

LOCAL GOVERNMENT ASSOCIATION OF QUEENSLAND



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OF QUEENSLAND LTD

**SUBMISSION
ON
FLOOD PREPAREDNESS ISSUES
TO
QUEENSLAND FLOOD COMMISSION OF INQUIRY**

11 MARCH 2011

QFCI

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1. Introduction

This submission has been prepared by the Local Government Association of Queensland (LGAQ) with respect to those matters of relevance to flood preparedness contained within the Commission's Terms of Reference (TOR), and requested to be addressed in submissions lodged by 11 March 2011.

This submission covers the following matters:

- roles responsibilities and relationships,
- disaster management planning,
- early warning systems and communication,
- evacuation, and
- moderation of future events.

In particular, the submission seeks to identify measures that could assist in reducing impacts from future events. This LGAQ submission focuses on generic issues applicable across the State. Individual council submissions will no doubt focus on specific matters at the local level.

LGAQ recognises that each flooding event is different. The past few months has seen sudden and destructive flash flooding such as in Toowoomba and parts of the Lockyer Valley as well as slow onset yet also devastating events such as in Rockhampton. Measures appropriate to one form of flood event may have little relevance to other events of a different nature.

LGAQ will be holding a forum on 14 March 2011 at its Infrastructure and Planning Symposium which will be attended by councils from across the State to provide an opportunity to share experiences and learnings from recent natural disasters. LGAQ will provide the Commission with additional feedback on flood preparedness following this symposium.

In addition, LGAQ will also provide a further submission on other matters within the TOR including land use planning by 4 April 2011.

2. Roles, Responsibilities and Relationships

Local Government has a key role at the local level under the *Disaster Management Act 2003*. The role specified in the Act includes:

- establishing a Local Disaster Management Group (LDMG);
- appointing a Councillor as chairperson of the LDMG;
- preparing and approving a local disaster management plan;
- appointing the CEO or another council employee as Local Disaster Coordinator;
- ensuring it has a disaster response capability;
- ensuring information about an event in its area is promptly given to the district disaster coordinator.

The LDMG is a separate entity to the local government. Membership of the LDMG usually includes a number of other agencies as well as local government representatives.

The LDMG has specified functions for its area. The functions of the LDMG include:

- ensuring disaster management and disaster operations in the area are consistent with the State group's strategic policy framework;
- developing effective disaster management, and regularly reviewing and assessing disaster management;
- helping the local government prepare a local disaster management plan;
- identifying and providing advice to the district group about support services required by the local group to facilitate local disaster management;
- ensuring the community is aware of ways of mitigating the adverse effects of an event, and preparing for, responding to and recovering from a disaster;
- managing disaster operations in the area under policies and procedures decided by the State group;
- providing reports and making recommendations to the district group about matters relating to disaster operations;
- identifying and coordinating the use of resources for local disaster operations;
- establishing and reviewing communications systems; and
- ensuring information about a disaster in the area is promptly given to the relevant district group.

As a general comment, feedback from member councils in flood affected areas indicates that the current disaster management system under the *Disaster Management Act 2003* (DMA) generally worked well, and there appears no need for fundamental change.

There were changes to the Act introduced in late 2010, such as the appointment of a council officer as Local Disaster Coordinator and the role of the Queensland Police Service (QPS) at State and District levels. There has been some uncertainty around the new roles of State Disaster Coordinator and State Recovery Coordinator, created by the amended Act.

The local disaster coordinator has the following functions under the DMA:

- (a) to coordinate disaster operations for the local group;
- (b) to report regularly to the local group about disaster operations;
- (c) to ensure, as far as practicable, that any strategic decisions of the local group about disaster operations are implemented.

To date, the 'necessary skill or experience' of the local disaster coordinator has not been specified to councils.

In recent events which affected multiple local areas, there were expectations that all LDMGs would be available for telephone hook-ups with the SDMG. While arguably desirable that first-hand information on local events is available to the SDMG, it was not always feasible for LDMG representatives to be available to suit the timing of SDMG meetings. In addition, the potentially large number of participants by phone at the one time made effective communication difficult and time-consuming.

Protocols need to be developed to streamline LDMG engagement with the DDMG, SDCC and SDMG during events. It is essential that communication protocols are established between each level and strictly followed during events.

In the case of low flow releases and emergency flood releases from dams, there is no clear protocol on who should be responsible for alerting the community on potential impacts. In terms of efficiency and accountability, it would be desirable that the dam operator is responsible for alerting both the community and council on potential impacts and disruptions to access.

An increased emphasis on training at the local level on roles and responsibilities would support enhanced preparedness and response.

Specific comments and suggestions for enhancement of roles and responsibilities include:

1. There is a need for continuity of QPS personnel in disaster management roles along with longer term development of relationships with Councils and Local Disaster Management Groups. For example, a District Disaster Co-ordinator (DDC) should not be changed in November i.e. just prior to the wet season.
2. The mutuality of roles between the DDC and District Disaster Management Group (DDMG) and the Local Disaster Coordinator (LDC) and the Local Disaster Management Group (LDMG) needs to be embedded into the disaster management system. This can be progressed through joint planning and training sessions and development of close working relationships and communication.
3. Protocols need to be developed to streamline LDMG engagement with the DDMG, SDCC and SDMG during events, recognising the heavy demands placed on those at the local level in response to each event. This may involve DDMGs representing their supported LDMGs on telephone hook-ups, with direct state - local communication occurring only by exception. Communication protocols should be strictly adhered to during events.
4. Local knowledge and experience should be recognised in the development of plans and operational responses, particularly involving LDMG and DDMG interaction. Strong links need to be established with local networks and services that support

communities, particularly vulnerable groups e.g. culturally and linguistically diverse, frail aged, people with disability, youth.

5. Local Governments to ensure leadership of the LDMG rests with the mayor or senior councillor and involves comprehensive training and regular practicing of the role along with regular interaction between LDMG and DDMG leadership. Strong leadership at the local level is paramount.
6. A system of mentoring and operational support by mayors experienced in disaster management for those new to the role should be considered.
7. Protocols should be established in relation to the responsibility of dam operators for alerting both the community and councils in relation to potential impacts of both low flow and emergency flood releases and the methods to be used in such alerts.

3. Disaster Management Planning

Disaster management plans are the essential ingredient to an effective and coordinated response to each disaster event. As a consequence of amalgamations in 2008, most councils inherited separate local disaster management plans, hazard studies, and databases for each of the former council areas.

Due to resource constraints, some are yet to be consolidated with a holistic appreciation of the new jurisdictions. In addition, amalgamated councils inherited planning schemes (development control) which were based on different approaches to defining flood events and underpinned by differing levels of information to support decision making.

Several amalgamated councils have also identified the difficulties of planning for multiple concurrent or consecutive events across large, complex jurisdictions.

Where senior staff were available at local service centres, this lack of integration was less of a problem as capacity existed to mobilise actions and resources at the local level based on the specific "local" plan.

Nevertheless, it is essential that priority is given to ensuring an integrated local disaster management plan across the total council area as well as integrating disaster management considerations within planning schemes under the *Sustainable Planning Act* (SPA).

Some councils have established sub groups of their LDMG to operate as local emergency coordinators, recognising the importance of local input to both

response and recovery efforts. However most councils do not have the resources to establish and sustain multiple local sub-groups.

Greater emphasis is required on developing more standardised disaster management planning systems including templates and manuals. This would be facilitated by greater State investment in support systems and capacity building.

Improved frameworks for reporting on the status of essential services would be desirable to ensure appropriate support from regional and state resources, particularly where water and sewerage systems are damaged.

LGAO in partnership with the Queensland Office of Climate Change undertook an inland flooding study aimed at developing options to improve Queensland's resilience to extreme flood events caused by climate change (see **Attachment A** for details). The study outcomes, released in November 2010, provided:

- a recommended climate change factor for incorporation into flood studies;
- specific policy options for improved floodrisk management in the Gayndah case study area;
- recommendations for the review of State Planning Policy 1/03 *Mitigating the Adverse Impacts of Flood, Bushfire and Landslide*.

Some attention should be focused on ensuring back-up generators are readily available to provide power to maintain key emergency services during major events. This is a need additional to back-up generators required to sustain normal business operations.

Increased emphasis on community education of flood dangers is essential. There were many examples of people placing themselves in danger driving into fast moving water or simply sightseeing. Building community resilience including recognition of the need for people to take individual responsibility for their own safety should be a priority for the State and Local Governments working together.

Resourcing the local disaster management role will be a significant issue for councils particularly in terms of ensuring appropriate skills are retained at the local level to provide an appropriate and professional input to all aspects of local disaster management. Greater emphasis on training and practice between events will assist. It is noted that there has been a reduction in funding support for training through EMA.

Specific comments and suggestions for enhancement include:

1. The development of disaster management plans, particularly at the local level, should be seen as a strategic and systemic priority within the overall risk awareness, assessment and governance responsibilities of local governments.

2. More standardised disaster management planning systems including templates and manuals would assist local disaster planning. This would be facilitated by greater State investment in support systems and capacity building.
3. More active review of LGMG and DDMG plans and preparedness by Department of Community Safety (DCS) is encouraged.
4. Disaster management plans should be reviewed to ensure the implications of multiple events in a local area and district at the same time can be responded to in terms of personnel and resources.
5. The need for enhanced practice and training between events should be recognised. This will need to be supported through additional funding.
6. Plans at local and district levels should provide greater emphasis on interface between essential services i.e. water, sewerage, power and telecommunications. This is particularly relevant to recovery and reconnection of essential services. The plans should ensure the need for the pre-positioning of "assets" is clearly understood and addressed.
7. Where councils cover large geographic areas and a number of separate towns and villages, sub regional emergency coordination/management groups may provide important local inputs to disaster management and support the LDMG and local disaster coordinator. Where resources do not allow for the formation of additional groups, alternate solutions such as improved communications or greater use of emergency volunteers (e.g. RFB or SES) in these communities should be considered.
8. Improved reporting systems on the status of essential services should be established. This would be facilitated by a reporting template tightly focused on relevant supply continuity issues and situations.
9. Attention should be placed on increasing community awareness of potential dangers from flooding and other events at the local level. This should also include increasing awareness of what to do in specific events including location of evacuation centres. Specialised strategies will need to be developed and implemented for vulnerable groups in partnership with local existing networks, services and communities. Initiatives to build community resilience with better recognition of the need to take individual responsibility for their own safety should also be a priority.

4. Early Warning Systems and Communication

In some flash flooding events, it is doubtful if any enhanced system of early warning could have mitigated impacts. In some cases, warning of flash flooding could have placed more people in jeopardy as they tried to move cars that were very quickly washed away by the flash event.

There needs to be recognition that normal communication systems (fixed lines and mobile phones) may not operate in flood situations. Redundancies need to be considered in maintaining emergency communication. Two-way radios are important and there may be a role for satellite phones in some locations.

Emergency Alert systems (SMS message or voice message on fixed phone) are important in increasing awareness of potential events. There is no system at present that alerts those with a mobile phone who are visiting an area of potential threats. It is understood there is a COAG sponsored project to test the feasibility of location based SMS messages to all mobile phones in an area. The technology should be available to allow messages to be sent to any mobile phone logged on to a tower in a defined area.

In some cases, a warning siren in a small town may be the most appropriate method to alert people to a potential threat. However, it will be important that the siren does not confuse people in terms of the nature of the event (e.g. fire, cyclone and flood).

There needs to be recognition that in some locations there is effectively no "local" radio or television station. Residents may listen to broadcasts from a number of surrounding regions. It should be possible to ensure that warnings for each local area are provided to media in locations where residents of an adjoining area may be tuned in.

Enhanced use of technology to provide a better on-the-ground understanding of the magnitude of each event and potentially affected properties could assist in developing better community understanding of terminology and technical references to flood heights.

An emphasis on capacity building at the local level in interpreting and communicating flood and other disaster impacts is desirable.

The sheer volume of calls and hits on websites such as the SES and Main Roads resulted in delayed responses and diminished performance at times during recent events.

Specific comments and suggestions for enhancement include:

- 1) Clearer alert and warning messages for the public about the implication and timing of rising river/creek levels and an approaching cyclone and storm surge should be developed. Explanation of

technical weather forecasting and hydrological terminology in “everyday” language and locally known references would be of great value to the community. Multi-lingual alerts and messages need to be made available in a timely manner, and distributed appropriately to people from culturally and linguistically diverse backgrounds.

- 2) Greater emphasis should be placed on capacity building at the local level in matters such as the interpretation and communication of potential event impacts, including enhanced technology to assist communication.
- 3) Review should be undertaken of the form and use of the emergency alert siren used on radio. Suggestions have been made for the adoption of a flood warning signal or siren.
- 4) Greater use of all forms of technology and communication should be explored in the dissemination of information, alert and warning messages e.g. radio, television, landline messaging and mobile telephones SMS (including phones without a billing address in the affected area), and web based - email, Facebook, twitter, etc.
- 5) Greater use should be made of commercial radio to convey public information, alert and warning messages to ensure a wider coverage across the various demographics reflecting diverse listening preferences. There should be recognition of radio and media coverage from neighbouring regions in dissemination of information.
- 6) Ongoing public information and education, particularly at the commencement of the wet season, is required to ensure the community is aware of its vulnerability to natural disasters, personal responsibilities should an event occur and the various means by which information can be accessed.
- 7) Local governments and LDMGs should develop improved plans for the management and support of the media pre and post disaster events to ensure essential and accurate information is disseminated and to reassure the community that local leadership structures are operating effectively. The community looks to its local leaders.
- 8) Councils should consider the development/adoption of greater redundancy in their Call Centre operations and ICT systems to ensure continued operation during and immediately after disaster events through the establishment of back up systems outside of the city/town or region away from affected areas.
- 9) Alternative field communications should be developed to support on-the-ground LDMG and DDMG response and recovery operations to overcome the loss of mobile phone or radio networks through damage to transmission facilities and loss of power. This is essential to public safety. Strategies should include provision of information through outreach, such as door knocking and hand delivered information.

5. Evacuation

This is an important matter in relation to preparedness. The scale of potential events needs better consideration. In some cases, a small additional rise in water levels would have required mass evacuations beyond the capacity of the local area. Access to surrounding centres and airports may be badly affected making it extremely difficult to move large numbers of people.

In some cases, evacuation centres had been established but supplying these with bedding and food had not been appropriately thought through. In other cases, people were unwilling to leave affected properties due to concerns in relation to pets. Individuals should be encouraged to have a pet evacuation plan with an emphasis on self-evacuation to family and friends.

Roles and responsibilities of councils, NGOs and other organisations for operation and management of shelters and evacuation centres need to be clarified.

EMQ has commenced a project to develop standard, state-wide 'Queensland Evacuation Guidelines'. Several trials have been completed and a consultation draft was released in October 2010.

Specific comments and suggestions for enhancement include:

- 1) Evacuation Planning needs to be more thorough, including identification of Primary Centres as well as Alternate/Supplementary Centres within LDMG and DDMG plans. Parallel arrangements need to be incorporated within Local and District Plans including arrangements for accommodating of mass evacuees into other local government and disaster district areas, particularly from populated coastal areas to inland rural communities (and vice versa).
- 2) Clarification of the roles and responsibilities for the management and service provision at evacuation centres between local governments and NGOs needs to be more fully addressed. This should include the review of existing Protocols, where they exist; including fallback arrangements should commitments under the protocols not be able to be met by any of the parties.
- 3) Management of evaluation centres needs to prioritise the safety of all evacuees, particularly vulnerable groups in line with legislative requirements (such as the Child Safety Blue Card). Special attention is required for people under the age of 18, frail aged, people with a disability, people from culturally and linguistically diverse backgrounds. In addition, for the safety and wellbeing of staff and evacuees, staff and volunteers should reflect the make-up of the community (e.g. ensure that there are both male and female staff

working at the centre, and that staff (where possible) are from culturally appropriate backgrounds).

- 4) Clearer definition and identification of pre-event cyclones/surge centres and post-event evacuation centres is required within plans, with appropriate resources for their respective short and long term operational roles.
- 5) Development of a local register which identifies where vulnerable people live who will require additional support in evacuation (e.g. people with a disability, frail aged). There needs to be clear articulation of roles and responsibilities in ensuring the safety of vulnerable people.
- 6) Better planning and provisioning for the evacuation of pets should be included in disaster management plans at local and district levels, with an emphasis on individuals developing their own pet evacuation plans.
- 7) Sufficient resources should be allocated to fast track the finalisation and implementation of the Queensland Evacuation Guidelines.

6. Moderating Future Events

It is important to identify any simple measures that could reduce impacts to persons, property and infrastructure should similar events occur next summer and beyond. Some of the earlier comments and suggestions in relation to roles and relationships, disaster management planning, early warning and communication are of particular relevance.

Some attention should be focused on measures that can assist in improving emergency access to infrastructure that may assist in evacuation and in recovery and resupply. There were a number of situations where road access to a local airport could have assisted evacuation and where relatively minor work on access routes could have achieved flood free access.

Councils recognise the importance of flood monitoring and recording points on streams. In some cases, monitoring stations were knocked out by floodwater and only manual reading was possible. Monitoring gauges should be fitted with back-up devices and plans should include manual reading can be put in place as back-up.

A number of councils have noted the need for additional automatic monitoring points across their region. Similarly, accurate rainfall measurement at the micro level could also assist in better understanding the potential flood impacts. Some councils have noted that information gathered from farmers and others across their area showed that rainfall intensity was much higher than recorded at official BOM stations.

Notwithstanding the challenging environment faced, and the outstanding job done by BOM in the circumstances, Local Government would support moves to ensure BOM has the necessary, and indeed increased, resources to provide storm and flood forecasting when multiple events occur at the same time across different parts of the State.

There will be a need to urgently review flood studies following recent events. Additional Federal and State resources should be allocated to support such updates of flood studies. Studies may identify opportunities to construct levy banks to better protect some communities and funding support for such mitigation solutions should be available to councils.

Comment has been made by some affected councils that they have difficulty in obtaining approvals from DERM to clear dead trees and other vegetation from waterways to avoid these becoming dangerous water borne hazards in flooding events. There needs to be greater recognition of the role of waterways in flood events and a balance between environmental values and hazard reduction.

Specific comments and suggestions for enhancement include:

- 1) There is a need for additional funding sources to enhance emergency access to individual communities.
- 2) Increase the number of monitoring and recording stations on streams.
- 3) Improve back-up systems to cover loss of automatic recording stations.
- 4) Additional Federal and State funding through the Natural Disaster Resilience Program (NDRP) should be provided to assist urgent update of flood studies and to put in place mitigation solutions such as levy banks, as well as to support other measures to improve community resilience.
- 5) Streamline approval systems for vegetation clearing for flood mitigation purposes.

GLOSSARY OF TERMS

BOM	Bureau of Meteorology
CEO	Chief Executive Officer
COAG	Council of Australian Governments
DERM	Department of Environment & Resource Management
DCS	Department of Community Safety
DDC	District Disaster Coordinator
DDMG	District Disaster Management Group
DMA	Disaster Management Act 2003
EMA	Emergency Management Australia
EMQ	Emergency Management Queensland
ICT	Information and Communication Technology
LDC	Local Disaster Coordinator
LDCC	Local Disaster Coordination Centre
LDMG	Local Disaster Management Group
LGAQ	Local Government Association of Queensland
NGO	Non-Government Organisation
NDRP	Natural Disaster Resilience Program
NDRRA	Natural Disaster Relief & Recovery Arrangements
RFB	Rural Fire Brigade
SDCC	State Disaster Coordination Centre
SDMG	State Disaster Management Group
SES	State Emergency Service
SPA	Sustainable Planning Act 2009
QPS	Queensland Police Service

ATTACHMENT A

Partnership on the Inland Flooding Study

The Inland Flooding Study partnership between the Office of Climate Change and the LGAQ was designed to improve Queensland's resilience to extreme flood events due to climate change. Flooding causes significant impacts on Queensland communities and the economy - and with our changing climate, extreme flooding events are likely to become more intense.

The project was established to recommend options to increase community resilience to extreme flood events by providing:

1. a recommended climate change factor for use by local councils in future flood studies
2. specific policy options for improved flood risk management in the Gayndah case study area
3. recommendations for inclusion in the review of the State Planning Policy 1/03 *Mitigating the Adverse Impacts of Flood, Bushfire and Landslide*.

The key outcomes from the Inland Flooding Study were released publicly on 10 November 2010 following extensive consultation with key stakeholders. The study delivers much needed guidance for local councils on planning for increased flood risk from extreme events resulting from climate change.

As a result, local governments are now better equipped with clearer guidance on how to factor climate change into their flood studies. The study also produced practical examples of how the effects of climate change can be incorporated into planning schemes that will be considered further as part of the review of the State Planning Policy 1/03, scheduled for completion in 2013.

The final report [*Increasing Queensland's Resilience to Inland Flooding in a Changing Climate*](#) (PDF, 83K)* is accompanied by two detailed companion reports on how the climate change factor was derived and the policy options from the Gayndah case study area.

- [*Policy Options for Improved Flood Risk Management Using the Gayndah Case Study Area*](#) (PDF, 3.0M)*
- [*Scientific Advisory Group Report*](#) (PDF, 392K)*
- [*Inland Flooding Study Partnership fact sheet*](#) (PDF, 43K)*