

QUEENSLAND FLOODS COMMISSION OF INQUIRY
Requirement to Provide Written Information to Commission of Inquiry
Collin Head, Local Disaster Coordinator,
Banana Shire Council

In accordance with section 5 of the *Commissions of Inquiry Act 1950* (Qld), I Collin Head, Local Disaster Coordinator, Banana Shire Council ("BSC"), Corner of Kroombit and Prairie Street, Biloela provide the following statement of information as directed by letter dated 21st March, 2011. In providing the information this statement will be relative to the information request for the years 2010/2011.

- A. I have been the Local Disaster Coordinator for the BSC since 30 September 2010. Prior to this date, I was the Executive Officer of the Banana Shire LDMG, a role I have held for the duration of my employment with BSC.
 - B. I commenced employment with BSC in January 1999 as the Director of Engineering Services. My current role is the Director of Infrastructure Services.
 - C. Prior to my employment with BSC, I worked for nine years in the Gladstone City Council as Manager of Works.
 - D. I hold Bachelor degrees in Civil Engineering and Economics. In addition, I have a Graduate Diploma in Municipal Engineering.
 - E. I have attended the Disaster Management Training Course run by Emergency Management Australia at Mt Macedon in Victoria in 2000.
1. **The local planning and preparation, including training, undertaken in advance of and/or in relation to the 2010/2011 flood events.**

PLANNING and PREPARATION

- (a) BSC and the Local Disaster Management Group (LDMG) held a debriefing session following the March 2010 flood event, as well as public engagements to gather information and determine appropriate disaster management strategies. Attached is a copy of the minutes of the Debrief meeting held on 12 May 2010 (**Attachment 1**).
- (b) As a result, Local Emergency Coordination Committees (LECC) were planned, and implementation commenced prior to the 2010/2011 Flood event. In particular:
 - (i) Meeting held on Wednesday 15 September 2010 to formulate the Terms of Reference for Local Emergency Coordination Committees.
 - (ii) Meeting held on Monday 11 October 2010 to determine membership structure and scope of operation of Local Emergency Coordination Committees.
 - (iii) Special Meeting of Local Disaster Management Group held on Monday 18 November 2010 to nominate leaders for Local Emergency Coordination Committees.

- (iv) Meeting held on Monday 8 November 2010 between the Local Disaster Management Group and BSC Councillors regarding Local Emergency Coordination Committees.
 - (v) The Local Emergency Coordination Committee Terms of Reference is attached (**Attachment 2**).
- (c) Guardian Software:
- (i) BSC lodged an application for funding on 26 August 2010 for the Guardian Disaster Management Software in conjunction with five other councils in the region, Bundaberg Regional Council, Fraser Coast Regional Council, North Burnett Regional Council, South Burnett Regional Council and Gympie Regional Council. Please refer to BSC's attached Application Form (**Attachment 3**).
 - (ii) Guardian funding was approved on 11 November 2010.
 - (iii) A meeting was held at the Bundaberg Regional Council offices with all participating councils on 3 December 2010 to discuss the implementation and installation process. Banana Shire was selected to be the first Council to have the software installed (this did not eventuate as flooding had started to impact on the shire preventing the installation process). (*Please refer to Attachment 4*).
 - (iv) As a consequence of the meeting of the six Councils, it was determined to continue the relationship to engage in disaster management on a regional basis.
- (d) It must be noted that the formal process of Council adopting LECCs at the time of the 2010/2011 flood event had not been completed and no formal training was undertaken.
- (e) It was determined to implement an interim LECC process due to the impending floods, in order that community links were established. This action occurred on 8 December 2010. Please refer to the comments in paragraph 6 of this statement.
- (f) LDMG held a practical exercise "Controlled Burn" at the Thangool Aerodrome to test the capability of emergency and Disaster Management personnel on Saturday, 16 October 2010 at 8:00am.
- (g) Revision of the Local Disaster Management Plan to reflect the changes to Disaster Management Legislation began in November 2010 and this has been substantially completed.
- (h) John Walker (Deputy Local Disaster Coordinator) participated in "Undertake Emergency Planning" training conducted by Emergency Management Australia from 6 April 2009 to 9 April 2009 in Rockhampton.
- (i) Collin Head (Local Disaster Coordinator), John Walker (Deputy Local Disaster Coordinator) and Alan Harris (Disaster Management Officer) attended the Local

Government Association of Queensland Disaster Management Conference at Home Hill from Wednesday 2 June 2010 to Friday 4 June 2010.

- (j) John Walker (Deputy Local Disaster Coordinator), Jaz Tumbers (Administration Manager) and Alan Harris (Disaster Management Officer) conducted a pre-season check of the Local Disaster Coordination Centre (LDCC) equipment and resources were conducted and upgrade of the LDCC and Disaster Management Plan was undertaken.

2. Any measures implemented immediately prior to or during the 2010/2011 flood events that were designed to mitigate the effect of any flooding (for example, sandbagging, temporary levees), including an assessment of the performance of those measures.

(a) Theodore SES

- (i) Sandbags and crusher dust were provided to the Theodore SES prior to, and following the flood event experienced in November 2010. There was no evidence that the November 2010 event breached the sandbagging. Many of these sandbags were still in place when the subsequent flood event occurred in December 2010/January 2011. The latter event exceeded all previous recorded flood levels and subsequently overwhelmed all sandbagging works.

(b) Moura SES

- (i) Sandbags were provided to Moura for assistance to outlying properties on the river bank that are impacted by flooding during a major event.

(c) Biloela SES

- (i) Historically, Biloela has not been regularly subjected to flooding with recent events impacting on a small number of isolated properties in the area. Consequently, there was no extraordinary deployment of resources to Biloela in preparation for this event.

(d) Baralaba

- (i) As a result of a number of minor to moderate flooding events in the Dawson River at Baralaba, BSC had activated and was operating its ferry boat service across the river. It requires a large flood before the town is directly impacted and it was not expected that the town would be isolated from the East, so there were no structured plans for reprovisioning.

(e) Wowan

- (i) While Wowan's flooding resulted from intense rainfall in the catchment of Pocket Creek. During the event, it was identified that repairs to the levee around Wowan were required but were not able to be undertaken due to the wet conditions which made it impossible for plant and equipment to reinstate or repair levees.

(f) Taroom

- (i) Flood boat re-supplies were in operation for a significant period commencing on 6 December 2010 and continuing for the duration of the flood event. These operations were coordinated by SES, who may have further details of the operations.

3. Local participation, or otherwise, in Emergency Management Queensland's (EMQ) 2010 Pre-Season Flood and Cyclone Workshop, including an assessment of the local assistance gained thereby.

- (a) Collin Head (Local Disaster Coordinator) and John Walker (Deputy Local Disaster Coordinator) attended Storm Season Training on Wednesday 13 October 2010 at Gladstone.
 - (i) Information was provided by EMQ and BOM regarding the upcoming storm season. BOM predictions indicated that weather conditions could potentially be severe over the coming storm season with greatest impacts immediately to the north of the Central Queensland region.
 - (ii) BSC staff discussed the need for additional rainfall and flood gauges with BOM at this training session. BOM advised of the process to improve flood monitoring for the Dawson River catchment.

4. Local participation, or otherwise in EMQ's 2010 Consultation Sessions concerning the proposed changes to the *Disaster Management Act 2003 (Qld)*, including an assessment of the local assistance gained thereby.

- (a) Cr Warren Middleton (Deputy Chair of LDMG), Collin Head (Local Disaster Coordinator) and John Walker (Deputy Local Disaster Coordinator) attended the Disaster Management Arrangements Information Session, provided by Queensland Police and EMQ at the Frenchville Sports Club, Rockhampton on Friday 30 July 2010.
 - (i) The session provided information on the new legislative arrangements, particularly in relation to the role Queensland Police would play in managing future disaster events. Changes to legislation appeared to address a number underlying concerns of EMQ's role as the lead agency in a disaster.
 - (ii) The Disaster Management Legislation was not passed by Parliament until November 2010. As a consequence of this and due to the approaching storm season, there was insufficient time to complete and implement the review of the Disaster Management Plans.
 - (iii) Future amendments to the Legislation and operational guidelines need to allow sufficient time for adoption and implementation prior to storm/cyclone season.

5. Any measures taken to train and/or equip the local State Emergency Services (SES), including an assessment of the adequacy and timeliness thereof.
- (a) SES training is undertaken by EMQ and BSC relies on EMQ to ensure that the training is adequate and appropriate.
 - (b) However, BSC has an annual budget allocation to provide and maintain SES plant and equipment (see **Attachment 5**).

6. The local actions undertaken in advance of and/or in respect of the 2010/2011 flood events in relation to resourcing, coordination and deployment of any personnel and equipment.

- (a) Following the Debrief Meeting of the March 2010 flood event, an interim LECC was formed in both Theodore and Taroom. All relevant external agencies were involved in this LECC.
- (b) Prior to BSC's Christmas closure, Council staff were notified of the potential flood event and volunteers were put on stand by that they may be required to help with the response and recovery during the Christmas closure.
- (c) The Disaster Management Plan was activated on 1 December 2010 when the LDMG was put on alert of a possible flood event. The Local Disaster Coordination Centre (LDCC) was activated on 10 December 2010 due primarily to flooding in the Dawson River. River levels had reached a flood gauge height at Theodore of 12.98 metres at 8:15am. Other towns under threat included Taroom, Moura and Baralaba.
- (d) The LDCC was deactivated on 14 December 2010 as the threat had started to recede as river levels were dropping in Taroom and Theodore.
- (e) On Monday, 20 December 2010, the LDMG was again put on alert and the LDCC was activated on Thursday, 23 December 2010 as flood waters in the Dawson River began to rise and a predicted peak of 13.5 metres was expected at Theodore. Other towns under threat included Taroom, Moura and Baralaba.
- (f) On Friday, 24 December at 11.00am, the river level at Theodore appeared to have peaked and the level was receding. That afternoon, the LDMG went into Stand By mode. The LDCC was again activated at 4.30am on 25 December 2010 due to intense storm activity in the Theodore area that increased water levels in local streams as well as rapid rises in the Dawson River from rainfall in the upstream catchment.
- (g) Cr Vaughn Becker, Chairperson of the interim Theodore LECC, relocated to Theodore on 8 December 2010 to perform his role.

7. The local actions undertaken in respect of the 2010/2011 flood events in relation to immediate management, response and recovery operations, including the coordination and deployment of personnel and equipment.

RESPONSE PHASE

- (a) Council staff members were deployed to Theodore to assist the LECC and to monitor flood levels. Gail Roylance, Council's Technical Officer, was located at Theodore between 25 and 26 December 2010 to assist Cr Becker in preparations. John McDougall, Council's Environmental Manager, was located at Theodore between 26 and 29 December 2010 to help with preparations and evacuations. Matt Glover, Council's Director of Environment and Development Services, was located in Theodore on 29 December 2010 to relieve Cr Becker and to assist with evacuations.
- (b) The decision to conduct a mandatory evacuation of Theodore was made on Tuesday 28 December 2010. This was a joint decision made in consultation with the DDC Gladstone by the Acting Local Disaster Coordinator John Walker and available members of the LDMG, Cr Warren Middleton, Nick Paton of Queensland Police, Patrick Downing of EMQ and Cr Maureen Clancy.
 - (i) Hospital patients and the patients/residents of the aged care facility were evacuated first and were evacuated to Biloela. These patients/residents were evacuated by helicopter. 17 persons, including three staff, were evacuated to Biloela Hospital and Biloela retirement village/aged care facility.
 - (ii) The entire township of Theodore was evacuated to Moura. 328 residents of Theodore were evacuated by helicopter.
 - (iii) Red Cross were in Theodore coordinating evacuations and registering people prior to their flight to Moura.
- (c) The helicopters used to evacuate Theodore were requested via a Request for Assistance from the LDCC to the DDCC at 1.40am on Tuesday 28 December 2010.
- (d) On 30 December 2010, Black Hawk helicopters re-supplied the Taroom township and also transported a generator into Theodore to power the mobile phone communication tower. Additional supplies were air lifted by helicopter into Taroom on 1 January 2011.
- (e) Re-supplies to isolated rural residential properties by helicopter commenced on 28 December 2010.
- (f) For further information, please refer to the Disaster Event Log (**Attachment 6**).

RECOVERY PHASE

- (g) In addition to the below information, please refer to the Recovery De-Brief Overview for further information (**Attachment 7**).
- (h) The management of Recovery operations was handled by Todd Sleeman, Acting Chief Executive Officer of BSC.
- (i) Red Cross were activated and relocated to Theodore on 26 December 2010.
- (j) The Local Disaster Recovery Group (LDRG) was formed on 29 December 2010 and was put on standby. During this time, they commenced their planning process. Cr Maureen Clancy was the Chairperson of the group, with Acting Chief Executive Officer Todd Sleeman as the Coordinator. The LDRG was formally activated on 4 April 2011 to commence the proceeding for residents to re-enter Theodore.
- (k) On 31 December 2010, Council and supporting agency representatives began discussions for phased recovery of Theodore infrastructure, public health issues and waste management.
- (l) On 4 January 2011, the Theodore Task Force was sent to Theodore to conduct damage assessments.
- (m) On 5 January 2011, the Theodore Task Force and all external agencies were sent into Theodore along with the Rapid Response Team, to conduct initial damage assessments.

8. Any local measures taken or requested to preserve vital infrastructure and to manage, maintain or reinstate the supply of essential services (water, food, power, transport, communications and/or sewerage) during the 2010/2011 flood events.

(a) Ergon Energy Infrastructure:

- (i) In the lead up and during to the floods Council worked closely with Ergon personnel to maintain supply and disconnect supply when and where it was warranted. Some electrical installations, e.g. Street lights, had to be removed to allow helicopter operations within Theodore.
- (ii) After the floods Ergon restored power as soon as practicably possible.
- (iii) Power supply was cut to Baralaba from 27 December 2010 to 29 December 2010. Our advice was that some of the infrastructure had tripped cutting off the power and Ergon had difficulty locating and accessing the sites to reset the equipment.
- (iv) Further details can be obtained from Ergon Energy.

(b) Communications (Telstra)

- (i) As a result of power losses in Baralaba, telephone communications were also impacted. Once mobile phone batteries depleted communications to the area could only be achieved through QPS radio links.
- (ii) On 30 December 2010, a generator was air lifted into Theodore to provide power supply to the mobile phone communication tower.

(c) Water Supply (Council)

- (i) On 27 December 2010, the water tower on The Boulevard, Theodore was filled with potable water and the town water supply system was turned off by Council treatment plant operators.
- (ii) On 5 January 2011 as water receded, the raw water intake and Water Treatment Plant became accessible. Council staff identified the potential need for two more water river pumps (located on the Dawson River) and two high lift pumps (located at the Water Treatment Plant) in an effort to reduce down-time. This was a precautionary measure as at this time pumps were still inundated and the extent of damage to equipment was unknown. Pumps were sourced from ABS Waste Water Technology; however electricians and operators were able to repair/recommission the existing pumps.
- (iii) On 6 January 2011, a water treatment plant was delivered to Theodore by the Australian Army.

- (iv) In regards to the Baralaba intake, one of BSC's pumps was down and was unable to be reached due to flood water inundation. Woorabinda Aboriginal Council also has pumps in this intake and requested for BSC to meet with the CEO on-site on 17 January 2011 at 9.00am with a view to accessing their pumps. However, the meeting was rescheduled for a later time to due unforeseen circumstances by Woorabinda Aboriginal Council. They eventually inspected the pump electrical systems later that same day.
 - (v) The intake for Moura town water supply was also impacted by flood water. There was damage caused to the adjacent intake operated by Anglo Coal (Dawson Mine). Interim water supply arrangements for Moura were met by accessing water via the Queensland Nitrate Plant pump intake and Anglo Coal (Dawson Mine) pump intake.
 - (vi) For further information, please refer to **Attachment 7**.
- (d) Sewerage Infrastructure (Council)
- (i) On 27 December 2010, the Theodore Sewerage Treatment Plant (STP) became isolated due to inundation of the STP (at 1.75 metres). In addition, as flood waters rose, Pump Station 3 (Eleventh Ave) which pumps sewage from Theodore township to the STP was inundated. Ergon Energy shut off the power to Pump Station 3. In effect, the sewage could not be pumped to the STP.
- (e) Transport
- (i) There is no public transport available in the Shire.
 - (ii) Roads were systematically closed throughout the Shire as the impact of flooding occurred. All major supply routes including Dawson Highway, Leichhardt Highway and Burnett Highway were cut at some stage during the event and at times all were cut concurrently.
 - (iii) Theodore aerodrome runway length was restricted to 700m due to pre-existing pavement failure. The pavement failure was caused due to saturation during the March 2010 flood event. This extent of failure was increased over time to a point where it was necessary to close part of the runway. This Aerodrome is owned by BSC.
- (f) Food Supplies
- (i) Food supplies in most centres were relatively good since the flood event occurred over the Christmas period. Approximately 90 outlying properties were re-supplied with food and medical supplies via helicopter. Problems did occur with re-supply to food outlets as a result of flooding across the State which prevented the road transport of re-supplies.

9. Any information received or obtained concerning weather and flood forecasts or warnings, and the steps taken to disseminate that information to the community before, during and immediately after the 2010/2011 flood events.

- (a) The Local Disaster Coordinator was in constant contact with officers from Bureau of Meteorology (BOM) to discuss implications of recent recorded data and the potential projected impacts. While there was commendable assistance from these officers, there were a significant number of "black holes" devoid of recording stations in the catchment that significantly impacted on their ability to provide accurate projections; consequently the preparation for response was not as effective as it could have been. Tributaries of the Dawson River which did not have monitoring capability include Castle Creek, Ox Track Creek, upper reaches of Palm Tree Creek and Lonesome Creek. Several of the gauges are manual gauges and require someone to read them. Locations that require automatic monitoring stations will be identified as part of the Dawson River Flood Study being undertaken by BSC.
- (b) A Councillor and staff member/s of Council had established themselves at the SES shed in Theodore prior to the peak of the flood to provide a conduit between the LDCC and the community. Regular community updates on flood information were provided by the Councillor prior to and throughout the flood by way of public meetings held by the Chairperson of the LECC. The town was evacuated just before the peak of the flood.
- (c) Following the flooding of the Theodore SES shed, the local Police acted as a liaison for the distribution of the information of river levels at Theodore.
- (d) The LDCC issued regular Media Releases to media sources throughout the event. A total of 22 media releases were issued during the event. The Mayor and Deputy Mayor spoke to the media on a daily basis.
- (e) A community newsletter based on official information was emailed to a large number of residents of Theodore and surrounding areas by a local community organisation.
- (f) LDCC had continued video conference links with the informal Taroom LECC for the dissemination of information.

10. In relation to item 9, an indication of the source/s, accuracy and timeliness of that information for local purposes.

- (a) Weather and flood information was provided by the Bureau of Meteorology (BOM).
 - (i) Flood levels provided by BOM show some variances from the flood gauge reading measured by SES at Theodore.
 - (ii) Generally they were comparable with the readings in Moura.
 - (iii) Once localised storm flooding impacted Theodore, readings were provided to BOM from local sources to provide more accurate levels.
- (b) The Local SES at Theodore and Moura were monitoring flood gauges in their respective areas.
- (c) In Baralaba, a Council staff member and Local Police monitored the flood levels.
- (d) Queensland Transport and Main Roads provided information on road closures on its "131 940" website.
 - (i) There were a number of errors on this website in relation to road closures. Some roads were indicated as open, when they were closed. Also, the Department of Transport and Main Roads website appeared not to be equipped to handle the sheer amount of enquiries for a state wide event of this magnitude.
- (e) Council regularly monitored its roads and provided information to the DDCC and LDCC for relay to emergency services and the media.
 - (i) Difficulties were experienced in providing timely and accurate information due to the extent of flooding as it was not possible to get to all roads and conditions could change quickly.
 - (ii) Council provided information to Department of Transport and Main Roads where possible.
- (f) The information provided by local property owners was valuable in assessing the potential flood levels and subsequent impacts in Theodore, Wowan and Taroom.

11. Any local measures undertaken to protect life and private/public property in connection with the 2010/2011 flood events (such as road/bridge closures, evacuation arrangements, etc), and the steps taken to disseminate information about those measures to the community before, during and immediately after the 2010/2011 flood events.

- (a) Council closed a number of roads due to flooding, particularly higher order roads as there was insufficient signage to cover all roads. Please refer to **Attachment 8** for road names, dates and times.
- (b) Road closures were disseminated via the media and email to emergency organisations, LDCC and DDCC.
- (c) Theodore residents were evacuated by helicopter to Moura. High care and some elderly were evacuated to Biloela.
- (d) Information regarding the evacuation was disseminated via the Councillor and Council staff located at the SES in Theodore through twice-daily community meetings and directly visiting businesses. Information was also disseminated via LDCC media releases, public announcements and newsletters.
- (e) LDCC had set trigger points for road closures and evacuations in Theodore. As trigger points were reached, affected property owners were contacted directly. DTMR assessed the Highway to determine traffic ability when the water reached 200mm in depth. The trigger point for the evacuation to commence at Theodore was 13.7 metres Dawson River depth.
- (f) A Theodore community member from the evacuation centre in Moura was utilised as a point of contact for the dissemination of information. Regular meetings were held in Moura to disseminate information.
- (g) A Council newsletter was distributed to residents at the evacuation centre once daily.

12. The circumstances of any rescues or evacuations performed in the local area in connection with the 2010/2011 flood events, including an assessment of the adequacy and timeliness thereof.

(a) Theodore Evacuation

- (i) The evacuation of Theodore, once commenced, generally proceeded well. The main issue which affected evacuations was the need to obtain quotes from helicopter services prior to the evacuation which delayed the operation by several hours. Preferred suppliers should be selected well before the storm season to eliminate delays during an event.

(b) Other areas within the shire

- (i) Some people in more remote areas had to be evacuated by helicopter. Most were responded to early however one in particular waited several hours before being rescued. Please refer to Request for Assistance Number 5 (**Attachment 9**).

13. The circumstances of the establishment, and subsequent operation and performance, of any Evacuation Centre/s in the local area, including an assessment of any particular difficulties encountered.

(a) Theodore evacuation to Moura

- (i) The people evacuated to Moura were accommodated in Single Persons Quarters provided by Anglo Coal and motel rooms. Anglo Coal managed this part of the operation quite successfully, however the scale of the operations was much larger and of a longer duration than they anticipated.
- (ii) By the time Red Cross activated to co-ordinate this activity, it was in operation and Red Cross took an observer role rather than assuming the responsibility for the management of the evacuation. Consequently, there were some issues with complaints that differing levels of support was being provided to the extent that some evacuees who went to places other than Moura tried to relocate to Moura.

(b) Theodore evacuation to Biloela

- (i) The residents of Theodore who were evacuated to Biloela generally comprised those requiring special needs, such as the aged and infirm. These people were transferred to the Biloela Hospital for appropriate care.

(c) Other areas within the shire

- (ii) Some evacuees chose to stay with relatives and friends of their own volition.

(d) Due to the tight timelines for the evacuation as a result of the delays in securing helicopter services, the evacuation process was not as comprehensive as would normally be planned. This resulted in some difficulties reconciling evacuee lists and required additional resource allocation to complete.

(e) Due to the rapid escalation of the flooding and the subsequent isolation of Moura by road, Kianga Hall was unable to be properly set up as an Evacuation Centre for the volume of evacuees.

14. The circumstances of any flood-related human fatality within the region, including the measures taken to prevent and/or respond to any such fatality, during the 2010/2011 flood events.

(a) No human fatalities were recorded.

15. Any involvement had with State or Federal agencies, including particularly the Queensland Police Services, in relation to the provision of emergency response measures, personnel, equipment, services or logistical support, together with an assessment of the adequacy and timeliness thereof, during the 2010/2011 flood events.

Overall, Council is satisfied with the performance and support of the listed agencies during the event. In particular:

- (a) Queensland Police Service
 - (i) A permanent member of the LDMG.
 - (ii) Present in the LDCC throughout the event.
 - (iii) On site in all communities under threat or affected during the event.
 - (iv) Provided security in township of Theodore after evacuation of residents.
 - (v) Provided information on conditions of Theodore to LDCC following evacuation of residents.
- (b) Queensland Ambulance Service
 - (i) A permanent member of the LDMG.
 - (ii) Present in the LDCC throughout the event.
 - (iii) Assisted in on-site recovery operations.
- (c) Emergency Management Queensland
 - (i) A permanent member of the LDMG.
 - (ii) Present in the LDCC throughout the event.
 - (iii) Assisted in recovery operations.
- (d) Queensland Fire and Rescue Service.
 - (i) A permanent member of the LDMG.
 - (ii) Present in the LDCC throughout the event.
 - (iii) Assisted in on-site response preparations.
 - (iv) Assisted in on-site recovery operations.
 - (v) Provided Swift Water Rescue team.
 - (vi) Provided Rapid Assessment Team.

- (vii) Provided Air Traffic Control.
- (e) Department of Communities
 - (i) Assisted in on-site and LDRG recovery operations.
- (f) Building Services Authority
 - (i) Assisted with assessment of flood affected residences in Theodore.
 - (ii) Provided building information to residents.
- (g) Australian Defence Force
 - (i) Provision of Black Hawk helicopters for re-supply.
- (h) Telstra
 - (i) Maintenance/continuity of service as part of the recovery process.
- (i) Ergon Energy
 - (i) Provide initial assessment and reestablishment of power supplies.
 - (ii) Monitoring level of risk with water levels and power supplies.
- (j) SunWater
 - (i) Provide information on water levels in various communities.
- (k) Queensland Health
 - (i) A permanent member of the LDMG.
 - (ii) Present in the LDCC throughout the event.
 - (iii) Assisted in the re-supply of medical supplies.
 - (iv) Assessment of water quality testing results.
 - (v) Assisted with evacuation of hospital/aged care patients from Theodore.
 - (vi) Provided immunisation programs during the repatriation of Theodore.
- (l) Bureau of Meteorology
 - (i) Provision of river height, rainfall data and forecast and predictions.
- (m) Q-Build
 - (i) Assisted with assessment of flood affected residences in Theodore.

- (ii) Provided building information to residents.
- (n) Department of Environment and Resource Management
 - (i) Assisted in release of effluent from Sewerage Treatment Plant.
 - (ii) Offered the issue of a Temporary Environmental Plan for the disposal of waste in Theodore.
- (o) Department of Employment, Economic Development and Innovation
 - (i) Assisted with recovery process.
- (p) Department of Transport and Main Roads
 - (i) Liaised with LDCC regarding road closures and openings.
 - (ii) Assessment of State roads.
- (q) Centrelink
 - (i) Assisted with the recovery process.

16. The nature and timing of any communications within the disaster management hierarchy, including particularly any communications had with the District Disaster Coordinator (DDC), the State Disaster Coordinator or the State Recovery Coordinator, and whether any direction/s were given by the DDC and the nature of any such direction/s.

- (a) Communications with the State Disaster Coordination Centre (SDCC) had particular impact on the operations of the Local Disaster Coordination Centre (LDCC). Due to the initial lack of BSC personnel during the event over the Christmas period, the requirement to participate in phone link-ups with the SDCC drained much needed resources. The main issue was the amount of time needed for participants to log-in across the state and then the time it took to receive reports from individual centres. A regional approach to this communication may save some valuable time for LDCC members.
- (b) SDCC needs to review their communication operations during telephone conferences as valuable time is taken up during the role call and information is missed as participants join and leave the phone conference.
- (c) Similarly, the timing of Situation Reports ("SitReps") should be better co-ordinated between DDC and SDCC so that information provided by LDC could be used to provide the state update.

17. An assessment of the adequacy of equipment and communications systems in the local area during the 2010/2011 flood events.

EQUIPMENT

- (a) From the perspective of the LDCC, the availability of equipment was generally adequate for the task. As Council IT staff were on leave at the time of the event, a local IT person was secured in preparation of any system disruptions that could potentially occur.

COMMUNICATIONS

- (b) The most apparent issue was that of the ABC radio broadcasts: Taroom receive their broadcasts from Toowoomba, Theodore from Longreach and the remaining part of the shire from Rockhampton. Consequently not all information was delivered in a timely manner, if at all in some cases. ABC Radio has the best coverage of the Shire and is critical for the dissemination of information. A consistent and reliable single point of distribution of information is needed.
- (c) Operational communications of the LDCC, e.g. phones, two-way radio, emails, etc. were satisfactory during the disaster.
- (d) There is a black spot in Baralaba which prevents communication with mobile phones.
- (e) Lack of generator back-up at mobile phone towers was an issue, specifically at Theodore. However, BSC have concerns that other mobile phone towers within the Shire are affected by this issue. Further follow up with Telstra is required.

18. An assessment of the adequacy of the community's response in the local area during the 2010/2011 flood events.

- (a) The community generally responded quite well during the disaster. Information provided to and from the LDCC, Interim LECC and SES proved invaluable both to the community and the LDCC.
- (b) A local community member initiated a newsletter which was sent via email to in excess of 400 residents in and around Theodore as well as to the Interim LECC and LDCC. The newsletter provided timely information and advice to residents on the current flood situation.
- (c) The interim LECC Chairperson held community meetings at Theodore SES shed twice daily to provide updates on issues such as flood levels, local rainfall, road closures and other relevant flood related matters. Advice that meeting were to be held was advertised by the local QFRS using megaphones. Meetings typically were held at 9:00am and 3:00pm. These meetings were well attended and seen as vital by the community.

- 19. Any measures being proposed, planned or implemented to prepare for, mitigate or manage future flood events (such as the installation of automatic river gauges, culvert management, levee construction and the like).**

FLOOD STUDY

- (a) Council had commenced the process for initiating a flood study of the Dawson River. The outcomes of the Flood Study will provide Council with mitigation strategies to minimise any flood impacts. Mitigation strategies will however by necessity be prioritised and programmed for implementation in Council budget.

NATURAL DISASTER RISK ASSESSMENTS (NDRAs)

- (b) While NDRAs had only been undertaken for part of the shire it will be imperative to review the current assessments in light of the recent floods and to carry out risk assessments for the remaining part of the shire.

ADVANCED WARNING SYSTEMS

- (c) Council is seeking funding from the Bureau of Meteorology for the installation of additional rainfall gauges and flood gauges in the Dawson River and tributary catchments to supplement existing gauges.

MITIGATION

- (d) Mitigation strategies such as levees, and improved road access during floods are planned but await recommendation from the flood study prior to installation/construction.
- (e) Improvements to Fifth Avenue, Theodore and Theodore-Eidsvold Road are needed to improve flood immunity. This includes raising the level of these roads to permit evacuation to the Theodore Aerodrome at the trigger point of 13.7 metres.
- (f) Reconstruct Theodore Aerodrome runway in order to strengthen the pavement to ensure continuity of operations during flood events.
- (g) Proposal to raise the height/level of the electrical components for essential services (ie. water and sewerage) to give better flood immunity to these essential services.
- (h) Initial discussions held with the Department of Transport and Main Roads to provide better flood immunity to State highways serving Banana Shire.
- (i) The Nathan Dam proposal will impact on flood levels. The extent and nature of flood mitigation potential as a result of the dam construction will influence how Council's mitigation strategies may need to be planned and programmed.

- (j) Construction of a high level bridge at the Dawson River at Baralaba would take away the need for Council to operate a ferry boat across the river. In times of moderate-major flood, Council is unable to operate this ferry boat due to unsafe conditions.
- (k) Upgrade levee bank at Goovigen to provide additional flood immunity.
- (l) Improve highway access to Wowan.
- (m) Investigation of the raising of the floor levels in the flood affected residences in the Shire.
- (n) Investigate installation/construction of levee banks at Jambin.
- (o) Investigate upgrade of levee banks at Moura to improve flood immunity.
- (p) Investigate the upgrade of the Nine Mile Creek crossing on Aerodrome Road, Thangool.
- (q) Obtain a generator for the Local Disaster Coordination Centre.

20. Advice as to any special consideration that should be given the local area by reason of particular regional or geographic differences.

- (a) Several communities in the Banana Shire are located on the banks of the Dawson River and in any major event in the Dawson River, all of these communities are likely to be affected.
- (b) The township of Theodore is built on the junction of the Dawson River and Castle Creek. A unique set of geographic conditions occur at this location:
 - (i) Castle Creek's direction of flow opposes that of the Dawson River, causing Castle Creek to flow in the reverse direction during flood times thereby restricting upstream flows, hence upstream flooding of Castle Creek can be exacerbated.
 - (ii) The topography of Theodore is such that it lies on a plateau between the two riverine systems. This means that once water reaches the critical level of the plateau the town can flood relatively quickly. Flood height predictions need to be accurate and are crucial to evacuation planning.
 - (iii) Similarly, the topography of the surrounding countryside is flat and the network of smaller streams and tributaries of the Dawson River can spread floodwaters over a vast area.
- (c) Banana Shire has/will have a number of gas pipelines throughout the shire managed by several companies as well as a proposed new rail link from the Surat Basin to Gladstone. These infrastructure projects could have the potential to impact on LDMG/LDCC management and operations.

21. Advice as to any feature of the disaster preparation and planning stages or the disaster response and recovery operations which presented particular difficulty or may require practical or legislative change to improve future disaster management in the local area.

DEFENCE FORCE ASSISTANCE

- (a) The engagement of the Defence Force proved to be difficult due to delays in getting to Banana Shire. Likewise there was a lack of communication between the defence personnel and the LDMG.
- (b) Another issue was the lack of information regards what support could be provided by the Defence Force. e.g. It was not known that night flights by Blackhawk helicopters would not be possible prior to them meeting with LDCC members.

AIR TRANSPORT

- (c) The arrangements for acquiring private helicopters while maintaining control of services tended to slow the process down particularly when chasing quotes during a critical period of the disaster. Pre-qualified suppliers of these services should be available to minimise potential delays.

ROAD ACCESS

- (d) The flood immunity of the State Highways and declared road network is relatively low. The Dawson, Leichhardt and Burnett Highways have a significant number of low level bridges and drainage structures which can be vulnerable to minor flooding let alone the events of 2010/2011. Strategic upgrades of these structures could prevent extended road closures during flood events and provide vital links to affected communities.
- (e) All highway connections throughout the shire were impacted in some way. One important link to Gladstone via the Dawson Highway was cut by floodwaters for several hours on 26, 27 and 28 December 2010. This link was found to be vital for supply. Sheep Station Creek 25 kilometres west of Calliope proved to be the major setback in maintaining this link.
- (f) The Theodore Eidsvold Road, from Theodore to the Theodore Aerodrome was flooded and closed on 24 December 2010. Improved flood immunity of this road would enable better evacuation planning. The ability for us to use fixed wing aircraft instead of helicopters would allow for an extended evacuation period as well as the ability to relocate a greater number of people in a shorter period of time.

NEIGHBOURING COUNCILS

- (g) Approximately 12 re-supply requests were fielded from residents from neighbouring Council areas which required the LDCC to obtain mapping resources from those Councils, e.g. the catchment of the Dawson River extends into the neighbouring Central Highlands Regional Council. Re-supply was handled by Banana LDCC in these cases.

RURAL LEVEE BANKS

- (h) A number of levee banks exist around Theodore, Moura and other areas along the Dawson River and other streams in the shire. Many of these levees have been constructed by local farmers to protect their crops, e.g. cotton and grain. Concerns have been raised by the public and Council as to the potential for diverting flood waters away from the natural flow path and impacting on other properties and infrastructure.



Signed by Collin Head

5.4.2011

Date