

Brisbane City Council  
**QUEENSLAND FLOODS  
COMMISSION OF INQUIRY**



*Dedicated to a better Brisbane*

**Submission Three  
8 April 2011**

**QUEENSLAND FLOODS COMMISSION OF INQUIRY**  
**BRISBANE CITY COUNCIL SUBMISSION No. 3 - 8 APRIL 2011**



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## 1. INTRODUCTION

- 1.1 On 11 February 2011, the Commission called for, relevantly, written submissions relating to issues of flood preparedness relevant to next summer's wet season (particularly dam operations, early warning systems and responses) to be received by the Commission by 5pm on 11 March 2011.
- 1.2 Consistent with that requirement, on 11 March 2011, the Brisbane City Council (**Council**) provided a submission dealing with these matters (**Council's Initial Submission**). That submission focused primarily on matters within the scope of Terms of Reference 2(a) and (c). Council's Initial Submission did not deal in any detail with matters falling within the scope of Term of Reference (f), and in particular matters relating to the operation of Wivenhoe and Somerset Dams during the flood event.
- 1.3 Some issues have now arisen which appear to involve or relate to Council and this submission is directed at elucidating Council's involvement in relation to those matters. These submissions might be sought to be supplemented once the nature and extent of any issue involving Council is clarified.

## 2. COUNCIL'S INTEREST IN DAM OPERATIONS DURING FLOOD EVENTS

- 2.1 Council is necessarily vitally interested in the operation of Wivenhoe and Somerset Dams during flood events. Information about Dam operations during flood events is important in a number of respects, particularly:
- (a) Where relatively small releases are involved, information about releases from the Dams can be used by Council to determine likely impacts on Council activities on the River itself, particularly ferry and City Cat services;
  - (b) Where more significant releases are involved, information about releases from the Dams, together with information about downstream flows, allows modelling of flood levels in the River. That information can then be used by Council's flood management engineers (operating as the Flood Information Centre (**FIC**) during flood events) to determine the likely levels of, and location of, inundation in the City. Council does not carry out the complex modelling of flows to produce predicted flood levels. That work is carried out by the Bureau of Meteorology (**BoM**). Seqwater and the Flood Operations Centre (**FOC**) (during flood events) provide the necessary information about Dam releases to BoM to allow it to carry out that modelling. BoM then provides information to Council about predicted levels at six key gauges between Wivenhoe Dam and the River mouth. It is this

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information which Council uses to interpolate inundation levels and locations in the City; and

- (c) Through its Local Disaster Management structure (dealt with more fully in the Council's Initial Submission), Council is the primary source of information for residents and businesses about flood events. Accurate and timely information about Dam operations is necessary to allow Council to keep residents and businesses of the City informed during a flood event.

### 3. **THE COMMUNICATIONS PROTOCOL**

3.1 In respect of the matters in paragraphs 2.1(a) and 2.1(c) in particular, it is important that Council receives regular and accurate information about Dam operations. It is important, particularly where communications with the public are concerned, that uniform information is provided by local governments (including Council) and other key inter-governmental agencies, particularly Seqwater and BoM.

3.2 There were some inconsistencies in communications during localised flooding in October 2010. It was a concern to ensure accuracy and consistency in the public communications by interested inter-governmental agencies (including especially, in the case of Brisbane, Seqwater, BoM and Council) that the Protocol for the Communication of Flooding Information (**Protocol**) was developed in the latter part of last year. In parallel, BoM, Seqwater and Council had a series of technical capability meetings to further improve communication between these agencies.

3.3 The Protocol mapped out in a formal way the respective roles and responsibilities of each of these three agencies in respect of flood events. Importantly for present purposes, it documents the following specific matters:

- (a) In respect of monitoring and assessment of flood events, the Protocol relevantly provides that:
  - (i) Seqwater shares predicted floodwater releases with BoM and Councils;
  - (ii) Councils share information on the status of the Brisbane River Catchment and its river systems with BoM and Seqwater; and
  - (iii) Councils identify flood inundation areas and assess impacts for their communities and regularly share this information with all relevant parties.



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- (b) In respect of public communications issues, the Protocol relevantly provides that:
- (i) Each agency has its own responsibilities to issue information commensurate with their role without prior approvals. The obligation under the Protocol is to share that information and operate within a fully consultative process to ensure consistent public information;
  - (ii) The BoM, local governments and relevant State Government agencies are to maintain continual discussions to ensure conflicting information is not released at any time; and
  - (iii) Harmonised public communications messages will be released from the following agencies:
    - A. BoM: concentrating on flood warnings;
    - B. local governments/Local Disaster Management Groups: concentrating on the effect of weather-related events and safety for their local communities. Local governments have primacy of public communications within their community; and
    - C. SEQ Water Grid Manager: if significant floodwater releases from Wivenhoe and Somerset Dams are involved, the SEQ Water Grid Manager concentrates on communication aspects of release timings and duration of effects. Seqwater operational staff are to ensure that technical information is communicated (relevantly) to local governments.

3.4 Although not formally adopted by all agencies, Council considers for its part that it conducted its operations and communications in accordance with the Protocol and other agencies, including the FOC, appeared to do likewise. Moreover, with the benefit of hindsight, the adoption of the Protocol appears to have ensured the provision of clear, accurate and robust information.

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#### 4. COUNCIL'S DEALINGS WITH THE FOC DURING THE FLOOD EVENT

4.1 Council's dealings with the FOC during the January 2011 flood event were consistent with Council's role in disaster management and under the Protocol. In particular, it received regular communications from the FOC as follows:

- (a) The FOC informed Council about actual and predicted releases at various points during the flood event;
- (b) Council received copies of each of the FOC's Situation Reports as issued; and
- (c) The FOC duty engineer or engineers communicated by telephone from time to time with FIC so as to keep FIC informed about current and future strategy for releases.

4.2 All three categories of communication were consistent with the Protocol and allowed Council to ensure that its Local Disaster Coordination Centre Situation Reports were accurate and consistent with information being released by the FOC.

4.3 Council also on one occasion communicated to the FOC that FOC's Situation Report was inconsistent with the Council's position on likely damage from inundation. That communication occurred on the early morning of Monday 10 January 2011. In brief, Mr Morris of Council informed the FOC duty engineer that a statement about consequences of releases for property damage in the 9.00pm FOC Situation Report was incorrect and would be inconsistent with the Council's own Situation Report. The FOC accordingly omitted references to likely property damage from its future Situation Reports. Once again, this is an example of the Protocol working. Council communicated to FOC about a matter within the scope of its responsibilities (assessment of impacts of flows on property in the City) upon which it considered the FOC communication to be in error. FOC omitted further references and left that matter to the Council for its Reports.

4.4 In the same conversation, Council stated to the FOC that the combined flow below Moggill of 3,500 cumecs would be likely to avoid inundation of properties (rather than the 4,000 cumecs referred to in FOC's Situation Report) and invited the FOC to consider if releases could be at a level which did not exceed that combined flow. It appears that the FOC carried out modelling and, based on that modelling, sought to meet that limit for some hours on Monday 10 January, abandoning that course when it appeared to be no longer appropriate. This is the type of inter-agency cooperation and sharing of experience and knowledge that maximises the response to an extreme event and ensures dam operations which maximise their effectiveness within their operating confines.

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4.5 Again, this communication was consistent with the Protocol (and indeed common sense). Council communicated with FOC about a matter which was within its role and responsibility (impacts of flooding in the City). It was then a matter for the FOC to consider its own response to this information.

## 5. RESPONSIBILITY FOR FLOOD OPERATIONS

5.1 The Protocol, important as it is to proper communications between agencies and with the public, does not alter the statutory responsibility for flood operations under the legislative scheme regulating the Dams. Accordingly, while Council has a necessary and vital interest in the operations of Wivenhoe Dam during flood events, it has no statutory role in, nor any statutory responsibility for, dam releases or flood mitigation for Wivenhoe Dam. That role and responsibility lies with Seqwater and, during a flood event, the FOC.

5.2 The statutory framework for flood mitigation for significant dams in Queensland (*referable dams*<sup>1</sup>) is contained in the *Water Supply (Safety and Reliability) Act 2008 (Qld)* (the **Water Supply Act**).

5.3 Section 3 of the Water Supply Act relevantly provides that:

- (a) the purpose of the Water Supply Act is to provide for the safety and reliability of water supply; and
- (b) the purpose is achieved primarily by providing for, relevantly, the regulation of referable dams and flood mitigation responsibilities.

5.4 Chapter 4 of the Water Supply Act deals with referable dams and flood mitigation.

5.5 “Referable dam” is defined in s.341 Water Supply Act. The definition defines a referable dam by reference to the impact rating of the dam under a failure impact assessment undertaken pursuant to the Act. Wivenhoe and Somerset Dams are referable dams.

5.6 Flood mitigation is dealt with in Part 2 of Chapter 4 Water Supply Act. It regulates flood mitigation responsibility by reference to statutory flood mitigation manuals.

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<sup>1</sup> S. 341 *Water Supply (Safety and Reliability) Act 2008*.

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- 5.7 In particular, under the statutory scheme created by Part 2, relevantly:
- (a) the owner of a dam may be required by regulation to prepare a flood mitigation manual containing operation procedures for flood mitigation for the dam: s. 370(1);
  - (b) the chief executive of the relevant department may approve the manual for a period of not more than five years, such approval to be notified by gazette notice: s. 371;
  - (c) an owner of a dam who observes the operational procedures in a flood mitigation manual, approved by the chief executive, for the dam does not incur civil liability for an act done, or omission made, honestly and without negligence in observing procedures: s. 374(2);
  - (d) if s.374(2) prevents civil liability attaching to a person, the liability attaches instead to the State: s. 374(3); and
  - (e) the "owner", for the purpose of s.374, includes the operator of the dam and directors, employees and agents of the owner or operator of the dam: s. 374(4).
- 5.8 It can be seen from the above that the Water Supply Act provides for legal authority over the dam by its "owner", be it the actual owner of the dam or the operator of the dam, and legal responsibility of the "owner" for the operation of that dam. It then provides for the owner to have in place proper procedures for flood mitigation operations by ensuring that a flood mitigation manual (**Manual**) containing approved operational procedures for flood mitigation is in place, and to promote compliance with that Manual by conferring statutory protection from civil liability where the Manual is complied with.
- 5.9 In the case of Wivenhoe and Somerset Dams, the source of legal authority over the operations of the Dams lies with Seqwater and arises under the *South East Queensland Water (Restructuring) Act 2007* (Qld) (the **SEQ Water Act**).
- 5.10 By s. 6, the SEQ Water Act established the Queensland Bulk Water Supply Authority (Seqwater). Seqwater has broad statutory functions. For present purposes, those functions include carrying out of "water activities". Water activities are defined by Schedule 4 of the Water Act 2000<sup>2</sup> to include flood prevention and flood water control. Seqwater owns, operates and manages some 25 dams in South East Queensland, including Wivenhoe and

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<sup>2</sup> Which definition is incorporated in the SEQ Water Act by Schedule 3 as the definition of water activities.



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Somerset Dams. Seqwater's functions, therefore, include flood prevention and flood water control in respect of the Dams.

5.11 Council has no role in flood mitigation operations under the current approved flood mitigation Manual for the Dams. The current Manual (approved by the Chief Executive - the Director General, Department of Environment and Resource Management - on 22 December 2009) is Wivenhoe Manual Revision 7 (**Revision 7**). That Manual makes clear that responsibility for operating and maintaining the Dams and for flood mitigation operations lies with Seqwater. In particular, Seqwater must ensure<sup>3</sup>:

- (a) for the purposes of operation of the Dams during a flood event, that there are sufficient qualified personnel to operate the Dams;
- (b) there are sufficient qualified persons to operate the FOC during a flood event;
- (c) there is a duty flood operations engineer on call at all times who must monitor weather conditions and declare a flood event in specified circumstances;
- (d) there is a senior flood operations engineer in charge of flood operations during a flood event;
- (e) release of water during a flood event is carried out under the direction of the Duty Flood Engineer; and
- (f) all practical attempts are made to liaise with the Chairperson and Chief Executive if a release is likely to endanger life or property.

5.12 Seqwater is also responsible for the nomination of the senior flood operations engineer and flood operations engineers.<sup>4</sup> It is these engineers who are responsible for the direction of flood operations in accordance with the Manual, including making the judgments necessary to determine how to conduct flood operations within the scope of the strategies set out in the Manual and when to move from one strategy setting to another.

5.13 Neither Council, nor any other local government or body, has a role in the conduct of flood operations in accordance with the Manual. The only role for Council under the Manual is as a recipient of information. In particular, Seqwater must ensure that Council has direct access to

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<sup>3</sup> Clause 2.2

<sup>4</sup> Clauses 2.3 and 2.4

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information from field stations for flood assessment purposes: Clause 5.5. Council is also to obtain information during flood events: Clause 6.2.

- 5.14 While the Protocol recognises the appropriateness of communications from the FOC direct to Council, and of communications from Council to the FOC about matters specifically within the scope of Council's role in any flood event, it does not alter the responsibility for Dam operations during flood events. Council sought during the January 2011 flood to cooperate and provide relevant information consistent with the Protocol without inhibiting the exercise of those responsibilities by the FOC.

Colin Jensen

CHIEF EXECUTIVE OFFICER  
BRISBANE CITY COUNCIL