to suit the confines of a disaster would overcome difficulties created by anomalous boundaries. However, its utility may be limited in a large-scale disaster affecting most of the state.

While issues which resulted from non-alignment of boundaries of police districts, on the one hand, and disaster districts and local governments, on the other, were able to be managed during the floods,[297] the situation could be improved. However, better alignment is not possible in the short-term, and certainly not before the next wet season. Future re-alignment of police district boundaries should take into account the desirability of conformity between the boundaries of police districts, disaster districts and local government regions.
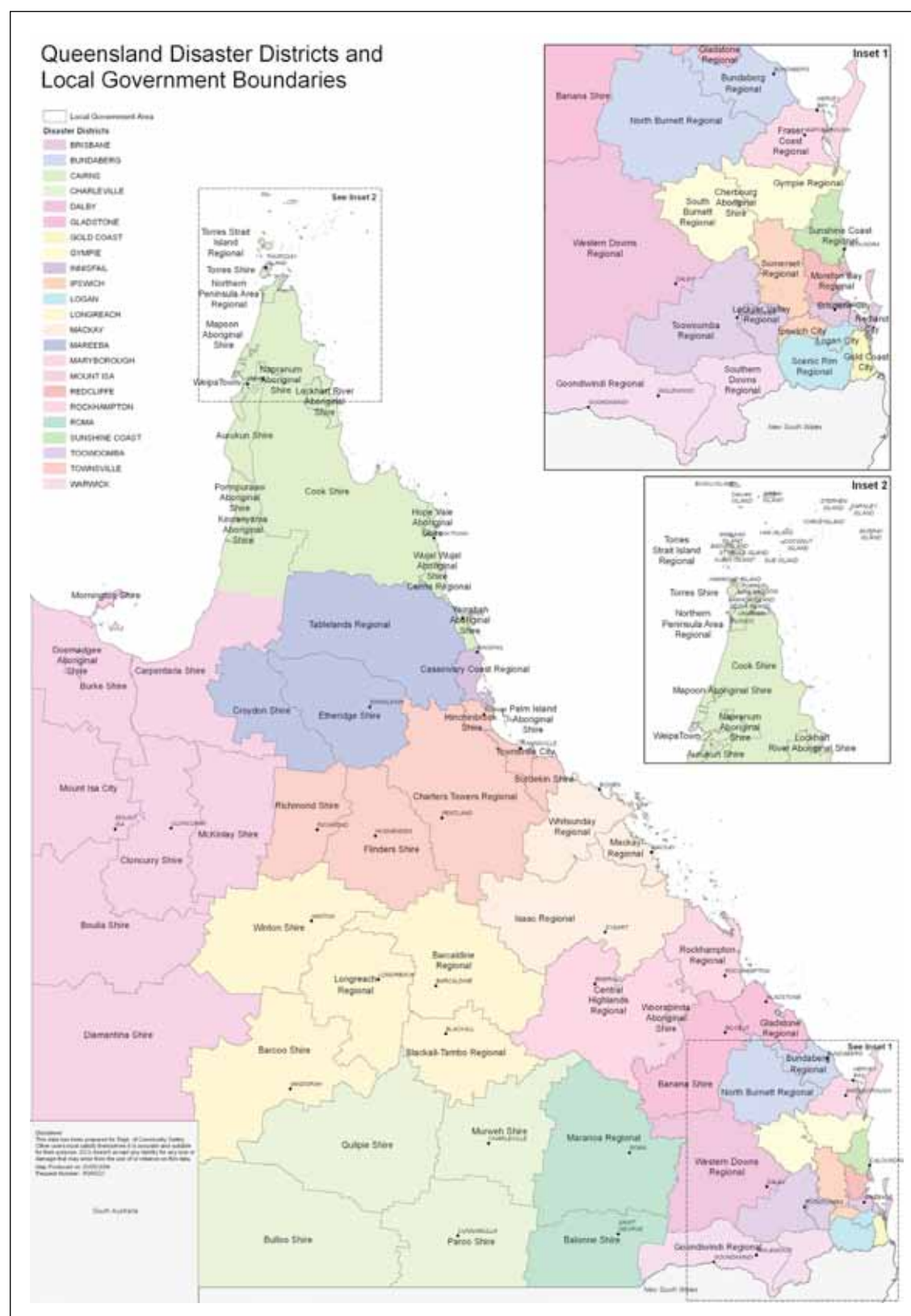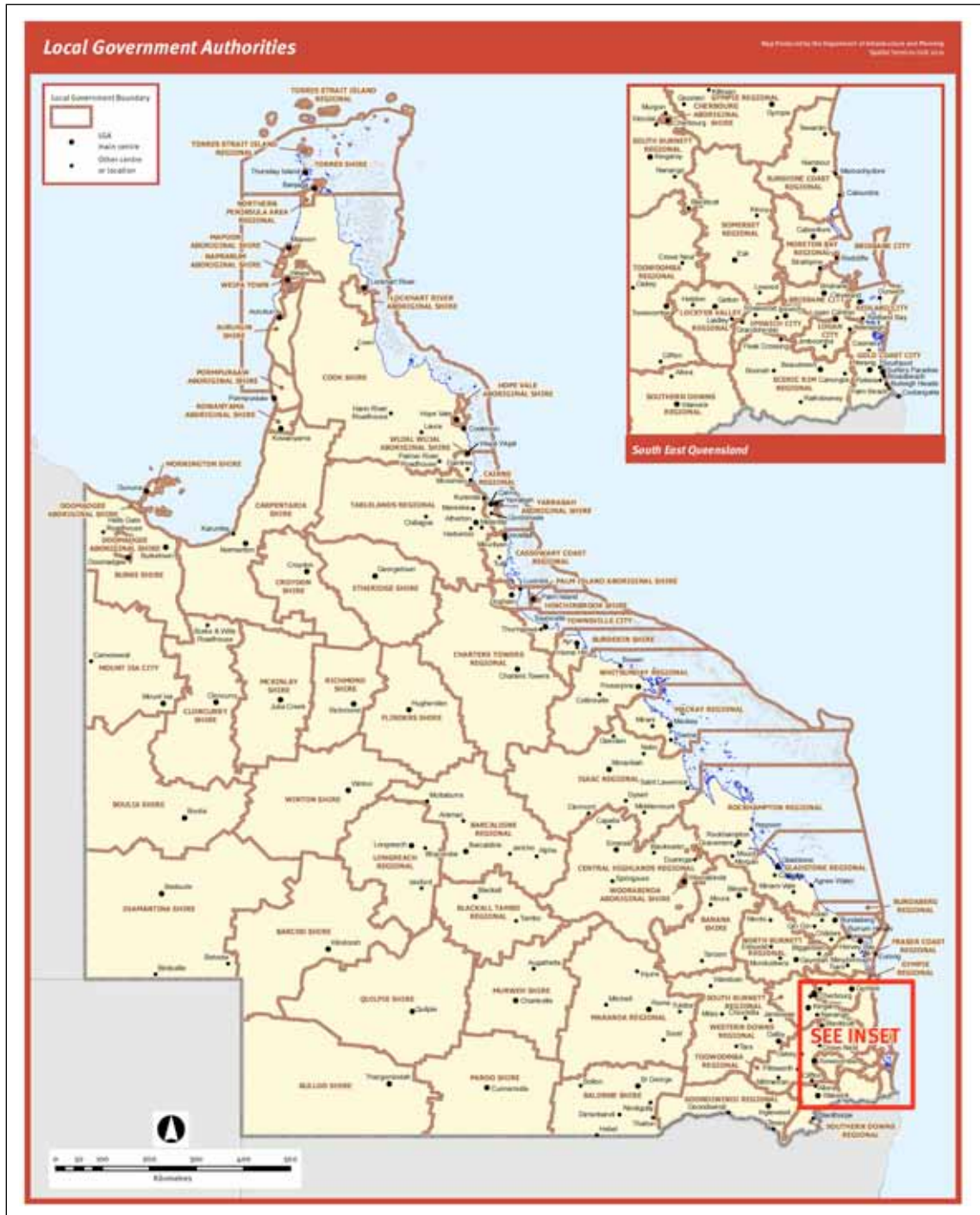
Figure 5(c)

Queensland Disaster Districts and Local Government Boundaries

Figure 5(d)

> ## *Recommendation*
>
> 5.74 Alignment of police district boundaries, disaster district boundaries and local government boundaries is unlikely to be feasible in the short-term. However, where police district boundaries are being re-assessed for other reasons, conformity between boundaries of police districts, disaster districts and local government regions, should be a major objective.

5.7 Re-supply

5.7.1 Re-supply delays

During the 2010/2011 floods, there were claims from disaster management groups in the Western Downs that the arrangements required by Emergency Management Queensland for re-supply with private aircraft caused delays.

In the Darling Downs town of Tara, there were complaints that food re-supply trips were delayed because Emergency Management Queensland had to approve the use of private aircraft.[298] Emergency Management Queensland disputed the proposition that it had purported to have any role in clearing the use of aircraft.[299] It was evident, at the least, that there had been some failures of communication.

The Roma district disaster co-ordinator took steps before the 2010/2011 floods to prepare for potential re-supply and assistance operations. In March 2010, the Balonne River catchment endured a significant flood. Afterward, the Roma district disaster co-ordinator decided to act before any future disaster and consulted with local helicopter operators about the capacity and operational costs of their aircraft, obtaining valuable information before the 2010/2011 floods.[300] As a result, the re-supply of isolated communities in the Balonne region was carried out more efficiently.

Emergency Management Queensland endorsed this approach, asserting that taking practical steps for re-supply before potential disasters would assist both Emergency Management Queensland and the local disaster management group by providing efficient re-supply.[301]

5.7.2 Re-supply of isolated communities and individuals

Given the size and scale of the 2010/2011 floods, the re-supply of isolated communities and rural landowners was managed well by local disaster management groups.

The Central Highlands local disaster management group successfully adopted and applied Emergency Management Queensland's 'Queensland Re-supply Guidelines' despite their introduction in late November 2010, just before the wet season.[302] The local group was generally effective in the re-supply of isolated residents in its region.[303] As was the case elsewhere, however, some food drops to isolated areas were delayed as increasing areas of Queensland became affected by floodwaters, causing difficulty in obtaining supplies and aircraft.[304] This situation led to individuals having to use their private aircraft to assist isolated residents.[305]

> ## *Recommendation*
>
> 5.75 Before the 2011/2012 wet season, all local and district disaster management groups should formally adopt the Queensland Re-supply Guidelines and have arrangements in place for the prompt re-supply of towns, properties and residents isolated by floodwaters.

5.7.3 Fodder drops

Before the 2010/2011 floods, the Department of Employment, Economic Development and Innovation was assigned the role of co-ordinating fodder drops as part of the National Disaster Relief Arrangements.[306] As the floods worsened on New Year's Day 2011, the Department began to co-ordinate fodder for stranded livestock.

AgForce, a rural agricultural lobby group with a wide range of contacts in rural Queensland, was also included in the co-ordination process.[307] AgForce was able to provide the Department with a wide range of contacts to facilitate

the fodder drop process, identifying farmers needing assistance, producers who could provide fodder and aircraft to deliver the fodder. AgForce was also able to use its large member base to spread information quickly about the fodder drops.

The Department's response, however, was heavily dependent on the energy and commitment of a single individual. It would be prudent for it to have in place for the future a set of procedures to enable the work readily to be carried out by whoever takes the role.

An issue also raised with the Commission was that some farmers were unsure about the arrangements for the payment for fodder drops. (This was because fodder drops were provided free of charge in previous floods.)[308]

Recommendations

5.76 The Department of Employment, Economic Development and Innovation should establish, preferably with the assistance of AgForce, procedures to co-ordinate fodder drops to isolated landowners in future flood events.

5.77 The Department of Employment, Economic Development and Innovation should ensure rural communities are aware of the processes and the payment arrangements for fodder drops.

5.8 Local road maintenance

Floodwaters badly affected the condition of roads across Queensland. In some areas, local roads were impassable. People living on rural properties could not make their way to their nearest town and agricultural producers could not transport supplies or livestock to or from their properties.[309]

The Central Highlands Regional Council has a policy which allows amelioration of these problems by self-help. It permits landowners whose road access has been lost or impaired by flood damage to undertake temporary repairs to public roads where the council is itself unable to carry out the repairs.[310]

The council considers each request on the basis of photographs of the damage and the explanation of the repair needed provided by the landowner via email.[311] Many rural landowners have the equipment to carry out the repairs and reimbursements are made for basic materials and machinery operation costs.[312] The repairs are temporary and the quality of the road surface is later checked by council staff for official restoration.

Recommendation

5.78 Local governments should investigate the feasibility of permitting local landowners to carry out temporary repairs on flood-damaged public roads to allow access to their properties.

5.9 Co-ordination of cross-border emergency responses

In south-west Queensland, there are some arrangements between local authorities on either side of the Queensland and New South Wales border to cater for the needs of residents who live near the border. The arrangements are often made through the Border Regional Organisation of Councils, which includes local councils from both sides of the border.[313] They include, for example, a memorandum of understanding for ambulance services in Goondiwindi to assist nearby residents in New South Wales who require immediate medical attention.[314]

The Goondiwindi and Southern Downs regional councils (both situated on the border) raised concerns about the co-ordination of emergency responses between councils and government agencies in Queensland and New South Wales. Emergency response agencies were at times confused about who was responsible for assisting residents close to the Queensland/New South Wales border.

On 12 January 2011, at the request of Emergency Management Queensland, the Goondiwindi local disaster management group arranged for a rescue helicopter to assist residents stranded by floodwaters on the roof of their home in the Texas area. An hour after arranging the flight, this despatch was cancelled by Emergency Management Queensland on the grounds that the house was on the New South Wales side of the border and the rescue should be

handled by SES members from New South Wales.[315] However, the Goondiwindi local disaster management group was informed the next day that the residents had still not been assisted because of the confusion over the location of the house and which agency was to be responsible for the rescue.[316]

In another instance, residents evacuated from Boggabilla, just over the border in New South Wales, were returned to their houses by their local council. Residents of Boggabilla generally depended on the Goondiwindi hospital for medical attention given its close proximity to the town. However, at the time when the residents were returned, the Goondiwindi hospital had been evacuated and road access between the towns was extremely limited.[317]

Recommendation

5.79   Local governments and the Queensland Government should work with their New South Wales counterparts to set up procedures for co-ordinating emergency responses in the region of the Queensland/ New South Wales border.

(Endnotes)

1   Section 4A(c) and (d), *Disaster Management Act 2003 (Qld)*.

2   Section 80, *Disaster Management Act 2003 (Qld)*.

3   Section 30(f), *Disaster Management Act 2003 (Qld)*. Section 15 defines 'disaster operations' as 'activities undertaken before, during or after an event happens to help reduce loss of human life, illness or injury to humans, property loss or damage, or damage to the environment, including, for example, activities to mitigate the adverse effects of the event'.

4   Submission of the State of Queensland, 11 March 2011 [p 5].

5   Transcript, Anthony Jacobs, 10 May 2011, Brisbane [p1628: line 40].

6   Exhibit 449, Statement of Superintendent Garth Pitman, 9 March 2011 [p3-4].

7   Somerset Local Disaster Management Group Minutes, Debrief Meeting, 6 April 2011 [p2,4,7]

8   Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2424: line 1].

9   Transcript, Anthony Jacobs, 10 May 2011, Brisbane [p1629: line 5]; Exhibit 321, Statement of Anthony Jacobs, 5 April 2011 [para 21(c)]; Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2423: line 20]; Exhibit 449, Statement of Superintendent Garth Pitman, 9 March 2011 [p11].

10   Transcript, Anthony Jacobs, 10 May 2011, Brisbane [p1589: line 55; p1608: line 55]; Exhibit 322, Statement of Anthony Jacobs, 9 May 2011 [para 14(a)]; Exhibit 321, Statement of Anthony Jacobs, 5 April 2011 [para 17(b)].

11   Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2429: line 37; p2432: line 54].

12   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1594: line 35]; Exhibit 321, Statement of Anthony Jacobs, 5 April 2011 [para 7(b)]; Exhibit 322, Statement of Anthony Jacobs, 9 May 2011 [para 8(b)].

13   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1593: line 1]; Exhibit 322, Statement of Anthony Jacobs, 9 May 2011 [para 13(a)].

14   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1594: line 48]; Exhibit 321, Statement of Anthony Jacobs, 5 April 2011 [para 15(a)]; Exhibit 322, Statement of Anthony Jacobs, 9 May 2011 [para 10(c)-(d)].

15   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1593: line 35]; Exhibit 322, Statement of Anthony Jacobs, 9 May 2011 [para 13(b)-(d)].

16   Exhibit 321, Statement of Anthony Jacobs, 5 April 2011 [para 7(e)].

17   Exhibit 321, Statement of Anthony Jacobs, 5 April 2011 [para 21(f)].

18   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1596: line 1]; Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2418: line 40].

19   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1595: line 55].

20   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1626-1627].

21   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1596: line 8].

22   Section 47, *Disaster Management Act 2003 (Qld)*.

23   Transcript, Michael Wallis, 9 May 2011, Brisbane [p1509: line 49]; Transcript, Sergeant Jason Renwick, 9 May 2011, Brisbane [p1504: line 25]; Transcript, Graham Peall, 9 May 2011, Brisbane [p1584: line 1].

24   Transcript, Dr Bruce Flegg, 5 May 2011, Brisbane [p1344: line 15; p1350: line 20; p1351: line 10].

25   Transcript, Graham Barnard, 5 May 2011, Brisbane [p1324: line 55].

26   Transcript, Councillor Margaret de Wit, 5 May 2011, Brisbane [p1331: line 14; p1336: line 47; p1337: line 1].

27   Major General Peter Arnison AV, CVO (Retd), Mr Robert Gotterson QC and Emeritus Professor Colin Apelt, *Independent Review of Brisbane City Council's Response* [p9]; Brisbane City Council Flood Response Review Action Plan [p17].

28   See, for instance, sections 23(k), 30(j) and 80(1)(c), *Disaster Management Act 2003 (Qld)* and *State Disaster Management Plan* [p10: para 2.2.6], available at www.disaster.qld.gov.au/publications

29   See, for example, Transcript, Inspector Mark Stiles, 4 May 2011, St George [p1268: line 45; p1275: line 5]; Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2418: line 25].

30   Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2418: line 40]; Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1595: line 40].

31   Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2418: line 55; p2419: line 1].

32   Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2429: line 40; p2432: line 40].

33   Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2432: line 49].

34   Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2420: line 20, 50; p2432: line 45; p2422: line 55].

35   Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2420: line 25;

p2422: line 1]; Exhibit 449, Statement of Superintendent Garth Pitman, 9 March 2011 [p5].

36   Transcript, Anthony Trace, 20 May 2011, Ipswich [p2376: line 57; p2395: line 9]; Exhibit 445, Statement of Anthony Trace, 6 April 2011 [p62: para 234]; Exhibit 446, Supplementary statement of Anthony Trace, 19 May 2011 [p82: para 315]; Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2425: line 50 p2426: 40]; Transcript, William Wilkinson, 25 May 2011, Emerald [p2610: line 10]; Exhibit 481, Statement of William Wilkinson, undated [p18]; Exhibit 484, CHRC LDMG Response to DDC debrief – table of issues [p3]; Somerset Local Disaster Management Group Minutes, Debrief Meeting, 6 April 2011 [p18-19].

37   *State Disaster Management Plan* [p10-11: para 2.2.7].

38   Exhibit 459, Statement of Councillor Brad Carter and Gavin Steele, 1 April 2011 [p18]; Transcript, Bruce Grady, 26 May 2011, Brisbane [p2674: line 40].

39   Transcript, Inspector Mark Stiles, 4 May 2011, St George [p1269: line 1]; Exhibit 267, Statement of Inspector Mark Stiles, 11 March 2011 [p12-13]; Transcript, Deputy Commission Ian Stewart, 13 May 2011, Brisbane [p2007: line 7]; Transcript, Bruce Grady, 26 May 2011, Brisbane [p2682: line 1].

40   Transcript, Inspector Mark Stiles, 4 May 2011, St George [p1269: line 10]; Exhibit 267, Statement of Inspector Mark Stiles, 11 March 2011 [p16].

41   Transcript, Inspector Mark Stiles, 4 May 2011, St George [p1269: line 1].

42   Jim O'Sullivan AC, APM and the Consultancy Bureau Pty Ltd, *Report on a Review of Disaster Management Legislation and Policy in Queensland*, August 2009 [p52]; see also [p53].

43   *State Disaster Management Plan* [p10: para 2.2.5].

44   *State Disaster Management Plan* [p31: para 8.3.2].

45   Transcript, Anthony Trace, 20 May 2011, Ipswich [p2375: line 35]; Exhibit 445, Statement of Anthony Trace, 6 April 2011 [p12: para 48-50]; Exhibit 446, Supplementary statement of Anthony Trace, 19 May 2011 [p82-83:

para 314-317]; Exhibit 450, Ipswich District Disaster Management Group, *Report on debrief outcomes for flooding events: December 2010 and January 2011* [p18-19]; Exhibit 458, Rockhampton District Disaster Management Group, *Final Report of Rockhampton DDMG to SDC regarding December 2010 and January 2011 Flood Event* [p22-23]; see also Transcript, Deputy Commissioner Ian Stewart, 13 May 2011, Brisbane [p2007: line 20].

46   Jim O'Sullivan AC, APM and the Consultancy Bureau Pty Ltd, *Report on a Review of Disaster Management Legislation and Policy in Queensland,* August 2009 [p68-69].

47   Transcript, Bruce Grady, 26 May 2011, Brisbane [p2658: line 20; p2661: line 10].

48   Transcript, Bruce Grady, 26 May 2011, Brisbane [p2674: line 12].

49   Statement of Inspector Mark Stiles, 11 March 2011 [p12, 16] and Transcript, Inspector Mark Stiles, 4 May 2011, St George [p1268: line 20]; Transcript, Collin Head, 23 May 2011, Rockhampton [p2487: line 33]; Submission of Local Government Association of Queensland, 11 March 2011 [p4]; Transcript, Gregory Hoffman,13 May 2011, Brisbane [p1978: line 30]; Transcript, Bruce Grady, 26 May 2011, Brisbane [p2659: line 23].

50   Submission of Local Government Association of Queensland, 11 March 2011 [p4]; Transcript, Gregory Hoffman, 13 May 2011, Brisbane [p1978: line 45]; see also: Transcript, Collin Head, 23 May 2011, Rockhampton [p2487: line 44; p2488: line 5].

51   Transcript, Bruce Grady, 26 May 2011, Brisbane [p2659: lines 22-49]; State Disaster Management Group, *Ordinary Meeting Minutes*, 2 March 2011 [p8].

52   Queensland Fire and Rescue Service, Executive Briefing Note – Swift Water Rescue Review Committee, 4 March 2011.

53   Queensland Fire and Rescue Service, *Foundations of the Queensland Fire and Rescue Service,* 2008 [p27]; Queensland Fire and Rescue Service, *Statistics*, 2011, www.fire.qld.gov.au/about/.

54   Queensland Fire and Rescue Service, *Foundations of the Queensland Fire and Rescue Service,* 2008 [p9]; Submission of the State of Queensland (Department of Community Safety), attachment 'DCS-05'.

55   Exhibit 349, Queensland Fire and Rescue Service Incident Directive – Rescue (Technical Rescue) Swiftwater (INCDIR 24.1.5).

56   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p3: para 17].

57   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p3: para 16].

58   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p3: para 15].

59   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p6: para 33].

60   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p6: para 34]; Transcript, Stephen Smith, 12 May 2011, Brisbane [p1844: line 3].

61   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p7: para 36]; Transcript, Stephen Smith, 12 May 2011, Brisbane [p1854-1855].

62   Exhibit 328, Statement of William Dundas, 6 May 2011 [p4: para 13, 15]; Transcript, William Dundas, 10 May 2011, Brisbane [p1634: line 17; p1642: line 19]; Transcript, Ian Bland, 10 May 2011, Brisbane [p1670: line 10]; Transcript, Mark Stephenson, 10 May 2011, Brisbane [p1691: line 57]; Transcript, John Burrows, 12 May 2011, Brisbane [p1896: lines 30-51].

63   Statement of Stewart Lange, 2 June 2011 [p1]; Statement of Scott Beasley, 9 June 2011 [p1]; Regional Performance Review – Swift Water Rescue (draft for the south eastern region) [p5].

64   Transcript, William Dundas, 10 May 2011, Brisbane [p1635: line 54 – p1636: line 40; p1648: lines 10-18].

65   Statement of Anthony Guse, 2 June 2011, [p3].

66   Exhibit 328, Statement of William Stewart Dundas, 6 May 2011 [p6-7: paras 26-27]; Transcript, William Dundas, 10 May 2011, Brisbane [p1636: line 20].

67   Submission of the United Firefighters Union of Australia, Transcript of interview Firefighter 5 (Mark Haddow) [p1-5].

68   Submission of the United Firefighters Union of Australia, Transcript of interview Firefighter 4 (William Dundas) [p4-5].

69   Statement of Scott Beasley, 9 June 2011 [p1].

70   Exhibit 330, Statement of Geoffrey Dixon, 5 May 2011 [p2: para 3 and p3: para 7].

71   Statement of Scott Beasley, 9 June 2011 [p1].

72   Exhibit 332, Statement of Ian Bland, 9 May 2011 [p6: para 16].

73   Exhibit 332, Statement of Ian Bland, 9 May 2011 [p3: para 7].

74   Exhibit 333, Addendum Statement of Mark Stephenson, 29 April 2011 [p3: para 9, 10].

75   Exhibit 350, Regional Functional Plan 2010/11 South Eastern Region, Operations Management Swift Water Rescue Operational Plan [p10-11].

76   Exhibit 328, Statement of William Dundas [p4: para 13, 15]; Transcript, William Dundas, 10 May 2011, Brisbane [p1634: line 17; p1642: line 19]; Transcript, Ian Bland, 10 May 2011, Brisbane [p1670: line 10]; Transcript, Mark Stephenson, 10 May 2011, Brisbane [p1691: line 57]; Transcript, John Burrows, 12 May 2011, Brisbane [p1896: lines 30-57].

77   Transcript, William Dundas, 10 May 2011, Brisbane [p1642: line 13 – p1643: line 31]; Transcript, John Burrows, 12 May 2011, Brisbane [p1896: lines 30-57].

78   Exhibit 329, Fire Communications Centre Directive – Rescue Water All Types (FCCDQ-3.13), [p1-2].

79   Transcript, William Dundas, 10 May 2011, Brisbane [p1634: line 54 – p1635: line 4].

80   Exhibit 349, QFRS Incident Directive – Swiftwater (INCDIR 24.1.5), [p2: para 4.2(c)].

81   Transcript, Stephen Smith, 12 May 2011, Brisbane [p1839: lines 46-51].

82   Transcript, Stephen Smith, 12 May 2011, Brisbane [p1840: lines 39-43].

83   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p7: para 37].

84   Statement of Scott Beasley, 9 June 2011 [p2: para 4].

85   Transcript, Graham Cooke, 20 April 2011, Dalby [p731: lines 4-54; p734: lines 6-39].

86   Exhibit 330, Statement of Geoffrey Dixon, 5 May 2011 [p4: para 8]; Transcript, Geoffrey Dixon, 10 May 2011, Brisbane [p1659: line 42].

87   Exhibit 328, Statement of William Dundas, 6 May 2011 [p9: para 34].

88   Statement of Scott Beasley, 9 June 2011 [p2: para 4]; Statement of Lange, 2 June 2011

[p1: para 5]; Statement of David Woods, 1 June 2011 [p2: para 7].

89   Statement of Scott Beasley, 9 June 2011 [p2: para 4].

90   Transcript, Graham Cooke, 20 April 2011, Dalby [p734].

91   Transcript, Graham Cooke, 20 April 2011, Dalby [p737].

92   Exhibit 333, Addendum statement of Mark Stephenson, 29 April 2011 [p2-4]; Transcript, Mark Stephenson, 10 May 2011, Brisbane [p1692: line 14].

93   Transcript, John Gresty, 12 May 2011, Brisbane [p1863: lines 31- 39].

94   Exhibit 330, Statement of Geoffrey Dixon, 5 May 2011 [p1: para 3].

95   Transcript, John Gresty, 12 May 2011, Brisbane [p1869: line 10].

96   Exhibit 333, Statement of Mark Stephenson, 3 March 2011 [p7: para 48].

97   Statement of Scott Beasley, 9 June 2011 [p4: para 9].

98   Transcript, Peter Beauchamp, 12 May 2011, Brisbane [p1876: line 4]; Exhibit 208, Statement of David Caughley, 8 April 2011 [p2: para 12].

99   Exhibit 328, Statement of William Dundas, 6 May 2011 [p3].

100   Exhibit 328, Statement of William Dundas, 6 May 2011 [p6]; Statement of Mark Haddow, 2 June 2011 [p1: para 1].

101   Exhibit 328, Statement of William Dundas, 6 May 2011 [p11-12]; Transcript, William Dundas, 10 May 2011, Brisbane [p1637: line 47 - p1638: line 14; p1644: line 53 – p1645: line 12]; Statement of Mark Haddow, 2 June 2011 [p2: para 7].

102   Statement of Mark Haddow, 2 June 2011 [p1: para 2]; Transcript, William Dundas, 10 May 2011, Brisbane [p1637: line 47 – p1638: line 14].

103   Exhibit 210, Statement of David Crighton, 28 January 2011 [p1: para 6].

104   Exhibit 354, Transcript of interview with John Burrows [p87: line 96]; Transcript, John Burrows, 12 May 2011, Brisbane [p1891: lines 33-51].

105   Exhibit 330, Statement of Geoffrey Dixon, 5 May 2011 [p2].

106   Transcript, Geoffrey Dixon, 10 May 2011, Brisbane [p1653: line 52].

107   Memorandum of Understanding between Queensland Fire and Rescue Service and Emergency Management Queensland Helicopter Rescue (draft).

108   Exhibit 354, Transcript of interview with John Burrows [p99: line 37]; Exhibit 328, Statement of William Dundas, 6 May 2011 [p10: 38]; Submission of the United Firefighters Union of Australia, Transcript of interview Firefighter 5 (Mark Haddow) [p3].

109   Submission of the United Firefighters Union of Australia, Transcript of interview Firefighter 8 (Darryl Williamson) [p2].

110   Transcript, William Dundas, 10 May 2011, Brisbane [p1639: line 50]; Statement of Scott Beasley, 9 June 2011 [p5: para 10].

111   Transcript, William Dundas, 10 May 2011, Brisbane [p1639: line 10].

112   Transcript, William Dundas, 10 May 2011, Brisbane [p1640: line 26].

113   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p5: para 27].

114   Transcript, Stephen Smith, 12 May 2011, Brisbane [p1853: line 35].

115   Transcript, Stephen Smith, 12 May 2011, Brisbane [p1847: line 37].

116   Exhibit 354, Transcript of interview with John Burrows [p99]; Submission of the United Firefighters Union of Australia, Transcript of interview Firefighter 2 (John Burrows) [p18].

117   Exhibit 328, Statement of William Dundas, 6 May 2011 [p9-10].

118   Submission of the United Firefighters Union of Australia, Transcript of interview Firefighter 1 (Ian Bland) [p16].

119   Exhibit 332, Statement of Ian Bland [p8: para 20]; Transcript, Ian Bland, 10 May 2011, Brisbane [p1674: line 48].

120   Transcript, Stephen Smith, 12 May 2011, Brisbane [p1848: line 6]; Transcript, William Dundas, 10 May 2011, Brisbane [p1640: line 45].

121   Transcript, Stephen Smith, 12 May 2011, Brisbane [p1848: line 29; p1857: line 38].

122   Statement of David Woods, 1 June 2011 [p2: para 9].

123   Exhibit 348, Statement of Stephen Smith [p5: para 31].

124   Statement of Scott Beasley, 9 June 2011 [p2: para 5; p5: para 10].

125   Transcript, Ian Bland, 10 May 2011, Brisbane [p1675: line 39]; Exhibit 332, Statement of Ian Bland, 9 May 2011 [p7: para 19]; Statement of Scott Beasley, 9 June 2011 [p2: para 5].

126   Transcript, Ian Bland, 10 May 2011, Brisbane [p1676: line 2].

127   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p5: para 32]; Transcript, Stephen Smith, 12 May 2011, Brisbane [p1854: line 1].

128   Statement of Scott Beasley, 9 June 2011 [p6: para 11]; Transcript, Geoff Dixon, 10 May 2011, Brisbane [p1652: line 16; p1666: line p22]; Exhibit 333, Addendum statement of Mark Stephenson, 29 April 2011 [p6: para 29]; Transcript, Mark Stephenson, 10 May 2011, Brisbane [p1695: line 25].

129   Transcript, Geoff Dixon, 10 May 2011, Brisbane [p1664-1666].

130   Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p9: para 51]; Transcript, Stephen Smith, 12 May 2011, Brisbane [p1849: line 14; p1861: line 9].

131   Transcript, Mark Stephenson, 10 May 2011, Brisbane [p1697: line 45].

132   Transcript, Ian Bland, 10 May 2011, Brisbane [p1681: line 41].

133   Transcript, Ian Bland, 10 May 2011, Brisbane [p1681: line 50]; Transcript, Mark Stephenson, 10 May 2011, Brisbane [p1697: line 45].

134   Exhibit 332, Statement of Ian Bland, 9 May 2011 [p7: para 18]; Transcript, Ian Bland, 10 May 2011, Brisbane [p1682: line 2].

135   Exhibit 332, Statement of Ian Bland, 9 May 2011 [p8: para 21]; Transcript, Ian Bland, 10 May 2011, Brisbane [p1672: line 27].

136   Transcript, Peter Beauchamp, 12 May 2011, Brisbane [p1877: line 21].

137　Queensland Rural Fire Service, *Volunteer Learning & Development Framework,* www.ruralfire.qld.gov.au/Volunteering/Training.

138　Exhibit 143, Statement of Stuart Damrow, 8 March 2011 [p2-5].

139　Exhibit 142, Statement of Vivienne Jamieson, 1 February 2011 [p2-6]; Transcript, Vivienne Jamieson, 27 April 2011, Toowoomba [p830: line 55; p831: lines1-15].

140　Transcript, Vivienne Jamieson, 27 April 2011, Toowoomba [p830: line 50].

141　Exhibit 142, Statement of Vivienne Jamieson, 1 February 2011 [p4]; Exhibit 357, Statement of Daniel Maguire, 5 March 2011 [p10].

142　Exhibit 386, Statement of Peta Miller, 4 May 2011 [p2: para 5(e)- 5(l)].

143　Exhibit 142, Statement of Vivienne Jamieson, 1 February 2011 [p6: para 27].

144　Exhibit 386, Statement of Peta Miller, 4 May 2011 [p3: para5(k) (i)-(iii)].

145　Transcript, Vivienne Jamieson, 27 April 2011, Toowoomba [p834: line 20].

146　Submission of the State of Queensland, 11 March 2011, Department of Community Safety [p15].

147　www.emergency.qld.gov.au/ses/join/ses.asp (viewed on 25 May 2011).

148　Transcript, Bruce Grady, 26 May 2011, Brisbane [p2663: line 22].

149　Transcript, Stuart Holley, 11 May 2011, Brisbane [p1719: line 8].

150　Exhibit 122, Statement of Christopher Artiemiew, 7 April 2011 [p7: para 51]; Transcript, William Kearney, 3 May 2011, Goondiwindi [p1170: line 35].

151　Transcript, William Kearney, 3 May 2011, Goondiwindi [p1171: line 1].

152　Transcript, Collin Head, 23 May 2011, Rockhampton [p2484: line10]; Transcript, Anthony Jacobs, 10 May 2011, Brisbane [p1607: line 50].

153　Transcript, Bruce Grady, 26 May 2011, Brisbane [p2671: line 48].

154　Exhibit 123, Statement of Philip Berting, 18 April 2011 [p1: para 6]; Transcript, Philip Berting, 20 April 2011, Dalby [p790: line 51]; Transcript, Raymond Brown, 20 April 2011, Dalby [p799: line 50]; Transcript, Wendy Newman, 4 May 2011, St George [p1246: line 44]; Transcript, Desmond Howard, 24 May 2011, Emerald [p2536: line 51]; Statement of Anthony Jacobs, 5 April 2011 [para 5(d)]; Transcript, Anthony Jacobs, 10 May 2011, Brisbane [p1607: line 41].

155　Transcript, Desmond Howard, 24 May 2011, Emerald [p2536: line 57]; Transcript, Scott Norman, 4 May 2011, St. George [p1291: line 19]; Submission of L. Green [p2].

156　Transcript, Sergeant Jason Renwick, 9 May 2011, Brisbane [p1505: line 15]; Transcript, Michael Wallis, 9 May 2011, Brisbane [p1510: line 30].

157　See, for example: Exhibit 123, Statement of Philip Berting, 18 April 2011 [p1: para 6]; Transcript, William Kearney, 3 May 2011, Goondiwindi [p1171: line 10].

158　Exhibit 493, Statement of Gary Taylor, 24 March 2011 [p2: paras 12-13].

159　See, for example: Exhibit 111, Statement of Sylvia Nayler, 30 March 2011 [p1-2: paras 3-7]; Transcript, Sylvia Nayler, 20 April 2011, Dalby [p706: line 30]; Exhibit 258, Stanthorpe Sub-Group, *Incident Control Centre Debrief,* 17 January 2011 [p5].

160　Transcript, Bruce Grady, 26 May 2011, Brisbane [p2670: line 15]; Transcript, Gregory Hoffman, 13 May 2011, Brisbane [p1988: line 55]; Transcript, William Kearney, 3 May 2011, Goondiwindi [p1171: line 14]; Local Disaster Management Group, Goondiwindi Regional Council, *Debrief Meeting*, 31 January 2011 [p4: para 6(b)].

161　Exhibit 491, Statement of Dr Mark Elcock, 17 May 2011 [p3: para 10-11].

162　Exhibit 491, Statement of Dr Mark Elcock, 17 May 2011 [p3: para 11].

163　Exhibit 491, Statement of Dr Mark Elcock, 17 May 2011 [p4: para 15; p5: para 23; p8: para 33, 36].

164　Exhibit 491, Statement of Dr Mark Elcock, 17 May 2011 [p5: para 24].

165　Transcript 26 May 2011, Brisbane [p 2634; line 20]. Exhibit 363, Queensland Emergency Helicopter Network Tasking Guidelines, Draft, effective 2011.

166　Exhibit 491, Statement of Dr Mark Elcock, 17 May 2011 [p4: para 16; p5: para 21].

167 Exhibit 491, Statement of Dr Mark Elcock, 17 May 2011 [p4: para 16; p5: para 19]. The Queensland Emergency Medical System Co-ordination Centre is also known as the "QCC".

168 Exhibit 491, Statement of Dr Mark Elcock, 17 May 2011 [p5: para 23].

169 Exhibit 491, Statement of Dr Mark Elcock, 17 May 2011 [p8: para 37].

170 Exhibit 180, Statement of Mark Kempton, 17 February 2011 [p8: para 72]; Transcript 29 April 2011, Toowoomba [p1069: line 50].

171 Exhibit 491, Statement of Dr Mark Elcock, 17 May 2011 [p18: para 77]; Transcript 29 April 2011, Toowoomba [p1069: line 45].

172 Exhibit 491 Statement of Dr Mark Elcock, 17 May 2011 [p17: para 72].

173 Exhibit 387, Statement of Wayne Thompson, 8 April 2011 [pp7-8: para 13-15].

174 Transcript , Dr Mark Elcock, 26 May 2011, Brisbane [p2636: line 25].

175 Transcript, Dr Mark Elcock, 26 May 2011, Brisbane [p2636: line 25].

176 Exhibit 388, Third Submission of Telstra Corporation Limited, 15 April 2011.

177 Exhibit 388, Third Submission of Telstra Corporation Limited, 15 April 2011 [p6: para 25].

178 Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p4: para 15].

179 Exhibit 343, Statement of Glenn Walker, 18 April 2011.

180 Exhibit 345, Statement of Edward Middleton, 18 April 2011.

181 Transcript, Kelli Docherty-Tanaskovic, 11 May 2011, Brisbane [p1782, line 30].

182 Exhibit 346, Statement of Robert William Waugh, 18 April 2011 [Appendix 1, Police Communications Centres Call Taking Standards (Client Service)].

183 Exhibit 346, Statement of Robert Waugh, 18 April 2011 [p14].

184 Transcript, Sergeant Robin Coleman, 19 April 2011, Toowoomba [p639].

185 Exhibit 339, Statement of Senior Sergeant Julie Cooling, 8 April 2011 [p6].

186 Exhibit 347, Statement of Superintendent Grant Pitman, 9 March 2011 [p13, Tab 9 'Number of Triple Zero call presentations – 10 January 2011', Tab 10 'Triple Zero calls received at QPS PCCs state-wide on 10 January 2011 – detailed call analysis', Tab 11 'Triple Zero Calls Presented to Toowoomba PCC and Answering PCC Details – 10 to 12 January 2011', Tab 14 'Triple Zero call answering performance 10 January 2011 – Toowoomba PCC].

187 Exhibit 347, Statement of Superintendent Grant Pitman, 9 March 2011 [Tab 15 'Toowoomba PCC Triple Zero Calls – Presentations Required to answer – 10 January 2011'].

188 Exhibit 339, Statement of Senior Sergeant Julie Cooling [p6]; Transcript, Julie Cooling, 11 May 2011 [p1758: line 45].

189 Exhibit 339, Statement of Senior Sergeant Julie Cooling, 8 April 2011 [p7].

190 Transcript, Sergeant Robin Coleman, 19 April 2011, Toowoomba [p645: p646].

191 Transcript, Glenn Walker, 12 May 2011, Brisbane [p1794].

192 Transcript, Glenn Walker, 12 May 2011, Brisbane [p1794].

193 Transcript, Glenn Walker, 12 May 2011, Brisbane [p1795].

194 Exhibit 341, Statement of Kelli Docherty-Tanaskovic, 18 April 2011 [p3].

195 Exhibit 97, CD containing audio file of the first 000 call made by Donna Rice, and transcript of call; Exhibit 100, Finalised details-Despatch Notice relating to 000 call of Donna Rice.

196 Transcript, Senior Sergeant Julie Cooling, 11 May 2011, Brisbane [p1753: line 20].

197 Transcript, Senior Sergeant Julie Cooling, 11 May 2011, Brisbane [p1756: line 20].

198 Exhibit 100, Finalised details-Despatch Notice relating to 000 call of Donna Rice.

199 Section 77(1)(c), *Disaster Management Act 2003* (Qld). Mandatory evacuation occurred in Theodore and Condamine. See also evidence of Assistant Commissioner Queensland Police Service about voluntary and mandatory evacuation processes at Transcript, Stephan Gollschewski, 27 April 2011, Toowoomba [p822: line 2].

200   Jim O'Sullivan AC, APM and the Consultancy Bureau Pty Ltd, *Report on a Review of Disaster Management Legislation and Policy in Queensland*, August 2009 [p111].

201   Transcript, Mark Holmes, 11 May 2011, Brisbane [p1710: 54]; Exhibit 334, Statement of Mark Holmes and Mark Larney, 25 March 2011 [p12: para 21]. Note that Mark Holmes states that he received the guidelines on 11 November 2010: [para 21].

202   Emergency Management Queensland, *Queensland Evacuation Guidelines for Disaster Management Groups, Consultation Draft,* October 2010 [p22-31].

203   Emergency Management Queensland, *Queensland Evacuation Guidelines for Disaster Management Groups, Consultation Draft,* October 2010 [p14: para 5.3]. See also Paul Tully recommending evacuation mapping: Transcript, Paul Tully, 20 May 2011, Ipswich [p2362: line 40]. An example of flood zone mapping being undertaken is in Ipswich City Council, which is working on a pilot program based on the Coastal Evacuation Framework to explore the concept of flood zones: Transcript, Anthony Trace, 20 May 2011, Ipswich [p2386: line 1].

204   Exhibit 441, Statement of Colleen Engel, 20 April 2011 [para 17]; Transcript, Colleen Engel, 20 May 2011, Ipswich [p2347: line 1]; Exhibit 459, Statement of Councillor Brad Carter and Gavin Steele, 1 April 2011 [p36]; Transcript, Brad Carter, 23 May 2011, Rockhampton [p2456: line 11]; Transcript, David Peff, 23 May 2011, Rockhampton [p2448: line 20]; Exhibit 481, Statement of William Wilkinson, undated [p17: para 13(g)]; Brisbane City Council, *Flood Response Review Action Plan* [p11]; Transcript, Peter Martin, 6 May 2011, Brisbane [p1469: line 32]; Exhibit 450, Ipswich District Disaster Management Group, 'Report on debrief outcomes for flooding events, Dec 2010 and Jan 2011' [p20]; Submission of Ipswich City Council [p40: para 10.27-10.30]. See also Submission of Save the Children Australia, concerning security and mental health issues in relation to children (for example, screening volunteers, segregating children and families, and providing counselling for children). Transcript, Paul Siljac, 9 May 2011, Brisbane [p1572: line 1]

205   Transcript, William Kearney, 3 May 2011, Goondiwindi [p1160: line 18]; Exhibit 232,

Goondiwindi Regional Council Disaster Management Plan [p39].

206   Exhibit 321, Statement of Anthony Jacobs, 5 April 2011 [p8: para 13(b)]; Exhibit 324, Somerset Regional Council Local Disaster Management Plan [p268-282 of exhibit].

207   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1590: line 11]; Transcript, Anthony Jacobs, 10 May 2011, Brisbane [p1604: line 7].

208   Transcript, Ian Stewart, 13 May 2011, Brisbane [p1992: line 26]. See also evidence given about the trigger levels in Goondiwindi by the district disaster co-ordinator: Transcript, Gregory Morrow, 3 May 2011, Goondiwindi [p1136: line 40; p1139: line 20; p1142: line 2].

209   Transcript, William Kearney, 3 May 2011, Goondiwindi [p1168: line 20]; Transcript, Graeme Scheu, 3 May 2011, Goondiwindi [p1197: line 40].

210   Transcript, Gregory Morrow, 3 May 2011, Goondiwindi [p1167: line 3; p1198: line 5].

211   Exhibit 469, Statement of James Kelly, 24 May 2011 [p7].

212   Exhibit 481, Statement of William Wilkinson, undated [p8], [p16: para 12(c)].

213   Transcript, Wendy Newman, 4 May 2011, St George [p1244: line 54]; Exhibit 264, Statement of Wendy Newman, 19 April 2011 [p3: para 9].

214   Transcript, Stuart Holley, 11 May 2011, Brisbane [p1716: line 1].

215   Exhibit 459, Statement of Brad Carter and Gavin Steele, 1 April 2011 [p11-12 of exhibit].

216   Transcript, Anthony Jacobs, 9 May 2011, Brisbane [p1590: line 11]; Transcript, Anthony Jacobs, 10 May 2011, Brisbane [p1603: line 50; p1604: line 7].

217   Exhibit 259, Warwick Flood Debrief, 6 January 2011 [p2].

218   Transcript, Janet Carpenter, 9 May 2011, Brisbane [p1576: line 15]; Exhibit 319, Statement of Janet Carpenter, 15 April 2011 [p4: para 25]. See also evidence from another council region, Western Downs Regional Council, in Exhibit 111, Statement of Sylvia Nayler, 30 March 2011 [p4: para 12].

219   Transcript, David Greenwood, 20 May 2011, Ipswich [p2358: line 20].

220 Transcript, Senior Constable Darren Rumbelow, 9 May 2011, Brisbane [p1561: line 20]; Transcript, Constable Constable Daniel McCoombs, 9 May 2011, Brisbane [p1547: line 40]; Exhibit 316, Statement of Daniel McCoombs [para 23]; Transcript, Sergeant Jason Renwick, 9 May 2011, Brisbane [p1503: line 26]; Exhibit 308, Statement of Sergeant Jason Renwick, 13 April 2011 [p4: para 11-12].

221 Transcript, Graham Peall, 9 May 2011, Brisbane [p1585: line 15]; Exhibit 320, Statement of Graham Peall, 20 April 2011 [para 22-26].

222 Transcript, Colin Jensen, 5 May 2011, Brisbane [p1394: line 50]; Transcript, Greg Goebel, 6 May 2011, Brisbane [p1492: line 20]; Transcript, Ken Gouldthorp, 19 April 2011, Toowoomba [p589: line 40]; Transcript, Ken Gouldthorp, 19 April 2011, Toowoomba [p608: line 50]; Transcript, Anthony Martini, 9 May 2011, Brisbane [p1528: line 50]; Exhibit 312, Statement of Anthony Martini, 8 May 2011 [p5: para 30].

223 Transcript, Ken Gouldthorp, 19 April 2011, Toowoomba [p590: line 25]. See also Mr Jones' evidence that people could have been endangered travelling to some of the centres identified by the Lockyer Valley Regional Council had they been published: Transcript, Steven Jones, 28 April 2011, Toowoomba [p921: line 45].

224 Transcript, Ken Gouldthorp, 19 April 2011, Toowoomba [p590: line 1]. See also Transcript, Steven Jones, 28 April 2011, Toowoomba [p972: line 28].

225 Transcript, Colin Jensen, 5 May 2011, Brisbane [p1394: line 50]

226 Transcript, James Kelly, 24 May 2011, Emerald [p2526: line 12].

227 Transcript, Collin Head, 23 May 2011, Rockhampton [p2495: line 30].

228 Transcript, Deputy Commissioner Ian Stewart, 13 May 2011, Brisbane [p2002: line 17; p2012: line 1].

229 Transcript, Anthony Jacobs, 10 May 2011, Brisbane [p1604: line 35].

230 Transcript, Anthony Martini, 9 May 2011, Brisbane [p1529: line 10]; Exhibit 312, Statement of Anthony Martini, 8 May 2011 [p5: para 31]. Note that Anthony Martini states that the Moreton Bay Regional Council will undertake further discussion about the merits of publishing the evacuation centre locations on the website.

231 Transcript, Desmond Howard, 24 May 2011, Emerald [p2541: line 51].

232 Transcript, William Wilkinson, 25 May 2011, Emerald [p2627: line 28].

233 See for example evidence of Greg Goebel about the importance of communication systems to advise residents and travellers of evacuation centre locations during a disaster: Transcript, Greg Goebel, 6 May 2011, Brisbane [p1491: line 4].

234 Rockhampton Regional Council, *Rockhampton Regional Council Disaster Management Plan, Part XI 'potential evacuation centres';* Exhibit 237, Evacuation Centre – Assessment of Potential Sites Goondiwindi.

235 Exhibit 465, Banana Shire Council - Banana Shire flood debrief, 17 February 2011 [p7].

236 Transcript, William Wilkinson, 25 May 2011, Emerald [p2622: line 53].

237 For example at the Toowoomba Grammar School (Exhibit 212, Statement Kevin Wruck, 16 April 2011 [p6: para 27-28]) and the Redbank Primary School (Exhibit 441, Statement of Colleen Engel, 20 April 2011), among many others.

238 As well as specific examples mentioned, other examples include Goondiwindi Regional Council (see Exhibit 230, GRCLDMG Action Plan - Projects List [p1]. Brisbane City Council is reviewing its evacuation centre planning as set out in its Flood Response Review Action Plan [p11]; Note also that the Queensland Police Service is conductig a review of evacuation issues: see Statement of Ian Stewart 20 May 2011 [p8: para 45].

239 Exhibit 445, Statement of Anthony Trace, 6 April 2011 [p58: para 223(a)]; Transcript, Anthony Trace, 20 May 2011, Ipswich [p2389: line 30]; Transcript, Paul Tully, 20 May 2011, Ipswich [p2365: line 35]. Mr Schafferius stated, similarly, that his experience was that people preferred to evacuate to a place where they could be close to home: Transcript, 27 April 2011, Toowoomba [p856: line 12].

240 For example, Information received from Somerset Regional Council, *Somerset local disaster*

management group debrief meeting minutes,
6 April 2011 [p12].

241 For example, Southern Downs Regional Council identified in its flood debrief a problem with having bedding for evacuation centres on both sides of the river: Exhibit 258, Stanthorpe Sub-Group Incident Control Centre Debrief, 17 January 2011, 'Warwick Flood debrief, 21 January 2011' [p3]. Ipswich City Council is liaising with the State Government Procurement Agency to ensure it has the capability to source essential supplies such as bedding, food and water for evacuation centres: Exhibit 445, Statement of Anthony Trace, 6 April 2011 [p59: para 223(c)(iii)]; also see generally Submission of Ipswich City Council [p43-45: para 10.39-10.43]. Similarly Banana Shire Council identified the difficulty of not having adequate resources in evacuation centre in advance of the disaster: Transcript, Collin Head, 23 May 2011, Rockhampton [p2495: line 32]. See also Mr Pitman's suggestion of having a 'start-up kit' for evacuations to ensure resources such as bedding would be available quickly: Transcript, Superintendent Garth Pitman, 20 May 2011, Ipswich [p2431: line 3].

242 For example, Mr Michael Wallis gave evidence of the limited facilities that had been available at Woodford Town Hall and what has since been done to cater for future floods: Transcript, 9 May 2011, [p1509: line 1]; Exhibit 309, Statement of Michael Wallis [p1]. See also on this topic, Exhibit 240, Statement of Peter Stewart [p5: para 13]; Exhibit 470, Statement of Desmond Howard, 1 April 2011 [p6: para 21].

243 Transcript, Assistant Commissioner Peter Martin, 6 May 2011, Brisbane [p1477: line 10]; Submission of Ipswich City Council [p48: para 10.59]. See also comments of Ian Stewart, at Transcript, 13 May 2011, Brisbane [p2002: line 55]; Transcript, Paul Tully, 20 May 2011, Ipswich [p2365: line 56]. Transcript, Patrick Ryan, 9 May 2011, Brisbane [p1500: line 22].

244 Transcript, Councillor Margaret de Wit, 5 May 2011, Brisbane [p1337: line 1]; Transcript, Assistant Commissioner Peter Martin, 6 May 2011, Brisbane [p1477: line 20]; Exhibit 303, Statement of Assistant Commissioner Peter Martin, 3 May 2011 [p3-4: para 6-8]; Exhibit 289, Third Statement of Colin Jensen, 19 April 2011 [para 1.18];

Transcript, Anthony Trace, 20 May, Ipswich [p2373: line 11; p2413, line 53; p2415: line 42]; Transcript, Anthony Jacobs, 10 May 2011, Brisbane [p1605: line 26].

245 See for example evidence of Graham Barnard, Transcript, 5 May 2011, Brisbane [p1324: line 56]; Exhibit 278, Statement of Graham Barnard, 21 April 2011 [p4: para 20] ; Exhibit 282, Submission of Dr Bruce Flegg, 11 March 2011 [p7-9].

246 For example: Transcript, Colleen Engel, 20 May, Ipswich [p2347: line 41]; Transcript, Councillor Margaret de Wit, 5 May 2011, Brisbane [p1331, line 13]; Transcript, Dr Bruce Flegg, 5 May 2011, Brisbane [p1342: line 21]. Graham Peall gave evidence of difficulty obtaining food delivery in Wivenhoe Pocket that resulted in the community sourcing a private helicopter to do a food drop: Transcript, Graham Peall, 9 May 2011, Brisbane [p1584: line 17].

247 For example, Sergeant Renwick in Woodford gave evidence that he was unable to obtain mattresses when he requested them from the local disaster management group. Michael Wallis was able to obtain them from the correctional facility, with delivery facilitated by the council: Transcript, Jason Renwick, 9 May 2011, [p1504: line 20]; Transcript, Michael Wallis, 9 May 2011, Brisbane [p1509: line 50].

248 Exhibit 450, Ipswich district disaster management group, Report on debrief outcomes for flooding events: December 2010 and January 2011 [p21: para 11(3)]; Submission of Ipswich City Council [p48:para 10.59-10.64]; Transcript, Bruce Grady, 26 May 2011, Brisbane [p2678: line 28].See also Transcript, Paul Tully, 20 May 2011, Ipswich [p2365: line 53]. See also: Transcript, Jason Renwick, 9 May 2011, Brisbane [p1505: line 10]; Transcript, Dr Bruce Flegg, 5 May 2011, Brisbane [p1348: line 17].

249 Transcript, Assistant Commissioner Peter Martin, 6 May 2011, Brisbane [p1469: line 25; p1471: line 6].

250 Transcript, Anthony Trace, 20 May 2011, Ipswich [p2370: line 56; p2388: line 28]. Submission of Ipswich City Council [p48: para 10.61].

251 Submission of Ipswich City Council [p39-40: para 10.26].

252 Transcript, Anthony Martini, 9 May 2011,
Brisbane [p1530: line 38].

253 Transcript, Robert Whalley, 6 May 2011,
Brisbane [p1412: line 45]; Exhibit 294,
Glamorgan Vale Flood Emergency Management
Group Newsletter No 1 [p1].

254 Transcript, Colin Jensen, 5 May 2011, Brisbane
[p1396: line 55].

255 Statement of James Barnes, 24 March 2011
[p5-6: para 14-15].

256 Exhibit 306, Statement of Greg Goebel,
18 April 2011 [p3-5: para 15-23; p11: para 64].
Mr Goebel states that training is particularly
important because of the different needs of
people evacuating to these centres, including
counselling needs and the needs of people
with mental disabilities. On this point see for
example, Transcript, Brad Carter, 23 May 2011,
Rockhampton [p2456: line 25].

257 Exhibit 306, Statement of Greg Goebel, 18 April
2011 [p5: para 24].

258 Transcript, Greg Goebel, 6 May 2011, Brisbane
[p1487: line 50]; Statement of Greg Goebel,
18 April 2011 [p6: para 25].

259 Transcript, Greg Goebel, 6 May 2011, Brisbane
[p1488: line 10].

260 Transcript, Greg Goebel, 6 May 2011, Brisbane
[p1489: line 50]; Exhibit 306, Statement of
Greg Goebel, 18 April 2011 [p9: para 47].

261 Exhibit 306, Statement of Greg Goebel, 18 April
2011 [p10: para 54]. Mr Goebel gives evidence
about the importance of early notification at:
Transcript, Brisbane 6 May 2011 [p1487: line
15]. See also Submission of Ipswich City Council
[p45-46: para 10.44-10.49] and Anthony Trace,
Transcript, 20 May 2011, Ipswich [p2391:
line 11] about confusion as to when Red Cross
resources could be made available to the Ipswich
City Council. See also Paul Siljac at Transcript,
9 May 2011, Brisbane [p1572: line 13].

262 Transcript, Greg Goebel, 6 May 2011, Brisbane
[p1487: line 29]; Transcript, Colin Jensen,
5 May 2011, Brisbane [p1393: line 56].

263 Transcript, Greg Goebel, 6 May 2011, Brisbane
[p1490: line 1]; Exhibit 306, Statement of
Greg Goebel, 18 April 2011 [9: para 47;
p13: para 75].

264 Transcript, Gregory Hoffman, 13 May 2011,
Brisbane [p1986: line 55]. Ipswich City Council

is one council which is currently negotiating
a memorandum of understanding with the
Australian Red Cross: see Transcript, Anthony
Trace, 20 May 2011, Ipswich [p2391: line 9].
Exhibit 445, Statement of Anthony Trace,
6 April 2011 [p59: para 223(c)(i)]. Banana Shire
Council is another: Transcript, Collin Head,
23 May 2011, Rockhampton [p2494: line 51].

265 Exhibit 306, Statement of Greg Goebel, 18 April
2011 [p8: para 35-36]; Information received
from Australian Red Cross, *Partnership agreement
between the Queensland Police Service and the
Australian Red Cross*, 18 August 2009.

266 For example, see Transcript, Detective Inspector
Brett Schafferius, 27 April 2011, Toowoomba
[p856: line 35]; Transcript, Bronwyn Darlington,
27 April 2011, Toowoomba [p880: line 10];
Exhibit 153, Statement of Bronwyn Darlington,
20 January 2011 [p9: para 73]. See also evidence
of Greg Goebel, Transcript, 6 May 2011 [p1488:
line 26] that Australian Red Cross was not
operating in the Lockyer Valley during the initial
stage but is aware of people seeking people's
personal information by posing as part of the
American Red Cross.

267 Transcript, Greg Goebel, 6 May 2011, Brisbane
[p1488: line 57].

268 Exhibit 306, Statement of Greg Goebel, 18 April
2011 [p15: para 82]; Transcript, Greg Goebel,
6 May 2011, Brisbane [p1489: line 6].

269 Transcript, Stuart Holley, 11 May 2011, Brisbane
[p1715: line 47]; Exhibit 337, Statement of
Stuart Holley, 9 May 2011 [p16 of exhibit]
(Mackay Regional Council, *Emergency Action
Guide for surviving natural disasters,* 2010-2011
[p6]).

270 Exhibit 478, Statement of Councillor Peter
Maguire, 13 May 2011 [p101 of exhibit]
(Central Highlands Regional Council, *Emerald
and Gemfields Region Preparing and Responding to
Disasters A Residents Guide* [p 13]).

271 Exhibit 450, Ipswich district disaster
management group, 'Report on debrief outcomes
for flooding events: December 2010 and January
2011' [p20]; Exhibit 258, Stanthorpe sub-group
incident control centre debrief , 17 January
2011 [p6] (Southern Downs Regional Council);
Bundaberg District Disaster Management Debrief,
3 March 2011 [p8].

272 Examples of evacuation of aged care facilities
include: Lowood – see Transcript, Darren

Rumbelow, 9 May 2011, Brisbane [p1553: line 27]; Exhibit 317, Statement of Darren Rumbelow, 19 April 2011 [p5-6: para 20 and 21]; Emerald – see Transcript, William Wilkinson, 25 May 2011, Emerald [p2619: line 44]; Exhibit 481, Statement of William Wilkinson, undated [p9]; St George – see Exhibit 270, Statement of Scott Norman [para 12]; and Riverview in Ipswich – see Transcript, 5 May 2011, Brisbane [p1341, line 1].

273   For example, see Transcript, Jennifer Beattie, 20 May 2011, Ipswich [p2325: line 3]; Exhibit 481, Statement of William Wilkinson, undated [p16: para 12(f)].

274   For example, see Exhibit 264, Statement of Wendy Newman, 19 April 2011 [p 4: para 12]; Transcript, Wendy Newman, 4 May 2011, St George [p1245: line 41].

275   Emergency Management Queensland, *Queensland Evacuation Guidelines for Disaster Management Groups, Consultation Draft,* October 2010 [p11: para 4.3]. See also Transcript, Bruce Grady, 26 May 2011, Brisbane [p2657: line 38].

276   For example, Ipswich City Council stated that some aged-care facilities left residents at evacuation centres without sufficient medical supplies or carers: Submission of Ipswich City Council [p41: para 10.34]; Transcript, Anthony Trace, 20 May 2011, Ipswich [p2390: line 22]; Exhibit 450, Ipswich district disaster management group, Report on debrief outcomes for flooding events: December 2010 and January 2011 [p20].

277   See for example, Mr Scheu's evidence supporting improved cooperation between aged care facilities and Queensland Health: Exhibit 245, Letter provided by Graeme Scheu, dated 10 March 2011, comprising a submission, 10 March 2011 [p2: para 6].

278   Transcript, Inspector Gregory Morrow, 3 May 2011, Goondiwindi [p1150: line 1]; Exhibit 221, Statement of Penni Roberts, 3 May 2011 [p1; p5-6]; Transcript, Inspector Gregory Morrow, 3 May 2011, Goondiwindi [p1141: 30]. See also Exhibit 245, Letter provided to the Queensland Floods Commission of Inquiry by Graeme Scheu, 10 March 2011 [p2]; Transcript, Graham Scheu, 3 May 2011, Goondiwindi [p1201: line 38].

279   Transcript, Gregory Morrow, 3 May 2011, Goondiwindi [p1149: line 39]; Transcript,

Penni Roberts, 3 May 2011, Goondiwindi [p1152: line 22]; Exhibit 221, Statement of Penni Roberts, 3 May 2011 [p4].

280   Exhibit 221, Statement of Penni Roberts, 3 May 2011 [p4].

281   Transcript, Penni Roberts, 3 May 2011, Goondiwindi [p1155: line 28]. The chair of the local disaster management group stated that Kaloma will be included in local disaster management group meetings for floods: Transcript, William Kearney, 3 May 2011, Goondiwindi [p1169: line 22].

282   See, generally: Submission of Anti Discrimination Commission Queensland [p3-11].

283   Emergency Management Queensland, *Queensland Evacuation Guidelines for Disaster Management Groups, Consultation Draft,* October 2010 [p11]. See also Exhibit 258, Stanthorpe Sub-Group Incident Control Centre Debrief [p7], in which Therese Crisp, from Granite Belt Support Services, comments that the service contacted families twice a day during the 2010/2011 flood, and recommends that a single person contact agencies and service managers. See also Submission of Anti Discrimination Commission Queensland [p11: para 3.1.3] which recommends that home-care services develop systems to ensure their clients have appropriate care during a disaster.

284   Emergency Management Queensland, *Queensland Evacuation Guidelines for Disaster Management Groups, Consultation Draft,* October 2010 [p12]; Exhibit 306, Statement of Greg Goebel [p14: para 75(c)]; Transcript, Greg Goebel, 6 May 2011, Brisbane [p1491: line 4]; Transcript, Greg Hoffman, 13 May 2011, Brisbane [p1988: line 2]; Transcript, Bruce Grady, 26 May 2011, Brisbane [p2658: line 8]. See also Submission of the Multicultural Development Association. See also Submissions of Anti Discrimination Commission Queensland, Australian Communication Consumer Action Network, and Ethnic Communities Council of Queensland.

285   Exhibit 259, Warwick Flood Debrief, 6 January 2011 [p2].

286   Submission of Multicultural Development Association [p5].

287   Submission of Anti Discrimination Commission Queensland [p13: para 3.2.1].

288 For more information see Submission of the Australian Communication Consumer Action Network.

289 Submission of Anti Discrimination Commission Queensland [p13: para 3.2.2].

290 Transcript, Bruce Grady, 26 May 2011, Brisbane [p2657: line 43].

291 Submission of Mark Townsend, CEO of RSPCA Queensland [p1-2]; Submission of Ipswich City Council [p46: para 10.50]; Exhibit 459, Statement of Brad Carter and Gavin Steele, 1 April 2011 [p193]. See also Statement of Maryanne Brandon, 18 February 2011 [p4: para 25].

292 Transcript, Councillor William Kearney, 3 May 2011, Goondiwindi [p1172: line 29, 46]; Transcript, Inspector Gregory Morrow, 3 May 2011, Goondiwindi [p1134: line 17]; Exhibit 245, Letter of Councillor Graeme Scheu [p2]; Transcript, Anthony Trace, 20 May 2011, Ipswich [p2392: line 52]; Exhibit 445, Statement of Anthony Trace, 6 April 2011 [p62: para 233]; Exhibit 447, Ipswich City Council Submission on Flood Preparedness [p67].

293 Exhibit 257, Statement of Inspector Mark Stiles, 11 March 2011 [p4-5]; Transcript, Inspector Mark Stiles, 4 May 2011, St George [p1263: line 1].

294 Exhibit 449, Statement of Superintendent Garth Pitman, 9 March 2011 [p11]; Exhibit 450, Ipswich District Disaster Management Group, *Report on debrief outcomes for flooding events: December 2010 and January 2011* [p5]; Exhibit 307, Statement of Superintendent Patrick Ryan and Redcliffe District Disaster Management Group, Minutes of extraordinary meeting 2011 flood debrief.

295 Transcript, Superintendent Patrick Ryan, 9 May 2011, Brisbane [p1499: line 15]; Transcript, Anthony Martini, 9 May 2011, Brisbane [p1531: line 15]; Exhibit 307, Statement of Superintendent Patrick Ryan and Redcliffe District Disaster Management Group, Minutes of extraordinary meeting 2011 flood debrief.

296 Jim O'Sullivan AC, APM and the Consultancy Bureau Pty Ltd, *Report on a Review of Disaster Management Legislation and Policy in Queensland,* August 2009 [p87-89].

297 Exhibit 257, Statement of Inspector Mark Stiles, 11 March 2011 [p5]; Transcript, Inspector Mark Stiles, 4 May 2011, St George [p1263: line 18].

298 Transcript, Douglas Bougoure, 20 April 2011, Dalby [p767: line 57].

299 Transcript, Christopher Artiemiew, 20 April 2011, Dalby [p775: line 53].

300 Transcript, Inspector Mark Stiles, 4 May 2011, St George [p1263: line 32].

301 Transcript, Bruce Grady, 26 May 2011, Brisbane [p2679: line 11].

302 Transcript, William Wilkinson, 25 May 2011, Emerald [p2607: line 15].

303 Transcript, Councillor Peter Maguire, 25 May 2011, Emerald [p2591: line 11].

304 Transcript, Councillor Gail Nixon, 24 May 2011, Emerald [p2562: line 34].

305 Exhibit 472, Statement of Max Mayne, 10 May 2011 [p3: para 9].

306 Transcript, Kenneth Murphy, 23 May 2011, Rockhampton [p2505: line 48].

307 Transcript, Danielle Hogarth, 24 May 2011, Emerald [p2550: line 17].

308 Regional Meeting Notes – 28 March 2011, Rolleston.

309 Regional Meeting Notes – 22 March 2011, Surat.

310 Transcript, Councillor Gail Nixon, 24 May 2011, Emerald [p2569: line 31].

311 Transcript, Councillor Gail Nixon, 24 May 2011, Emerald [p2569: line 49].

312 Transcript, Councillor Gail Nixon, 24 May 2011, Emerald [p2570: line 26].

313 Transcript, Peter Stewart, 3 May 2011, Goondiwindi [p1195: line 15].

314 Transcript, Peter Stewart, 3 May 2011, Goondiwindi [p1195: line 27].

315 Exhibit 222, Statement of Councillor William Kearney, 3 May 2011 [p1].

316 Exhibit 222, Statement of Councillor William Kearney, 3 May 2011 [p1].

317 Transcript, Peter Stewart, 3 May 2011, Goondiwindi [p1194: line 44].