


Statement by Barry Kevin Dennien, sworn on 5 April 2011


1. I, Barry Kevin Dennien of Level 15, 53 Albert Street, Brisbane, Queensland, the Chief Executive Officer of the South East Queensland Water Grid Manager (**Water Grid Manager**) state the following on oath.
2. In this statement to the Queensland Floods Commission of Inquiry, as required in the letter to me dated 25 March 2011 (**letter**), I:
 - a. have provided all the information in my possession and identify the source or sources of that information; and,
 - b. make commentary and provide opinions I am qualified to give as to the appropriateness of particular actions or decisions and the basis of that commentary or opinion.
3. I provide this statement only in respect of the topics listed in the letter. I address each of those topics separately below.

TOPIC 1: THE REPORTING STRUCTURE OF THE SOUTH EAST QUEENSLAND WATER GRID MANAGER TO RESPONSIBLE MINISTERS

4. The Water Grid Manager has, since it came into existence on 1 July 2008, reported to two responsible Ministers.
5. In the period between 1 July 2010 and 21 February 2011, the Water Grid Manager reported to:
 - a. The Minister for Natural Resources, Mines and Energy and Minister for Trade, who was, at all relevant times, the Honourable Stephen Robertson MP; and

Signed: 

Barry Kevin Dennien


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- b. The Treasurer and Minister for Employment and Economic Development, who was, at all material times, the Honourable Andrew Fraser MP.
6. The Water Grid Manager has, since 21 February 2011, reported to the following two responsible Ministers:
 - a. The Minister for Finance and the Arts, the Honourable Rachel Nolan MP; and
 - b. The Minister for Energy and Water Utilities, the Honourable Stephen Robertson MP.
7. The reporting structure of the Water Grid Manager to the responsible Ministers is dictated by Administrative Order. The relevant Administrative Orders are as follows:
 - a. Administrative Arrangements Order (No. 1) of 2010.
 - b. Administrative Arrangements Order (No. 1) of 2011.
8. Copies of those documents are attached as **Annexure A** to my statement.

TOPIC 2: THE REPORTING STRUCTURE OF SEQWATER TO THE SOUTH EAST QUEENSLAND WATER GRID MANAGER

9. As a preliminary matter, I would point out that Seqwater, which is the trading name of the Queensland Bulk Water Supply Authority, also reports directly to the same two Ministers as the Water Grid Manager, by virtue of the same Administrative Orders referred to above.
10. Seqwater ‘reports’ to the Water Grid Manager pursuant to the Contract between Seqwater and the Water Grid Manager. That Contract was made by the Minister pursuant to Section 360ZDD of the *Water Act 2000* (Qld) (as amended).

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11. A copy of that Contract (as it presently exists) is attached as **Annexure B** to my statement. Under that Contract, Seqwater supplies water services to the Water Grid Manager, including the storage, treatment and transport of water to SEQ Water Grid Customers.
12. Seqwater also ‘reports’ to the Water Grid Manager pursuant to various communication protocols. Those include:
 - a. The ‘OCA Information Protocol’ by which all Grid Participants enter information into the OCA Incident Manager, the ICT platform for the exchange and communication of information for managing and responding to emergencies under the SEQ Water Grid Emergency Response Plan;
 - b. The ‘SEQ Water Grid coordinated communications implementation plan’, which requires Seqwater to communicate with the public, the Minister and others through the Water Grid Manager;
 - c. The current draft of the protocol for the communication of flooding information for the Brisbane River Catchment – including flood water releases from Wivenhoe and Somerset Dams. That protocol requires, amongst other things, that the Water Grid Manager is to centrally track all communications dealing with flood water releases and is responsible for liaising with Seqwater and others in order to coordinate communications related to flood water releases. Seqwater is specifically required, under the protocol, to provide technical situation reports to the Water Grid Manager insofar as any releases are proposed or undertaken.

TOPIC 3: MY OPINION AS TO WHETHER THE CAPACITY OF THE WIVENHOE AND SOMERSET DAMS (‘THE DAMS’) IS ADEQUATE FOR WATER SECURITY

13. I do have an opinion about whether the capacity of the Wivenhoe and Somerset Dams

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is adequate for water security. However, I am assuming that by ‘water security’, the Commission is referring to the ability of the Dams to provide adequate drinking water for that part of the South East Queensland region that is served by the Dams. This is principally the greater Brisbane area, Logan, the Gold Coast, Redlands, Moreton, Ipswich and the North Coast area excluding Noosa. This is also known as the connected Water Grid.

14. My opinion is based on my experience working as the Chief Executive Officer of the Water Grid Manager and previously in water supply and security for the Queensland Water Commission (QWC) and the Brisbane City Council.
15. In my opinion, the capacity of the Dams is adequate for water security (as defined above) up until at least 2017, when combined with the assets of the Water Grid as a whole. I refer the Commission to the ‘South East Queensland Water Strategy’, a copy of which is attached as **Annexure C** to my statement, which points out that supply is currently adequate up until at least somewhere between 2017 and 2032.
16. If the Dams were used for the purposes of ensuring water security in isolation, the capacity of the Dams would not be adequate, as was evidenced by the Millennium Drought experienced in South East Queensland beginning in 2001.

TOPIC 4: MY OPINION AS TO WHETHER THE CAPACITY OF THE DAMS IS ADEQUATE FOR FLOOD MITIGATION

17. I do not consider that I have the appropriate professional or other qualifications and access to the information necessary to provide a considered opinion to the Commission as to this topic.
18. In my view, the opinion sought ought to be obtained from a hydrologist and possibly other experts.

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19. In my experience working for the Water Grid Manager (or previously), I have not looked at the capacity of the Dams insofar as it relates solely to flood mitigation.
20. However, I consider that I should provide some views relevant to this topic based upon my observations and experience working as the Chief Executive Officer of the Water Grid Manager:
 - a. First, I would like to make the observation that the Dams only contain 50% of the rainfall catchment area which could cause flooding downstream from the Dams. Therefore, in considering the Dams' capacity to provide Flood Mitigation, it must be recalled that the Dams will only ever deal with 50% of the possible problem and other solutions for the flooding risks posed by the rainfall downstream should be considered.
 - b. Secondly, I would like to point out that the flood mitigation capacity of the Dams will be driven by the operation of the Manual of Operational Procedure for Flood Mitigation at Wivenhoe Dam and Somerset Dam (**Flood Mitigation Manual**). In broad terms, the objectives of the Flood Mitigation Manual (listed on page 1) are, in my opinion, acceptable. The prioritisation and definition or measurement methodology of the objectives, appear appropriate. I cannot comment on the appropriateness of the trigger points at which water is released and the release rates for each strategy to achieve each objective in the Flood Mitigation Manual as I am not qualified to do so, and nor do I have access to the appropriate information which would enable me to form such an opinion.
 - c. Thirdly, I would observe that in making any permanent changes to the Flood Mitigation capacity of the Dams, the trade-offs with other impacts ought to be considered. For example, it has been indicated that the Dams could provide greater flood mitigation if some water security was sacrificed, i.e. the Full Supply

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Level permanently lowered. Alternatively, the bridges downstream could be increased in size in order to mitigate against smaller flooding events, houses in flood prone areas could be bought back from their owners and other parts of the catchment downstream of the dam could have flood mitigation devices installed. A balancing exercise, in which all solutions are tabled and considered, should be undertaken before long-term decisions are made about whether the Dams (in isolation) are the solution to risks of flooding.

TOPIC 5: THE WATER SECURITY NEEDS OF SOUTH EAST QUEENSLAND UP UNTIL 2050 AND THE ABILITY OF THE DAMS TO MEET THOSE NEEDS

21. I would make the point that the Dams are not the sole means by which water security is provided for South East Queensland. Water security for South East Queensland is provided through the entire Water Grid. The Water Grid includes includes 12 connected dams, 10 connected drinking water treatment plants, three advanced water treatment plants producing purified recycled water, 28 water reservoirs, one desalination plant, 22 bulk water pump stations and 535 km of drinking water bulk water mains. In addition, water security is a function of both supply and demand management.
22. Prior to 1 July 2008, there were approximately 22 different bodies which were involved in the management and supply of water in South East Queensland, including Seqwater, the owner of the Dams. Those bodies were responsible for:
- a. The bulk supply of water;
 - b. The treatment of water;
 - c. The transport of bulk water;

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- d. The distribution in the retail sale of water; and
 - e. Wastewater collection and treatment.
23. All of those bodies had an impact, through their activities, on water security in South East Queensland.
24. The QWC was established in order to provide strategic advice to the Minister in relation to the water security in South East Queensland and the Water Grid Manager was established to operate the Water Grid to ensure that the strategic objectives set by the QWC were achieved (thus achieving water security).
25. The water security needs of South East Queensland up to 2050 are discussed in detail in a document entitled 'South East Queensland Water Strategy' (a copy of which is attached as **Annexure C** and discussed in paragraph 15 above). This Strategy has three key components. Firstly, it establishes a clear measurable objective, namely a water supply level of service. Secondly, it provides that demand for water should be managed in an efficient appropriate way for domestic and industrial uses. Thirdly, it regulates the operation of the Water Grid. That document was produced by the QWC and I believe it provides the requisite information to the Commission of Inquiry.
26. From 1 July 2008, largely via the *South East Queensland Water (Restructuring) Act 2007* (Qld), the South East Queensland Water Grid was established. The purpose of the establishment of the Water Grid was to increase and diversify water supply by building a new dam, groundwater supplies, and climate resilient desalination and recycled water supplies and connecting these and the existing water assets in South East Queensland to provide a uniform guaranteed water supply level of service. Secondly, it was to provide governance and institutional structure that enables a transparent separation of policy and planning functions from the efficient delivery of the water supply guarantee for South East Queensland.

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27. If the Dams were not connected to the Water Grid, and the current structure did not exist, in my opinion they would not be adequate for providing water security for South East Queensland up until 2050.

TOPIC 6: HOW THE FULL SUPPLY LEVEL WAS ORIGINALLY DETERMINED WHEN THE WIVENHOE DAM WAS BUILT AND THE REASONS FOR ANY SIGNIFICANT AMENDMENTS TO THE FULL SUPPLY LEVEL SINCE THAT TIME

28. I am not aware of how the Full Supply Level for Wivenhoe Dam (assuming that is the relevant Full Supply Level referred to) was originally determined when the Wivenhoe Dam was built. Nor am I aware of the reasons for any significant amendments to the Full Supply Level since that time.

TOPIC 7: MY ROLE IN RELATION TO THE FULL SUPPLY LEVEL OF THE DAMS

29. I do not have a direct role in relation to the Full Supply Level of the Dams.
30. The Full Supply Level affects two outcomes the Dams deliver: water supply and flood mitigation. Water supply policy and objectives are the responsibility of the QWC. It provides advice on those topics to the Minister for approval. The flood mitigation function of the Dams is managed by Seqwater which provides advice and the operating strategy of the Dams via the Flood Mitigation Manual. This latter document is also provided to the Minister for approval.
31. The Water Grid Manager is (and I as the Chief Executive Officer of the Water Grid Manager are) consulted if any changes to the water levels in the Dams are proposed. The reason the Water Grid Manager is consulted is because it is responsible for

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ensuring the operation of the Water Grid to achieve the strategic objectives set by the QWC so as to provide for water security. In that sense, I have an indirect role (as Chief Executive Officer of the Water Grid Manager) with the determination on Full Supply Level.

32. Further, pursuant to the South East Queensland System Operating Plan (**System Operating Plan**) and the relevant legislation, including the *South East Queensland Water (Restructuring) Act 2007* (Qld), the Water Grid Manager is responsible for buying water services from the bulk water suppliers (including Seqwater) and selling that water to the customers in the Water Grid. The System Operating Plan provides that the Water Grid Manager is allocated up to a maximum of 450,000 megalitres of water per year from the Water Grid. This allocation is the combination of water volumes from each individual source including the Dams. In that sense, where any changes to the Full Supply Levels of the Dams have the potential to impact upon the ability of the Water Grid Manager to fulfil its obligations under the System Operating Plan, I would have an indirect role to play (again, as Chief Executive Officer of the Water Grid Manager) in determining the Full Supply Levels. I would expect to be consulted so that the Water Grid Manager could advise upon the impacts of any change to Full Supply Level on its ability to provide water security for South East Queensland by complying with the mandate it receives from the QWC.
33. This process is consistent with the practice that was conducted over the period leading up to January 2011. For example, in December 2010, requests were made from Seqwater for Hinze Dam water levels to be lowered below Full Supply Level to allow construction works to be carried out. The Water Grid Manager assessed the operation of the Water Grid to achieve the strategic objectives set by the QWC so as to provide

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for water security¹, then checked with the QWC that it had no objections from an overall water security perspective.

TOPIC 8: MY ROLE IN ANY AMENDMENT TO THE FULL SUPPLY LEVELS OF THE DAMS

34. Again, I do not have any direct role in determining any amendment to the Full Supply Levels of the Dams.
35. For the reasons expressed above, I would have an indirect role in any amendment to the Full Supply Levels of the Dams, insofar as I would expect to be consulted (as Chief Executive Officer of the Water Grid Manager) should any change to the Full Supply Level be contemplated (so that the Water Grid Manager could advise whether or not change to the Full Supply Level of the Dams would impact upon its ability to comply with the strategic objectives laid down in the System Operating Plan and otherwise provide water security for South East Queensland).

TOPIC 9: MY ROLE IN RELATION TO DAM OPERATIONS AT WIVENHOE, SOMERSET AND NORTH PINE DAMS

36. The Water Grid Manager does have a communications function insofar as releases are proposed from Wivenhoe, Somerset and North Pine Dams. This is pursuant to the draft communications protocol discussed above, a copy of which is attached as **Annexure D** to my statement. That is the extent of my role (as Chief Executive Officer of the Water Grid Manager) in relation to dam operations at Wivenhoe, Somerset and North Pine Dams.

¹ Principally by having hydrological modelling undertaken to ensure that the reduction would not impact upon the ability of the Water Grid Manager to deliver the requisite service levels.

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TOPIC 10: WHEN, HOW AND WHY THE FULL SUPPLY LEVELS FOR THE DAMS, WHICH EXISTED AT THE TIME OF THE JANUARY 2011 FLOOD EVENT, WAS DETERMINED

37. I do not know when, how or why the Full Supply Levels for the Dams, which existed at the time of the January 2011 flood event, were determined.

TOPIC 11: AN ACCOUNT OF ALL DISCUSSIONS, CORRESPONDENCE, MEETINGS OR BRIEFINGS FROM 1 SEPTEMBER 2010 TO 31 MARCH 2011 I WAS INVOLVED IN REGARDING POTENTIAL CHANGES TO THE FULL SUPPLY LEVELS

38. To the best of my recollection, I was not involved in any discussions, correspondence, meetings or briefings from 1 September 2010 to 31 March 2011 regarding potential changes to the Full Supply Levels. As discussed below, I was involved in a number of discussions, meetings, briefings and exchanges of correspondence that dealt with a temporary reduction in the water levels of the Dams below Full Supply Levels.

TOPIC 12: PROVISION OF ALL NOTES MADE OF ALL DISCUSSIONS OR MEETINGS REGARDING POTENTIAL CHANGES TO THE FULL SUPPLY LEVELS BETWEEN SEPTEMBER 2010 TO MARCH 2011

39. I do not have any notes from any discussions or meetings regarding potential changes to the Full Supply Levels between September 2010 and March 2011.

TOPIC 13: MY OPINION AS TO WHAT THE FULL SUPPLY LEVELS OF THE DAMS SHOULD BE

40. I do not know what the Full Supply Levels of the Dams should be.

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41. I do not consider that I am qualified to provide such an opinion and it ought to be obtained from a hydrologist or possibly another expert in this area. Further, I do not consider that I have sufficient information upon which I could form such an opinion.

TOPIC 14: HOW (IN TERMS OF REGULATORY OR LEGISLATIVE CHANGES, DIRECTIVES TO OPERATORS, ETC), AND WHY THE AMOUNT OF WATER IN THE DAMS WAS DECREASED IN FEBRUARY 2011

42. I was not directly involved in the reduction of the Dam levels and do not know how the amount of water in the Dams was authorised to be decreased in February 2011.
43. The extent of my knowledge of why the amount of water was decreased is set out below in my response to topic 16. I understand that the amount of water in the Dams was decreased because, on 20 January 2011, the Minister requested Seqwater to advise whether the amount of water in the Dams could be decreased temporarily and Seqwater advised that it could be decreased for the reasons set out in their letter dated 4 February 2011. Copies of those letters are attached.

TOPICS 15 AND 16: DETAILS, INCLUDING VERBATIM ACCOUNTS WHERE POSSIBLE, OF ANY DISCUSSIONS, CORRESPONDENCE, MEETINGS OR BRIEFINGS REGARDING DECREASING THE DAMS LEVEL OR RELEASING WATER FROM THE DAMS TO DECREASE THEIR LEVEL IN DECEMBER 2010 OR JANUARY AND FEBRUARY 2011 (BUT WITHOUT ALTERING THE FULL SUPPLY LEVEL)

44. I would like to make two preliminary observations in answer to these topics:

- a. First, I attach, as **Annexure E** to my statement, copies of all letters and emails I

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have sent or received in the period between 1 October 2010 and 9 February 2011 insofar as they relate to releasing water from the Dams to decrease levels. I have included letters, emails and discussions from 1 October 2010 because the events in December 2010 and January 2011 would not make sense without referring to those. Similarly, I attach copies of all notes I made at any meetings or briefings that relate to releasing water from the Dams to decrease levels in the same period.

- b. Secondly, I would like to make it clear that I do not have a verbatim recollection of the discussions referred to below. I can recall the effect of the words that were used at various meetings and in certain discussions, but I cannot remember the exact words used. The statements I make below reflect the effect of what was discussed, to the best of my recollection after having refreshed my memory from various documents (copies of which are attached as discussed below).
45. A summary of all of the relevant correspondence I have been able to locate (with the assistance of my staff at the Water Grid Manager), and an account of all the relevant meetings, discussions and briefings I can now recollect, is set out below.
46. On 25 October 2010, the Minister wrote to the Chair of the Water Grid Manager.² I understand, from discussions with Mr Daniel Spiller (the operations director of the Water Grid Manager), that the letter was drafted in consultation with the Water Grid Manager. In particular, I understand from Mr Spiller that he drafted the text of the letter having spoken with the Office of the Water Supply Regulator, Department of Environment and Resource Management (**DERM**) and Seqwater about it.
47. In that letter, the Minister sought advice regarding options to and benefits of releasing water from key storages in anticipation of major inflows over the coming summer. In doing so, the Minister noted that recent releases from Wivenhoe Dam at that stage

² Mr Gary Humphrys

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(October 2010) had resulted in significant inconvenience and isolation for residents in some downstream areas. The Minister sought a response by the end of November 2010 as to the available options and likely benefits.

48. I understood, and understand, that this letter was directed to the Water Grid Manager as having responsibility for the Water Grid communications and insofar as the inquiry made by the Minister may have the potential to affect the short term supply of water to South East Queensland (given that the reduction was only proposed to be on a temporary basis) and the Water Grid Manager's ability to comply with the System Operating Plan.
49. On 25 October 2010, Dan Spiller wrote (by email) to Jim Pruss from Seqwater, copied to me, advising that the Water Grid Manager understood we would receive a letter requesting advice as to available options and likely benefits of releases from dams including Wivenhoe Dam and stating that that letter would be forwarded as soon as possible.
50. The Water Grid Manager also communicated the likelihood of the letter arriving from the Minister to the QWC, by way of an email dated 26 October 2010 at 7:37am from me to Ms Karen Waldman of the QWC³. This email was sent by me as a courtesy and because the Minister's request had the capacity to impact upon the overarching strategy for the management of the State's water resources (a matter within the Commission's remit).
51. On 28 October 2010, I received the Minister's letter in the mail.
52. On 28 October 2010, I forwarded to Karen Waldman from the QWC a copy of the Minister's letter.

³ Its Chief Executive Officer

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53. On 2 November 2010, I wrote to Mr Peter Borrows, the Chief Executive Officer of Seqwater, confirming that the Minister had sought urgent advice about whether the volume of water stored in the Dams could be reduced as a means of reducing the severity, frequency and duration of flooding in downstream areas. I enclosed a copy of the Minister's request and I sought Seqwater's advice by 19 November 2010.
54. On or around 10 November 2010, Mr Jim Pruss from Seqwater provided to Dan Spiller a draft advice by Seqwater's dam safety experts. Mr Spiller subsequently sent a copy of that email to me. The document from Seqwater examined a range of different scenarios for the reduction of the water level in Seqwater's gated dams to improve short term flood mitigation benefits. Amongst other things, the advice noted that, for major flood events impacting on urban areas, it was unlikely that peak water levels in Brisbane would be significantly impacted by minor reductions in the level of the Wivenhoe Dam and that reductions in dam volume in the order of at least 250,000 megalitres would be needed to provide any significant reduction in water level peaks experienced in urban areas. That advice also noted that such reductions would not necessarily guarantee reductions in urban flood levels because the distribution of rainfall in the Brisbane River catchment governed the extent of possible urban flooding.
55. On or about 18 November 2010, I asked Jim Pruss⁴ and Rob Drury⁵ to attend a meeting on 23 November 2010, at the offices of the Water Grid Manager, in order to discuss the draft advice provided by Seqwater on 10 November 2010 and the response to the Minister's letter. To the best of my recollection, I made that invitation by having my personal assistant send an invitation in Outlook to those gentlemen on that day.

⁴ The Executive General Manager, Water Delivery for Seqwater.

⁵ The Dam Operations Manager for Seqwater.

Signed: ...

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56. That meeting occurred on 23 November 2010. Attendees were myself and Dan Spiller from the Water Grid Manager and Jim Pruss and Rob Drury from Seqwater. At the meeting:
- a. Messrs Pruss and Drury summarised the views of Seqwater as to the issues raised by the Minister in his letter dated 25 October 2010;
 - b. Mr Spiller and I asked a number of questions as to the content of the report and the basis of the Seqwater advice about flood events involving total flows less than and greater than 3500 cubic metres per second measured at the Moggill gauge. In particular, we asked whether any modelling had been done with regards to large flood events involving total flows greater than 3500 cubic metres per second measured at Moggill gauge and whether that would be of any benefit;
 - c. Mr Drury advised that no modelling had been done on the higher flows and suggested that such modelling would take at least 6 months to perform.
 - d. Messrs Pruss and Drury stated to the effect that Seqwater's opinion was that:
 - i. the dam only controlled 50% of the Brisbane River catchment and therefore only had part control of flood impacts;
 - ii. whilst it was possible pre-emptive major releases of water from Wivenhoe Dam lowering the water level below Full Supply Level may have some benefit for flood mitigation, Seqwater's view was that major releases of water may not be of benefit for flood mitigation because it depended on the rainfall distribution during a flood event and that would not likely have any significant impact upon the height of floods downstream in the event that there was a major rainfall event;

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- iii. the unpredictability of weather forecasting made it difficult to judge releases from the dam to pre-emptively lower the storage if they were to be just hours or days before or during a flood event. Even releases well before a rainfall event would be difficult to manage. The releases might impact upon water supply security or damage property (such as bridges) downstream and impose a significant inconvenience and danger to residents downstream with no benefits if rain did not fall in the catchment above the dam wall; and
- iv. before any major releases were done to lower the dam below Full Supply Level, significant studies should be performed to determine whether the benefits outweighed the detriment to persons and property downstream from the Dams.

57. At the conclusion of the meeting, Mr Drury agreed to provide further written information in response to the questions asked by Mr Spiller and me during the meeting and report back to us as soon as was possible so that advice could be provided to the Minister, as he had requested.
58. On 1 December 2010, I emailed Messrs Pruss and Drury following up on their discussions on 23 November 2010 with regard to dam levels and flood impacts and advised that we were due to respond to the Minister by the end of November.
59. On 2 December 2010, Mr Drury sent me (copied to Mr Pruss and Mr Borrows) a draft report.
60. On 3 December 2010, I responded to Mr Drury (copied to Mr Pruss, Mr Borrows and Mr Spiller) asking several further questions about the draft report and, in particular, asking for clarification about the impacts and benefits of medium and large releases

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from the Dams for large flood events and about the modelling that had been done as to those issues.

61. On 8 December 2010, I emailed Mr Pruss and Mr Drury (copied to Mr Spiller and Mr Borrows) seeking a response to the earlier queries I had asked.
62. On 9 December 2010, Mr Drury sent an email to me (copied to Mr Pruss, Mr Spiller and Mr Borrows), responding to the questions that had earlier been asked.
63. On 13 December 2010, at the invitation of the Water Grid Manager, Minister Robertson attended a board meeting which I also attended. To the best of my recollection, at the board meeting:
 - a. the Minister was provided with a demonstration of the OCA Incident Manager⁶ and the Emergency Management Room⁷;
 - b. the Minister was also provided with an oral briefing as to:
 - i. the optimal operation of the Water Grid;
 - ii. the role of the Water Grid Manager in advising on Grid Capital Expenditure from a whole-of-grid perspective;
 - iii. Wivenhoe Dam's operating level for flood mitigation; and
 - iv. the effectiveness of communications between the Water Grid and the Minister's office.

⁶ The software that is used, in compliance with the Emergency Response Plan, to manage communications as between all Grid Participants insofar that relates to a water supply emergency.

⁷ A specific room at the premises of the Water Grid Manager that is devoted to the management of emergencies and was, as at the time of the inspection, newly in operation.

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- c. I made the majority of the oral presentation to the Minister (with some observations being made by Mr Spiller). I told the Minister that, insofar as the Wivenhoe Dam's operating level for flood mitigation was concerned:
- i. Seqwater had advised that a major reduction in the capacity of the dam below Full Supply Level was not advisable at this stage;
 - ii. Seqwater had advised that a great deal of modelling should be undertaken before any change to the levels of Wivenhoe Dam was contemplated and that this modelling would take in the order of 6 months;
 - iii. Seqwater advised, without modelling, that major reductions below Full Supply Level may be required in order to lower impacts for large floods. However estimated reductions varied greatly between 250,000 megalitres (21% of capacity) to 580,000 (50% of capacity) megalitres. Seqwater also stated these benefits diminished the bigger the flood because of the ratio of water coming into the dam to the size of the flood compartment.
 - iv. Seqwater had advised that large releases (that is, large releases when measured both by volume and rate) would have significant impacts downstream, including the disruption or damage to bridges and inconvenience and danger for downstream residents. These impacts had to be balanced against the possible benefits, which Seqwater saw as limited because of the unpredictability of rainfall distribution during flood events;
 - v. Seqwater had advised that pre-emptive releases in the days or hours before a major rainfall event was not recommended because of the difficulty in predicting exactly how much rain would fall and where it would fall and the

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impact of releases from the dam downstream in the event that there was either a high tide or significant rainfall downstream; and

- vi. Seqwater had indicated that a small reduction in the Dams of 5% would reduce the inconvenience of bridge closures and improve access for the communities in the mid Brisbane area.
64. On 24 December 2010, I wrote to the Minister, responding to his letter dated 25 October 2010, regarding the possibility of releasing from key storages in anticipation of major inflows. That advice was based upon information provided by Seqwater. The letter advised the Minister that the Water Grid Manager and the QWC had confirmed that releases of 5% of Wivenhoe and Somerset water would have negligible effects on the ability of the Water Grid Manager and the QWC to provide water security for South East Queensland. In the advice attached to the letter, the Water Grid Manager advised that Seqwater had confirmed that any impact to allow additional flood mitigation potential would require Wivenhoe Dam releases of at least 250,000 megalitres. The Minister was advised that such a release may have potential water security impacts and that a more detailed investigation was recommended, to be led by Seqwater and involving the Bureau of Meteorology, the local councils and the Water Grid Manager.
65. On 24 December 2010, I also wrote to the QWC by email requesting its approval for a letter to go to Seqwater advising that Wivenhoe and Somerset Dams' level could be reduced to 95% of their combined Full Supply Level for flood mitigation purposes. That approval was provided to me by email at approximately midday on 24 December 2010. Seqwater was advised of the same by email from me at approximately 2:32pm on 24 December 2010.

Signed:



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66. At 4:31pm, Mr Borrows from Seqwater queried of me (by email) whether the letter was a direction to release the water to levels below Wivenhoe, Somerset and North Pine's Full Supply Level. At 4:53pm of 24 December 2010, I responded to that by e-mail.
67. On 20 January 2011, the Minister wrote to the Chair of the Water Grid Manager enclosing a copy of a letter to Mr Phil Hennessey, the Chair of Seqwater. The Minister asked the Water Grid Manager to assist to ensure that the requests in the correspondence to Seqwater were dealt with as a matter of priority.
68. The Minister's letter to Seqwater asked it to attend to a number of tasks, including a review of the water levels of the Wivenhoe and Somerset Dams.
69. On 25 January 2011, Seqwater organised a meeting of the Chairs and Chief Executive Officers of the QWC, and the Water Grid Manager, and the Director General of DERM and other departmental staff to discuss the Minister's letter and how Seqwater would carry out the Minister's request. The Deputy Chair of the Water Grid Manager (Mr Gordon Jardine) and I attended that meeting for the Water Grid Manager. I do not now recall in detail, let alone verbatim, who said what, but the substance and effect, in upshot, was:
- a. Seqwater would carry out any requisite modelling as regards flood mitigation; and
 - b. the QWC and the Water Grid Manager, respectively, would carry out any necessary modelling with respect to water security once Seqwater had established if it was permissible and appropriate to reduce the water level below Full Supply Level.
70. Following that meeting, the Water Grid Manager decided to ask for information as to the likely impact on water security from its consultant hydrologists in order to be in a

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Barry Kevin Dennien

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~~[Justice of the Peace/Solicitor]~~

position to advise Seqwater whether any proposed releases would impact upon the ability of the Water Grid Manager to comply with its service levels as specified in the System Operating Plan. Those hydrologists were asked to use the hydrology model that is provided under licence to the Water Grid Manager by the QWC to determine whether a temporary reduction in storage⁸ would impact on the ability of the Water Grid Manager to comply with the objectives and rules contained in the System Operating Plan and its ability to manage the operation of the Water Grid so as to ensure that there was adequate water supply.

71. On 31 January 2011, a meeting was convened in the Minister's board room between the Minister, the Chief Executive Officer of Seqwater, the Director General of DERM, myself and others at which Seqwater presented some preliminary modelling data.
72. On 1 February 2011, Seqwater convened another meeting between those who had met on 25 January 2011, (see paragraph 69 above) at which Seqwater at the outset gave a short update on its modelling. Then, the Director General of DERM requested Gordon Jardine, the QWC representatives and me to leave the meeting, which, I understand, then continued.
73. On 4 February 2011, I attended a meeting with Seqwater and others. At that meeting, Seqwater tabled a letter dated 4 February 2011 to the Minister responding to his correspondence dated 20 January 2011 and spoke to the contents of that letter. I was provided with a copy.
74. I am conscious that in a submission to this Commission on 4 April 2011, it was said that the Minister attended that meeting. I gave the instruction for that statement to the best of my recollection. I have had better opportunity since then to ascertain dates and I

⁸ It is important to note that these models do not deal with the likely impacts of flood waters or the impacts of the releases from the Dams, only the ability to supply water to SEQ from the Water Grid.

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was incorrect about the Minister's attendance on 4 February 2011. The Minister attended the 31 January 2011 meeting (paragraph 71) as I have said here.

75. The modelling of a temporary reduction of the water stored in Wivenhoe Dam until the end of the current wet season showed negligible impact in the probability of triggering a re-introduction of water restrictions over either a five or ten year time frame (known as Medium Level restrictions). That modelling showed that the probability of regional storages falling to 40% of combined capacity within five years would increase by less than 0.5%, if Wivenhoe Dam's water level was reduced to 75% of the volume of water which would be in the dam at FSL until the end of June 2011.
76. I subsequently wrote to Seqwater on 9 February 2011 formally confirming that the water levels could be temporarily decreased and advising that if a permanent reduction in the Full Supply Level of Wivenhoe Dam was being considered, that may have an impact upon the System Operating Plan's desired levels of service and that should be raised with the QWC directly.
77. Once the decision was made to release further water from Wivenhoe in February 2011 (which I understand, but do not directly know, was recommended by Seqwater and made by Minister Robertson), the Water Grid Manager's communications unit was involved in advising the public and the media of the proposed releases and I was copied into those communications.

TOPIC 17: AN ACCOUNT OF ALL BRIEFINGS PREPARED FOR THE MINISTER WITH THE RESPONSIBILITY FOR DAM OPERATIONS BY THE SOUTH EAST QUEENSLAND WATER GRID MANAGER

78. I attach, as **Annexure F** to my statement, copies of all briefings prepared for the Minister with the responsibility for dam operations by the Water Grid Manager in the

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period between September 2010 and the present. I have not been physically able to collate more than this at present given the short time within which I have had to prepare this statement. The extent of my recollection as to such briefings is contained in the documents.

TOPIC 18: AN ACCOUNT OF ALL COMMUNICATIONS I HAD OR ANY BRIEFINGS RECEIVED FROM THE FLOOD OPERATIONS CENTRE BETWEEN 1 AND 19 JANUARY 2011 (AND PROVISION OF ALL EMAILS, TEXT MESSAGES AND NOTES OF PHONE CONVERSATIONS)

79. I assume that the Flood Operations Centre referred to is that defined on page 2 of the Seqwater manual of operational procedures for flood mitigation at the Dams (and particularly revision 7 of that document dated November 2009).
80. That being the case, I did not have any direct communications with the Flood Operation Centre operated by Seqwater in the period between 1 and 19 January 2011. As discussed below, the Water Grid Manager received technical situation reports from Seqwater, which I assumed were coming from the Flood Operation Centre (but which I cannot know for certain).

TOPIC 19: AN ACCOUNT OF ALL COMMUNICATIONS WITHIN MY KNOWLEDGE, BETWEEN ANY OFFICER OF THE SOUTH EAST QUEENSLAND WATER GRID MANAGER AND THE FLOOD OPERATION CENTRE BETWEEN 1 AND 19 JANUARY 2011 (AND PROVISION OF ALL EMAILS, TEXT MESSAGES AND NOTES OF PHONE CONVERSATIONS)

81. Insofar as I am aware, the only communications between any officer of the Water Grid Manager and the Flood Operation Centre conducted by Seqwater between 1 and 19 January 2011 was the receipt of technical situation reports which the Water Grid

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Manager received from Seqwater during that period. I assumed those were coming from the Flood Operation Centre (which I cannot know for certain).

82. All the facts and circumstances deposed to herein are within my own knowledge, save such as are deposed to from information only, and my means of knowledge and sources of knowledge appear in this my statement to the Commission.

Sworn by Barry Kevin Dennien on 5 April 2011 at Brisbane in the presence of:

Signed:



Barry Kevin Dennien

Taken by:



~~[Justice of the Peace/Solicitor]~~