

# 15

## 15 Emergency response and other interim report issues

The Commission was required by its terms of reference to inquire into emergency preparation, planning and response to the 2010/2011 floods by federal, state and local governments, emergency services and the community.

The Commission's interim report made recommendations about those matters that were required to be implemented before the 2011/2012 wet season.

In the course of the Commission's inquiry into those matters, there were a number of issues that required more detailed attention. This chapter addresses those issues: evacuation plans for businesses; emergency communications systems; review of disaster management plans; the adequacy of the response of the Queensland Fire and Rescue Service including their risk assessment system; the adequacy of the funding arrangements and structure of the SES.

This chapter also contains a more detailed examination of some of the circumstances in Grantham on 10 January 2011: the response of the SES and whether a Grantham quarry contributed to the flooding that occurred there. The Commission's interim report (chapter 7) addressed other aspects of the warnings, and preparation, planning and emergency response to flooding in the Lockyer Valley including Grantham.

Other aspects of the preparation, planning and response to the 2010/2011 floods as they relate to essential services are addressed in chapter 10 *Essential services*.

### 15.1 Evacuation plans for commercial premises

The Commission dealt extensively with evacuation plans in section 5.5.1 of its interim report. There, the Commission recommended that Emergency Management Queensland finalise draft evacuation guidelines for use by local disaster management groups. This has since been done; the guidelines were finalised and published in August 2011.<sup>1</sup> The Commission also recommended that each council develop an evacuation sub-plan in accordance with the Emergency Management Queensland guidelines, involving local groups and people in the planning process.

Since the release of its interim report, the Commission has heard evidence about local businesses' initiatives in developing evacuation procedures before the 2010/2011 floods, enabling them to remove their stock and other items before the onset of flooding.

In response to the flooding of Gympie in 1999, the Gympie Chamber of Commerce led the development of a flood plan designed to assist businesses subject to flooding to produce their own flood evacuation plans and to promote communication between business owners and relevant authorities about flood issues.<sup>2</sup> The Chamber of Commerce drew

upon the experience of businesses that had been inundated by floodwaters to create the flood plan.<sup>3</sup> The flood plan has been developed over time, and was revised after the 2010/2011 floods.<sup>4</sup> In its current form, it contains a contact list of businesses, councils, relevant emergency services and the Bureau of Meteorology. It also contains a register of historic peak flood heights, and provides advice about:<sup>5</sup>

- where to obtain flood warning information
- what to do in times of flood
- the preparation of a flood evacuation plan
- what will occur at certain flood heights, such as when electricity will be cut and restored.

The flood plan was, and is, available on the Gympie Chamber of Commerce's website.<sup>6</sup> The plan enabled an organised evacuation and helped businesses to resume operating more quickly in the Gympie area after the 2011 flooding. Those who used it commented favourably on it.<sup>7</sup>

Over the years, the owner of a building in Maryborough's marina precinct has developed a formula to estimate, fairly accurately, from upstream river levels the time and scale of flooding of the marina.<sup>8</sup> By relying on this system, one business operator was able to remove stock and other items from his marine supply and chandlery business before the onset of flooding in late December 2010.<sup>9</sup> His view was that, on the basis of that information, a contingency plan for the businesses on the riverfront should be developed, with better communication and support from the council.<sup>10</sup> Another business owner in the marina had, since the flood, developed a formal evacuation plan, which he envisaged would ensure staff knew what to do and promote a more efficient evacuation, with business owners working together.<sup>11</sup>

The owner of a clothing boutique in a shopping precinct in Rosalie, an inner-western suburb of Brisbane, suggested that shop owners there should have a flood plan to identify which shops could flood and to establish a procedure for them to remove stock and assist each other.<sup>12</sup>



*Flooding at Jondaryan, January 2011 (photo courtesy I Burton, Jondaryan District Residents Association)*

The Commission endorses business owners' developing flood evacuation plans for their premises as a common sense measure to mitigate flood damage to property. Developing site-specific flood evacuation plans is primarily a private responsibility for business owners.

However, there is a limit to what business owners can achieve by preparing flood evacuation plans; inevitably evacuations will be undertaken alongside work being done by councils and emergency services. For example:

- The owner of the chandlery business in the Maryborough marina commented that, while the marina businesses were largely self-sufficient in flooding, they needed the council to provide advance notice of flooding (if any was available) and, in particular, to manage road closures and vehicle traffic to allow business owners efficiently to remove their stock, plant and equipment.<sup>13</sup>
- A member of the Gympie Chamber of Commerce noted a difficulty encountered in the clean-up after the flood: business owners were required to give signed consent before the rural fire brigade would hose out their properties.<sup>14</sup> This meant that when business owners had evacuated (and may have still been isolated elsewhere) their premises would have remained mud-encrusted despite the presence of fire brigade personnel able and willing to clean them.

Emergency Management Queensland's Queensland Evacuation Guidelines for Disaster Management Groups provide information and guidance to councils and local disaster management groups about planning for evacuation.<sup>15</sup> The guidelines recommend that local disaster management groups develop evacuation sub-plans that include information about areas that might be affected by hazard, safe evacuation routes, estimated evacuation timelines, transport requirements and traffic management strategies. The guidelines prompt councils and local groups to consider how to communicate the evacuation sub-plan (once developed) to businesses.<sup>16</sup> Doing so is likely to assist business owners in developing their own evacuation plans.

As each council has the primary responsibility for managing disasters within its region, and the development of flood evacuation plans for commercial premises is likely to be an individual or locality-based arrangement, it is appropriate that councils support and encourage local businesses to develop flood evacuation plans for their premises. Councils can communicate to business operators the benefits of developing evacuation plans. They are also best placed to establish lines of communication between those managing private evacuations, council staff, and emergency services. There may be benefits to councils' providing business owners with locally relevant information about suitable content for flood evacuation plans, perhaps by developing and publishing a template flood evacuation plan.

As to the issue of the hosing out of commercial premises in the post-flood clean-up at Gympie, the Queensland Fire and Rescue Service has confirmed that, because its Rural Fire Service volunteers have no power of entry to hose out properties during recovery operations, the activity can only be performed with the property owner's consent.<sup>17</sup> In the absence of evidence about similar concerns elsewhere, the Commission is not in a position to do more than observe that it would appear sensible for the responsible authorities to consider steps to streamline consent requirements in areas that are regularly subject to flooding; for example, to consider if advance consent could be given by property owners for emergency services to enter their properties for cleaning purposes following floods.

## Recommendations

- 15.1 Councils should support and encourage business owners to develop private flood evacuation plans by providing the following to business owners in areas known to be affected by flood:
- information about the benefits of evacuation plans
  - contact details of relevant council and emergency service personnel for inclusion in evacuation plans.
- 15.2 Councils should consider making available to business owners locality specific information that would assist them to develop evacuation plans for commercial premises, for example, any evacuation sub-plan created under Emergency Management Queensland's disaster evacuation guidelines.

## 15.2 Emergency communications

In its interim report, the Commission examined the procedures used to deal with emergency calls, paying particular attention to calls made in the Toowoomba region on 10 January 2011. The interim report recommended the introduction of uniform training standards for call takers in the Queensland Police Service,<sup>18</sup> and indicated that the Commission's final report would examine proposals for extending the police service's computer aided despatch system and improving interoperability<sup>19</sup> between the police service and the Department of Community Safety.<sup>20</sup>

The issue of 'black spots' (areas which are not covered by a radio communications network and within which radio communications are consistently difficult or impossible) was also examined in the interim report, but only in the context of the Lockyer Valley.<sup>21</sup> The following sections discuss interoperability between emergency communications systems, and measures to address black spots in emergency communications across Queensland.

### 15.2.1 Interoperability

#### Emergency calls

When a member of the public calls 'triple zero', his or her call is answered by a Telstra operator, who transfers the call to the appropriate emergency service (the Queensland Fire and Rescue Service, the Queensland Ambulance Service or the police service).<sup>22</sup> The call is first transferred to the communications centre that is closest to the caller's location ('the primary call centre').<sup>23</sup> However, during peak call times the primary call centre may be unable to attend to all calls, so the Telstra operator has to forward the call to an alternative call centre under 'overflow arrangements'. The Telstra operator will only leave the call once it is transferred to another operator.<sup>24</sup>

The fire service, ambulance service and police service each have a number of communications centres throughout the state. Communications centre staff use computer aided despatch systems to allocate jobs generated by emergency calls to the officers who will respond.

The Department of Community Safety (which is responsible for the fire and ambulance services) uses the Emergency Services Computer Aided Despatch (ESCAD) system, which permits interoperability between the two services.<sup>25</sup> In particular, the system allows fire and ambulance officers to obtain access to callers' data wherever the call is taken. The police service's computer aided despatch system did not allow any information exchange between the police and other emergency service agencies.<sup>26</sup> The Commission notes that the Queensland Government has begun work to develop this interaction.<sup>27</sup>

#### Queensland Police Service

The police service uses the Emergency Services Communications and Operational Response Tasking (ESCORT) computer aided despatch system in five of its 21 communications centres.<sup>28</sup> That system allows limited interoperability among the five centres, but not between them and the remaining 16 communications centres,<sup>29</sup> each of which uses a stand alone computer system not capable of communicating with other systems.<sup>30</sup>

This lack of interoperability becomes particularly problematic when overflow arrangements are needed. Where calls exceed one police communications centre's capacity (for example, during a disaster event), there is currently no capacity for another centre to receive and respond to some of those calls.<sup>31</sup> And where responsibility for responding to an emergency call is transferred to a communications centre which is not interoperable with the centre at which the call was received, call details must be manually recorded and transferred via telephone, Ultra High Frequency (UHF) radio, email or facsimile, or printed via the police service's computer network to a printer physically located within the second communications centre.<sup>32</sup>

The police service has consistently identified the importance of improving interoperability between its communications centres and between police and other emergency services.<sup>33</sup> With that aim, the police service is currently establishing a new computer aided despatch system at seven communications centres: North Coast Region (Maroochydore), South Eastern Region (Beenleigh), Brisbane, Cairns, Townsville, Rockhampton and Toowoomba.<sup>34</sup> The new system commenced operating at the North Coast Region communications centre on 7 December 2011<sup>35</sup> and will be in place in South Eastern Region, Brisbane, Cairns and Townsville by the end of 2012<sup>36</sup> and Rockhampton and Toowoomba in 2013.<sup>37</sup>

Once in place, the new system is expected to have these benefits:

- reducing data entry time for call takers<sup>38</sup>
- reducing congestion on radio networks, because of its automated despatching capabilities<sup>39</sup>
- making more information available to front-line officers, because the system will be connected with QPRIME, the police service's information management system<sup>40</sup>
- providing improved awareness of current conditions for call takers, since the system will be linked with geographic/geospatial information system (GIS) data sets<sup>41</sup>
- providing interoperability with other emergency service organisations through the use of an Inter-CAD Electronic Messaging System (ICEMS).<sup>42</sup>

The rollout of the new system to the seven communications centres forms part of a long term transition to a unified and interoperable computer aided despatch system across all police communications centres. However, since it is envisaged that the new computer aided despatch system will, at this time, only be adopted in seven of the police communications centres, the remaining centres will still have no direct means of information exchange with police communications centres or with other emergency services.<sup>43</sup>

A recent police service draft report warned that the full benefits of the new system would only be realised once it was used on a state-wide basis in all police communications centres.<sup>44</sup> (Complementary technologies such as 'Automatic Vehicle Location'<sup>45</sup> would also improve police communications.<sup>46</sup>) Several members of the police service similarly emphasised, in their evidence, the benefits to be gained from the state-wide use of a common computer aided despatch system.<sup>47</sup>

The draft report also suggested that the number of communications centres should be reduced from the current 21 to seven in order to, amongst other things, streamline operations.<sup>48</sup> This proposed step is yet to be considered by the police service's information steering committee and contact management business strategy executive working group.<sup>49</sup> Any recommendation by that committee for such a reduction in communications centre numbers will affect decisions about further rollout of the new computer aided despatch system.

## Radio communications

The fire service, the ambulance service and the police service use stand alone radio communications networks as the basis for all communications between officers carrying out operations and communications centres. The three services do not have interoperable radio communications,<sup>50</sup> though they may connect through some radio channels.<sup>51</sup>

Radio communications encompass both narrowband (supporting voice communications) and broadband (supporting data communications including the transmission of photos, videos and maps).<sup>52</sup> The fire, ambulance and police services, alongside most other emergency service organisations in Australia, use the 400 MHz spectrum for narrowband radio communications.<sup>53</sup>

All emergency service organisations are moving towards complete interoperability using the 400 MHz spectrum for narrowband communications by the year 2020, according to the Council of Australian Governments' plan, under an agreement with the Australian Communications and Media Authority.<sup>54</sup>

The 400 MHz spectrum cannot effectively be used for data communications because the size of each spectrum allocation is too small to transmit large files.<sup>55</sup> As a result of insufficient spectrum for transmitting large files and/or during times of high demand, the network may become congested; that may slow it or cause outages.<sup>56</sup> During the 2010/2011 floods, there was, at times, congestion on the radio networks.<sup>57</sup>

Some Australian emergency service agencies have called for the dedication of a broadband data network to support the existing narrowband network.<sup>58</sup> A senior police service officer expressed his view to the Commission that the implementation of broadband data applications would improve the operational capabilities of the police, ambulance and fire services.<sup>59</sup> However, some telecommunications providers disagree with the proposition that emergency service organisations require dedicated spectrum for broadband communications on the basis that, amongst other things, it would inhibit the commercial exploitation (and, they say, associated national economic benefit) of the digital 'dividend', or spectrum.<sup>60</sup>

Several national bodies are currently considering or have recently considered the benefits of dedicating a broadband data network to Australia's emergency response agencies, including:

- the Australian Communications and Media Authority as part of its ongoing review of the 900 MHz band plan (which actually encompasses the spectrum from 820-960 MHz)<sup>61</sup>
- the Public Safety Mobile Broadband Steering Committee, which is working with the Australian Communications and Media Authority to determine whether the 800 MHz band should be dedicated to emergency response organisations.<sup>62</sup> The Committee's final report is due by 29 February 2012<sup>63</sup>
- the Senate Environment and Communications References Committee, which recently recommended that the Commonwealth Government allocate sufficient spectrum for dedicated broadband public protection and disaster relief radio communications in Australia.<sup>64</sup>

The Commission similarly regards as vital the allocation of broadband spectrum to Australia's emergency service organisations, to avoid congestion on narrowband communications and to assist Australian emergency service organisations in achieving 'interoperability', giving them the best means of communicating and co-operating.

In Queensland, the public safety communications steering committee (a joint working party comprising representatives from the police service, the Department of Community Safety, the Department of Public Works, the Department of the Premier and Cabinet and Queensland Treasury) is considering the development of a state-wide whole of government wireless network,<sup>65</sup> similar to those established in other Australian states and territories.<sup>66</sup> If established, the network (relying on digital rather than analogue technology) would allow officers using portable radios to obtain access to police communications centres from anywhere in the state, allow interoperability between emergency and other agencies, and provide both narrowband and broadband communications capability.<sup>67</sup> If approved, the project would take 10 or more years to put into place.<sup>68</sup>

The Commission supports the move towards interoperability between Queensland's public safety agencies, both in narrowband radio communications and through the establishment of a whole of government digital wireless network.

### 15.2.2 Radio communications 'black spots'

The Department of Community Safety and the police service, for the most part, use analogue radio networks,<sup>69</sup> which are less reliable than digital networks over large distances, rough terrain and during severe weather events.<sup>70</sup> In a state as large and geographically diverse as Queensland, it is impossible to achieve complete state-wide coverage using analogue networks;<sup>71</sup> consequently, the existence of black spots is inevitable. Various radio communications black spots were identified throughout the state during the 2010/2011 floods.<sup>72</sup>

Black spots in communications systems are identified and regularly addressed by the Department of Community Safety and the police service through specific programs.<sup>73</sup> Efforts are made to improve radio communications coverage in areas with limited communications by:

- using mobile telephones<sup>74</sup>
- deploying mobile repeaters or installing additional permanent repeaters to supplement radio networks<sup>75</sup>
- using alternative equipment such as high frequency single side band transceivers, satellite phones and mobile satellite terminals.<sup>76</sup>

The replacement of analogue networks with digital ones would alleviate the communications difficulties which black spots cause emergency service organisations.<sup>77</sup> In particular, the digital radio network under consideration by the public safety communications steering committee would resolve many of the problems experienced by members of the police service, who could use hand-held or vehicle radios with the assurance of consistent coverage throughout the state, and without the need to change channels.<sup>78</sup>

For this reason also, the Commission supports the establishment of a state-wide digital radio network. In the meantime, it is vital that emergency service agencies continue their efforts to identify and address black spots in their respective radio communications networks to ensure sufficient communications capabilities are maintained.

## 15.3 Review of disaster management plans

The *Disaster Management Act 2003* requires each council to prepare a disaster management plan for its area<sup>79</sup> and to review the plan's effectiveness at least once a year.<sup>80</sup> Emergency Management Queensland has overarching responsibility for reviewing and assessing the effectiveness of the state's disaster management arrangements, which includes the review of local disaster management plans.<sup>81</sup>

The Commission observed in its interim report that Emergency Management Queensland had not had a consistent approach to how it conducted the review of disaster management plans.<sup>82</sup> Accordingly, the Commission recommended that Emergency Management Queensland take steps to improve the overall review process,<sup>83</sup> and that it 'assess the effectiveness of the review system before the end of 2011, and report its results to the Commission by 31 December 2011'.<sup>84</sup>

In response to the Commission's recommendations, Emergency Management Queensland developed and implemented an amended process to review local disaster management plans. It also conducted an assessment of its amended review process and, as recommended, provided a report of those results to the Commission.

This section of the report discusses Emergency Management Queensland's review process and the results of Emergency Management Queensland's assessment of the effectiveness of the review process.



*Sheep being relocated near Roma, 2010/2011 (photo supplied)*

### 15.3.1 The review process

Emergency Management Queensland's process of reviewing disaster management plans involved:

- district disaster co-ordinators' reviewing all 74 local disaster management plans and providing the results to Emergency Management Queensland for analysis<sup>85</sup>
- Emergency Management Queensland's reviewing a sample of 22 local disaster management plans.

To assist the district disaster co-ordinators to review the plans, Emergency Management Queensland developed an Interim Review and Assessment Workbook. The workbook was distributed to councils and district disaster co-ordinators on 1 September 2011, and following comments from disaster co-ordinators, was finally released in October 2011.<sup>86</sup> The purpose of the workbook was to ensure that a standardised approach was followed by those responsible for reviewing the local plans.<sup>87</sup> The workbook was used to assess the adequacy of each plan against twelve components of disaster management:

- organisation and governance
- risk management
- planning process
- community capacity building
- response arrangements
- impact assessment
- co-ordination
- public information
- community support
- evacuation
- re-supply
- recovery.<sup>88</sup>

Senior officers of Emergency Management Queensland and the Queensland Police Service provided guidance and education to disaster co-ordinators in the review process.

The results of the review were subsequently analysed by Emergency Management Queensland to identify any shortcomings in each local plan and to develop strategies to address them. As a result of this analysis, each council was classified according to the level of support it would require in a disaster response: high, moderate or minimal.<sup>89</sup>

Emergency Management Queensland also separately reviewed the 22 local government areas it identified as having a high likelihood of being affected by flooding. The information obtained from this exercise was used to identify aspects of local disaster management that require improvement (for example, the adequacy of training and the substance of disaster sub-plans).<sup>90</sup>

The results of the review have been provided to the Commission, but at the time of writing had yet to be communicated to the councils involved. They appear to show that the process adopted has been effective.

### 15.3.2 Assessment of the review process

Emergency Management Queensland assessed the effectiveness of its disaster management plan review process with reference to five diverse local government areas: Moreton Bay Regional Council, Carpentaria Shire Council, Flinders Shire Council, Scenic Rim Regional Council and Toowoomba Regional Council. It analysed the reviews completed by the district disaster co-ordinators for these areas and developed a questionnaire to gauge the experiences of the officers involved in the review process. Based on its analysis of this information, Emergency Management Queensland has identified areas for improvement in how the review process operates.<sup>91</sup>

The assessment concluded that although there were some difficulties with the review methodology (which includes the interim workbook), reviewing officers were generally able to apply it appropriately.<sup>92</sup>

Feedback from officers involved in the review process identified the need for:

- more training and support in how to conduct the reviews and use the workbook<sup>93</sup>
- better scheduling of the reviews to allow more extensive participation in the review process<sup>94</sup>.

As a result of the assessment, Emergency Management Queensland has committed to improving the review process by:

- monitoring the annual reviews of local disaster management plans
- reporting annually to the state disaster management group about areas requiring improvement
- developing and implementing training and education for reviewing officers
- developing an overarching policy and standards for disaster management plans at all levels.<sup>95</sup>

The Commission also notes the commitment of the Queensland Police Service to instituting the review of local disaster plans as a standing activity for its officers who perform the role of district disaster co-ordinator.<sup>96</sup>



The review process developed by Emergency Management Queensland has provided a standardised format for the review of local disaster plans and has identified opportunities for improvement in some plans. Emergency Management Queensland proposes to revise the review and assessment workbook to incorporate in it the critical feedback it has received from district co-ordinators who use it. This is a prudent and necessary step.

Generally, Emergency Management Queensland appears to have developed an effective and consistent process for reviewing the progress and quality of disaster management plans. It should continue to monitor and improve that process and to provide all necessary assistance, including training and support, to district disaster co-ordinators in their role of reviewing plans.<sup>97</sup>

## 15.4 Queensland Fire and Rescue Service

### 15.4.1 Preparedness for and response to the events of 10 January 2011

The Commission's interim report considered the fire service's preparedness for and response to the events of 10 January 2011. The Commission had not, when the interim report was written, received sufficient evidence from the fire service to allow it to answer the following questions:

- Whether management staff of the fire service responded promptly to station officer requests for more staff on 10 January 2011.
- Whether management staff of the fire service took all reasonable steps to recall staff to ensure operational preparedness for the events of 10 January 2011.
- Whether management staff of the fire 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.<sup>98</sup>

Following the delivery of the interim report, the fire service provided the Commission with a written submission (unsupported by witness statements) which sought to address each of the three outstanding questions for both the south-eastern and south-western regions. It provided a more detailed spreadsheet, which assisted in determining the location of fire service personnel and vehicles at particular times. The Commission then required and received statements from a number of senior fire service officers and operational staff to address particular areas of uncertainty. From all of that material, it has been possible to piece together the following sequence of events.

### 15.4.2 Response of fire service management and deployments on 10 January

#### South-eastern region

On the morning of 10 January 2011, the Ipswich station officer telephoned a number of senior fire service officers to request additional staff, including swift water rescue technicians, for duty at Ipswich, where only one technician was rostered on.<sup>99</sup> His concern was that the Bureau of Meteorology's website was indicating wet weather in the Lockyer area; because the ground was already saturated, flash flooding was possible. Taking his account in conjunction with telephone records supplied by the fire service, it seems that at 7.24 am, the station officer spoke to the duty manager of operations, asking for six extra staff. The duty manager told him that there was going to be a meeting of senior personnel, and he would speak to him after it. (The duty manager had no recollection of the call, but did not deny its possibility.<sup>100</sup>) Such a meeting did take place at 8.30 am between the duty manager of operations, the acting assistant commissioner of the south-eastern region and two other senior officers.<sup>101</sup>

At that meeting, the duty manager advised the acting assistant commissioner of the current operational situation: the south-eastern region was experiencing generalised flooding and forecasts indicated continuing rain for the western part of the region. A call was received from the assistant commissioner of the south-western region advising that the Toowoomba fire service might have difficulty responding to incidents in the south-eastern region, because landslides had caused damage to the Toowoomba range section of the Warrego Highway. All those considerations led the acting assistant commissioner to decide to recall additional swift water rescue technicians and equipment.<sup>102</sup> Decisions were made to call in two swift water technicians to crew a spare Ipswich rescue vehicle to be positioned at Gatton, to bring the Beenleigh rescue truck to Ipswich and to move another rescue vehicle from Robina to Beenleigh. Two swift water technicians were also to be recalled to duty to crew an additional vehicle at Robina.<sup>103</sup>

There is then some confusion about precisely who communicated what to whom about those decisions. The duty manager said that he contacted station officers at the stations affected to advise them to make the arrangements to recall staff, although he could not remember to whom he spoke. It does not seem, however, that he spoke to the station officer at Ipswich. That may have been because at 8.50 am, about the time the duty manager would have been contacting the Ipswich station, the Ipswich station officer telephoned the acting assistant commissioner. The latter, on the station officer's account, gave approval for one swift water rescue technician to be called in.<sup>104</sup> (Again, the acting assistant commissioner did not recall but did not deny the possibility that he had spoken to the station officer.) It is possible that there was some misunderstanding in the conversation, because other evidence suggests that by then approval had in fact been given for two officers to be recalled.<sup>105</sup> It is fairly clear that the station officer was continuing to seek support; seven minutes later, he telephoned the regional technical rescue co-ordinator, who did recall their conversation:<sup>106</sup> the station officer raised the need for more swift water technicians. The regional co-ordinator made calls to the duty manager and the acting assistant commissioner; he was able to confirm that two technicians could be called in to duty.

The Commission considers it likely, given the sequence of events, that the Ipswich station officer's calls were the prompt for the assignment of the two swift water technicians to Ipswich, but that is not to say that senior fire service management in the south-eastern region would not in any event have made arrangements for extra personnel to be called in. It is clear that they did make arrangements as effectively as they could for the day's events, subject to the constraints dealt with in the interim report, of a fire service well below its proper strength in terms of swift water technicians and stretched by the deployments of officers to other parts of Queensland.

In fact, most of the arrangements for stationing crews and appliances<sup>107</sup> at the intended stations gave way to the emergencies of the day. Both the spare appliance from Ipswich, with the recalled swift water technicians, and the Ipswich rescue vehicle with its crew were sent (as were crews and vehicles from Helidon and Gatton) at about 1.30 pm to Postman's Ridge and Murphys Creek, where they performed a number of rescues in the course of the afternoon.<sup>108</sup> The Beenleigh appliance and its crew went, as did teams from Forest Hill, Gatton and Laidley, to assist in events on the Warrego Highway near Helidon when the water rose there after 2.00 pm. Also assisting there was a rescue vehicle from Cannon Hill, which had been directed to assist in Toowoomba, but had been unable to reach the city. Two swift water technicians from that vehicle rescued a woman who had been a passenger in a vehicle washed off the flooded highway. Her husband and child had been swept away; she was found holding onto a tree.<sup>109</sup>

Shortly after 4.00 pm, the fire service began to receive calls from people in difficulties in the floodwaters in Grantham. The first concerned three people said to be inside a semi-submerged car. A further nineteen calls for help were recorded as received between 4.50 pm and 11.00 pm, principally from people trapped in or on their houses.

The fire service experienced some difficulties in collating and providing the details of what tasks were performed and the times at which they were performed in response to the emergencies created by the Grantham flooding. No electronic record was available, because, it seems, of problems with its software systems. However, the fire service has advised the Commission that it has improved its operational procedures: in any major event, the relevant incident control centre will have among its staff a fire communications officer and operation management system operator, who will, together, ensure details of crews, vehicles, dispatch and arrival times and tasks performed are recorded in the service's Emergency Services Computer Aided Dispatch system.

The information which follows is drawn largely from the statements of fire service officers who were involved in the events of the afternoon and evening of 10 January. The crew of an appliance from Laidley was able, at about 4.30 pm, to assist a number of people on the roof of a house on the Gatton-Helidon road.<sup>110</sup> Four other fire service vehicles, crewed by auxiliary firefighters from Laidley, Rosewood and Hattonvale, tried by different routes to get into Grantham itself, but were prevented by the fast-rising, fast-flowing floodwaters from reaching it.<sup>111</sup> They set about evacuating surrounding properties.<sup>112</sup>

Unable to get access to Grantham by road, the fire service despatched two helicopters, one to make observations and the other to perform winch rescues.<sup>113</sup> Their first rescue, soon after 5.00 pm, was of the child who had been in the vehicle swept off the Warrego Highway.<sup>114</sup> He had been carried a considerable way downstream towards Grantham. After refuelling in Toowoomba, the two helicopters rescued half a dozen people stranded in or on houses in Grantham before ceasing operations at about 7.40 pm.<sup>115</sup> (As described in the Commission's interim report,<sup>116</sup> Emergency Management Queensland rescue helicopters also performed large numbers of winch rescues in Grantham that evening.)

At 6.30 pm, the fire service helicopter landed the two swift water technicians from the Cannon Hill rescue vehicle in Grantham. Using a rural fire brigade vehicle as a control point, they set about searching houses and vehicles and making contact with people stranded on roof tops. Grantham residents who had taken refuge at the town's school identified people for whom they should look.<sup>117</sup> Senior fire service officers had arrived in Gattton at 5.40 pm and commenced the process of establishing an incident control centre, which became operational at 7.15 pm.<sup>118</sup>

The crew of the appliance from Rosewood which had earlier tried to get into Grantham was sent back to the western side of Grantham that evening.<sup>119</sup> There they encountered the two swift water technicians called in for duty at Ipswich. After finishing their last rescue at Murphys Creek the two technicians had been sent back at 5.50 pm to Gattton<sup>120</sup> and by chance, not direction, attempted a detour through Grantham. Arriving there at about 7.30 pm, they found the lower part of the town still flooded; the chaos of the afternoon was evident from its state.<sup>121</sup> They joined forces with the team of the Rosewood appliance. At about the same time another swift water rescue team sent up from Beenleigh had arrived on the western side of Grantham and were joined by a swift water rescue trained firefighter from Rosewood.<sup>122</sup> The incident control centre had given the latter team a list of houses to search; they were residences from which emergency calls had been received. Both groups spent the following hours on foot and using an inflatable work platform searching house by house for survivors.<sup>123</sup> A front end loader was performing evacuations at the same time. The swift water technicians from Cannon Hill were continuing to operate on the other side of the town.<sup>124</sup> All the teams continued to work into the early hours of the following morning.<sup>125</sup>

## South-western region

In late December 2010, the assistant commissioner for the south-western region held a series of meetings with other senior officers to decide what to do in light of the developing wet season. Sick leave was always high in December and early January, so that it was expected there might be problems in providing full crews for fire appliances and, in turn, in maintaining the fire service's ability to respond where swift water rescue was needed in the region. The assistant commissioner gave a direction that full staff numbers were to be maintained at all permanent stations, with staff called in on overtime where necessary.<sup>126</sup> In addition, on 23 and 24 December 2010, swift water equipment and three additional support vehicles were moved to Toowoomba's Kitchener Street station to increase the service's ability to perform swift water rescues.<sup>127</sup>

On the night of 9 January 2011, four swift water rescue technicians from Toowoomba were required to attend an incident in Grantham involving an auxiliary fire truck which had got into difficulties in floodwaters. The four technicians did not arrive back in Toowoomba until the early hours of the morning. They were sent home to rest, but were directed to remain on standby. As it happened, three of the four were able to take part in the rescues of the following afternoon.<sup>128</sup>

The flooding in Grantham of the previous night and the morning's weather conditions convinced the Kitchener Street station officers that they should try to procure more swift water rescue technicians, in addition to the two already on duty, for the day's work. The senior station officer unsuccessfully attempted to contact the acting inspector for the Toowoomba command to authorise additional staff deployments. He left messages on the inspector's mobile phone but received no response.<sup>129</sup> (Fire communications centre notes record that a call from the centre to the acting inspector's phone at 8.38 am similarly went to message bank.<sup>130</sup>) By mid-morning it was raining heavily and the station officer renewed his efforts to contact the inspector, ringing both his mobile phone and the district office; calls to both went unanswered. (Fire service records confirm two calls were made at about 11.50 am from the mobile phone attached to the fire truck the station officer was crewing to the inspector's mobile phone.<sup>131</sup>) The station officer did not try to contact anyone else in fire service management, because, as he understood it, the established chain of command required that he deal with the inspector.<sup>132</sup>

The acting inspector has provided a statement in which he says that he received one call on his mobile telephone that morning but no call or message from the station officer. He suggests that the calls might have been made to a mobile phone which he had passed on to another fire service officer a year previously.<sup>133</sup> By 11.45 am he had left the district office to go to the Toowoomba Town Hall, where he attended a meeting of the local disaster management group.<sup>134</sup> At the direction of the assistant commissioner, he went from there to the fire communications centre at 1.30 pm.<sup>135</sup>

The assistant commissioner of the south-western region spent the morning of 10 January 2011 at the regional co-ordination centre, monitoring weather reports and live radar. At about 12.30 pm, he became concerned that the severe weather formation he had been monitoring had intensified and developed and would pass over Toowoomba on its way to Dalby.<sup>136</sup> In consequence, he held a briefing about the weather situation with other senior officers in

the course of which they were advised by the fire communications centre that heavy rain was falling immediately north of Toowoomba. The assistant commissioner organised the recall of off-duty staff to the fire communication centre, and directed that the auxiliary stations located in Toowoomba command east of Dalby be advised of the weather and made ready to respond.<sup>137</sup> Arrangements were made for staff from the regional operations command centre to crew an additional vehicle.<sup>138</sup>

At about 1.30 pm two vehicles and crews from the Kitchener Street station and one from the Highfields station were sent to Murphys Creek in response to the developing emergency there. One vehicle attempted to reach Murphys Creek via the New England Highway while the other used the Warrego Highway. The two swift water technicians were assigned one to each vehicle, with the hope that one of the vehicles would be able to reach its destination. The Kitchener Street station officer was in the vehicle using the New England Highway; en route he made a call to the fire communications centre requesting more swift water rescue technicians.<sup>139</sup> That call seems to have been acted on: at 1.42 pm, the fire communications centre called the regional technical rescue co-ordinator to request technical rescue assistance, which resulted in the recall of three of the swift water rescue technicians who had been off duty because of the late finish of their shift that morning.<sup>140</sup> They responded to a number of incidents from about 3.00 pm onwards.<sup>141</sup>

The vehicle which was to travel via the New England Highway encountered flooding before it left Toowoomba; as a result it turned around and instead was directed to a number of incidents in the city. Its crew was soon engaged in the rescue of a man clinging to a tree in Dent Street.<sup>142</sup> The other vehicle was prevented by flooding on the range from reaching Murphys Creek. It returned to Toowoomba and made its way to the Kitchener and James Street intersection. Its crew heard the report of a woman and child swept away (Ms Rice and her son) but was too late to do more than search for them. They were able to retrieve a woman stranded on the roof of a motor vehicle in floodwaters at the intersection and to rescue a man holding onto a street sign in fast-flowing water.<sup>143</sup>

### 15.4.3 Chain of command

The acting assistant commissioner of the south-eastern region said that there was no formal protocol for requesting assistance when station officers were not attending an incident; the expectation was that station officers should initially try to contact either the duty manager or their area commander. If both those officers were off-duty, the request should be made through the fire communications centre to an on-call senior officer.<sup>144</sup> It seems that that procedure might be better communicated, since the Ipswich station officer was unaware of it: he thought that what he had done in contacting the acting assistant commissioner was unorthodox and outside the usual chain of command.<sup>145</sup> In fact, what happened seems to have worked well enough. The Ipswich station officer was able to contact three superior officers likely to be able to provide some assistance as to the redeployment of staff, and it seems probable that had he contacted only the duty manager of operations, he would nonetheless have had an answer to his request for more staff (if not one entirely satisfactory to him) once the meeting between the duty manager, the acting assistant commissioner and others had concluded.

In the south-western region, although the assistant commissioner had clearly undertaken appropriate planning for staffing for the wet season, there remain some unsatisfactory aspects of the events of the morning of 10 January. The assistant commissioner explained the procedure for calling for more staff. If a station officer was not attending to an incident, the normal chain of command applied: contact should be made with the inspector or the nominated on-call senior officer. If that officer did not respond, contact should be made with the next level of senior officer, including the director of regional operations or the assistant commissioner. An alternative, should there be any difficulty in making direct contact, was to ask the fire communications centre to facilitate contact with a senior officer.<sup>146</sup> But it does not seem that any of the fire officers at the Kitchener Street station in Toowoomba was aware of that procedure; and it is a matter of concern that the station officer did not, apparently, have a current contact number for the inspector.

### *Recommendation*

- 15.3 The fire service should ensure that station officers are familiar with the procedure for contacting management when requesting the calling in of additional staff; and, in particular, that they have available to them the names and current telephone numbers of the officers to be contacted in the first instance, with alternative contact details in the event that those officers prove unavailable.

### 15.4.4 Weather forecasts and warnings

The fire service referred the Commission to a fire service directive, Incident Action Guide 3.5, directed to officers in charge (including station officers) who may have to respond to incidents involving swift water rescues. It advocates that officers ‘[a]nticipate potential rescues by monitoring weather situations such as prolonged heavy rain, impending storm activities [sic] or flooding’.<sup>147</sup>

The senior station officer at the Kitchener Street station in Toowoomba said that the firefighters at his station had kept themselves informed of any weather formations but had received no formal advice from fire service management of the storm system approaching Toowoomba that morning.<sup>148</sup> The other Kitchener Street station officer on duty on 10 January complained that although the regional operations control centre had been informed that the Oakey air base was to be evacuated because of anticipated flooding there, that information had not been passed on.<sup>149</sup> They first became aware of the severity of the events when they were called to the swift water rescue in Murphys Creek at 1.30 pm.<sup>150</sup> They perceived that the fire communications centre was given advance notice of the approaching storm system and had brought in extra staff some hours ahead of the rain, but that operational staff were left uninformed.<sup>151</sup>

In fact, fire communication centre recordings show that around 8.30 am fire communications centre staff spoke to an officer at the Kitchener Street station, a crew member using the mobile phone on one of the rescue appliances and the officer acting for the day in the position of regional technical rescue co-ordinator to advise of the anticipated flooding of Dalby and Oakey. In speaking to the officer at Kitchener Street, the fire communications centre operator explained that ‘the storm cell that’s over us is headed in their direction as well’.<sup>152</sup> None of the recipients of the calls was told that Oakey air base was to be evacuated, but that detail does not seem to have been crucial, and in fact the assistant commissioner of south-western was not aware of it on 10 January 2011; he only became aware of it in a post-incident review.<sup>153</sup> It may have been better had they specifically been informed of the approaching storm cell, but it seems that in compliance with Incident Action Directive 3.5, they had in fact kept themselves informed. The recordings also support the assistant commissioner’s account: it was not until 12.50 pm, when the rain had just begun to fall heavily on Toowoomba, that calls were made to off-duty staff asking them to report to the fire communication centre for duty.<sup>154</sup>

It might be useful to ensure that that directive is brought to the attention of station officers, although it seems that the station officers at Ipswich and Kitchener Street were in fact paying attention to weather conditions on the morning of 10 January. A difficulty may arise, however, when officers are attending to incidents and are in no position to monitor impending weather events. Prudence would indicate that the fire service should ensure station officers are advised of events as extraordinary as the storm cell looming over Toowoomba on 10 January 2011.

### 15.4.5 Risk assessments

The Commission’s interim report raised the inadequacy of the numbers of Level 2 trained swift water rescue technicians.<sup>155</sup> The evidence of the fire service was that the numbers of approved rescue technicians were determined ‘according to a business case based on a regional risk assessment’ performed by the assistant commissioner in each region.<sup>156</sup>

After the release of the interim report, the United Firefighters Union of Australia raised with the Commission its concern that the far northern region – and possibly other regions – did not conduct risk assessments in preparation for the wet season. The union’s request for copies of risk assessments for the far northern region, made to the assistant commissioner for that region, had produced the response that there was no risk assessment; instead the region monitored hazards and provided advice and recommendations to the deputy commissioner for any increases in staff numbers deemed necessary.<sup>157</sup>

The Commission required and received a statement from the acting commissioner of the fire service to clarify whether or not regions did in fact conduct risk assessments. The acting commissioner advised the Commission that all assistant commissioners did conduct risk assessments to determine approved rescue technician numbers for their regions, but there was no standardised or written assessment process for doing so.<sup>158</sup> Each region has a special operations functional plan, a document which guides the management of technical rescue (including swift water rescue) and the allocation of safety equipment, with the objective of achieving maximum effectiveness.<sup>159</sup> The special operations functional plan is developed and reviewed annually by each region; the process begins in May of each year and must be completed by July.<sup>160</sup> As part of the annual review, a checklist is distributed to the regions: it

sets out how to update and review the previous year's special operations functional plan.<sup>161</sup> The checklist specifically requires a risk assessment to be undertaken to update the regional technical rescue plan, and plan ahead for the required rescue technician numbers and equipment.<sup>162</sup>

The acting commissioner had sought information from the assistant commissioner of each region as to how the risk assessment process was undertaken. Each region had 'conducted its own process to review regional capability'.<sup>163</sup> In the far northern region, an inspector in the role of regional technical rescue sponsor had reviewed the numbers of personnel trained in technical rescue. In consultation with a chief superintendent for the region, he concluded that no additional Level 2 technicians were needed, having regard to the following factors: a number of technicians were due to complete training in mid-2010 (presumably four, since the number of technicians was anticipated to rise by 25 per cent to 20); local action plans had been completed for the most significant hazards in the region; incidents to date had been managed with the existing number of technicians; and there was an effective call back system in place for Level 2 technicians. No part of the review or decision-making process was, however, documented.<sup>164</sup>

It is clear from the union's letter to the Commission that it would not agree with the conclusion reached as to the absence of any need for more rescue technicians, but the focus of its correspondence was its concern as to whether any risk assessment had been done at all in the far northern region. Given the lack of documentation of the process and the response of the assistant commissioner for the region to the union's inquiry, the concern is not surprising.

## Recommendation

15.4 The Queensland Fire and Rescue Service should require that each region records in writing the results of its risk assessment undertaken as part of its annual review of its special operations functional plan.

## 15.5 State Emergency Service (SES)

The Commission's interim report discussed the training, equipment and membership of the Queensland SES.<sup>165</sup> Three recommendations were made (recommendations 5.32-5.34) in respect of the SES and Emergency Management Queensland, directed at improving the capacity of the SES to respond effectively to flooding, recruiting more volunteers and establishing new SES units where possible.<sup>166</sup> The interim report also observed that the adequacy of funding arrangements and the effectiveness of the command and control structure (the ability to direct SES members and allocate SES resources<sup>167</sup>) warranted further examination.<sup>168</sup>

In Queensland, the administration of the SES is a responsibility shared between the State Government (acting through Emergency Management Queensland) and councils.<sup>169</sup> It is inevitable that there will be tensions in such an arrangement. However, it has not been possible for the Commission to examine this relationship in such detail that it can either properly or sensibly make wholesale recommendations for change. Rather, the Commission seeks only to make recommendations designed to clarify the working of certain aspects of the established model for the operation and support of the SES in Queensland. However, investigating whether structural changes should be made to these arrangements in the longer term would be desirable.

### 15.5.1 SES command and control

The evidence before the Commission concerning the command and control of the SES reveals there is much confusion among those with an interest in the activities of the SES.

The lack of a cohesive view is apparent:

- within the SES and Emergency Management Queensland as to the authority and responsibility for SES command and control in certain situations
- between the SES and Emergency Management Queensland, on the one hand, and local disaster managers, on the other, as to the nature and limits of their respective roles.

In any examination of the adequacy of the SES's command and control structure, it is important to grasp the distinction between disaster management and disaster operations. Appreciating the distinction helps in understanding the confusion which, in certain situations, surrounds the issue of SES command and control.

Disaster management consists of the actions of groups and individuals within the disaster management hierarchy (such as local disaster management groups and local disaster co-ordinators). It is concerned with co-ordinating the response to a disaster by calling on the services, as required, of various specialised agencies.<sup>170</sup>

Disaster operations are the activities of those agencies (such as the police and the fire and ambulance services) in that response. Each of the agencies typically has its own hierarchical structure, or system of command and control, to enable it to perform the particular disaster operations required of it.<sup>171</sup>

The SES is not concerned with disaster management. Rather, it is a response agency that conducts disaster operations of a particular type.<sup>172</sup>

## Requests for assistance and response

An SES unit may receive requests for assistance (tasks) from a number of sources, including:

- members of the public (using the 132 500 telephone number)
- the Queensland Police Service
- the Queensland Fire and Rescue Service
- the Queensland Ambulance Service
- local disaster management groups
- district disaster management groups.<sup>173</sup>

Local controllers are in charge of individual units established within local government areas. It is the local controller for the SES unit who must decide whether to respond to the request for assistance. This decision is based upon an assessment of the unit's functions and the capacity of its members to respond.<sup>174</sup>

## Command and control

'Command and control' refers to the ability to direct SES members and to use SES resources. Where requests for assistance do not exceed the capacity of an SES unit to respond, the command and control arrangements within the SES appear to be well settled. In these situations, the authority to direct SES operations vests in the local controller;<sup>175</sup> the Commission is not aware of there being any systemic difficulties with these arrangements.

However, where requests for assistance do exceed the capacity of a local unit to respond, there is uncertainty about whether, and the circumstances in which, the command and control arrangements for SES operations may be moved to a higher level. During the 2010/2011 floods, this confusion appeared to be heightened in circumstances where significant deployments of extra SES personnel took place and disaster management groups were activated.<sup>176</sup>

There are at least three possible reasons for the lack of clarity in the command and control arrangements within the SES at this level of operations.

First, the SES is essentially a community-based organisation made up of volunteers. It is not expected that it should operate under strict command and control principles (like those of a permanently staffed and uniformed emergency service agency). However, many of the activities undertaken by the SES, and the environments in which it undertakes them, are hazardous, and accordingly require some elements of the hierarchy and discipline of the permanent emergency services.<sup>177</sup>

Another reason is that responsibility for the SES is shared between the Queensland Government and local governments. This can cause tension and create doubt about who has, or should have, the ability to direct SES operations. It has been suggested that some councils see themselves as having a claim over the local SES by virtue of the funding and resources they provide.<sup>178</sup> This perceived local 'ownership' of the SES contributes to differing views about the functioning of its command and control arrangements.<sup>179</sup>

A third reason for the confusion is that an operations directive promulgated by Emergency Management Queensland allows its regional directors to exercise command and control over the SES, despite there being no clear statutory authority for it to be able to issue a directive of this nature.

Operations Directive 1.0 *Activation Guidelines* provides that where a request for assistance exceeds the capacity of an individual unit, command and control of the response will revert to Emergency Management Queensland in accordance with Operations Directive 2.0 *Hierarchy of Command and Control*.<sup>180</sup> The latter directive states that the

SES forms part of Emergency Management Queensland, with the executive director of Emergency Management Queensland standing as the operational head of the SES.<sup>181</sup> More specifically, the directive provides that when requests for assistance exceed a unit's capacity to cope, command and control of the response is to escalate through the area director to the regional director.<sup>182</sup>

The *Disaster Management Act 2003* is said to afford two bases on which Emergency Management Queensland can make directives concerning the command and control of the SES: section 83, which sets out the chief executive's responsibilities for the SES, and section 137, which deals with the making of codes of practice to guide SES members.<sup>183</sup> Section 83 has been relied upon by Emergency Management Queensland for this purpose, in preference to section 137.<sup>184</sup> However, the chief executive's responsibilities are limited to establishing management and support services for the SES, developing policies to help it perform its functions (for example, in relation to training), and ensuring that local controllers perform their functions and the SES conducts its activities properly.<sup>185</sup> The *Disaster Management Act 2003* is very much geared to the local level and to ensuring the responsiveness of the SES at that level. Despite the SES's being a 'state' service, the Act does not confer responsibility for SES operations on anyone above local controller level, even in the event of a geographically widespread disaster which requires a large and complex response from the members of many SES units.

A review of Queensland's disaster management arrangements completed in 2009 found that the chief executive's functions under section 83 of the Act amounted to 'enabling and supporting' roles.<sup>186</sup> The directional control purportedly conferred on regional directors by Operations Directive 2.0 *Hierarchy of Command and Control* went beyond the chief executive's responsibility to help and support the SES, and 'prescribe[d] more authority to Emergency Management Queensland than is provided for in the Act'.<sup>187</sup> The same review also noted that 'some stakeholders (including SES members) are confused about whether they are accountable to EMQ and are subject to EMQ direction, or have such relationships shared with their Local SES Controller, Local Council or Local Coordination Centre Controller'.<sup>188</sup>

Operations Directive 2.0 *Hierarchy of Command and Control* provides, on its face, a clear direction that command and control of SES operations will vest in Emergency Management Queensland's regional directors when requests for assistance exceed a unit's capacity to respond.<sup>189</sup> However, in practice, the situation is less clear. Emergency Management Queensland acknowledges that there is 'no direct legislative basis for EMQ staff to direct an SES member during disaster operations'; while directives<sup>190</sup> had been developed to guide the nature of the relationship between SES volunteers and Emergency Management Queensland staff, these were based on 'key principles rather than a strict command and control approach'.<sup>191</sup> Thus activities undertaken by staff from Emergency Management Queensland (whether during a small or large-scale disaster response) are 'negotiated with SES leaders' as part of a 'flexible and cooperative approach'.<sup>192</sup> However, officers of Emergency Management Queensland are also expected to ensure that SES operations are being conducted safely, while meeting reasonable community expectations about the SES's response and the overall strategic requirements set by local, district or state disaster management groups.<sup>193</sup> Where these objectives are not being met, Emergency Management Queensland staff will take a more direct operational role.<sup>194</sup> All of this implies that senior Emergency Management Queensland officers may only assume control of SES operations in limited circumstances, notwithstanding the terms of the operational directive.

Against this background, it is perhaps unsurprising that there are conflicting views amongst Emergency Management Queensland area and regional directors about the nature of their roles in significant events, particularly regarding their authority to direct SES operations.

Emergency Management Queensland's area director for the South West Region expressed the view that Emergency Management Queensland was not in command and control of the SES, as that function rested with the respective local controllers.<sup>195</sup> In contrast, another area director considered that the area's local controllers should report directly to him (rather than to their respective councils), and that his role was to then refer any issues to councils for necessary action.<sup>196</sup> This view is similar to that of another area director who believed his function was to act as the point of contact between the council and the SES.<sup>197</sup> A different area director said that during operations some local controllers reported to the local disaster co-ordinator *and* to the Emergency Management Queensland area director.<sup>198</sup>

The Emergency Management Queensland regional director for Brisbane saw his role as to provide advice to local controllers on how a particular issue may be managed and also to 'seek to influence them' on what action to take.<sup>199</sup> This did not extend to command or control over local controllers or the operational management of requests for assistance.<sup>200</sup> Another regional director said that during the 2010/2011 floods there was an assumption by some



at the state level that Emergency Management Queensland had command and control over the SES, and that this caused conflict in the Northern Region.<sup>201</sup> Consequently, he suggested that arrangements for command and control at the local, regional and state levels should be more clearly articulated.<sup>202</sup> Other area and regional directors and local controllers similarly complained that the command and control structure for the SES remained a source of confusion,<sup>203</sup> with one regional director suggesting it had been an issue within the SES for many years.<sup>204</sup>

Emergency Management Queensland's guide, *Roles and Responsibilities in Support of Disaster Management Arrangements*, sheds no light on this issue.

The absence of any clear command structure above the level of the local controller creates uncertainty about firstly, who should direct large-scale SES operations that involve multiple units and secondly, about the handling of tasks that exceed a local unit's capacity to cope.

Local controllers indicated that during the 2010/2011 floods various approaches were taken to manage the overflow of requests for assistance. These included:

- referring requests to the district disaster co-ordinator;<sup>205</sup>
- obtaining assistance from non-SES personnel for basic requests<sup>206</sup>
- referring tasks directly to:
  - other agencies<sup>207</sup>
  - the local disaster co-ordination centre<sup>208</sup>
  - the local disaster co-ordinator,<sup>209</sup> or
  - the district disaster co-ordination centre and Emergency Management Queensland.<sup>210</sup>

Where non-SES community members had to be relied upon to meet less serious requests for assistance, or where requests for assistance could not be attended to immediately, most local controllers indicated that their SES units were in constant contact with those requiring assistance to provide and receive updates.<sup>211</sup>

Other than suggesting that command and control of the SES response to excess requests for assistance should pass to the relevant regional director of Emergency Management Queensland, Operations Directive 2.0 *Hierarchy of Command and Control* says nothing about what else should be done or how the overflow of requests should be handled. Given this, the magnitude of the 2010/2011 floods, and the number of requests for assistance that were received across the state, the methods used by local controllers were reasonable in the circumstances. Moreover, there is no evidence to suggest that there were any adverse outcomes as a result of SES units devolving responsibility for some requests for assistance in the ways described above. Nevertheless, developing a more detailed protocol to be followed in these situations is desirable in the interests of clarity and efficiency.

## Deployments

The potential for confusion about SES command and control becomes most obvious in the context of inter-regional SES deployments. A deployment is the movement of volunteers from their local government area to another area within Queensland or to another state or territory,<sup>212</sup> while an inter-regional deployment is the movement of people between the administrative regions of Emergency Management Queensland.<sup>213</sup>

According to Operational Directive 8.1 *Inter-Region Deployment*,<sup>214</sup> the overarching authority for all Queensland SES deployments rests with the Assistant Director-General, Emergency Management Queensland. Where SES resources from one Emergency Management Queensland region are required in another, the requesting region must contact the State Disaster Co-ordination Centre, which acts on the request to ascertain the availability of SES members in the supporting regions.<sup>215</sup>

The Assistant Director-General must approve the inter-regional deployment, while the Emergency Management Queensland regional director of any supporting region is to approve all persons and equipment being deployed.<sup>216</sup> The final decision for deployment rests with the supporting region's regional director,<sup>217</sup> although directive 8.1 also provides that SES members must not deploy unless authorised by their local controller.<sup>218</sup> This final requirement is appropriate, as the SES is a volunteer service made up of local units intended to provide a local-level response.

It has been suggested that a deployed SES task force will be under the command of the relevant SES local controller of the requesting region (or his or her delegate).<sup>219</sup> Significantly, this is not provided for in Operational Directive 8.1, which makes no mention of the command and control arrangements for deployments. Moreover, it is an

understanding that appears to conflict with the dictates of Operations Directive 2.0, which would, presumably, apply to such deployments, given that they occur when the capacity of the receiving region's SES units to respond to requests for assistance has been exceeded. While Operational Directive 8.1 does envisage the appointment of a task force liaison officer, this role is to 'support' the deployment and to 'encourage seamless integration of the Supporting Region SES Task Force into the local area and with the local SES', rather than to command the deployed group's operations.<sup>220</sup> The directive also limits each deployed task force to a maximum of five teams 'to ensure an acceptable span of control', although it does not say for whom.<sup>221</sup>

Accordingly, the directive leaves unanswered the question of who has actual operational command in these circumstances.

## Memorandum of agreement

The 2009 review of disaster management legislation and policy found that uncertainty about the statutory underpinning of Operations Directive 2.0, *Hierarchy of Command and Control*, contributed to uncertainty about whether Emergency Management Queensland had an operational, or command, role with respect to the SES.<sup>222</sup> The language of Operations Directive 2.0 has remained unchanged since this review took place. Although the directive, which is dated 22 December 2008, is marked 'under review', its original terms remain current.<sup>223</sup>

The apparent lack of progress in developing this directive may be explained, in part, by a recommendation made about the SES in the 2009 review. Given that the SES is effectively a partnership between local and Queensland governments, the review recommended the development of a memorandum of understanding between Emergency Management Queensland and councils about the SES.<sup>224</sup> It was hoped, amongst other things, that such a memorandum would set out the correct 'chain of tasking and control' to be used in the management of disasters.<sup>225</sup>

A draft memorandum of agreement, entitled *A Partnership for the Management and Support of the State Emergency Service*, was subsequently developed by Emergency Management Queensland in consultation with the Local Government Association of Queensland.<sup>226</sup> However, the execution of a memorandum by a council is voluntary.<sup>227</sup> As at 9 November 2011, only nine agreements had been executed with councils; 64 were outstanding.<sup>228</sup>

While the memorandum seeks to aid 'the effective integration of operational demands under the *Disaster Management Act*', it provides only 'a strategic outline and does not address operational detail'.<sup>229</sup> The memorandum does, however, provide that command of the SES is to be undertaken by the local controller, and that 'support, management and coordination of the SES may be carried out by EMQ when necessary'.<sup>230</sup> The nature of these functions, and the circumstances in which they might arise, are not developed further, but none of them could be thought to imply the authority to assume command of SES operations.

Under the heading 'Activations, Tasking and Deployments', the memorandum sets out four escalating activation scenarios and outlines what is to occur:<sup>231</sup>

1. For activations that do not require the Local Disaster Management Group to be Stood Up, the SES Unit/ Group will be commanded by the Local Controller.
2. When Stood Up the Local Disaster Management group will set priorities for the local SES Unit and provide taskings.
3. When a number of Local Disaster Management Groups are Stood Up the EMQ Regional Office may co-ordinate the provision of extra SES members from within the region.
4. When multiple Local Disaster Management Groups are Stood Up the co-ordination of deployed SES members will be carried out by the State Operations Co-ordination Centre.

Only the first paragraph provides a clear (and standard) direction about SES command arrangements in the situation contemplated. The next three, while outlining increasingly serious levels of activation, do not address the command and control arrangements for SES disaster operations in those circumstances. Rather, they are mostly concerned with the functions of disaster managers.

Even if the memorandum made explicit provision for the command of SES disaster operations in all the scenarios, its prospective effect would be diminished because most councils have not subscribed to the memorandum, and in the event of any inconsistency with established SES directives, the operational directives are to prevail.<sup>232</sup> This underlines the need for clear directives governing responsibility for SES command and control where circumstances overwhelm the ability of a unit to manage the response by itself.

## Relationship with disaster managers

The various ways in which the numerous requests for assistance were handled during the 2010/2011 floods have been described already, as has the lack of any explicit direction about this in Operations Directive 2.0.<sup>233</sup>

The confusion surrounding this issue points to the absence of both an established and accepted SES command structure above the level of the local controller, and raises questions about whether a formal structure should exist (at least for major disasters) or whether disaster managers (from local, district and, ultimately, state levels) should be asked to resolve these problems.

Escalating the response through Emergency Management Queensland to its regional level may allow additional SES personnel and resources to be called upon more quickly, but it risks overlooking the collaborative nature of state and local responsibility for the SES. This is a very real concern to many councils and local disaster managers, who would prefer to see the allocation of extra resources, and particularly any SES deployments, addressed through the disaster management system, rather than by Emergency Management Queensland's regional staff.<sup>234</sup>

In practice, it seems that both Emergency Management Queensland and local disaster managers were called upon by SES local controllers,<sup>235</sup> but such variability could, conceivably, affect the efficiency of response operations. Interestingly, Emergency Management Queensland suggests that the 'preferred information path' for a request for additional resources or support from the SES 'on the ground' is by way of the local disaster management group, which will consult with Emergency Management Queensland about the request. It was also acknowledged that sometimes these requests come directly to Emergency Management Queensland rather than through the local disaster management group.<sup>236</sup>

The 'preferred path' for seeking assistance for the SES seems to be at odds with what appears in the operational literature. The draft memorandum of agreement merely says that when a number of local disaster management groups are activated, the regional office of Emergency Management Queensland may co-ordinate the provision of extra SES members from within the region,<sup>237</sup> while Operational Directive 8.1 *Inter-Region Deployment* suggests that state-level disaster managers should be approached once regional resources have been exhausted.<sup>238</sup> Neither of these courses contemplates support requests starting with local-level disaster managers.

Another area where there appears to be tension between the functions of disaster management and the conduct of SES operations is in relation to the issuing of tasks. The 2009 review of disaster management legislation and policy recommended that memoranda of understanding be developed between the Queensland Government and councils (to reflect the partnership that exists in present arrangements) that would include an emphasis on the use of agreed state disaster arrangements to issue tasks to, and deploy, SES units.<sup>239</sup> This suggestion is reflected in the current draft memorandum's expectation that when the local disaster management group is operating, it will set priorities for the local SES unit and provide tasks.<sup>240</sup>

The authority of a local disaster management group to issue tasks to the local SES unit is uniformly accepted.<sup>241</sup> However, the SES receives tasks from a variety of sources apart from the local group, including other response agencies and the 132 500 service. Perhaps it is for this reason that Emergency Management Queensland's Operations Directive 4.0 *Incident Control Function* makes the SES incident controller responsible for prioritising tasks.<sup>242</sup>

Emergency Management Queensland recognises that there may be circumstances where the local disaster management group prioritises SES tasks, which may change the thrust of the SES's operations in the affected area.<sup>243</sup> Where these circumstances arise, the SES liaison officer plays an important role in managing the mutual flow of information and the prioritisation of tasks.<sup>244</sup> However, in the absence of specific direction from disaster managers, the SES can be expected to work through its tasks (the bulk of which come from 132 500) in an orderly way.<sup>245</sup>

That the SES may receive tasks from a variety of sources reinforces the need for SES liaison with local disaster managers.<sup>246</sup> It is crucial, for example, that the SES informs disaster managers of completed tasks and of any need for further resources or support. Communication deficiencies in these areas have been identified and acknowledged by Emergency Management Queensland.<sup>247</sup>

Under current arrangements, SES liaison officers provide the link and are central to the interactions between disaster managers and the SES's operations during a disaster. Unfortunately, the role of an SES liaison officer is not described in any of the SES operational literature available to the Commission. Emergency Management Queensland should clearly define this role in its advisory material.

## Incident control

Operations Directive 4.0 *Incident Control Function* provides that in localised disasters the local controller is to appoint an incident controller.<sup>248</sup> In larger events, involving more than one SES unit, the relevant regional director of Emergency Management Queensland is to make the appointment.<sup>249</sup>

The incident controller ‘controls the management of the SES response to an event’.<sup>250</sup> His or her responsibilities include assuming control, assessing the incident, planning the response and allocating tasks.<sup>251</sup> These functions sound very much like command and control activities. However, that is apparently not the case; rather, the incident controller has a ‘functional support role’ subordinate to the head of the response,<sup>252</sup> which, in the case of localised events, must be the local controller. Precisely who this would be in the case of a major response is not clear.

Fundamentally, though, the directive does not make explicit the relationship between an incident controller and the person charged with operational responsibility for the response.

## Local structure

Sections 84A and 85 of the *Disaster Management Act 2003* make it tolerably clear that there should be one SES unit in each council area with a local controller in charge of the unit. However, according to Emergency Management Queensland’s records and to the responses received from many SES local controllers, there is frequently more than one SES unit operating within a single council area.<sup>253</sup>

This situation arises following the local government amalgamations of 2008. While many councils were joined, their constituent SES units were not. They continue to operate as before.<sup>254</sup>

Most local controllers indicated that this did not cause organisational problems during the 2010/2011 floods.<sup>255</sup> Indeed, many have suggested that it afforded them extra support,<sup>256</sup> while others noted that each local controller benefited from having specific knowledge about his or her local area.<sup>257</sup> However, it was suggested that having a single local controller for each council area, with overall responsibility for the unit/s in the area, would ensure better operational control by minimising the possibility of personality clashes.<sup>258</sup>

An area director of Emergency Management Queensland considered that having only one SES local controller in each council area would make local-level consultation easier and more efficient,<sup>259</sup> while another suggested that such a structure, where it existed, worked well for the SES.<sup>260</sup>

The Commission notes that Toowoomba Regional Council and Central Highlands Regional Council are rationalising their local structures, or have recently done so, in order to have a single local controller supported by multiple deputies and group leaders.<sup>261</sup> These arrangements are intended to meet the intention of the Act, while also preserving important local knowledge and ensuring the unit’s leaders can maintain control of its members. These initiatives have been driven by the councils involved, rather than Emergency Management Queensland.<sup>262</sup>

The Commission sees these reforms as being desirable on the whole, but appreciates they may be unsettling to some volunteer office-holders.<sup>263</sup>

## A clearer command and control structure

The preceding discussion suggests that in large-scale disasters, the SES needs better command and control arrangements above the level of the local controller. This is likely to become necessary when the local capacity to respond effectively has been overwhelmed, and the mobilisation of a major (or state-level) SES response is called for. When large numbers of additional personnel and equipment are deployed to a disaster area it cannot be assumed that the resident local controller (who in most cases will be a volunteer) will have the necessary skills to command such an operation. But this is the situation under current arrangements.

It is also apparent that Emergency Management Queensland’s role in these situations is often confused and misunderstood by both local controllers and Emergency Management Queensland staff themselves. This is so for a number of reasons, including the perceived lack of authority for Operations Directive 2.0 and the lack of clarity and any helpful practical detail in the directive itself.

The operational directives provided to the Commission collectively fail to make clear many other matters including:

- the process for dealing with requests for assistance that exceed a unit’s capacity to respond

- the interaction and communication that should take place between the SES and disaster managers, including in relation to task allocation, once disaster management groups have been activated
- the process for seeking extra support for an SES unit that has been overwhelmed by a disaster (whether by way of Emergency Management Queensland or the disaster management arrangements or both)
- the role of SES liaison officers in relation to disaster management functions and disaster operations
- the role of incident controllers, and their teams, relative to those SES personnel charged with operational command.

The Commission understands that a command role above that of local controller, in the context of Queensland's SES arrangements, may discomfit some councils which cherish the ability of the local SES unit to respond locally. However, this role should be an extraordinary one, for use in circumstances where the deployment of additional SES personnel to a region is called for because an emergency is beyond the capacity of its local units to respond. The Queensland floods of 2010/2011 demonstrate that such circumstances can indeed arise.

The recommendations which follow are directed to the deficiencies in the SES's command and control arrangements identified in the preceding discussion.

## Recommendations

- 15.5 The *Disaster Management Act 2003* should be amended to give the chief executive of the department administering the Act (or his or her delegate) the authority to appoint an officer of Emergency Management Queensland to direct SES operations in extraordinary circumstances.
- 15.6 Emergency Management Queensland, in consultation with councils, should develop a directive that makes clear the authority of an officer of that agency to command a major SES operation. This could be expected to occur when a deployment of additional SES members is made to a region because the response needed is beyond the capacity of its local units. The directive should make clear the powers of the officer and his or her reporting responsibilities to disaster managers in these circumstances. Emergency Management Queensland must also ensure that any officer who assumes such a role has adequate training and skills in the conduct of disaster operations.
- 15.7 Emergency Management Queensland should ensure its staff, SES members and disaster managers are familiar with the directive when it is developed.
- 15.8 Emergency Management Queensland, in consultation with councils, should develop clear directives about:
- the communication and reporting that should take place between the SES and disaster managers, including in relation to task allocation and completion, once disaster management groups have been activated
  - the communication and reporting that should take place between the SES and disaster managers, including in relation to task allocation and completion, once disaster management groups have been activated
  - the process for dealing with requests for assistance that exceed an SES unit's capacity to respond them
  - the process for seeking extra support for an SES unit that has been overwhelmed by a disaster (whether by way of Emergency Management Queensland or the disaster management arrangements or both)
  - the role of SES liaison officers in communications with disaster managers about SES disaster operations
  - the role of incident controllers, and their teams, relative to those SES (or Emergency Management Queensland) personnel charged with the command of SES operations.
- 15.9 Emergency Management Queensland should ensure its staff, SES members and disaster managers are familiar with the directives it develops in relation to these matters.

## 15.5.2 Funding

The funding of the SES in Queensland is not the subject of legislation. Instead, broadly accepted mechanisms for financing the service have developed over time between the Queensland Government and councils who share this responsibility. Their financial support is supplemented by corporate sponsorship, donations and the fundraising efforts of SES members.<sup>264</sup>

### Queensland Government funding

The Queensland Government's financial contribution to the SES is administered by Emergency Management Queensland, which regularly provides volunteer uniforms, training and communications equipment. Additionally, the agency manages a range of funding programs including the recurrent and non-recurrent subsidy schemes.<sup>265</sup>

Under the recurrent scheme, the Department of Community Safety (through Emergency Management Queensland) administers the local government subsidy program, which entails a yearly payment of \$3000 (base amount) to each SES unit, \$100 for each additional active SES group, a further \$500 for local governments with a population in excess of 45 000 where only one SES group exists, and an additional \$300 for each active emergency service cadet group in the local government area.<sup>266</sup> The total budget available for this program is \$480 000 per annum.<sup>267</sup> The grants paid in 2009/2010 and 2010/2011 amounted to \$482 500 (excluding GST) and \$480 350 respectively.<sup>268</sup>

Emergency Management Queensland provided to the Commission a spreadsheet entitled *SES Annual Payments to Local Government* for the financial year 2009/2010.<sup>269</sup> The document reveals that each SES unit received an individual subsidy payment (directed to the relevant council) in accordance with the program's guidelines. However, many of the councils that were amalgamated in 2008 have more than one SES unit. This is because SES units that existed prior to the council amalgamation continue to operate. On the strength of this, some councils receive multiple subsidy payments while others receive only one.<sup>270</sup> Emergency Management Queensland acknowledged that these arrangements continue, and that they are anomalous, being inconsistent with the current structure of local government.<sup>271</sup> A better way to distribute these subsidies may be to develop a formula that takes into account a unit's size and the council's population, area and exposure to natural hazards.<sup>272</sup>

The non-recurrent subsidy scheme is an annual competitive grants program open to all councils.<sup>273</sup> Applications are invited every September, and are then determined by a state assessment committee.<sup>274</sup> The subsidies support:

- the provision of accommodation for SES units (to a maximum of either 75 per cent of the project cost or \$50 000 whichever is the lesser of the two)<sup>275</sup>
- the purchase of motor vehicles and accessories (matched on a 'dollar for dollar' basis up to \$15 000 for motor vehicles and a maximum of \$3 800 for accessories)<sup>276</sup>
- the provision of office equipment (with 50 per cent of the items' cost reimbursed up to a maximum of \$500 for televisions, DVD players, photocopiers, facsimiles, general office equipment and satellite telephones, and a maximum of \$750 for computers and printers).<sup>277</sup>

The total budget available for this program each year is \$317 000, with \$132 000 allocated for accommodation, \$175 000 for vehicles and accessories, and \$10 000 for office equipment.<sup>278</sup>

According to Emergency Management Queensland, requests for funding from the program consistently exceed its capacity.<sup>279</sup> Consequently, unexpended funds from other programs are used to supplement the non-recurrent SES subsidy scheme when the opportunity arises. In 2008-2009, an additional \$188 000 became available for this purpose, while in 2010-2011 the amount was \$734 480.92, bringing the total funding approved for the scheme in that financial year to \$1 038 324.54.<sup>280</sup> Even so, requests for grants still slightly exceeded the funds available.<sup>281</sup>

### Local government funding

While councils are not obliged to support their SES units, they are required to have a disaster response capability (the ability to provide people and equipment to deal with a disaster or emergency);<sup>282</sup> providing funding to the local SES is an obvious way of meeting that commitment.<sup>283</sup>

Under the current arrangements, councils are responsible for meeting the operating costs of their SES units, and pay for day-to-day expenses such as electricity, telephones, fuel and vehicle maintenance costs. In addition, councils provide a range of other resources to the SES units in their areas. During the 2009/2010 and 2010/2011

financial years, this included items such as buildings, vehicles, trailers, flood boats, chainsaws, and office and communications equipment.<sup>284</sup> Unsurprisingly, the level of support provided by councils to the SES varies greatly throughout Queensland. While it is impossible to make any meaningful direct spending comparisons, the evidence before the Commission shows that the amounts actually spent by individual councils on the SES averaged across the last two financial years ranged from as little as \$13 320 to as much as \$3.4 million. However, when these particular sums are considered on a per capita basis by reference to the populations of the local government areas concerned, the amounts equate to \$24.04 and \$3.20 per head of population respectively. While this might be a fairer measure of the proportionate spending involved, it does not take into account the flood (or storm) risk of each area or the manner in which these funds were disbursed relative to the needs of each SES unit. Consequently, it provides little insight into the reasonableness of these commitments for the units involved.

One matter that is clear from the information available to the Commission is that those councils which have experienced flooding in recent years typically offer greater financial support to the SES on a per capita basis than is the case in those areas where flooding is infrequent.

Emergency Management Queensland does not monitor the amount of money each council spends on the SES in its area; neither does it actively assess the relative financial needs of SES units.<sup>285</sup> Presumably these things are not done because the Queensland Government's subsidy programs can be administered without detailed information of this type. Consequently, it seems unlikely that Emergency Management Queensland has a complete picture of the funding health of the SES across the state.

## Fundraising

Under section 82(e) of the *Disaster Management Act*, fundraising is identified as an official function of the SES. Accordingly, many SES units and groups undertake local fundraising activities<sup>286</sup> which, according to local controllers, range from traffic management,<sup>287</sup> sausage sizzles<sup>288</sup> and selling firewood<sup>289</sup> to marketing an SES branded golf umbrella.<sup>290</sup> The local controllers of those SES units which undertake fundraising gave estimates of funds raised varying between 2 and 40 per cent of their annual operating budgets.<sup>291</sup>

Local controllers reported a range of concerns about undertaking fundraising activities. Principal among them was that it absorbed volunteers' time when they already had other SES responsibilities.<sup>292</sup> Controllers made a number of points: the service's continuing training obligations were sufficiently demanding of members' time without adding to them the burden of fundraising;<sup>293</sup> some members became 'burnt out' since most fundraising opportunities fell around Christmas time, coinciding with the storm season; and people who joined the SES did so to serve the community, not to fundraise.<sup>294</sup> Worryingly, it was suggested that some members may forego training opportunities so as to ensure that fundraising continues.<sup>295</sup>

Emergency Management Queensland echoed those concerns. The Sunshine Coast's area director stated that local controllers would like to see an improvement in the funding arrangements so that they did not have to raise funds at all,<sup>296</sup> while the regional director for the North Coast said that many SES volunteers do not believe that they should have to fundraise to function effectively.<sup>297</sup>

These are valid concerns. Any measures that could relieve volunteers of the burden of undertaking fundraising activities are to be encouraged.

## Memorandum of agreement

Another matter of interest to the Commission is the role of the draft memorandum of agreement in addressing the respective funding obligations of the state and local government for the SES. While the draft agreement is largely concerned with the allocation of these responsibilities, the working details of the agreement are to be set out in an attachment to the memorandum referred to as the 'Local Arrangements'. Although nine memoranda have been executed between Emergency Management Queensland and councils to date, none have yet had their 'Local Arrangements' finalised.<sup>298</sup> It is desirable that this occur as soon as possible, although the Commission appreciates the difficulties involved.

One challenge, by way of example, is how to deal with the registration of motor vehicles. It has been suggested that there is considerable confusion about the actual ownership of SES vehicles partly funded by the Queensland Government.<sup>299</sup> The vehicle inventory template contained in the local arrangements allows for the owner and registrant of each vehicle to be identified.<sup>300</sup> This presents no difficulty when the council supplies a vehicle to a

unit. However, where the state partly funds the purchase of a vehicle under the non-recurrent subsidy scheme, the potential for disagreement becomes apparent. Consistently with the scheme's guidelines, the draft local arrangements suggest that such vehicles should be fitted with 'QG' number plates and registered and insured by Emergency Management Queensland,<sup>301</sup> implying that the Department of Community Safety owns the vehicle, despite having contributed to its acquisition on a 'dollar for dollar' basis and only up to a maximum of \$15 000. It is understandable that councils may see this as being inequitable, particularly as they are also expected to assume responsibility for the vehicle's operating and maintenance costs.

Despite the difficulties created by this issue, and others like it, the Commission considers the negotiation and execution of the local arrangements to be an important next step that all parties should take without delay.

## Recommendations

- 15.10 Emergency Management Queensland should develop and implement a new formula for the distribution of its recurrent SES subsidy, which takes into account relevant factors including the size of a local SES contingent and the population, area and natural hazard risk profile of the local government area concerned.
- 15.11 Emergency Management Queensland should pursue the execution of the 'Local Arrangements' with councils where a Memorandum of Agreement is in place. The contents of the arrangements should be reviewed and updated regularly.

### 15.5.3 RFA Online

The SES receives requests for assistance from various groups and agencies, as well as the general public, particularly through the 132 500 service. RFA Online has been developed by Emergency Management Queensland as a task management tool for use by the SES. It is expected to convey requests for assistance received by way of 132 500 calls to the SES unit best placed to respond. It is also designed to provide SES units which have RFA Online with a means of managing their list of tasks.<sup>302</sup>

According to Emergency Management Queensland, as at 7 November 2011, 72 out of 300 SES units across the state were using RFA Online. However, an amount of recurrent funding has become available to improve the online connectivity of SES units so that RFA Online can be implemented more broadly.<sup>303</sup>

Some councils have been reluctant to use RFA Online, apparently because they use other disaster management software.<sup>304</sup> However, RFA Online is not a competing piece of disaster management software, but a task management tool designed especially for use by the SES. Consequently, it can be used by the SES independently of a local disaster management group (for example, in situations where the local disaster co-ordination centre has not been activated). Furthermore, Emergency Management Queensland is funding the development of a means to share data from RFA Online with at least one disaster management software program, so that RFA Online can be integrated with a local group's disaster management system if required. This capability is expected to become available by the 2012/2013 wet season.<sup>305</sup>

The Commission encourages Emergency Management Queensland to continue to implement RFA Online within the SES as quickly as possible. Councils should facilitate this process.

### 15.5.4 Training

The information provided to the Commission by SES local controllers suggested that they considered that their units had adequate training to prepare them for the 2010/2011 floods; but equally prevalent was the sentiment that there was no room for complacency about training.

One training-related concern was the recognition that SES members could receive for the knowledge and skills gained from other training courses and previous life or work experience. There was a reasonably consistent view that the recognition accorded to members for prior learning was insufficient.<sup>306</sup> One local controller said that volunteers



with relevant trade qualifications were frustrated at the need for retraining, while another suggested that the issue was causing members to leave the SES.<sup>307</sup>

While a formal process for the accreditation of prior learning exists within the SES,<sup>308</sup> Emergency Management Queensland acknowledged it is complex and convoluted, and tends to discourage volunteers from pursuing it.<sup>309</sup> The Commission understands that Emergency Management Queensland intends to conduct an independent review of its training processes from March 2012. One aspect of this will be to develop ways to simplify the recognition of prior learning.<sup>310</sup>

## Recommendation

15.12 Emergency Management Queensland should simplify the process by which SES members gain recognition for prior qualifications so that unnecessary duplication of training can be avoided.

### 15.5.5 Shared responsibility

The SES in Queensland is principally meant to provide a local-level response to storms and floods. The approach taken by the *Disaster Management Act* in establishing the SES makes this clear. In most cases, the SES operates at this level. However, from time to time, a state-level response is required, as occurred in the 2010/2011 floods. It is at these times that the tensions in the model of shared responsibility are exposed:

- the lack of a command and control structure above the level of local controllers
- the confusion surrounding Emergency Management Queensland's ability to direct, as opposed to merely supporting, major SES operations
- the need to consult and negotiate with local government in order to deploy SES personnel and equipment around the state
- the concerns of councils over what may be seen as the Queensland Government's use of local assets for such purposes.

While shared responsibility remains the model for the SES in Queensland, these tensions will persist. They cannot be resolved, but only managed. This is a real challenge in a large and diverse state such as Queensland.

The notion of shared responsibility for the SES really comes down to shared financial responsibility. While two levels of government contribute to the SES in this way there will be times when interests collide and competing claims are made over the use of its services. At present, such difficulties must be resolved collaboratively, but it stands to reason that this is not ideal. Time is of the essence when mounting disaster response operations.

In the time available to it, the Commission has not been able to examine these matters in more detail; they may in any event be beyond its terms of reference (which concern only one of the circumstances in which the SES operates). Hence, the foregoing recommendations about the SES are made within the context of the established arrangements. However, the Commission considers that if the difficulties that have been highlighted are to be resolved, a fundamental re-working of the SES model may be required. Any review of this nature would need to address the purpose for which the SES has been raised in Queensland: as a series of local units providing a disaster response capability at that level (in combination with local disaster managers) or as a state service capable of mounting state-wide operations. It would be useful for it also to investigate SES arrangements (including in relation to funding) in other states.

## 15.6 State Emergency Service in Grantham

The Commission's interim report, in dealing with the Lockyer Valley Regional Council's response to the flash flooding in the valley on 10 January 2011, noted that at 2.30 pm an SES controller had directed the Gatton SES group to undertake doorknocking at Grantham, that they had left Gatton for that purpose at 2.50 pm, and that they had been unable to get into Grantham because of the rising floodwaters.<sup>311</sup> The Commission received a submission from three members of the Grantham community which questioned those findings and the evidence on which they were based, because one of them had been able to travel the road from Gatton to Grantham between

2.40 pm and shortly after 3.00 pm and did not see water over the road or see any SES vehicle. Their submission also suggested that the Gatton SES controller had (in a way not identified) subsequently altered his account to suggest that the events he described actually took place an hour later.<sup>312</sup>

The Commission has made some further inquiries in consequence of those assertions. While it accepts the submitters' contention that the road from Gatton to Grantham was clear shortly after 3.00 pm (a conclusion consistent with the Commission's finding in its interim report that the Grantham flooding occurred between 3.20 pm and 4.00 pm),<sup>313</sup> it does not consider that there is any basis to reject the SES controller's account as given in his statement referred to in the interim report.<sup>314</sup> It is supported by statements from the group leader of the Gatton SES unit and members of the SES group which set out to perform the doorknocking task, as well as by the contemporary record in the form of the Gatton SES attendance log.<sup>315</sup>

The group leader confirms that she received the instruction from the controller to warn Grantham residents of expected flooding. Two group members were already on duty; a third SES member, who was at home, was called in to join the team.<sup>316</sup> The SES attendance log records that she arrived at 2.50 pm. Alongside her signature in the log, under the heading 'Activity Details', is noted 'phone call to warn Grantham at 2.30'.<sup>317</sup> On her arrival, the team set out in their truck for Grantham.<sup>318</sup> They took with them the text of the warning they were to give, which the group leader had written. It advised residents that Sandy Creek was expected to rise again rapidly that evening, with higher levels than those experienced the preceding night, and suggested immediate evacuation.<sup>319</sup>

The SES team stopped to warn residents at two farm properties on the outskirts of Grantham, on the Gatton-Helidon road. As they arrived at the town, they saw flooding in the paddocks and across the road: in particular, they saw a shipping container floating across the Gatton-Helidon road to Anzac Avenue. The water looked about two feet deep, and their vehicle was not a four wheel drive. They radioed their headquarters for instructions and were told to return to Gatton. On their return journey, they warned a group of sightseers and residents at four properties along the Gatton-Helidon road of the approaching floodwaters.<sup>320</sup> They arrived back at Gatton at about 4.00 pm.<sup>321</sup>

On that evidence, the Commission sees no reason to depart from the findings of the interim report. Before leaving the topic, however, it is appropriate to provide some further context for the activities of the five Gatton SES volunteers concerned in this discussion: the controller and the four group members, including the group leader. The previous night, the group had assisted in sandbagging and evacuations at Grantham, finally coming off duty at 4.30 am on 10 January.<sup>322</sup> The controller, who remained in the Gatton control room, performed a similar shift. He was back on duty at 9.00 am that morning. Three of the group members were back performing SES tasks at 11.30 am; the fifth, as noted above, rejoined the group at 2.50 pm for the abortive trip to Grantham. They continued to work late into the night of 10 January, the controller co-ordinating activities, the group leader answering calls for assistance, and the group members filling sandbags, warning residents to evacuate, and helping at the evacuation centre set up at the Gatton Shire Hall.<sup>323</sup> The Commission commends the efforts which they (like many other SES volunteers throughout the state) made to assist their community; not for any reward, but out of simple public-spiritedness.

## 15.7 The Grantham quarry

In section 7.3.3 of the Commission's interim report, the Commission noted that some Grantham residents had raised the question of whether stockpiles, earthen banks and buildings at Wagners' quarry, west of Grantham, contributed to or caused the flooding of the town on 10 January 2011.

On 10 January 2011, the Lockyer Creek broke its banks both south and north of the quarry. An earthen embankment about 380 metres long and three to five and a half metres high between the quarry pit and Lockyer Creek was also breached, causing a stream of faster flowing water to travel directly into the pit.<sup>324</sup> The breach was approximately 55 metres wide and eight metres deep.<sup>325</sup>

At the time the interim report was delivered, Dr Phillip Jordan, an expert hydrologist consulted by the Commission, had formed the preliminary opinion that the quarry and its features might have had some very local influence, causing a marginal increase in flood levels immediately upstream from Grantham, but was unlikely to have had a significant influence on the downstream flow of water into Grantham.<sup>326</sup>

Recognising the interest of Grantham residents in the issue, the Commission engaged Dr Jordan to undertake further modelling and provide his opinion about the question of the contribution, if any, of Wagners' quarry to the flooding of Grantham on 10 January 2011.

For this purpose, Dr Jordan modelled three scenarios using a modified version of a hydraulic model of Lockyer Creek and its floodplain, developed by Sinclair Knight Merz for the Lockyer Valley Regional Council's Floodplain Management Study.<sup>327</sup>

The first scenario sought to reconstruct the actual event that occurred on 10 January 2011. The data used reflected the terrain immediately before the 2010/2011 wet season and took into account the 55 metre wide breach in the quarry wall that occurred on 10 January 2011.<sup>328</sup>

The second scenario sought to simulate the hypothetical event that would have occurred on 10 January if the quarry had never been constructed. The terrain data used represented the condition of the relevant portion of the Lockyer Creek floodplain before the quarrying works began.

The third scenario sought to simulate the hypothetical event that would have occurred on 10 January if the quarry's wall had not been breached. The data used reflected the terrain immediately before the 2010/2011 wet season, with the quarry wall intact.<sup>329</sup>

In each scenario, the flow data comprised Lockyer Creek flows, as recorded by the Helidon gauge, and flows from Flagstone Creek, Sandy Creek, Monkey Waterholes Creek and Ma Ma Creek, estimated from recorded rainfall intensities in the respective catchments.<sup>330</sup>

For each of the three scenarios, the model generated maximum water depths and velocities.

By comparing the results generated for the three scenarios by the model, Dr Jordan's second report to the Commission concluded that the quarry mitigated the impact of flooding through the town area of Grantham. The effect of the quarry was to reduce peak flood levels in Grantham by between 0.04 metres and 0.1 metres. Peak flood velocities in Grantham were not affected; the maximum simulated velocities differed by less than 0.01 metres per second across the Grantham town area between the pre-quarry scenario and the 10 January event as simulated.<sup>331</sup> The quarry attenuated the flows, causing a five minute delay in the water rise.<sup>332</sup>

At some other locations the existence of the quarry did elevate flood levels slightly, for example, by 0.3 metres just upstream of where the breach occurred in the quarry wall and by 0.04 metres near Dorrs Road.<sup>333</sup>

As for the effect of the breach in the quarry embankment, the modelling showed the pattern of changes in flood levels through the town of Grantham to be very similar whether the embankment was breached or not.<sup>334</sup>

The accuracy of the model was assessed by comparing the model results for the first scenario (the simulation of the actual event) against debris marks and sediment deposits remaining after the actual event. The maximum water levels and depths estimated by the model for the first scenario were within 0.3 metres of the debris marks on buildings in Grantham after the January 2011 flood event.<sup>335</sup> The extent of the flooding estimated by the model for the first scenario was also consistent with the sediment deposits visible in aerial photography taken after the January 2011 flood event.<sup>336</sup>

The Commission concludes, on the basis of Dr Jordan's evidence, that none of the earthworks associated with the quarry caused or contributed to the flooding of Grantham on 10 January 2011.

## (Endnotes)

- |   |  |   |   |
|---|--|---|---|
| 1 | Emergency Management Queensland, Queensland Evacuation Guidelines for Disaster Management Groups, Version 1, August 2011.  |   |   |
| 2 | Transcript, Gary Davison, 13 October 2011, Gympie [p4044: line 37]; Exhibit 816, Statement of Gary Davison, 29 August 2011, Attachment 'Gympie Chamber of Commerce Flood Plan correct as of February 2011' [p1]. | 5 | Exhibit 816, Statement of Gary Davison, 29 August 2011 [p2: para 4].      |
| 3 | Transcript, Gary Davison, 13 October 2011, Gympie [p4044: line 47].  | 6 | Exhibit 816, Statement of Gary Davison, 29 August 2011 [p2: para 5].      |
| 4 | Transcript, Gary Davison, 13 October 2011, Gympie [p4045: line 6]; Exhibit 816, Statement  | 7 | Exhibit 816, Statement of Gary Davison, 29 August 2011 [p3: para 8].      |
|   |  | 8 | Transcript, William Brown, 12 October 2011, Maryborough [p3959: line 10]. |

- 9 Exhibit 784, Statement of William Brown, 28 September 2011 [p3: para 5].
- 10 Transcript, William Brown, 12 October 2011, Maryborough [p3962: line 49].
- 11 Transcript, Michael Cox, 12 October 2011, Maryborough [p3994: line 54].
- 12 Transcript, Victoria Ashworth, 20 September 2011, Brisbane [p2872: lines 30-38].
- 13 Transcript, William Brown, 12 October 2011, Maryborough [p3962: line 49].
- 14 Transcript, Gary Davison, 13 October 2011, Gympie [p4049: line 28].
- 15 Emergency Management Queensland, Queensland Evacuation Guidelines for Disaster Management Groups, Version 1, August 2011 [p6: para 1.1].
- 16 Emergency Management Queensland, Queensland Evacuation Guidelines for Disaster Management Groups, Version 1, August 2011 [p14: para 3.8].
- 17 Correspondence from Crown Law, 5 December 2011, 'Queensland Floods Commission of Inquiry – State Representation – Post-flood clean up of commercial buildings in Gympie'.
- 18 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p187].
- 19 The capacity for persons in different organisations or different parts of the same organisation to exchange information (Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p91]).
- 20 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p184].
- 21 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p244].
- 22 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p26]; Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p4: para 13]; Exhibit 346, Statement of Robert Waugh, 15 April 2011 [p12].
- 23 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p26].
- 24 Exhibit 388, Third submission of Telstra Corporation Limited, 15 April 2011 [p4: para 14].
- 25 Exhibit 493, Statement of Gary Taylor, 24 March 2011 [p3: para 16]; Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p5: para 16 and p8: para 30]; Exhibit 341, Statement of Kelli Louita Docherty-Tanaskovic, 18 April 2011 [p2: para 15]; Exhibit 345, Statement of Edward Middleton, 18 April 2011 [p2: para 8].
- 26 Exhibit 347, Statement of Grant Pitman, 15 April 2011 [p9]; Transcript, Grant Pitman, 12 May 2011, Brisbane [p1822: line 1]; Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p8: para 31]; Exhibit 346, Statement of Robert Waugh, 15 April 2011 [p2].
- 27 Response from State of Queensland, 11 January 2012 [p2: para 7].
- 28 Exhibit 347, Statement of Grant Pitman, 15 April 2011 [p9]; Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p10, p12].
- 29 Statement of Grant Pitman, 15 November 2011 [p3].
- 30 Exhibit 347, Statement of Grant Pitman, 15 April 2011 [p9].
- 31 Exhibit 347, Statement of Grant Pitman, 15 April 2011 [p10].
- 32 Exhibit 347, Statement of Grant Pitman, 15 April 2011 [p9]; Statement of Grant Pitman, 15 November 2011 [p3].
- 33 Queensland Police Service, Operational Plan 2010-2011, 2010 [p12]; Queensland Police Service, Annual Report 2009-2010, 2010 [p84]; Exhibit 347, Statement of Grant Pitman, 15 April 2011 [p17]; Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p i].
- 34 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p10]; Statement of Grant

- Pitman, 15 November 2011 [p2]; Response from State of Queensland, 11 January 2012 [p2: para 5-6].
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- 35 Statement of Grant Pitman, 15 November 2011 [p2]; Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p12].
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- 36 Statement of Grant Pitman, 15 November 2011 [p2].
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- 37 Response from State of Queensland, 11 January 2012 [p2: para 5-6].
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- 38 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p12].
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- 39 Transcript, Grant Pitman, 12 May 2011, Brisbane [p1833: line 27].
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- 40 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p12].
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- 41 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p13].
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- 42 The Queensland Police Service is currently working with the Department of Community Safety to establish interoperability between the computer aided despatch systems. The target date for completion of this exercise is 30 June 2012. (Statement of Grant Pitman, 15 November 2011 [p4]; Queensland Police Service, Annual Report 2008-2009, 2009 [p94]).
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- 43 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p13].
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- 44 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p13].
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- 45 Automatic vehicle location technology would allow communications centre staff to automatically determine the locations of all operational vehicles, and the staff within those vehicles, at all times (Transcript, Grant Pitman, 12 May 2011, Brisbane [p1831: line 31]).
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- 46 Jenkins, S and Davidson, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p13].
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- 47 Exhibit 347, Statement of Grant Pitman, 15 April 2011 [p16]; Exhibit 204, Statement of James McDonald, 14 March 2011 [p7]; Exhibit 339, Statement of Julie Cooling, 14 March 2011 [p8: para 9]; Exhibit 308, Statement of Jason Renwick, 13 April 2011 [p6: para 20]; Exhibit 346, Statement of Robert Waugh, 15 April 2011 [p15 -17].
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- 48 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p13, p75].
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- 49 Jenkins, S and Davidson, G, Queensland Police Communications Centres Operational and Strategic Review – Assessment and Options Analysis, Volume 1: Project Final Report, Draft version 2.1, 2011 [p i].
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- 50 Transcript, Grant Pitman, 12 May 2011, Brisbane [p1821: line 51]; Transcript, Glenn Walker, 11 May 2011, Brisbane [p1789: line 49]; Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p9: para 36].
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- 51 Transcript, Grant Pitman, 12 May 2011, Brisbane [p1821: line 59].
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- 52 Environment and Communications References Committee, The capacity of communication networks and emergency warning systems to deal with emergencies and natural disasters, 2011 [p11: para 2.2-2.3].
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- 53 Environment and Communications References Committee, The capacity of communication networks and emergency warning systems to deal with emergencies and natural disasters, 2011 [p11: para 2.5].
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- 54 Environment and Communications References Committee, The capacity of communication networks and emergency warning systems to deal with emergencies and natural disasters, 2011

- [p14: para 2.9]; Australian Communications and Media Authority, The 400 MHz plan, 2011 [p23].
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- 55 Environment and Communications References Committee, The capacity of communication networks and emergency warning systems to deal with emergencies and natural disasters, 2011 [p13: para 2.6].
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- 56 Environment and Communications References Committee, The capacity of communication networks and emergency warning systems to deal with emergencies and natural disasters, 2011 [p13: para 2.6].
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- 57 Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p9: para 39]; Transcript, Grant Pitman, 12 May 2011, Brisbane [p1828: line 52]; Exhibit 493, Statement of Gary Taylor, 24 March 2011 [p2: para 6].
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- 58 Environment and Communications References Committee, The capacity of communication networks and emergency warning systems to deal with emergencies and natural disasters, 2011 [p19: para 2.26]; Statement of Grant Pitman, 15 November 2011 [p10].
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- 59 Statement of Grant Pitman, 15 November 2011 [p10].
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- 60 Environment and Communications References Committee, The capacity of communication networks and emergency warning systems to deal with emergencies and natural disasters, 2011 [p20-21: para 2.29-2.32].
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- 61 Australian Communications and Media Authority, The 900 MHz band – Exploring new opportunities, 2011 [p1].
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- 62 Attorney-General's Department, Steering Committee on national broadband capability for police and emergency services, 2011.
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- 63 Attorney-General's Department, Public Safety Mobile Broadband Steering Committee Terms of Reference, 2011.
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- 64 Environment and Communications References Committee, The capacity of communication networks and emergency warning systems to deal with emergencies and natural disasters, 2011 [p27: para 2.50-2.51].
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- 65 Statement of Grant Pitman, 15 November 2011 [p8].
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- 66 Transcript, Grant Pitman, 12 May 2011, Brisbane [p1833: line 42].
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- 67 Statement of Grant Pitman, 15 November 2011 [p8-9].
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- 68 Transcript, Glenn Walker, 11 May 2011, Brisbane [p1790: line 13].
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- 69 Exhibit 493, Statement of Gary Taylor, 24 March 2011 [p1: para 4]; Exhibit 347, Statement of Grant Pitman, 15 April 2011 [p10]; Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p9: para 37].
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- 70 Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p9: para 37]; Statement of Grant Pitman, 15 November 2011 [p5].
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- 71 Statement of Grant Pitman, 15 November 2011 [p5].
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- 72 Transcript, Darren Rumbelow, 9 May 2011, Brisbane [p1564: line 23]; Exhibit 317, Statement of Darren Rumbelow, 13 April 2011 [p3: para 12]; Exhibit 493, Statement of Gary Taylor, 24 March 2011 [p2: para 6]; Statement of Grant Pitman, 15 November 2011 [p7].
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- 73 Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p9: para 40-41]; Transcript, Glenn Walker, 11 May 2011, Brisbane [p1791: line 1]; Statement of Grant Pitman, 15 November 2011 [p5-6].
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- 74 Exhibit 343, Statement of Glenn Walker, 18 April 2011 [p9: para 38].
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- 75 Exhibit 493, Statement of Gary Taylor, 24 March 2011 [p2: para 6]; Statement of Grant Pitman, 15 November 2011 [p7].
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- 76 Statement of Grant Pitman, 15 November 2011 [p5].
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- 77 Statement of Grant Pitman, 15 November 2011 [p9]; Transcript, Glenn Walker, 11 May 2011, Brisbane [p1790: line 47].
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- 78 Statement of Grant Pitman, 15 November 2011 [p9].
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- 79 Section 57, *Disaster Management Act 2003*.
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- 80 Section 59, *Disaster Management Act 2003*.
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- 81 Section 16A, *Disaster Management Act 2003*. This function is performed by Emergency Management Queensland under delegation from the chief executive of the Department of Community Safety.
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- 82 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p119].
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- 83 Queensland Floods Commission of Inquiry, *Interim Report*, 2011, Recommendations 3.7 – 3.9 [p119].
- 84 Queensland Floods Commission of Inquiry, *Interim Report*, 2011, Recommendation 3.10 [p119].
- 85 District disaster co-ordinators are senior officers of the Queensland Police Service.
- 86 Correspondence from Queensland Government, 30 December 2011, Review of Disaster Management Plans: Report to Queensland Floods Commission of Inquiry [p4].
- 87 Correspondence from Queensland Government, 26 October 2011, Attachment 1: Noting Brief, State Disaster Management Group, 13 September 2011 [p1]. The Commission's interim report (Recommendation 3.9) had previously recommended that Emergency Management Queensland should develop a standardised approach.
- 88 Correspondence from Queensland Government, 30 December 2011, Attachment B: Interim Review and Assessment Workbook (Version 2, October 2011) [p5].
- 89 Correspondence from Queensland Government, 30 December 2011, Review of Disaster Management Plans: Report to Queensland Floods Commission of Inquiry [p1-2; and Attachment A.
- 90 The local government areas were Hinchinbrook, Carpentaria, Doomadgee, Flinders, Moreton Bay, Toowoomba; Maranoa; Somerset; Scenic Rim; Ipswich; South Burnett; Sunshine Coast; Bundaberg; Mackay, Rockhampton, Isaac, Barcoo, Banana, Cassowary Coast, Cairns, Tablelands and Cook: Correspondence from Queensland Government, 30 December 2011, Review of Disaster Management Plans: Report to Queensland Floods Commission of Inquiry [p2-3].
- 91 Correspondence from Queensland Government, 30 December 2011, Review of Disaster Management Plans: Report to Queensland Floods Commission of Inquiry [p5].
- 92 Correspondence from Queensland Government, 30 December 2011, Review of Disaster Management Plans: Report to Queensland Floods Commission of Inquiry [p5].
- 93 Correspondence from Queensland Government, 30 December 2011, Review of Disaster Management Plans: Report to Queensland Floods Commission of Inquiry [p4].
- 94 Correspondence from Queensland Government, 30 December 2011, Review of Disaster Management Plans: Report to Queensland Floods Commission of Inquiry [p3].
- 95 Correspondence from Queensland Government, 30 December 2011, Review of Disaster Management Plans: Report to Queensland Floods Commission of Inquiry [p5].
- 96 Correspondence from Queensland Government, 30 December 2011, Attachment C, Memo from QPS Deputy Commissioner (Regional Operations) [p2].
- 97 The Commission notes that it is the intention of Emergency Management Queensland to consult with Queensland Police Service to develop an appropriate training package for district disaster co-ordinators: Correspondence from Queensland Government, 30 December 2011, Review of Disaster Management Plans: Report to Queensland Floods Commission of Inquiry [p4].
- 98 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p174].
- 99 Exhibit 333, Addendum statement of Mark Stephenson, 29 April 2011 [p2-4]; Transcript, Mark Stephenson, 10 May 2011, Brisbane [p1692: line 14].
- 100 Statement of Gordon Hemphrey, 28 November 2011 [p2-3].
- 101 Statement of Gordon Hemphrey, 28 November 2011 [p5]; Statement of John Gresty, 28 November 2011 [p11].
- 102 Statement of John Gresty, 28 November 2011 [p5].
- 103 Statement of John Gresty, 28 November 2011 [p6]; Statement of Gordon Hemphrey, 28 November 2011 [p5].
- 104 Exhibit 333, Addendum statement of Mark Stephenson, 29 April 2011 [p3-4]; Transcript, Mark Stephenson, 10 May 2011, Brisbane [p1692: line 14].
- 105 Statement of Philip Paff, 25 November 2011 [p2].
- 106 Statement of Scott Beasley, 9 June 2011 [p3].
- 107 The term 'appliance' as used to describe fire service equipment is described in the glossary.

- 108 Queensland Fire and Rescue Service Response to Interim Report, Attachment 1; Statement of Mark Stephenson, 3 March 2011 [p2-5]; Statement of Philip Paff, 25 November 2011 [p3-7]; Statement Nathan Chadwick, 25 November 2011 [p3-6].
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- 109 Statement of Lee Johnson, 12 December 2011, Attachment LAJ-5.
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- 110 Statement of Lee Johnson, 12 December 2011, Attachment LAJ-1.
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- 111 Letter from Iain Mackenzie to Commission, 22 December 2011, Attachments 1A, 1B; Statement of Mark Meier, 10 March 2011 [p1].
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- 112 Statement of Mark Meier, 10 March 2011 [p1-2].
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- 113 Statement of Lee Johnson, 12 December 2011 [p5]; Attachments LAJ-7, LAJ-8.
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- 114 Statement of Lee Johnson, 12 December 2011, Attachments LAJ-5, LAJ-6.
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- 115 Statement of Lee Johnson, 12 December 2011, Attachment LAJ-9.
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- 116 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p237].
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- 117 Statement of Bradley Mills, 21 March 2011 [p6-7]; Statement of Andrew Neil, 21 March 2011 [p3].
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- 118 Statement of Lee Johnson, 12 December 2011 [p6].
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- 119 Statement of Mark Meier, 10 March 2011 [p3]; Statement of Lee Johnson, 12 December 2011, Attachment LAJ-1.
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- 120 Statement of Nathan Chadwick, 25 November 2011 [p6].
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- 121 Statement of Nathan Chadwick, 25 November 2011 [p6]; Statement of Philip Paff, 25 November 2011 [p8].
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- 122 Statement of Nathan Chadwick, 25 November 2011 [p6]; Statement of Lee Johnson, 12 December 2011, Attachment LAJ-1.
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- 123 Statement of Mark Meier, 10 March 2011 [p3-4]; Statement of Nathan Chadwick, 9 March 2011 [p3]; Statement of Nathan Chadwick, 25 November 2011 [p6]; Statement of Philip Paff, 25 November 2011 [p8-9]; Statement of Shane Bretz, 22 March 2011 [p1]; Statement of Russell von Nida, 22 March 2011 [p1].
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- 124 Statement of Bradley Mills, 21 March 2011 [p7]; Statement of Andrew Neil, 21 March 2011 [p3].
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- 125 Statement of Mark Meier, 10 March 2011 [p4]; Statement of Philip Paff, 25 November 2011 [p9]; Statement of Bradley Mills, 21 March 2011 [p7]; Statement of Andrew Neil, 21 March 2011 [p3]; Statement of Russell von Nida, 22 March 2011 [p1].
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- 126 Statement of Thomas Dawson, 29 November 2011 [p2-3].
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- 127 Queensland Fire and Rescue Service Response to Interim Report, 13 September 2011 [p7].
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- 128 Statement of Thomas Dawson, 29 November 2011 [p4]; Queensland Fire and Rescue Service, 13 September 2011 [p8]; Attachments 3 and 4.
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- 129 Exhibit 328, Statement of William Dundas, 6 May 2011 [p6]; Statement of Mark Haddow, 2 June 2011 [p1].
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- 130 Statement of Thomas Dawson, 29 November 2011, Attachment 6B [p1].
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- 131 Queensland Fire and Rescue Service Response to Interim Report, 13 September 2011 [p6].
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- 132 Exhibit 328, Statement of William Dundas, 6 May 2011 [p6]; Statement of Mark Haddow, 2 June 2011 [p1].
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- 133 Affidavit of Walter Rye, 25 November 2011 [p1].
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- 134 Affidavit of Walter Rye, 25 November 2011 [p2].
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- 135 Affidavit of Walter Rye, 25 November 2011 [p3].
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- 136 Statement of Thomas Dawson, 29 November 2011 [p8].
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- 137 Statement of Thomas Dawson, 29 November 2011 [p9-10], Attachment TCD-6A FireComm recording of communications, 10 January 2011.
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- 138 Statement of Thomas Dawson, 29 November 2011 [p10].
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- 139 Exhibit 328, Statement of William Dundas, 6 May 2011 [para 29].
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- 140 Statement of Thomas Dawson, 29 November 2011 [p11]; Exhibit 210, Statement of David Crighton, 28 January 2011 [p1].
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- 141 Queensland Fire and Rescue Service Response to Interim Report, 13 September 2011, Attachment 3.
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- 142 Transcript of interview with William Dundas, 24 February 2011 [p3-5].
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- 143 Transcript of interview with Mark Haddow, 24 February 2011 [p1-3].
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- 144 Statement of John Gresty, 28 November 2011 [p3].
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- 145 Exhibit 333, Addendum statement of Mark Stephenson, 29 April 2011 [p3-4].
- 146 Statement of Thomas Dawson, 29 November 2011 [p6].
- 147 Queensland Fire and Rescue Service Operations Doctrine Incident Action Guide 3.5 [para 3(c)].
- 148 Transcript of interview with William Dundas, 24 February 2011 [p1].
- 149 Statement of Mark Haddow, 2 June 2011 [p1].
- 150 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p173]; Exhibit 328, Statement of William Dundas, 6 May 2011 [p11-12].
- 151 Exhibit 328, Statement of William Dundas, 6 May 2011 [p11]; Transcript, William Dundas, 10 May 2011, Brisbane [p1637: line 50 – p1638: line 15].
- 152 Statement of Thomas Dawson, 29 November 2011, Attachment TCD-6A, FireComm recording of communications, 10 January 2011.
- 153 Statement of Thomas Dawson, 26 November 2011 [p11].
- 154 Statement of Thomas Dawson, 29 November 2011, Attachment TCD-6A, FireComm recording of communications, 10 January 2011.
- 155 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p169].
- 156 Exhibit 348, Statement of Stephen Smith, 5 May 2011 [p7: para 36]; Transcript, Stephen Smith, 12 May 2011, Brisbane [p1854-1855].
- 157 Letter, United Firefighters Union of Australia to Queensland Floods Commission of Inquiry, undated.
- 158 Statement of Iain Mackenzie, 15 December 2011 [para 4, 13].
- 159 Statement of Iain Mackenzie, 15 December 2011, Attachment ISM-8.
- 160 Statement of Iain Mackenzie, 15 December 2011 [para 14].
- 161 Statement of Iain Mackenzie, 15 December 2011 [para 7-11].
- 162 Statement of Iain Mackenzie, 15 December 2011, Attachment ISM-9.
- 163 Statement of Iain Mackenzie, 15 December 2011 [para 13-14].
- 164 Statement of Iain Mackenzie, 15 December 2011, Attachment ISM-10.
- 165 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p179-180].
- 166 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p180].
- 167 Emergency Management Queensland, ODI 2.0, *Hierarchy of Command and Control*, Section 4.1 [p1].
- 168 Queensland Floods Commission of Inquiry, *Interim Report*, 2011 [p180].
- 169 *Disaster Management Act 2003*.
- 170 Transcript of interview with Bruce Grady, 9 November 2011 [p8: line 36].
- 171 Transcript of interview with Bruce Grady, 9 November 2011 [p8: line 44].
- 172 Transcript of interview with Bruce Grady, 9 November 2011 [p8: line 36].
- 173 Emergency Management Queensland, State Emergency Service, ODO 1.0, *Activation Guidelines*, Section 5.1 [p1]; Statement of Bruce Grady, 30 September 2011 [p12: para 75].
- 174 Emergency Management Queensland, State Emergency Service, ODO 1.0, *Activation Guidelines*, Section 5.2 [p1]; Emergency Management Queensland, State Emergency Service, ODI 2.0, *Hierarchy of Command and Control*, Section 5 [p2].
- 175 Emergency Management Queensland, State Emergency Service, ODI 2.0, *Hierarchy of Command and Control*, Section 5 [p2].
- 176 Statement of Christopher Artiemiew, 17 October 2011 [p8: para 52-53]; Statement of Robert Bundy, 14 October 2011 [p7: para 32]; Statement of David Hatton, 19 October 2011 [p5: para 28]; Statement of Edward Bennet, 19 October 2011 [p8-9: para 33, 35 and 37]; Statement of Andrew Wyatt, 19 October 2011 [p10: para 51-52]; Statement of David Mazzafferri, 19 October 2011 [p5: para 27]; Statement of Robert Medlin, 19 October 2011 [p8: para 48]; Statement of Patrick Downing, 11 October 2011 [p8: para 38]; Statement of Michael Shapland, 14 October 2011 [p5-6: para 5e; p11: para 13a]; Statement of Carl Peterson, 13 October 2011 [p7: para 13c].
- 177 Statement of Bruce Grady, 30 September 2011 [p3: para 13].

- 178 Transcript, Robert Bundy, 29 April 2011, Toowoomba [p1023: line 21].
- 179 Statement of David Hatton, 19 October 2011 [p5: para 28]; Statement of Robert Bundy, 14 October 2011 [p7: para 32]; Statement of David Mazzaferri, 19 October 2011 [p5: para 27]; Transcript, Robert Bundy, 29 April 2011, Toowoomba [p1023: line 21]; Gold Coast City Council SES Local Controller response to questionnaire, Gold Coast [p13].
- 180 Emergency Management Queensland, State Emergency Service, ODO 1.0, *Activation Guidelines*, Section 5.1 [p1].
- 181 Emergency Management Queensland, State Emergency Service, ODI 2.0, *Hierarchy of Command and Control*, Section 4.3 [p2]. The executive director of Emergency Management Queensland is now known as the Assistant Director-General for Emergency Management Queensland. This authority arises under delegation made by the chief executive (or Director-General) of the Department of Community Safety (formerly the Department of Emergency Services).
- 182 Emergency Management Queensland, State Emergency Service, ODI 2.0, *Hierarchy of Command and Control*, Section 5.1 [p2-3]. Furthermore, the executive director may appoint any Emergency Management Queensland officer (or SES member) to assume control of an incident in any part of Queensland for which the Executive Director is responsible: ODI 2.0, *Hierarchy of Command and Control*, Section 5.2 [p4].
- 183 Transcript of interview with Bruce Grady, 9 November 2011 [p39: line 37].
- 184 Transcript of interview with Bruce Grady, 9 November 2011 [p39].
- 185 Section 16A, *Disaster Management Act 2003*.
- 186 Jim O'Sullivan AC, APM and the Consultancy Bureau Pty Ltd, 2009, *Report on a Review of Disaster Management Legislation and Policy in Queensland* [p113].
- 187 Jim O'Sullivan AC, APM and the Consultancy Bureau Pty Ltd, 2009, *Report on a Review of Disaster Management Legislation and Policy in Queensland* [p113, 115].
- 188 Jim O'Sullivan AC, APM and the Consultancy Bureau Pty Ltd, 2009, *Report on a Review of Disaster Management Legislation and Policy in Queensland* [p115].
- 189 Emergency Management Queensland, State Emergency Service, ODI 2.0, *Hierarchy of Command and Control*, Section 5 [p2-3].
- 190 SES operational directives, taken together, comprise the SES doctrine.
- 191 Statement of Bruce Grady, 30 September 2011 [p15: para 97, 99].
- 192 Statement of Bruce Grady, 30 September 2011 [p15: para 89-90].
- 193 Statement of Bruce Grady, 30 September 2011 [p14: para 89-90].
- 194 Statement of Bruce Grady, 30 September 2011 [p15: para 100].
- 195 Transcript, Christopher Artiemiew, 20 April 2011, Toowoomba [p776: line 21]; Statement of Christopher Artiemiew, 7 April 2011 [p4: para 10-11].
- 196 Statement of Andrew Wyatt, 19 October 2011 [p6: para 27].
- 197 Statement of Mark Kelly, 12 October 2011 [p3: para 8].
- 198 Statement of Scott Walsh, 17 October 2011 [p4: para 7.3].
- 199 Statement of Michael Shapland, 14 October 2011 [p5: para 4(d)].
- 200 Statement of Michael Shapland, 14 October 2011 [p5: para 4(d)].
- 201 Statement of Robert Medlin, 19 October 2011 [p8: para 48].
- 202 Statement of Robert Medlin, 19 October 2011 [p8: para 48].
- 203 Statement of David Hatton, 19 October 2011 [p5: para 28]; Statement of Robert Bundy, 14 October 2011 [p7: para 32]; Statement of David Mazzaferri, 19 October 2011 [p5: para 28]; Statement of Deryck Taylor, 17 October 2011 [p3: para 7]; Statement of Andrew Wyatt, 19 October 2011 [p10: para 51]; Toowoomba Regional Council SES Local Controller response to questionnaire, Cambooya [p10]; Moreton Bay Regional Council SES Local Controller response to questionnaire, Caboolture [p9]; Mackay Regional Council SES Local Controller response to questionnaire, Mackay [p10]; Statement of Christopher Artiemiew, 17 October 2011 [p8:

- para 52]; Statement of Carl Peterson, 13 October 2011 [p7: para 13c].
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- 204 Transcript, Robert Bundy, 29 April 2011, Toowoomba [p1023: line 6].
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- 205 Southern Downs Regional Council SES Local Controller response to questionnaire, Warwick [p3].
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- 206 Bundaberg SES Local Controller response to questionnaire, Isis [p3]; Barcardine Regional Council SES Local Controller response to questionnaire, Barcardine [p9].
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- 207 Bundaberg Regional Council SES Local Controller response to questionnaire, Bundaberg [p4]; Fraser Coast Regional Council SES Local Controller response to questionnaire, Hervey Bay [p7].
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- 208 Gympie Regional Council SES Local Controller response to questionnaire, Cooloola [p7]; Rockhampton Regional Council SES Local Controller response to questionnaire, Rockhampton [p6]; Western Downs Regional Council SES Local Controller response to questionnaire, Taroom [p3].
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- 209 Western Downs Regional Council SES Local Controller response to questionnaire, Chinchilla [p7].
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- 210 Western Downs Regional Council SES Local Controller response to questionnaire, Tara [p7].
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- 211 South Burnett Regional Council SES Local Controller response to questionnaire, Nanango [p6]; Moreton Bay Regional Council SES Local Controller response to questionnaire, Caboolture [p4]; Sunshine Coast Regional Council SES Local Controller response to questionnaire, Noosa [p6].
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- 212 Statement of Bruce Grady, 30 September 2011 [p13: para 84].
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- 213 Emergency Management Queensland has seven regions within Queensland: Brisbane, Central, Far Northern, North Coast, Northern, South Eastern and South Western.
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- 214 Operational Directive 8.1 is in 'draft' form but remains in current use.
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- 215 Emergency Management Queensland, State Emergency Service, ODI 8.1, *Inter-Region Deployment*, Section 5.1 [p2].
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- 216 Emergency Management Queensland, State Emergency Service, ODI 8.1, *Inter-Region Deployment*, Section 5.2.2.2 [p4].
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- 217 Emergency Management Queensland, State Emergency Service, ODI 8.1, *Inter-Region Deployment*, Section 4.1 [p1-2].
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- 218 Emergency Management Queensland, State Emergency Service, ODI 8.1, *Inter-Region Deployment*, Section 5.2.1 [p3].
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- 219 Statement of Bruce Grady, 30 September 2011 [p13: para 87].
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- 220 Emergency Management Queensland, State Emergency Service, ODI 8.1, *Inter-Region Deployment*, Section 5.3 [p5].
- 
- 221 Emergency Management Queensland, State Emergency Service, ODI 8.1, *Inter-Region Deployment*, Section 5.4 [p5]. 'Span of control' refers to the number of teams, individuals and resources that can be effectively managed by one person.
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- 222 Jim O'Sullivan AC, APM and the Consultancy Bureau Pty Ltd, 2009, *Report on a Review of Disaster Management Legislation and Policy in Queensland* [p115].
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- 223 Statement of Bruce Grady, 30 September 2011 [p17: para 107].
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- 233 The draft Memorandum of Agreement merely says that Emergency Management Queensland will 'provide assistance to Local Controllers to manage SES responses when the volume of taskings exceeds the local capacity for events': Section 5.1 [p6].
- 234 Jim O'Sullivan AC, APM and the Consultancy Bureau Pty Ltd, 2009, *Report on a Review of Disaster Management Legislation and Policy in Queensland* [p119]; Transcript, Anthony Trace, 20 May 2011, Ipswich [p2380: line 31].
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- 241 Emergency Management Queensland, State Emergency Service, ODO 1.0, *Activation Guidelines*, Section 5.1 [p1].
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- 243 Transcript of interview with Bruce Grady, 9 November 2011 [p44: line 40].
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- 252 Transcript of interview with Bruce Grady, 9 November 2011 [p53: line 14].
- 253 Response to requirement of State of Queensland, 21 September 2011 [p7-8]; Southern Downs Regional Council SES Local Controller response to questionnaire, Warwick [p1]; Southern Downs Regional Council SES Local Controller response to questionnaire, Stanthorpe [p3]; Bundaberg Regional Council SES Local Controller response to questionnaire, Isis [p1]; Bundaberg Regional Council SES Local Controller response to questionnaire, Bundaberg [p1-2]; Sunshine Coast Regional Council SES Local Controller response to questionnaire, Maroochy [p3]; Sunshine Coast Regional Council SES Local Controller response to questionnaire, Noosa [p3]; North Burnett Regional SES Local Controller response to questionnaire, Monto [p3]; North Burnett Regional SES Local Controller response to questionnaire, Mundubbera [p3]; North Burnett Regional SES Local Controller response to questionnaire, Perry [p3]; Western Downs Regional Council SES Local Controller response to questionnaire, Tara [p3]; Western Downs Regional Council SES Local Controller response

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