

IN THE MATTER OF
THE QUEENSLAND FLOODS COMMISSION OF INQUIRY

A COMMISSION OF INQUIRY UNDER THE
COMMISSIONS OF INQUIRY ACT 1950

AND PURSUANT TO THE
COMMISSIONS OF INQUIRY ORDER (No. 1) 2011

STATEMENT OF BRETT WAYNE SCHULTZ

On 6 May 2011, Brett Wayne Schultz of C/- North Pine Dam, Protheroe Road, Joyner, states on oath:

Introduction

1. I am currently employed by Queensland Bulk Water Supply Authority (*Seqwater*) as Lead Dam Operator for North Pine Dam and Sideling Creek Dam. I have held this position since December 2010.
2. Before this, I was a Dam Operator at North Pine Dam from about July 1996 to December 2010. In this role, I was employed by SunWater until my employment transferred to Seqwater in about October 2007.
3. Between July 1996 and December 2006, I lived on site at North Pine Dam. Since 2006, I have lived approximately 5 minutes drive from North Pine Dam.
4. Between about August 1990 and about July 1996, I was employed by SunWater as Storage Supervisor (which is another name for Dam Operator) for Peter Faust Dam at Proserpine.
5. In total, I have in excess of 21 years experience in operating dams.
6. I am a qualified light marine mechanic.
7. This statement is provided to the Queensland Floods Commission of Inquiry pursuant to a "Requirement to Provide Statement" issued by the Commission dated 21 April 2011 (the *Requirement*). The statements I make below are my best recollections of the significant matters referred to in the Requirement which I have been able to prepare in the time since I received the Requirement.

Filed on behalf of: Queensland Bulk Water Supply Authority trading as Seqwater

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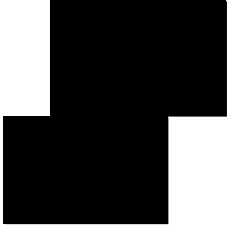
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My role at North Pine Dam

8. My primary role is to operate North Pine Dam.
9. My duties and responsibilities include:
 - (a) Surveillance and inspections of dam related infrastructure to ensure their safe efficient operation and to meet regulatory requirements. This daily surveillance is required in part because the dam is rated as an 'extreme' hazard category dam due to the population at risk in the event of a dam failure;
 - (b) Regular operation and exercising of any dam related infrastructure;
 - (c) Water distribution and releases to meet required water delivery needs;
 - (d) Operation and supervision of the operation of any dam related infrastructure during floods and other emergencies;
 - (e) During flood events, I operate the radial gates to release water downstream. This is done in accordance with the 'Manual of Operational Procedures for Flood Mitigation at North Pine Dam' (the *Manual*) under the direction of the Flood Operations Centre. When contact is lost with the Flood Operations Centre, I follow the Manual; and
 - (f) I train stand-by flood operators in the operation of North Pine Dam.
10. Malcolm Lane (*Mr Lane*) and I are the two full time Dam Operators of North Pine Dam and we work standard day shifts during the week.
11. In addition to this, Mr Lane and I alternate being on-call for a 7 day period. Whoever is on-call conducts a daily check of the storage level, main embankment and saddle dams. Otherwise, when on-call we are required to be no further than two hours' drive time from North Pine Dam. This is so that we can respond quickly to any unexpected weather event. The inflows of rainfall in the catchment can reach the dam within two hours, which gives us little time to prepare for outflows.
12. During Flood Events, a different staffing procedure applies.
13. In accordance with the Manual, a Flood Event is declared when the Duty Flood Operations Engineer expects the water level at North Pine Dam to exceed the Full Supply Level (*FSL*), which is EL 39.60. The Manual requires that releases from the radial gates should not commence until the lake level exceeds FSL by 50 millimetres. In other words, when the lake level reaches EL 39.65.
14. When a Flood Event is declared, the Flood Operation Centre (*FOC*) telephones either Murray Dunstan, Operation Coordinator (North) or myself. If the FOC telephones Murray, he then telephones myself or Mr Lane, if he is the person on call during this period. At this point, whichever one of us is on call, is mobilised and works the remainder of that shift. Our shifts are for a 12 hour period either 0700-1900 or 1900-0700. From that point, until the end of the flood event, we alternate in 12 hour shifts. We are on site throughout our shifts and we are supported by a stand-by flood operator. Usually, the stand-by

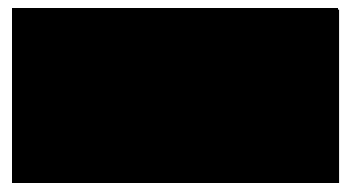
flood operator provides administrative assistance depending on the nature of the event, whilst I (or Mr Lane if he is on shift) physically operate the gates.

15. It is my understanding that after we have been contacted, the Flood Operations Centre then contacts Moreton Bay Regional Council and advises them that a Flood Event has been declared and to prepare for the possible inundation of Youngs Crossing, which is a road crossing downstream of North Pine Dam. It takes approximately 1 to 2 hours for water released from North Pine Dam to arrive at Youngs Crossing.
16. Following mobilisation, depending on who is rostered on, Mr Lane or I power up the gates, which is done by energising a number of control switches. For safety reasons, unless a Flood Event has been declared, these control circuits are not left switched on. The gates are powered by both mains power and a back up diesel generator. There is also an emergency stand by trailer which can be used to lift gates should mains power and diesel generator fail or there is another problem with the electric motor which drives the gates (for example, the motors are inundated by water).
17. After the gates have been powered up, the stand-by flood operator will be sent to physically check that the boom gates at Youngs Crossing have been closed. This process takes approximately 5 minutes. Once it has been established for certain that the Youngs Crossing boom gates are closed, I provide confirmation to the Flood Operations Centre.
18. I then wait for directives from the Flood Operations Centre regarding gate operations. Usually instructions are given verbally over the phone and then confirmed in writing by facsimile and/or email. As I explained above, if communications are lost with the Flood Operations Centre, I am required by the Manual to operate the gates in accordance with the pre-determined gate operation sequences detailed in the Manual.

Difficulties and issues in the operation of North Pine Dam between 6 and 14 January 2011 and suggestions to overcome such difficulties and issues

19. On 6 January 2011, a Flood Event for North Pine Dam was declared. I was mobilised at approximately 8.00 am. From that time for the remainder the event, I worked the 0700 to 1900 shift and Mr Lane worked the 1900 to 0700 shift.
20. The principal issues which arose during the Flood Event occurred on Tuesday, 11 January 2011. I worked the 0700 to 1900 shift that day, but stayed back some hours after 1900 to assist Mr Lane who came on shift at 1900.
21. On that day, very heavy rain fell in the Dam's catchment area. This resulted in a rapid increase in Dam inflows and very rapid rises in the lake level. In my time at North Pine Dam, I have never seen a similar event.

22. Although written directives were issued to the dam between 5.00 am and 8.15 am, the Flood Operations Centre (by Mr John Tibaldi) instructed me at around 8.00 am that until further directed I was to open gates in accordance with the Manual based on the rate of rise in the dam level.
23. Throughout the day I kept in touch with the Flood Operations Centre (by fax and phone) on roughly an hourly basis regarding the dam levels and gate openings.
24. During the day, I made in excess of 86 gate openings.
25. For each gate opening, I had to activate the controls on each gate. I have attached as **Annexure BWS1** a photograph showing the control box for Gate A. There is a similar control box for each gate.
26. From about 11 am until about the end of my shift, the area in which the control box for each gate is located was inundated with water, at times to about half way up my lower leg. The water was flowing.
27. I have attached as **Annexure BWS2** a series of photographs which were taken later in the day showing:
 - (g) the water in the area of the control boxes; and
 - (h) water flowing around and between the radial gates (water was not flowing over the dam crest).
28. This has never happened before during my time at North Pine Dam.
29. By way of further explanation of **Annexure BWS2**:
 - (a) Page 2 shows the control box area without water and page 3 shows the control box area later in the day on 11 January 2011.
 - (b) Page 4 shows water on top of the opened radial gates;
 - (c) Pages 5 and 6 show water passing around and between the radial gates onto the steps providing access to the control boxes;
 - (d) Pages 7 and 8 show water passing around and between the radial gates. The steps providing access to the control boxes are also shown to have flowing water affecting them.
30. The water which was flowing in the area of the control boxes gave rise to a personal safety risk because if I slipped and fell whilst in the area, there was a risk, given the velocity of the water, that I could have been washed out of the area. I was not wearing a safety harness during the day, although one was available.
31. There were other places from which I could have operated the radial gates. These included:
 - (a) the control room (inside the dam wall), which was not affected by water; and
 - (b) the local controls under the deck (directly above each radial gate), but the area in which these controls are located was also affected by water.



32. I elected not to operate from these locations because from neither location can the gates be observed whilst opening. I thought it was critical on the day to observe the gates opening so as to ensure the gates were behaving normally when opened.
33. Following the Flood Event, a duplicate electronic gate control panel was installed on the Dam Crest Level. This will allow gate operations to be undertaken from a much higher point should an event of the type experienced on 11 January 2011 occur again. I believe the installation of this duplicate gate control panel overcomes the issues which occurred on 11 January 2011. I have attached as **Annexure BWS3** a copy of a photograph showing the new location of the duplicate gate control panel.
34. Also, I advised Mr Tibaldi of the water flowing around and between the radial gates and I understand Mr Tibaldi, in consultation with the Dam Safety Regulator, has a process underway to assess the performance of the spillway during the event.
35. The only other issues of which I am aware are that:
- (a) during 11 January 2011 vehicular access to North Pine Dam was cut for a period of a few hours. This did not give rise to any operational difficulty as a number of mechanical and electrical staff were on site should issues have arisen;
 - (b) some stand-by operators live significant distances from North Pine Dam and we are now setting up the on-site administration centre as a temporary sleeping quarters with an appropriate food supply to support staff who would prefer to stay on site at the end of a shift rather than travel home if they feel tired.

SWORN by **BRETT WAYNE SCHULTZ** on 6 May 2011 at Brisbane in the presence of:

Deponent

Solicitor

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INDEX OF ANNEXURES**

Annexure No.	Document	Date	Page
BWS1	Photograph	N/A	1
BWS2	Series of photographs	N/A	2-8
BWS3	Photograph	N/A	9

