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Private & Confidential

8 February 2012

QFCI

Date: 11/2/12

Exhibit Number: 1142

Kyla Hayden
Executive Director
Queensland Floods Commission of Inquiry
400 George St
Brisbane QLD 4000

By Email

Dear Ms Hayden

Private and Confidential – Queensland Floods Commission of Inquiry: Examination of Excel Spreadsheet

Our Instructions

We refer to our current engagement where we are providing forensic technology assistance with respect to the above matter.

We also refer to your email dated 7 February 2012 where you have requested that we examine an Excel spreadsheet named "Event Log_Chloe Ver.xls" located on the hard disk drive you have provided in relation to this matter. You have asked us to provide the following:

- A summary of the metadata associated with the document;
- Our comments in relation to any hidden cells contained in the electronic version of the document; and
- Our comments in relation to the behaviour exhibited by the Microsoft Excel application where spreadsheets containing hidden cells are printed to hard copy.

My Qualifications

I am a Partner of McGrathNicol and the leader of its Forensic Technology practice. I am a Certified Computer Examiner and a member of the International Society of Forensic Computer Examiners. I have more than 20 years relevant experience, including 11 years specialist forensic technology experience

A copy of my curriculum vitae is attached as Appendix **D** to this letter.

Relevantly, my training, study and experience includes:

- Completion of a Masters of Business Administration at the University of Central Queensland. Completion of that degree included, inter alia, study in information technology and business processes;
- Completion of a Graduate Diploma in Information Technology Management at the University of Central Queensland. Completion of that degree included, inter alia, study in information technology and the management of information technology;

- Currently completing a Masters of Science at Swinburne University which includes, inter alia, the study of scientific methodologies for testing hypotheses and scientifically analysing data;
- Completion of the International Society of Forensic Computer Examiners examinations in computer forensics;
- Completion of the Guidance Software EnCase (EnCE) certification programme;
- Completion of industry training in computer forensics provided by Guidance Software and AccessData Corporation;
- More than 11 years training and experience in firms specialising in computer forensics. This training and experience includes:
  - Undertaking computer examinations for clients involved in litigation proceedings;
  - Preparing affidavits for presentation in Court with respect to forensic imaging, data analysis and metadata analysis;
  - Preparing affidavits for presentation in Court with respect to data search and electronic discovery methodologies;
  - Performing electronic discovery involving the identification of potentially relevant data, extracting data for review and providing data for use in legal proceedings;
  - Performing forensic imaging and data capture; and
  - Provision of computer forensic advice and evidence on a wide variety of matters involving the analysis of electronic evidence.

My Findings

Please find attached as Appendix **A**, a spreadsheet detailing the metadata recorded for the file I examined.

I have examined the document as requested and have found a large number of cells have been hidden in the electronic copy of the document.

The capability to hide cells in Microsoft Excel is a standard feature of the application and can be used to prevent cells containing formulas or other information from being displayed on screen while the document is open or printed to hard copy. The data in hidden cells, however, remains intact within the spreadsheet and can be unhidden by a user at any time.

With respect to hidden cells within Microsoft Excel spreadsheets, any cells hidden within the spreadsheet will not be printed where a hard copy of the spreadsheet is printed from within the application. My findings in relation to the spreadsheet we have been asked to examine, show that in its current state, with a number of cells hidden the spreadsheet, prints to 9 pages in total using the default settings. We have provided a copy of the printed spreadsheet in its current state with cells hidden as Appendix **B**.

I have also printed a copy of the spreadsheet having first unhidden all hidden cells in the document and find that the spreadsheet prints to 22 pages in total using the default settings. I have provided a copy of the printed spreadsheet with all cells unhidden as Appendix **C**.

With respect to the dates and times provided in the file lists, they are only as accurate as the clock contained on the computer on which they were created. The time recorded on a computer's clock can be inaccurate due to a malfunction or due deliberately user manipulation involving incorrect dates and times. If the computers clock is set to an incorrect time, the times and dates recorded within document metadata will not be accurate as to the true date and time of their creation.

I have not had access to the computer on which the files were created or backed up and therefore I have not been able to verify the date and time to which the computer was set.

I note from my examination of the hard disk provided by you that the file creation date and last accessed date for files on the disk do not appear to have been preserved during the process that was used to make the copies of the files available to us. The file creation dates and last accessed dates on the hard disk drive provided to us are all recorded as being created between 30 January 2012 and 31 January 2012. Whilst these dates are known to be volatile, it is important to note the file creation dates may not truly reflect the date that the original file was created.

I have prepared this letter for the purpose set out above and it is not to be used for any other purpose without our prior written consent. Accordingly, McGrathNicol accepts no responsibility in any way whatsoever for the use of this letter for any purpose other than that for which it has been prepared.

I have considered and relied upon information, which we believe to be reliable, complete and not misleading. Nothing in this letter should be taken to imply that we have verified any information supplied to us, or have in any way carried out an audit of any information supplied to us other than as expressly stated in this letter. The statements and findings included in this letter are given in good faith, and in the belief that such statements and findings are not false or misleading.

If you have any questions or need any further information, please do not hesitate to contact me on [redacted]

Yours sincerely

McGrath Nicol Advisory

McGrathNicol Advisory
Contact: Mark Garnett

Enclosures:
Appendix "A" Spreadsheet: Metadata Report
Appendix "B" Hard Copy of subject document (cells hidden)
Appendix "C" Hard Copy of subject document (cells unhidden)
Appendix "D" Curriculum Vitae Mark Garnett

Appendix A

File Name	Operating System Attributes										Microsoft Office Properties						Original Location
	Date Last Modified	Date Created	Date Last Accessed	Size	Title	Subject	Author	Keywords	Last Saved By	Revision No.	Total Edit Time (min)	Last Printed Date	Created Date	Last Saved Date	Name of Creating App	Manager	Company	
Event Log_Chloe Ver.xls	9/02/2011 11:49	31/01/2012 8:48	31/01/2012	293376			Warren Shallcross	foo			0	13/01/2011 7:34	1/07/1999 6:23	9/02/2011 11:49	Microsoft Excel		South East QLd Water Board	Backups.SEQWater.FloodS\FloodS.Last\20110102\Flood_Event_Administration\Wivenhoe-Somerset_Flood_Event_Report\Draft\Event Log_Chloe Ver.xls

Appendix B

DATE	TIME	ACTION	CATEGORY	INITIALS
	8:00 AM	SDWD Model Updated - SDWD-201101060800.xls	Model Run	JW
	8:00 AM	NPD model updated - NPD-201101060800.xls	Model Run	JW
	8:30 AM	MT spoke with Graham Keegan (Stand-in Central Coordinator) about readiness of staff for flood operations. Graham confirms that staff have been rostered and are ready	Correspondence	MT
	8:50 AM	Andy Bickerton (MBRC) called to query about flows are Fernvale bridge. TM provided an update for possible gate operations	Correspondence	MT
	9:05 AM	Glen Paterson called to inform that North Pine Dam staff have been rostered and are ready	Correspondence	MT
	9:40 AM	Rob Drury called to inform that Tony Trace has returned to the office and is contactable. He also requested for a situation update	Correspondence	MT
	11:00 AM	Tony Trace (Ipswich City Council (ICC)) called for a situation update. TM shared the release strategy for tonight	Correspondence	MT
	11:40 AM	TM advised MBRC Call Centre that North Pine Dam will commence gate operations tonight. He requested for MBRC to call him	Correspondence	MT
	12:00 PM	SDWD Model Updated - SDWD-201101061200.xls	Model Run	JW
	12:04 PM	Kerry (MBRC) called. TM advised her that the latest North Pine Dam gates may be opened will be 7:00pm today. FOC will advise them accordingly	Correspondence	MT
	12:43 PM	Andy Bickerton (MBRC) called. TM advised that water will be over Savages Crossing until end of the week	Correspondence	MT
	12:46 PM	TM advised Ken Marsh (BCC) Wivenhoe Dam will commence gate operations later today	Correspondence	MT
	1:32 PM	TM left message for Tony Jacobs (SRC) to return his call	Correspondence	MT
	1:35 PM	TM advised Andy Bickerton (MBRC) Wivenhoe gate operations will be delayed to Saturday morning. This is due to higher than expected inflows from Lockyer	Correspondence	MT
	1:45 PM	TM advised Tony Trace (ICC) Wivenhoe's gate operations will be delayed till Saturday morning. This is due to higher than expected inflows from Lockyer	Correspondence	MT
	1:46 PM	TM left message for Chris Levin (BCC) to return his call	Correspondence	MT
	1:47 PM	TM left message for Ken Morris (BCC) to return his call	Correspondence	MT
	2:41 PM	Andy Bickerton (MBRC) asked for TM's mobile. He wanted to share MBRC's text message informing people living downstream from North Pine Dam	Correspondence	MT
	2:45 PM	Ken Morris (BCC) called for situation update. TM provided an update	Correspondence	MT
	3:00 PM	SDWD Model Updated - SDWD-201101061500.xls	Model Run	JW
	3:11 PM	Jimmy Stewart (BoM) called to discuss with TM about readings from Upper Brisbane & Lockyer. Jimmy & TM are in agreement on readings	Correspondence	MT
	3:19 PM	Kerry (MBRC) called. TM advised her North Pine Dam will commence gates operations from 19:00 hrs	Correspondence	MT
	4:00 PM	SDWD Model Updated - SDWD-201101061600.xls	Model Run	JW
	4:00 PM	NPD model updated - NPD-201101061600.xls	Model Run	
	5:30 PM	Issued North Pine Directive #1 • Gate C - Open 1 increment at 1900 • Gate E - Open 1 increment at 1915 • Gate A - Open 1 increment at 1930 • Gate D - Open 1 increment at 1945 • Gate B - Open 1 increment at 2000	Directive	NGA
	6:57 PM	Brett Schultz (North Pine Dam) called to inform that MBRC workmen were waiting until 19:00 hrs to close Young's Crossing boom gates. This delayed dam gate opening by 15 minutes	Correspondence	NGA
	7:45 PM	Graham Francis (Somerset Dam) called to enquire about the release strategy. RA advised the impacts of the Lockyer flow were being monitored. Communication by e-mail was O.K.'ed	Correspondence	NGA
	9:00 PM	NPD model updated - NPD-201101062100.xls	Model Run	
	9:00 PM	SDWD Model Updated - SDWD-201101062100.xls	Model Run	JW
	7:00 AM	TM and LVB commenced day shift	Other	LVB
	8:00 AM	Advice from BoM indicates that SEQ can expect some high rainfall totals over the next 5 days up to Tuesday 11/1/11 with the largest falls predicted for Sunday and Monday	Correspondence	LVB
	8:00 AM	NPD model updated - NPD-201101070800.xls	Model Run	
	8:21 AM	Called Tony Jacobs @ Somerset Council to inform him that the Lockyer is running - all bridges in Somerset Region will be cut off this morning. Wivenhoe gates will be opened once the Lockyer peak is through	Correspondence	LVB
	8:40 AM	FOC called Kerry (MBRC) to inform them that North Pine will be operate for the next few days - probably till Tuesday	Correspondence	LVB
	8:44 AM	Called Chris Lavin (BCC) to inform that Wivenhoe gates will be opened again this afternoon and releases might peak at 1500m3/s. This might continue until the end of next week	Correspondence	LVB
	8:47 AM	Called Tony Trace (ICC) to inform him that Wivenhoe gates will be opened again this afternoon and releases might peak at 1500m3/s. This might continue until the end of next week	Correspondence	LVB
	10:12 AM	Called Robert Glen (BCC) to provide situation report	Correspondence	LVB
	12:00 PM	NPD model updated - NPD-201101071200.xls	Correspondence	
	12:00 PM	SDWD Model Updated - SDWD-201101071200.xls	Model Run	JW
	3:02 PM	Don Carroll (BCC) called FOC with concerns that dam release will add another 200mm on top of abnormal high tide. TM spoke to Jimmy Stewart (BoM) who advised that the effect could be around 50mm - if that can be measured	Correspondence	LVB
	6:00 PM	SDWD Model Updated - SDWD-201101071800.xls	Model Run	JW
	7:55 AM	Agg Dagan from Somerset Dam rang enquiring on Somerset's strategy. RA advised possibly opening a gate later today	Correspondence	AN
	8:10 AM	RA advised Matthew O'Reilly (Wivenhoe Dam) on directive #4 and discussed strategy	Correspondence	AN
	8:20 AM	RA rang Brett Schultz (North Pine Dam) and advised on strategy	Correspondence	AN
	9:00 AM	SDWD Model Updated - SDWD-201101080900.xls	Model Run	JW
	9:00 AM	Agg Dagan (Somerset Dam) rang to advise he is going into Kilcoy to see the treatment plant and will be off site for a couple of hours	Correspondence	AN
	10:00 AM	NPD model updated - NPD-201101081000.xls	Model Run	JW
	10:50 AM	Rob Drury rang. RA advised current status and strategy	Correspondence	AN
	11:30 AM	Ken Morris (BCC) rang asking about combined flows down the Brisbane River (Wivenhoe, Warrill Creek and Bremer River). AN advised that at this stage flows would not exceed 1500m3/sec	Correspondence	AN
	3:00 PM	NPD model updated - NPD-201101081500.xls	Correspondence	
	3:00 PM	SDWD Model Updated - SDWD-201101081500.xls, SDWD-201101081500-Forecast72hr.xls	Model Run	JW
	6:50 AM	Rob Drury rang. JT advised Rob on current release strategy based on recent heavy overnight rainfall	Correspondence	NGA
	7:00 AM	SDWD Model Updated - SDWD-201101090700.xls	Model Run	JW
	8:40 AM	TM called BoM regarding advice received that widespread rain was expected to continue in the catchment area over the next 24-48 hours	Correspondence	NGA
	9:00 AM	SDWD Model Updated - SDWD-201101090900.xls	Model Run	JW
	9:00 AM	NPD model updated - NPD-201101090900.xls	Model Run	JW
	12:00 PM	SDWD Model Updated - SDWD-201101091200.xls	Model Run	JW
	12:00 PM	RA scheduled meeting of Duty Engineers this afternoon to discuss current situation and forward release strategies	Correspondence	NGA
	2:00 PM	SDWD Model Updated - SDWD-201101091400.xls	Model Run	JW
	2:00 PM	NPD model updated - NPD-201101091400.xls	Model Run	JW
	2:33 PM	NA called Agg Dagan (Somerset Dam) and requested that readings be faxed to the FOC on an hourly basis until advised otherwise. Current Somerset lake level is EL 100.54 and rising fast	Correspondence	NGA
	2:42 PM	FOC called Brett Schultz (North Pine Dam) advising of impending gate openings due to recent heavy rainfall and subsequent projected inflows	Correspondence	NGA
	3:00 PM	NPD model updated - NPD-201101091500.xls	Model Run	JW
	4:00 PM	SDWD Model Updated - SDWD-201101091600.xls	Model Run	JW
	4:15 PM	TM called Tony Jacobs (Somerset RC) advising that the current strategy was to maintain a flow in the Brisbane River such that the Fernvale Bridge and the Mount Crosby Bridge could be kept open. However, future rainfall could well impact on those roads remaining open. Closure next Tuesday is a real possibility at this stage	Correspondence	NGA
	4:20 PM	Terry Malone phoned Tony Trace (ICC) advising that the current strategy was to maintain flow in the Brisbane River such that the Fernvale Bridge and the Mount Crosby Bridge could be kept open. However, future rainfall could well impact on those roads remaining open. Closure next Tuesday is a real possibility at this stage	Correspondence	NGA
	4:25 PM	TM called Chris Lavin (BCC). A message was left to phone FOC	Correspondence	NGA
	4:26 PM	TM called Ken Morris (BCC). A message was left to phone FOC	Correspondence	NGA
	4:27 PM	Ken Morris returned phone call. Ken was advised by TM that the current strategy was to maintain a flow in the Brisbane River such that the Fernvale Bridge and the Mount Crosby Bridge could be kept open. However, future rainfall could well impact on those roads remaining open. Closure next Tuesday is a real possibility at this stage. Flow in the Lower Brisbane potentially might reach 3,000 cumecs by next Wednesday or Thursday	Correspondence	NGA
	5:16 PM	NA left a message with Graham Keegan (A/Co-ord) regarding the potential for Fernvale Bridge and Mount Crosby Bridge to be closed, possibly from Tuesday. This may impact on staffing issues for both Wivenhoe and Somerset Dams during this flood event. Request for Graham to contact the FOC ASAP	Correspondence	NGA
	5:25 PM	Don Carroll (BCC) returned call to TM. TM advised potential for releasing up to 2,500 cumecs by Tuesday. With further heavy rainfall as forecast, the flow in the Lower Brisbane could increase to 3,000 cumecs with potential for closure of Fernvale Bridge and Mount Crosby Bridge by Thursday (possibly Wednesday). Releases from Wivenhoe are dependant on flows from Lockyer Ck and inflow into Wivenhoe. FOC will continue to update BCC	Correspondence	NGA
	5:30 PM	Brett Schultz (NPD) phoned the FOC with a manual reading of EL 20.08 at Lake Kurwongbah. Brett noted that should NPD gates be closed in the near future, the Lake Kurwongbah tailwater would impact on Youngs Crossing	Correspondence	NGA
	5:40 PM	Rob Drury phoned TM for an update on the current situation	Correspondence	NGA
	5:45 PM	Graham Keegan returned call and NA advised that TM had requested Graham to factor into his staffing roster of Wivenhoe and Somerset Dams the potential for the Fernvale bridge and the Mount Crosby Bridge to be closed from mid week sometime depending on the likelihood of further heavy rainfall	Correspondence	NGA
	5:58 PM	TM called Jeff Perkins (BoM) to discuss Wivenhoe Dam's release strategy i.e. Major bridge open strategy Vs increased inflow into Wivenhoe resulting from current heavy rainfall. Situation will become clearer in 24 hours time	Correspondence	NGA
	6:00 PM	SDWD Model Updated - SDWD-201101091800.xls	Model Run	JW
	6:00 PM	NPD model updated - NPD-201101091800.xls	Model Run	JW

DATE	TIME	ACTION	CATEGORY	INITIALS
	6:35 PM	The caretaker from the house at the Colleges Crossing Reserve rang FOC to enquire about predicted flood height at the Colleges Crossing Bridge. TM referred him to Tony Trace (ICC) for an update on flood information affecting the Ipswich area. Advised no change in Wivenhoe releases at this stage and the future options were presently unknown	Correspondence	NGA
	7:00 PM	SDWD Model Updated - SDWD-201101091900.xls, SDWD-201101091900norain.xls, SDWD-201101091900withrain.xls	Model Run	JW
	7:10 PM	FOC called Tony Jacobs (SRC) advising him that high releases from Wivenhoe (3000 cumecs) are expected to be necessary in view of heavy rain over the last 3 hours	Correspondence	BS
	7:15 PM	FOC called Peter Burrows (Seqwater) advising him that high rainfall is expected overnight and releases from Wivenhoe causing damaging flooding are likely to be necessary	Correspondence	BS
	7:15 PM	FOC called Peter Allen advising him that FOC is now looking at much larger flows and will have to ramp up releases to around 3000 cumecs as by as early as midnight which is likely to have flooding impacts on low-lying areas of Brisbane	Correspondence	BS
	7:20 PM	TM called Don Carroll (BCC) advising him of potential for high releases sooner than previously expected	Correspondence	BS
	7:25 PM	Mal Lane (North Pine Dam) called to advise dam level is at 39.62mAHD. 3 gates are at increment 2 and two are at increment 1. The two at increment 1 are currently being raised to increment 2 (next few minutes)	Correspondence	BS
	8:00 PM	SDWD Model Updated - SDWD-201101092000withnorain.xls	Model Run	JW
	8:05 PM	RA called Shane Watson (North Pine Dam) to confirm last directive is completed. All gates at increment 2	Correspondence	BS
	8:30 PM	Darryl Hickey (ICC) returned call and spoke to JR. He was informed of current situation and the likelihood of high releases tomorrow causing flood damage	Correspondence	BS
	8:50 PM	RA called Ken Morris (BCC) to request copy of flood damages curve from 2007 study. Ken will send a copy tomorrow	Correspondence	RA
	8:55 PM	Ken Morris called back and spoke with JR. Confirmed BCC mobilisation triggers need to be in place. Status report is in preparation and will be emailed out shortly	Correspondence	BS
	9:10 PM	Rob Drury called and spoke with RA. Rob confirmed that releases will need to be ramped up from current 1400 cumecs to 2500 cumecs which will cause flooding in low lying areas of Brisbane. Brisbane flood information centre has not yet been mobilised. Somerset RC has no DTMR A/H contacts and will be contacting them in the morning. Rob will locate DTMR contacts. Confirmed volumes getting close to 1974 levels. Confirmed situation report has gone out	Correspondence	BS
	9:15 PM	Geoff Perkins (BoM) called and spoke with TM. They discussed on rainfall expectations and flood warning requirements for Brisbane. Bremer/Warrill situation being monitored. Actual and projected flows sent to Geoff	Correspondence	BS
	9:20 PM	Tony Trace (ICC) spoke with RA. Emailing DTMR A/H contact to floodroom. Kiosk caretaker at Colleges Crossing is being evacuated. **Contact Number for DTMR: Ron Hemley** [redacted]	Correspondence	BS
	10:00 PM	SDWD Model Updated - SDWD-201101092200withnorain.xls, SDWD-201101092200-Forecast24hr.xls	Model Run	JW
	10:00 PM	NPD model updated - NPD-201101092200.xls	Model Run	JW
	10:00 PM	JR called Wivenhoe operator (Doug Grigg) and confirmed current flooding expectations based on rainfall predictions and expected impacts	Correspondence	BS
	10:15 PM	FOC called Tony Jacobs (SRC). A situation update was provided. Fernvale Bridge closure likely to be required in view of probable releases from Somerset to Wivenhoe	Correspondence	BS
	10:20 PM	Rob Drury called and spoke with RA. A teleconference with Water Grid Manager and DERM was completed. Explained 9:00pm situation report. Water Grid Manager will be distributing media release in the morning regarding closure of bridges	Correspondence	BS
	10:30 PM	Brett Myatt (Mt Crosby WTP) called and spoke with RA. He was concerned the guardrails need to be taken off bridge before bridge goes over. RA recommended getting the rails straight off in view of increasing flow expectations overnight. Flow expected to get to 2800ML by morning	Correspondence	BS
	10:30 PM	JR called Wivenhoe Dam operator (Doug Grigg) requesting for a visual inspection of Fernvale Bridge	Correspondence	BS
	10:40 PM	Doug Grigg (Wivenhoe Dam) called discussed Fernvale Bridge situation with JR. Water was lapping the bridge girders	Correspondence	BS
	10:45 PM	Rob Drury called and spoke with RA. Rob Drury will be contacting Dan Spiller to confirm closure of Mt Crosby Weir Bridge. Police are on site	Correspondence	BS
	11:20 PM	JR called Tony Trace (ICC) and left message regarding rates of rise at Mt Crosby. Bridge will be inundated within the next couple of hours	Correspondence	BS
	11:25 PM	JR called Ross Drabble (ICC) regarding rates of rise at Mt Crosby (approx 200 mm from going over) - will be inundated within the next couple of hours. Confirmed more rain is on the way and releases will need to be increased	Correspondence	BS
	11:25 PM	RA spoke with Doug Grigg (Wivenhoe Dam). Water is up to the centreline of the Clare Gully approach to Fernvale Bridge. Esk police are on site and are considering placing road closure signs in Fernvale. Rob Tilmarsh and Darren Valley (operators living in Fernvale) will be mobilised to the dam by police prior to closure	Correspondence	BS
	11:30 PM	JR called Tony Jacobs (SRC) and left message advising of situation	Correspondence	BS
	11:35 PM	RA called Ron Hemley (DTMR) and left message regarding current road closure situation	Correspondence	BS
	11:35 PM	JR called Andy Bickerton (SRC) and left message for call to be returned re Fernvale Bridge situation	Correspondence	BS
	11:38 PM	JR called Robert Bain (CEO SRC) and left message regarding Fernvale Bridge situation and requested call be returned ASAP	Correspondence	BS
	11:40 PM	Andy Bickerton (SRC) called back and spoke with JR. JR confirmed the high flow levels and anticipated further level rises will impacts road crossings. Fernvale Bridge was about to go out. Informed of the levels and inflows to Wivenhoe and Somerset and the expectation for more rain	Correspondence	BS
Monday, 10 January 2011	12:00 AM	Andy Bickerton called again and spoke with JR. JR confirmed police were on site at Fernvale Bridge and were contemplating road closure signs at Fernvale. Confirmed message has been left with DTMR but call not yet returned	Correspondence	BS
	12:15 AM	Brett Myatt (Mt Crosby WTP) called to confirm Mt Crosby Weir road is closed (call taken by Bill Stephens). Confirmed that ICC has been notified and message left with DTMR	Correspondence	BS
	12:45 AM	Ken Morris (BCC) called and spoke with JR. Ken indicated that 4500 cumecs is the damaging flow level for Brisbane urban areas. The manual documents 4000 cumecs as the damaging level. JR undertook to take this into consideration when preparing the current situation report, and would not refer to damage levels	Correspondence	BS
	12:55 AM	JR called Rob Drury to discuss Ken's view on damaging flow. JR confirmed that if flows were kept below 3500 the fuse plug would be triggered. Agreed that situation reports will not allude to damage levels - the councils can make decisions on what to report in this regard	Correspondence	BS
	1:00 AM	SDWD Model Updated - SDWD-201101100100withnorain.xls	Model Run	JW
	1:00 AM	RA called Ray Ballinger (Somerset Dam) regarding purported dam stability issues (via Tony Trace - two reports received). Ray confirmed that inspection had revealed no issues	Correspondence	BS
	3:00 AM	SDWD Model Updated - SDWD-201101100300withnorain.xls	Model Run	JW
	3:00 AM	NPD model updated - NPD-201101100300.xls	Model Run	JW
	4:10 AM	JR discussed Wivenhoe status and release strategy with Doug Grigg	Correspondence	BS
	5:00 AM	SDWD Model Updated - SDWD-201101100500withnorain.xls	Model Run	JW
	5:00 AM	Graham Francis called and discussed Somerset situation with RA	Correspondence	BS
	5:00 AM	NPD model updated - NPD-201101100500.xls	Model Run	JW
	5:05 AM	Rob Drury called and received situation update from JR	Correspondence	BS
	5:20 AM	RA called BoM regarding next forecast update - due at 9:00 am	Correspondence	BS
	6:00 AM	Send out situation report for this morning	Correspondence	LVB
	7:40 AM	Talked to BoM - we are in general agreement about current flows in the Brisbane River	Correspondence	LVB
	8:30 AM	FOC left a message for Ken Morris (BCC) to call back	Correspondence	LVB
	8:38 AM	Talked to Peter Baddiley BOM) to discuss our planned strategy i.e to maintain gate openings for the next 24 hrs. This increases flood storage by 75,000ML which is equivalent to 0.2m rise and limits flows in the Brisbane to 3,500 m3/s this provides a buffer for potential runoff for the next 24 hrs	Correspondence	LVB
	9:55 AM	Conference call with Ken Morris (BCC) - informed them that release from Wivenhoe will be maintained at 2000m3/s for the next 24 hrs. This will be revised in 24 hrs. The strategy is to limit the flows to 3000 - 3500m3/s. At 3500m3/s about 327 (the whole property) will be submerged and about 7000 properties will be affected somehow damage bill $?mil. If the rainfall in the Bremer and Lockyer increases substantially - it is likely the flows from these catchments can peak at 1000m3/s on top of Wivenhoe releases	Correspondence	LVB
	10:30 AM	Received QPF - 100mm in Brisbane and 150mm North Pine catchment	Other	LVB
	10:15 AM	Received phone call from Mike Shelland (EMQ) and Supt Aintas Dawson - Disaster Coordinator for the District - gave them the same information as what we gave Ken Morris before	Correspondence	LVB
	10:40 AM	Called Jimmy Stewart (BoM) to inform that TM ran all the model and with [illegible] in the Bremer the flows in Brisbane will be up to 3600m3/s. BoM will discuss with BCC	Correspondence	LVB
	11:10 AM	Tony Trace (ICC) called to clarify our strategy. Gave him the same info as above	Correspondence	LVB
	1:00 PM	SDWD Model Updated - SDWD-201101101300withnorain.xls	Model Run	JW
	12:?? PM	Spoke with Peter Borrows (Seqwater) to answer elaborate on Situation Report and inform him of large rainfalls currently occurring in the Wivenhoe catchment	Correspondence	LVB
	12:33 PM	Called BCC twice. No answer - so left messages	Correspondence	LVB
	12:35 PM	Talked to Tony Trace (ICC) informed him that we are moving strategy from urban damage control to dam safety priority	Correspondence	LVB
	12:41 PM	NPD operator called to inform FOC the level is dropping; instructed them not to close gates - heavy rain fell in catchment	Correspondence	LVB
	2:00 PM	Send out third situation report for today	Correspondence	LVB
	2:30 PM	Called BCC 3 times before getting through to Flood Information Centre (FIC). Discussed latest strategy with them i.e. changing from "Flood Mitigation" to "Dam Safety". We will start opening Wivenhoe gates from [illegible]	Correspondence	LVB
	3:00 PM	Called Disaster Coordinator, Ian Stewart @ [redacted] No answer	Correspondence	LVB
	4:00 PM	NPD model updated - NPD-201101101600.xls	Model Run	JW
	4:15 PM	Had conference call with BoM. They agree with FOC on model discharge results. However, BoM included [illegible] of additional rain which takes the discharge to 4600m3/s	Correspondence	LVB
	4:30 PM	TM spoke to a police officer about Cressbrook Dam - advising that FOC does not manage Cressbrook but gave him a contact at Toowoomba RC	Correspondence	LVB
	5:00 PM	SDWD Model Updated - SDWD-201101101700withnorain.xls, SDWD-201101101700with50mmrain.xls	Model Run	JW
	5:10 PM	Agg (Somerset Dam) phoned and reported water from Wivenhoe is getting into the hydro	Correspondence	LVB
	6:05 PM	Get weather update from BoM - the forecast now is - still more of the same of what we had today	Other	LVB
	6:45 PM	Brett Schultz (North Pine Dam) raised concerns with school groups using Lake Kurwongbah for towing exercises while water is running over the spillway at 500mm. He was referred to Rangers	Correspondence	LVB
	7:30 PM	Agg Dagan (Somerset) called to inform that Somerset hydro is inundated with water. Agg believes he has located source of leak has tightened seals to prevent further leakage. Agg also noted that there is oil in the water	Correspondence	JW
	8:00 PM	SDWD Model Updated - SDWD-201101102000withnorain.xls, SDWD-201101102000-Lockyer.xls, SDWD-201101102000-TMinflows.xls	Model Run	JW
	20:30 PM	Peter Baddiley (BoM) called to advise of situation regarding flows in Lockyer. Estimated very heavy localised rainfall (eg. 600mm in few hours) on Toowoomba escarpment to cause observed flash flooding. Will monitor at Gatton Grove gauging station	Correspondence	JW

DATE	TIME	ACTION	CATEGORY	INITIALS
	20:45 PM	Brett Myatt (Seqwater Mt Crosby WTP) called to get situation update. Advised that at 20m there will be issues at Mt Crosby WTP. FOC to advise Brett if likely to reach that level	Correspondence	JW
	21:00 PM	Spoke to Peter Allan regarding strategies for reducing Wivenhoe release to mitigate latest event in Lockyer. Peter endorsed variation to manual to operate at minimum gate settings to create gap to allow peak of flash flood to pass. Also endorsed concept allowing Wivenhoe HW to rise above 74 mAHD briefly	Correspondence	JW
	21:30 PM	Provided Boyd Wilson (ICC) with situation update	Correspondence	JW
	20:20 PM	Spoke to Peter Baddiley (BoM) regarding reducing Wivenhoe release to accommodate peak of Lockyer flash flood	Correspondence	JW
	11:20 PM	Spoke to Rob Drury to give situation update. Rob agreed that if possible to reduce flow from Wivenhoe to accommodate Lockyer flash flood peak	Correspondence	JW
Tuesday, 11 January 2011	12:00 AM	SDWD Model Updated - SDWD 201101110000withnorain.xls	Model Run	JW
	12:00 AM	NPD model updated - NPD-201101110000.xls	Model Run	JW
	12:15 AM	Spoke to Ken Morris (BCC) to update on current release strategy	Correspondence	JW
	1:30 AM	Spoke to Tony Trace (SRC). Somerset Regional Council offices were flooded and email addresses are no longer working. Tony can be emailed on [redacted]	Correspondence	JW
	2:15 AM	James Charalambous (BCC) called to confirm forecast peak height of 3.1m at Brisbane city gauge for Wednesday high tide. This is based on 4600 cumecs modelled by BoM. Provided James with update on current release strategy	Correspondence	JW
	3:00 AM	SDWD Model Updated - SDWD-201101110300withnorain.xls	Model Run	JW
	3:15 AM	James Charalambous (BCC) has provided inundation forecast for Brisbane city to assist with devising strategy to manage Wivenhoe releases	Correspondence	JW
	5:15 AM	Spoke to Peter Baddiley (BoM) regarding reducing Wivenhoe release to accommodate peak of Lockyer flash flood. Update: Consensus was that reducing release from Wivenhoe would no longer be feasible due to attenuation of Lockyer peak and significant additional rainfall in upper Brisbane during the night	Correspondence	JW
	7:00 AM	SDWD Model Updated - SDWD-201101110700withnorain.xls	Model Run	JW
	7:00 AM	NPD model updated - NPD-201101110700.xls	Model Run	JW
	7:20 AM	TM called Peter Borrows to appraise of latest situation of Wivenhoe and lower Brisbane	Correspondence	DP
	7:22 AM	TM called BoM to appraise of situation. BoM unable to talk and will call back	Correspondence	DP
	7:35 AM	Peter Baddiley of BoM called back. Full appraisal of SEQWater strategy. Both SEQWater and BoM models results were discussed in detail and generally agreed with each other	Correspondence	DP
	7:51 AM	Called Matthew O'Rielly (Wivenhoe Dam) advised that gates opening at Wivenhoe are imminent	Correspondence	DP
	7:56 AM	TM called BoM. Advised Jimmy Stewart and Peter Baddiley that Wivenhoe will ramp up to a minimum release of 3700m3/s	Correspondence	DP
	7:59 AM	JT called Peter Borrows (Seqwater) and advised that releases from Wivenhoe will reach 3700m3/s at a minimum and BoM has been informed. Likely to affect Moggill 24 hours later. Phone call terminated due to bad connection	Correspondence	DP
	8:01 AM	Peter Borrow returned call. JT advised that model to be run for BoM first and results to be past to BoM and BCC immediately. Rain likely to continue today	Correspondence	DP
	8:05 AM	Brett from NPD informed that levels are still rising and another directive is required. JT advised to proceed as per operations manual	Correspondence	DP
	8:09 AM	Advised Matthew (Wivenhoe Dam) that Wivenhoe Directive was coming through in a matter of minutes	Correspondence	DP
	8:10 AM	JT called Peter Allen to advise of current Wivenhoe situation - Will exceed EL74m. Ramping up gate opening to a minimum of 3700 and gate operations will progress	Correspondence	DP
	8:11 AM	TM called BCC flood information centre (Duty Officer - James). Wivenhoe releases will reach 3700m3/s at a minimum and higher flows are possible	Correspondence	DP
	8:15 AM	JT called Rob Drury to advise of the situation that Wivenhoe will increase to 3700m3/s as a minimum	Correspondence	DP
	8:16 AM	TM called SRC and left a message	Correspondence	DP
	8:20 AM	JT Called Matthew (Wivenhoe Dam) and advised more gate opening directives are coming	Correspondence	DP
	8:21 AM	TM called Tony Trace (ICC) to advise of situation and that Wivenhoe releases to be at a minimum of 3700m3/s	Correspondence	DP
	8:25 AM	JT called Brett Schultz (North Pine Dam). Verbal directive to open gates. faxed directive to follow before 9am	Correspondence	DP
	8:50 AM	Peter Borrows (SEQwater) called TM mobile requesting 'worst case' scenario	Correspondence	DP
	8:50 AM	Doug from Wivenhoe called informing that Wivenhoe has lost power: high voltage fuse blown. Hydro outlet is shut off	Correspondence	DP
	9:09 AM	JT called SEQWater maintenance (Jo Misner) advised that Wivenhoe has lost power: possibly blown high voltage fuses. JO to resolve issue	Correspondence	DP
	9:12 AM	Brett called. NPD at 40.140 m HAD all gates at 6, currently heading to setting 7	Correspondence	DP
	9:13 AM	Energex called. All incoming power has been lost at Wivenhoe	Correspondence	DP
	9:16 AM	JT called Tony Martin and left message: very large inflows into North Pine Dam has resulted in steep gate openings. Flood downstream can be expected	Correspondence	DP
	9:17 AM	JT called Ed Hamold and informed that very large inflows into North Pine Dam has resulted in steep gate openings. Flood downstream can be expected. Strathpine Rd (Old Gympie Rd) to be flooded within next hour	Correspondence	DP
	9:21 AM	Ain from Somerset called TM. Water ingress through doors at the bottom of dam	Correspondence	DP
	9:22 AM	JT advised Brett (NPD) that Strathpine Rd is expected to be closed	Correspondence	DP
	9:26 AM	JT advised Brett verbally that all gates can go to 9 increments based on water level as per manual	Correspondence	DP
	9:40 AM	TM called MT and requested a technically knowledgeable person be dispatched to test HF radio links and satellite phone are in working condition	Correspondence	DP
	9:51 AM	Voicemail. Jo Misner left message. He's contacted Energex and Energex suspect a dirty feed. Currently all helicopters are grounded. Garry Ludlow is lead at Mt Crosby. Energex will get as close as they can and get helicopter lift when possible	Correspondence	DP
	10:00 AM	NPD model updated - NPD 201101111000.xls	Model Run	JW
	10:25 AM	Brett (North Pine Dam) called to report Lake level at EL 40.490mAHD. All gates currently at setting No. 10	Correspondence	DP
	10:29 AM	Stan from SEQWater called TM. In conference with Barton Maher. Internal questioning of release strategy. Internal discussion regarding current approved strategy	Correspondence	DP
	10:45 AM	JT advised MBC (Ed Hamold) of current situation	Correspondence	DP
	10:54 AM	Rob Drury called. Bad line and disconnected	Correspondence	DP
	11:00 AM	SDWD Model Updated - SDWD-201101111100withnorain.xls	Model Run	JW
	11:01 AM	Message received by JT. Kilcoy police rang Somerset. JT advised general status information to be provided by dam operators, predictions to go through FOC	Correspondence	DP
	11:02 AM	Peter Borrows (Seqwater) requested update on situation	Correspondence	DP
	11:04 AM	JT called Doug (operator). Discussed that if forecast rain falls, fuse plug likely to go	Correspondence	DP
	11:06 AM	**FAX not working at Wivenhoe!**	Other	DP
	11:07 AM	Jimmy Stewart (BoM) called. Inflow into NPD of 1500cumecs. Advised Wivenhoe strategy to be revised	Correspondence	DP
	11:17 AM	Barton called TM - on the way to talk to Grid Manager. TM advised current strategy is 3 hourly	Correspondence	DP
	11:19 AM	JT called Ed Hackt. Advised North Pine still rising. Current releases to exceed 2000cumecs	Correspondence	DP
	11:30 AM	Brett (North Pine Dam) called to report lake level EL 40.740 mAHD. Water level rising slowly. All gates now at setting 14	Correspondence	DP
	11:38 AM	TM called BoM. Unable to contact Peter Baddiley. Will call back	Correspondence	DP
	11:38 AM	JT called Peter Borrows and advised that releases at Wivenhoe will be ramped up to 4000cumecs and strategy will be revised on an hourly basis. In reality releasing slightly less than the Flood Ops manual	Correspondence	DP
	11:51 AM	Incoming Phone call from Rob Ayre. Advised RS that Wivenhoe will ramp up to 4000cumecs. Also advised that staff likely to stay in offices overnight	Correspondence	DP
	11:56 AM	JT called Ed Hamboch and left message again. Outflow will exceed 2000cumecs	Correspondence	DP
	11:57 AM	JT called Elanor Davidson. Left message. North Pine Dam outflow likely to exceed 2000cumecs	Correspondence	DP
	11:59 AM	JT called Tony Martin. Left message: outflow from North Pine Dam will exceed 2000cumecs	Correspondence	DP
	12:04 PM	Brett (North Pine Dam) called to report lake level at EL 40.883 mAHD. Gates are currently set at setting 15	Correspondence	DP
	12:10 PM	Kim Hang called from FOC satellite phone. Made contact with Somerset and North Pine. Connection issues with Landline to Wivenhoe	Correspondence	DP
	12:11 PM	Tony Martin called. TM advised discharge in excess of 1989 flood (1500cumecs). Current releases in excess of 2000cumecs	Correspondence	DP
	12:30 PM	Brett (North Pine Dam) called to report lake level is now at EL 40.950mAHD and rising. Gate settings at 17	Correspondence	DP
	12:42 PM	Mike Morrison from Redlands shire requesting information for Lesley Hamson. Was told to call Chad Duncan	Correspondence	DP
	12:42 PM	Call from Glen Patterson. Asked what is required of the Northern dams. Was advised to monitor dams more closely when 1 in 50 year event occurs	Correspondence	DP
	1:01 PM	Brett Schultz (North Pine Dam) called to report Lake level EL 41.0[illegible] m AHD. Gate settings at setting 18	Correspondence	DP
	1:26 PM	Peter Burrows (Seqwater) called and requested the FOC request the BoM to consider if Wivenhoe is releasing 9000cumecs	Correspondence	DP
	1:44 PM	Jeff (North Pine Dam) called on Satellite phone to confirm it is operational	Correspondence	DP
	1:50 PM	Brett Schultz (North Pine Dam) called to report lake level at EL 41.125mAHD. Gates currently at setting 19	Correspondence	DP
	1:56 PM	Rob Drury requesting status update	Correspondence	DP
	2:00 PM	SDWD Model Updated - SDWD-201101111400withnorain.xls	Model Run	JW
	2:24 PM	Cherryn Wivenhoe SEQWater called to pass on message. Fred Wilson (QA) the rescuer called to enquire about Wivenhoe Releases (0457 571 919). Unable to call at this stage	Correspondence	DP
	2:37 PM	Peter Borrows (SEQWater) called to discuss current situation	Correspondence	DP
	2:46 PM	Brett Schultz (North Pine Dam) called to report lake level steady at 41.112 for last 30 minutes	Correspondence	DP
	2:53 PM	North Pine Dam is isolated as per conversation with Brett	Correspondence	DP
	3:00 PM	NPD model updated - NPD 201101111500.xls	Model Run	JW
	3:06 PM	Stan Stevenson (SEQWater) called to enquire about the current release rate from Wivenhoe Dam	Correspondence	DP
	3:14 PM	Peter Burrows (Seqwater) called to discuss the proposed release of 10,000cumecs. JT and TM explained release strategy is constantly being revised	Correspondence	DP
	3:49 PM	Peter Baddiley & Jimmy Stewart had a conference with JT, JR, TM and RA about current release strategy and possible maximum release scenario of 10000m3/s. This would be of a similar magnitude to the 1893 event (~8.35m in Brisbane Port Office)	Correspondence	DP
	3:54 PM	Stan Stevenson (Seqwater) called and talked to JT regarding current inflow strategy	Correspondence	DP
	3:58 PM	Called Brett Schultz (Wivenhoe Dam) to check if all is ok: levels are slowly reducing	Correspondence	DP
	4:29 PM	Lowood police rang to request water level of Wivenhoe and discuss the current release strategy with respect to the fuse plug (conversed with John West)	Correspondence	DP
	4:33 PM	Phone call with TM and Peter Burrows. Discussed that even though the magnitude flood in Brisbane is similar to 1974 flood event the no-dam flood would be significantly larger without Wivenhoe	Correspondence	DP
	4:41 PM	Peter Allen phone call. PA requested more technical information in the status reports released by Duty Engineers. PA will send through an example of the technical data requested in the report	Correspondence	DP
	4:48 PM	Dave Roberts called to request update in inflow/outflow of Wivenhoe Dam	Correspondence	DP

DATE	TIME	ACTION	CATEGORY	INITIALS
	5:00 PM	SDWD Model Updated - SDWD 201101111700wfthnorain.xls	Model Run	JW
	5:12 PM	JT called Brett Schultz (North Pine Dam) regarding gate operating strategy. JT advised to keep gates at current setting until water is clear of the controls. Gate closing strategy then to follow Flood Manual.	Correspondence	DP
	5:22 PM	Jimmy Stewart (BoM). TM and JR discussed current Wivenhoe inflows and anticipated outflows. TM confirmed that 7500cumecs is still likely early tonight.	Correspondence	DP
	5:27 PM	Brett Schultz (North Pine Dam) called to report of NPD level EL 40.7 m AHD. JT verbally advised 10 minute gate closure intervals is ok until 39.9 m AHD - then back to 15 min intervals	Correspondence	DP
	5:48 PM	Rob Drury asking Tarong Energy to hold off releasing water from Splityard Creek	Correspondence	DP
	6:00 PM	NPD model updated - NPD-20110111800.xls, NPD-20110111800 Final.xls	Model Run	JW
	6:00 PM	SDWD Model Updated - SDWD-201101111800wfthnorain.xls	Model Run	JW
	6:04 PM	Glen Patterson called to advise he is unable to reach Lake MacDonald to take readings	Correspondence	DP
	6:07 PM	Recap of current release strategy amongst Duty Engineers. Current Wivenhoe scenario 74.9 m - all gates at 12m. Won't go to 13m settings until level reaches 75.0 m AHD	Correspondence	DP
	6:35 PM	Agg (Somerset Dam) called to confirm all is good	Correspondence	DP
	6:36 PM	Bill Stevens called to inform team he is cut off due to flood waters and unable to come in	Correspondence	DP
	6:41 PM	Tarong Energy confirmed releases from Splityard creek have stopped	Correspondence	DP
	6:56 PM	Daryl Hicky informed that tailwater gauge appears to be OOA. Confirmed by TM	Correspondence	DP
	7:00 PM	Spoke to Brett Schultz who confirmed that North Pine gate settings were at 17, with level of 40.5. Closing sequence was still to close in 13 minute increments down to level 39.9, at which time increments would increase to 15 minutes	Correspondence	JW
	7:10 PM	Brett Schultz at NPD rang is concerned that the level is dropping too fast	Correspondence	AN
	7:30 PM	Doug Grigg (Wivenhoe Dam) called to report that Wivenhoe Level 74.97mAHD is holding	Correspondence	AN
	7:30 PM	Brett Schultz (North Pine Dam) rang to say he is behind in gate settings	Correspondence	AN
	7:25 PM	JR called Brett Schultz (North Pine Dam) to advise that a directive will be sent to move all gates down to 11m	Correspondence	AN
	7:45 PM	Brett Schultz (North Pine Dam) called FOC. JT clarified directive 19 to drop gatas from 16 to 11 in one go, at 15 minutes intervals	Correspondence	AN
	8:00 PM	Peter Baddiley rang. Unofficially TM advised that things have stabilised. Also advised predicted peaks at various sites	Correspondence	AN
	8:25 PM	Joe Meaner rang to advise that the high voltage feeder to Wivenhoe will not be restored for the duration of this event. JT advised that Wivenhoe is operating successfully on the generator, and they have a fair bit of diesel. There are still 2 other backups to operate the gates	Correspondence	AN
	8:25 PM	Chris Hughes at Colliers Building Services rang back. Rob Ayre asked about power supply to 179 Turbot Street. Chris said to email our power requirements	Correspondence	AN
	8:30 PM	Doug Grigg (Wivenhoe Dam) called to advise that Wivenhoe's level is 5mm down	Correspondence	AN
	8:30 PM	RA called Colliers Building Services and left a message to call back (regarding loss of power to the 179 Turbot Street)	Correspondence	AN
	8:30 PM	RA rang John Thornton (SunWater) to advise that power will be shutting down in the CBD tomorrow morning	Correspondence	AN
	8:35 PM	RA rang John Thornton to advise the power situation	Correspondence	AN
	8:35 PM	Peter Burrows (Seqwater) called FOC to speak with all duty engineers on the operating strategies for Wivenhoe releases	Correspondence	AN
	8:40 PM	MT called FOC to ensure we received the Energex message regarding power shutdown to the CBD	Correspondence	AN
	8:45 PM	Warren Shallcross rang. Rob Ayre advised that Energex will be cutting power to the CBD in the morning. Warren will call Mike Minter and the security guys for Mineral House	Correspondence	AN
	8:50 PM	Brett Schultz (North Pine Dam) called to report NPD Level at EL 40.07mAHD. Gates are all at 11 increments	Correspondence	AN
	8:55 PM	Peter Burrows (Seqwater) rang asking about possibly reducing releases. TM advised that we are seriously considering it, but this would have little effect on the levels in Brisbane River. Peter would like technical reports every hour throughout the night	Correspondence	AN
	9:00 PM	RA emailed Chris Hughes with our building power requirements	Correspondence	AN
	9:05 PM	TM rang Chris Lahey (BoM) to advise that power to the CBD may be cut and send him actual and releases report	Correspondence	AN
	9:10 PM	John Thornton called RA. John advised he spoke to Chris Hughes and is getting an Energex contact	Correspondence	AN
	9:20 PM	Warren Shallcross rang. Mike Minter told him we may not be able to have air conditioning	Correspondence	AN
	9:25 PM	RA called John Thornton. Chris Hughes got back to him and has Haywoods Electrical lined up for tomorrow morning	Correspondence	AN
	9:30 PM	Mal Lane (North Pine Dam) called. They are still behind in gate closures	Correspondence	AN
	9:35 PM	JT rang to discuss the latest directive to raise Wivenhoe Dam. JT suggested not raising	Correspondence	AN
	9:40 PM	JW called Doug Grigg (Wivenhoe Dam) to obtain a current level. EL 74.97 Gates have been raised to 11.5m	Correspondence	AN
	10:00 PM	SDWD Model Updated - SDWD 201101112200withnorain.xls	Model Run	JW
	10:00 PM	John Thornton rang to advise the phone number for Steve from Energex [redacted]	Correspondence	AN
	10:00 PM	John Thornton rang requesting RA mobile number to pass on onto Energex	Correspondence	AN
	10:30 PM	John Thornton rang to say Geoff White has pleaded our case with the CEO of Energex and it is likely 179 Turbot Street will not lose power	Correspondence	AN
	10:45 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.94mAHD @ 10:30hrs	Correspondence	AN
	11:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.92mAHD @ 11:00hrs	Correspondence	AN
	11:10 PM	Rob Drury rang to request discharge from Wivenhoe when the gates are lowered to 10m. Advised 6100m3/sec	Correspondence	AN
Wednesday, 12 January 2011	11:30 PM	JW called Doug Grigg (Wivenhoe Dam) to obtain a current level. EL 74.97 Gates have been raised to 11.5m	Correspondence	AN
	12:30 AM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.88mAHD @ 12:30hrs	Correspondence	AN
	1:00 AM	John Thornton (SunWater) called to provide Energex contact details. Steve, phone number [redacted] Steve indicated that he didn't believe 179 Turbot St would be disconnected from power grid in the morning	Correspondence	JW
	1:15 AM	RA rang Doug Grigg (Wivenhoe Dam) advising next directive. We want to get releases down as quick as possible while still lowering lake levels. Advised that we may possibly have a communications problem in the morning if power to 179 Turbot Street is cut	Correspondence	AN
	2:10 AM	James Charalambous (BCC) rang enquiring about a release strategy. Advised one will be issued at about 3:00am. Talked about the activities of the last 24 hours	Correspondence	AN
	3:10 AM	JR rang Mal Lane (NPD) and advised no changes to gate settings planned for the next hour or so	Correspondence	AN
	3:30 AM	Brett Myatt (SEQWater Mt Crosby WTP) called enquiring about levels at Mt Crosby	Correspondence	AN
	3:50 AM	RA called Chris Lahey (BoM) advising him that because inflows are not as much as earlier anticipated, the releases from Wivenhoe are less than previously suggested	Correspondence	AN
	4:05 AM	Ian Douglas, OIC of Lowood Police, rang enquiring about the Wivenhoe fuse plug. JW advised that there is no danger of the fuse plug failing, and that current releases from Wivenhoe Dam are about 4,900 cumecs	Correspondence	AN
	4:40 AM	Brett Myatt (Seqwater Mt Crosby WTP) rang to check that his emails with the Mt Crosby levels were being received. They are	Correspondence	AN
	5:15 AM	Rob Drury rang enquiring current storage levels and releases. JR advised	Correspondence	AN
	5:30 AM	Rob Drury rang enquiring estimated time for closing North Pine Dam. RA advised possible today, but it has not yet been decided. Also advised the inflows into North Pine Dam were equivalent to a 1:10 (EC) event	Correspondence	AN
	5:30 AM	JR called Wivenhoe Dam for the current level. Dropped 2 cm in 30 minutes	Correspondence	AN
	5:50 AM	TM called Jim Stewart (BoM) advising him that we have significantly scaled back releases from Wivenhoe Dam, and will probably continue to scale back more. Agreed that Savages Crossing has peaked	Correspondence	AN
	6:00 AM	SDWD Model Updated - SDWD 201101120600withnorain.xls	Model Run	JW
	6:00 AM	North Pine Dam rang enquiring about closing down. JT advised that we have not yet decided	Correspondence	AN
	6:10 AM	Rob Drury rang and suggested that the fish recovery may be a fairly big job. JT suggested that our staff can check this morning and then decide	Correspondence	AN
	6:15 AM	Brendan Bradley (BCC) rang enquiring the level of the pump station at Mt Crosby. JT said we can't help, but that he should contact the treatment plant, Brett Myatt	Correspondence	AN
	6:30 AM	JT rang Doug Grigg (Wivenhoe Dam) advising that a directive will soon follow to lower gates to 5m	Correspondence	AN
	6:35 AM	Paul Martin rang. JT discussed current strategy	Correspondence	AN
	7:00 AM	Liaised with Bureau regarding expected peak in lower Brisbane	Correspondence	JW
	7:50 AM	John Thornton (SunWater) called to confirm that 179 Turbot St had power	Correspondence	JW
	8:20 AM	Rob Drury rang enquiring current storage levels and releases. JT advised	Correspondence	KH
	9:20 AM	Brett Schultz (North Pine Dam) rang wanting to speak to JT	Correspondence	KH
	9:50 AM	Ken from Lowood Police rang enquiring current storage releases from Wivenhoe Dam. JT advised	Correspondence	KH
	10:20 AM	Agg (Somerset Dam) called querying whether FOC have received fax and email regarding storage level. He was checking the walls before and will be at his desk for the next 30 minutes. Adam is there with him	Correspondence	KH
	10:52 PM	Sam (SEQWater) rang wanting to thank Neville for his and John's heroic effort in clearing SEQWater basement	Correspondence	KH
	11:20 AM	MT called to inform that he and Caroline Fine Mallard (Seqwater) are not able to access Enviromon. He asked if TM can check the system	Correspondence	KH
	11:50 AM	Peter Borrows (Seqwater) called to ask that all communications be forwarded to him	Correspondence	JW
	12:20 PM	NA called Mathew O'Reilly (Wivenhoe Dam) to advise that Seqwater comms are to be switched off due to flooding of the Margaret Street offices. Please send all future hourly bulletins to the FOC via fax, or alternatively, phone or TPG link	Correspondence	NGA
	12:25 PM	NA called Jeff Francis (North Pine Dam) advising him & Brett that Seqwater comms are to be switched off due to flooding of the Margaret Street offices. Please send all future hourly bulletins to the FOC via fax, or alternatively, phone or TPG link	Correspondence	NGA
	12:32 PM	Mick O'Halloran (Leslie Harrison Dam) called JT. Due to the failure of Seqwater comms, he was seeking direction on how to submit a final report on operations at approx. 1600 today. JT said to phone in to the FOC	Correspondence	NGA
	12:55 PM	Peter Baddiley, Rob Tesse, Jim Stevenson from BoM visited FOC to liaise with the Duty Engineers	Correspondence	NGA
	1:10 PM	Barton Maher called to request electronic copy of Wiv. Som Flood Ops manual to be forwarded to him	Correspondence	NGA
	1:15 PM	Mathew (Wivenhoe Dam) called to report lake level: 74.79mAHD @13:00hrs. Note: Reading taken in surging water. Wivenhoe fax appears to have failed	Correspondence	NGA
	2:05 PM	Brett Schultz (North Pine Dam) called to inform that North Pine level was 39.74mAHD and based on this level he is recommending at least one gate closure	Correspondence	NGA
	2:10 PM	Graham Keegan phoned from Wivenhoe Dam. The SES (and irrigators) at Fernvale have concerns that a flood peak might be coming down the Lockyer within the next couple of hours. Rob Ayre assured Graham that the flood heights have reduced by up to 3 metres and any increase would be less than 1 metre	Correspondence	NGA
	2:25 PM	Mathew (Wivenhoe Dam) called to report lake level: 74.81mAHD @14:00hrs. Note: Reading taken in surging water. Wivenhoe fax confirmed as failed	Correspondence	NGA
	2:30 PM	Brett Schultz (North Pine Dam) called to advise that the automatic height gauge is drifting further from the manual gauge board readings. He will continue to provide both versions at hourly intervals but will rely on the manual gauge readings for gate operations	Correspondence	NGA
	3:05 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.81mAHD @ 15:00hrs	Correspondence	NGA
	3:30 PM	Peter Baddiley (BoM) called TM to discuss re-appraisal of the expected flood peak in Brisbane. Peak now may be 5.2 metres early on Thursday 13/1/2011	Correspondence	NGA

DATE	TIME	ACTION	CATEGORY	INITIALS
	4.00 PM	SDWD Model Updated - SDWD 201101121600.xls	Model Run	JW
	4.00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.60mAHD @16.00hrs	Correspondence	NGA
	4.00 PM	Brett Schultz (North Pine Dam) called to report that Sideling Creek Dam is spilling at 20.560mAHD. Spillway level is 20.37mAHD	Correspondence	NGA
	4.20 PM	Ken Morris (BCC) called FOC and had phone conference with Duty Engs. He was seeking update for briefing with Lord Mayor	Correspondence	NGA
	4.52 PM	Paul Martin (DERM) called FOC and left message for TM. They (DERM) will be gauging at Jindalee all night to catch the peak. Carolyn Ellis Mallard has been contacted and will be joining the crew	Correspondence	NGA
	5.00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.82mAHD @17.00hrs	Correspondence	NGA
	6.00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.80mAHD @18.00hrs	Correspondence	NGA
	7.00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.82 @19.00hrs	Correspondence	MT
	7.45 PM	RA & JR advised Chris Laney (BoM) that FOC will be sending updated projected releases from Wivenhoe Dam. This has been prepared with the aim of limiting flows at Moggill to 3,500 cumecs	Correspondence	MT
	8.00 PM	RA & JR advised David (BCC Flood Information Centre) that FOC will be sending updated projected releases from Wivenhoe Dam. This has been prepared with the aim of limiting flows at Moggill to 3,500 cumecs	Correspondence	MT
	8.55 PM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.82mAHD @ 21.00hrs. They will now report levels every 2 hours	Correspondence	RA
	9.15 PM	Doug Grigg (Wivenhoe Dam) called to inform that Energex restored power at Wivenhoe Dam at 21.15 hours	Correspondence	MT
	9.50 PM	Brett Myatt (Mt Crosby WTP) provided an update on Kholo & Mt Crosby Kholo 19.15hrs 20.0m Mt Crosby 21.00 23.5m He asked for a situation update. RA shared Wivenhoe Dam's release strategy	Correspondence	MT
Thursday 13 January 2011	10.00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.81mAHD @22.00hrs. Will now report levels every 2 hours	Correspondence	MT
	12.00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.79mAHD @ 00.00	Correspondence	MT
	1.00 AM	James (BCC) called FOC to enquire if Wivenhoe Dam has been compromised. JR assured him that that is not the case	Correspondence	MT
	1.05 AM	RA called BoM hotline number to check communications	Correspondence	MT
	1.10 AM	BCC called the FOC regarding a viral text rumour that Wivenhoe Dam has failed. JR assured him that that is not true and will speak with Rob Drury about this matter	Correspondence	MT
	1.20 AM	Gareth Bossley (Queensland Police) called to inform of rumours that Wivenhoe Dam has been compromised	Correspondence	MT
	1.25 AM	JR called Doug Grigg (Wivenhoe Dam) to confirm Wivenhoe Dam has not been compromised	Correspondence	MT
	1.30 AM	JR called Rob Drury advising him about the rumours that Wivenhoe Dam has been compromised. JR will send him the BCC contact details	Correspondence	MT
	2.00 AM	Doug Grigg (Wivenhoe Dam) called to report level 74.765mAHD @ 2.00hrs	Correspondence	MT
	4.00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.74mAHD @4.00hrs. Will now report levels every 2 hours	Correspondence	MT
	6.00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.71mAHD @6.00hrs. Will now report levels every 2 hours	Correspondence	MT
	6.43 AM	Peter Baddiley (BoM) called to inform that BoM has lost their telephone system. He provided 2 contact numbers [redacted] & [redacted] Thornton St 4.45m Telemeter 4.20m	Correspondence	MT
	7.30 AM	Agg Dagan has been advising Kilcoy Police of the FOC strategy for lower Somerset during the next 24 hours of opening sluice later today	Correspondence	RA
	7.50 AM	Peter Baddiley (BOM) called to ask heights 3,500m3/s would be at Savages and Mt Crosby. TM advised 34.5m AHD and 16.5m AHD respectively	Correspondence	TM
	8.05 AM	Kerry (MBRC) wanted to know when NPD gates will be closed. Advised to be closed by 0500 Friday	Correspondence	TM
	8.15 AM	Somerset directive #9 issued	Correspondence	JW
	9.00 AM	Rob Drury wants to know when gates setting are changed on Wivenhoe and Somerset. Advised that NPD will be closed at 05 Friday	Correspondence	RA
	9.00 AM	Agg Dagan advised of projected level for Somerset. 103.5 by 2000 Thursday and 102.6 early Friday morning. Will open another sluice this afternoon	Correspondence	TM
	10.10 AM	Rob Drury called to inform that power and IT services have been restored at Seqwater	Correspondence	JW
	10.30 AM	Rob Drury called to request if he could be notified of any changes to releases from Wivenhoe	Correspondence	JW
	11.00 AM	SDWD Model Updated - SDWD 201101131100.xls	Model Run	JW
	1.00 PM	Tony Jacobs rang to enquire about Kilcoy Creek and Mary Smokes Bridge. Duty Engineers advised that it may be out of water tonight, certainly by tomorrow morning	Correspondence	JW
	1.15 PM	Rob Drury called to advise that Police had called to ask when Kilcoy would be accessible. John Tibaldi advised Rob that it would be by 6am tomorrow morning (14/1)	Correspondence	JW
	1.40 PM	Brett Myatt called for update on Mt Crosby. Terry Malone informed him that level would be maintained at 17.5 metres for next 7 days	Correspondence	JW
	2.15 PM	Phone call from Steve Roso, MBRC. Advice as follows: * damage to Gympie Rd abutments * No evacuations * No suburban flooding * Not aware of any over floor flooding. Pine Shire had 0.75m freeboard	Correspondence	JW
	2.30 PM	Wivenhoe directive #36 issued • Open Gate 1 from 3.5 metres to 4.0 metres at 1500 • Open Gate 5 from 3.5 metres to 4.0 metres at 1600 • Open Gate 1 from 4.0 metres to 4.5 metres at 1700 • Open Gate 5 from 4.0 metres to 4.5 metres at 1800	Correspondence	JW
	3.50 PM	Brett Schultz called to confirm if FOC received Dam Observation report for North Pine Dam. Approx 6 of 40 uplift pressure gauges have abnormal readings	Correspondence	JW
	4.45 PM	Judy (MBRC) was advised that NPD gates will be closed at 0500 Friday	Correspondence	TM
	7.37 PM	John Thornton of SunWater called to confirm building services were working and all in order	Correspondence	DP
	7.51 PM	Rob called Mal Lane (North Pine Dam) to discuss the current drainage strategy to close all gates by 5am tomorrow. Water level in North Pine Dam will be frequently monitored against the predictive model results, and gate opening will be adjusted accordingly if required	Correspondence	DP
	8.30 PM	Rob Ayre called Graham Francis to advise of directive #11	Correspondence	DP
	8.41 PM	Rob Ayre called Rob Drury top advise of current release rates from Wivenhoe, Somerset and North Pine Dams	Correspondence	DP
Friday 14 January 2011	12.46 AM	David Preston of Ipswich District (Fernvale) Police rang to enquire into the integrity of Somerset Dam, based on information received by the police. Rob Ayre indicated that surveillance procedures are in place to monitor the integrity of the Dam, and that RA will confirm with the operators	Correspondence	DP
	12.47 AM	Rob Ayre called Ray Ballinger at Somerset to enquire to the integrity of Somerset Dam. Operator indicated all was good and no anomalies have been detected	Correspondence	DP
	12.49 AM	RA called David Preston back on 3817 14.. to confirm that Somerset was recently inspected and all was ok	Correspondence	DP
	5.13 AM	Fax received from North Pine Dam confirming closure of all gates	Correspondence	DP
	5.15 AM	Rob Ayre called MBRC to advise that North Pine Dam has closed the final gate at 5am	Correspondence	DP
	5.16 AM	Malcolm from North Pine Dam called to confirm that all gates are closed, and Young's Crossing should be passable within 2 hours. Lake Kurwongbah level is 20.43m	Correspondence	DP
	5.29 AM	Rob Drury called to obtain a situation report. Rob Ayre provided the key information	Correspondence	DP
	5.37 AM	James C from BCC called requesting information for Wivenhoe Dam and checking sit rep data. Enquired about flows throughout the event. TM advised that not currently in a position to discuss these	Correspondence	DP
	7.4. AM	Rob Drury rang FOC to enquire about river levels at Lowood. Pumps required to be reinstated to supply Lowood WTP. TM advised RD that no significant rises were expected in the Brisbane River levels in the foreseeable future	Correspondence	NGA
	7.45 AM	Andrew Tessa from ICC phoned the FOC. Enquiring about renewed rises in the Brisbane / Bremer River systems. He cannot contact BOM for an update. TM advised that no significant rises were expected at Moggill. A constant flow in the river was the plan as a consequence of Wivenhoe releases	Correspondence	NGA
	8.20 AM	Barton Maher phoned TM. Enquiry regarding the Wivenhoe Dam fuse plugs (design calcs/parameters)	Correspondence	NGA
	8.21 AM	Peter Borrows phoned the FOC. TM discussed with Peter Borrows the release strategy from Wivenhoe Dam with a view to opening the Fernvale Bridge and Mt Crosby Bridge at the earliest possible time. TM also updated PB on the projected City Gauge height over the next few days. This being ~2.5 metres due to continuous releases from Wivenhoe Dam	Correspondence	NGA
	8.3. AM	TM returned call back to Barton Maher. TM extended an invitation to Barton and others to pay a visit to the FOC to inspect operations	Correspondence	NGA
	10.10 AM	Agg Dagan rang from Somerset Dam. Checking that all comms avenues (faxes & e-mails) are functioning. All good	Correspondence	NGA
	10.25 AM	Ken Morris from BCC rang TM. Enquiring if any chance of cutting back Wivenhoe releases to lower flows than the current figure of 3,500 cumecs. TM's response was NO	Correspondence	NGA
	10.40 AM	Rob Keogh (SunWater) transmitted a message via Daryl Brigden (SunWater) to Barton Maher that the right bank abutment to Mt Crosby Bridge has suffered some erosion due to the flooding and there are concerns that the abutment may be further affected by piping once the water level falls	Correspondence	NGA
	10.50 AM	Murray Dunstan rang from North Pine. The dam ceased flood operations at 5.00am this morning and fish recovery and clean-up has been completed. Approx. 11 lung fish were rescued. Quite a number of dead lung fish and other species. Erosion damage downstream of the dam is severe with loss of vegetation, stripped and fallen trees, bank erosion and many dead fish caught within the root ball of fallen trees. Murray is organising back hoes and front end loader machinery to clear the debris between the NP dam wall and Grant Street	Correspondence	NGA
	12.33 PM	Mark Tan phoned TM. Request from Seqwater Corp Comms about hourly updates. Particular concern about NPD which ceased flood operations at 5.00am this morning. TM advised that updates from the dams would continue to be channeled solely through the FOC	Correspondence	NGA
	12.35 PM	Ali Cameron from DERM phoned TM. Re: Gauging exercise at Jindalee Soundings M9 from boat (6 passes) Jindalee gauging result - 4,300m3/sec at 6.45 metres AHD at 12.00 hrs	Correspondence	NGA
	12.37 PM	Peter Borrows rang TM. Discussion about this informed reporting	Correspondence	NGA
	1.45 PM	TM rang Ken Morris at BCC seeking clarification on BCC's flood mapping. Ken Morris advised that at 3,500 cumecs, BCC records indicate that 220 properties will have water on the property. TM confirmed that water on the property did not mean water above floor level, i.e. Likely to be land inundation only	Correspondence	NGA
	1.54 PM	Rob Drury rang TM. Routine call. Update on current status	Correspondence	NGA
	2.45 PM	Rob Drury rang TM. Routine call. Update on current status	Correspondence	NGA

DATE	TIME	ACTION	CATEGORY	INITIALS
	3 30 PM	Matthew O'Reilly rang from Wivenhoe Dam with concerns about some 'swirling' apparent in the downstream tailwater opposite 'The Common'. Matthew thought there could be some erosion occurring under the flow. Matthew forwarded a marked photo of the phenomenon to TM. The consensus reached was that the phenomenon was the result of an 'hydraulic jump'. The matter would be referred to John Tibaldi for further investigation	Correspondence	NGA
	3 55 PM	TM rang John Tibaldi to discuss the 'swirling' phenomenon identified by Matthew O'Reilly. Effect is at D/S end of plunge pool and is almost certainly a 'hydraulic jump'. JT advised the issue was not of concern unless the phenomenon moves toward the flip bucket	Correspondence	NGA
	4 05 PM	TM phoned Matthew O'Reilly at Wivenhoe Dam to pass on advice that John Tibaldi had no concerns about the 'hydraulic jump' phenomenon identified by him earlier today	Correspondence	NGA
	4 50 PM	Brett Myatt phoned the FOC. TM advised Brett that the current release strategy from Wivenhoe Dam (and therefore flows past the Mount Crosby WTPs) would be maintained until at least Monday (17/1)	Correspondence	NGA
	5 50 PM	Rob Drury rang John Tibaldi enquiring when the bridges to the east of Lake Wivenhoe would be clear of floodwater. JT advised all but the Sandy Ck - A&PM Conroy Bridge on the Wivenhoe Somerset Rd would be clear by tomorrow (Sat) morning	Correspondence	NGA
	7 00 PM	FOC change over	Other	KH
	8 40 AM	Rob Drury rang. Terry advised strategy to possibly go below FSL at Wivenhoe by Thursday	Correspondence	AN
	8 42 AM	Peter Burrows rang to advise that the media come into the FOC today to take photos	Correspondence	AN
	11 30 AM	Rob Drury rang to request a summary of the Operations Manual for Wivenhoe. Terry to provide after checking with all duty engineers	Correspondence	AN
	12 12 PM	Rob Drury rang to advise of a phone hook-up with the Minister and Peter Burrows at 2 00pm and requested that RA be in at the FCO at that time	Correspondence	AN
	12 20 PM	Peter Burrows rang to confirm a phone hook-up with the Minister and Peter Burrows at 2 00pm	Correspondence	AN
	12 55 PM	Terry Malone advised Rob Ayre to come into the FOC for the phone hook up at 2 00pm	Correspondence	AN
	13 10 AM	Peter Allen phoned about the Wivenhoe Flood manual summary. Terry Malone told Peter that the summary is with the other duty engineers for checking before issuing	Correspondence	AN
	1 15 PM	Rob Drury rang with some questions on the Wivenhoe Flood manual summary	Correspondence	AN
	1 45 PM	Rob Ayre and John Tibaldi arrived at the FOC for the 2 00pm phone hook up	Correspondence	AN
	2 00 PM	Phone hook-up with TM, RA, JT with Rob Drury, Peter Allen, Peter Boroughs, Joh Bradley and Bob Reilly to discuss a report for the minister by COB Sunday	Correspondence	AN
	5 00 PM	Rob Drury arrived to help write report for minister briefing	Correspondence	AN
	7 30 PM	Doug from Wivenhoe called to discuss strategy for the next 12 hours	Correspondence	DP
	4 12 AM	Called Doug at Wivenhoe to confirm directive received via email. Directive being actioned ASAP	Correspondence	DP
	7 10 AM	Anthony Dagan (Somerset Dam) emailed floodcentre indicating he believed floodcentre phones were out. Tried to contact Ag by office and mobile phones with no success (Telstra message bank on office phone and Ag's message on mobile). Floodcentre phones were checked - working OK. Problem is with Somerset phones. Believe fax also not receiving. Ag emailed to confirm they have local calls but no STD. Continued checking mobile - no response	Correspondence	BS
	8 20 AM	Called Matt at Wivenhoe to confirm directive 45 received. Confirmed not received - busy status on fax confirmation. Confirmed directive received via email	Correspondence	BS
	9 40 AM	Retried all phones at Somerset - no response. Ag emailed to confirm that all phones are down at Wivenhoe. Email is still working and he will be checking emails every hour on the hour	Correspondence	BS
	10 20 AM	Email confirmation received that Somerset Directive #12 implementation has been completed	Correspondence	BS
	11 30 AM	FOC contacted by police (Robbie Goodger - ph 3617 1436) notifying that the Wivenhoe viewing area has been damaged. Rob Ayre unable to contact Wivenhoe staff (Matt) - message left. Then contacted Doug Gregg who confirmed that the area is damaged and has been locked off and 2 security guards are on site. It won't be opened until the water level falls and a full inspection of the structure has been completed. Rob Ayre confirmed this with police who reported that there was damage to safety rails and water supply to toilets. Matt also responded to Rob's call and confirmed the details	Correspondence	BS
	12 30 PM	Phone call from Matt (Wivenhoe) - neither fax nor email received. Verbal instruction given to implement gate operation as per Directive #46 and email resent	Correspondence	BS
	12 40 PM	Ian Holland (contract programmer) called to advise that the back up Linux box "Namah" at Mineral House is showing file system corruption errors, so the FOC is effectively without backup. The hydraulic model in the RTFN is missing because two Fortran programs "Modcom 2" and "Model" have not been ported to the Linux box	Correspondence	BS
	12 55 PM	Rob Ayre advised Warren Shallcross about the situation at Mineral House and he will visit the backup operations centre ASAP	Correspondence	BS
			Correspondence	BS
	1 10 PM	Ag (Somerset) called to report that the phones are now working	Correspondence	BS
	2 40 PM	Terry Malone spoke to Rob Ayre. Grid manager wants a summary of flood volumes and peak discharges	Correspondence	BS
	3 00 PM	Warren Shallcross called - confirmed with Rob Ayre that the computer system at Mineral House has been rebooted and is functional	Correspondence	BS
	3 10 PM	Rob Drury rang to confirm current discharges. Confirmed 600 cumecs for Somerset and 3500 cumecs for Wivenhoe (approx)	Correspondence	BS
	4 00 PM	Directive #47 implemented - Gate 2 opened to 7.0 m	Correspondence	BS
	6 52 PM	Rob Ayre spoke with Doug Gregg (Wivenhoe Dam) about Directive #48 Wivenhoe strategy. Doug confirmed receipt of Directive	Correspondence	MT
	7 00 PM	FOC change over	Other	MT
	10 00 PM	Doug Gregg (Wivenhoe Dam) called to inform 3 floor panels missing from bulk	Correspondence	MT
Monday 17 January 2011	7 15 AM	Rob Drury called to get Sit Rep. Advised that Somerset should remain mobilised until further notice	Correspondence	LVB
	7 35 AM	Ago Duggan called - discussed strategy i.e. operate cone valves only from now on	Correspondence	LVB
	9 15 AM	Brett Myatt from Mt Crosby called to find out about strategy for Wivenhoe shut down. Informed him that we will start closing down mid afternoon and aiming to have it closed by Wednesday	Correspondence	LVB
	9 35 AM	Rob Drury called to enquire when closing down will start and reminded us to inform Councils	Correspondence	LVB
	10 00 AM	Advise Peter Allen about inconsistency between readings form BoM and actual HW gauges	Correspondence	LVB
	10 15 AM	Tony Jacobs SRC was contacted and advised gate close will commence this afternoon and Fernvale Bridge will be out of the water sometime Tuesday morning	Correspondence	LVB
	10 20 PM	Chris Lavin BCC was contacted (left message) advising gate close will commence this afternoon	Correspondence	LVB
	10 20 PM	Tony Trace ICC was contacted (left message) advising gate close will commence this afternoon	Correspondence	LVB
	11 15 PM	Called Bret Myatt to inform him that flow in Lockyer is 75m3/s and falling	Correspondence	LVB
	11 15 PM	Talked to Ken Morris BCC. Advised him about gate closure. He mentioned that BCC will not provide any info on flood recurrence until they discussed with RA	Correspondence	LVB
	11 20 AM	Rob Drury called - Council wants to know draw down rates so they can determine the effects on Coronation Dr. JR informed RD that Ken did not raise this when they spoke 10 mins before	Correspondence	LVB
	11 20 AM	Peter Burrows called saying he will email a revised copy of Michael O'Brien's document	Correspondence	LVB
	12 20 PM	JR contacted BCC to get an update on Coro Dr situation. JR spoke to Ken Morris. Ken advised he had spoken to BCC Geotec Officers and they had advised that @ this stage as Coro Dr was back within the banks that they could not see an immediate problem. Some bank slumping have been identified further up the river. Council would like the recession of flow to be as flat as practicable but also that releases be as small as possible @ the Port Office gauge by the time of the high tide on Friday. This is consistent with our current strategy of closing releases by Wednesday 20 Jan 2010	Correspondence	LVB
	12 30 PM	Rob Drury called requesting an update on discussions with BCC. He requested that BCC confirm the discussion of 12 20 in writing	Correspondence	LVB
	1 01 PM	Rob Drury called saying Morton Bay wanted to know if there will be any more releases from NPD. JR said no planned unless we get more rain	Correspondence	LVB
	2 15 PM	Rob Drury called asking for dates and times for Wivenhoe operations at the peak of the flood	Correspondence	LVB
	3 15 PM	Peter Badley form BoM called to confirm that he received the info on the discrepancy in the auto level recorder	Correspondence	LVB
	4 15 PM	Jim from BoM - they have not received manual observations for Bays	Correspondence	LVB
Tuesday 18 January 2011	12 30 AM	Peter Borrows called to inform that rapidly dropping water level at Lowood was causing issues with pumping for WTP. Asked if FOC could call John Granzien and then notify him via txt of the outcome	Correspondence	JW
	12 35 AM	FOC contacted John Granzien in regards to pumping issues at Lowood. Terry decided to halt all gate operations until further notice in order to ensure security of water supply to Lowood	Correspondence	JW
	1 00 AM	Txt message sent to Peter Borrows to advise of cessation of Wivenhoe gate operations until further notice	Correspondence	JW
	2 00 AM	BCC advise that the riverbank at Coronation Drive is not an issue with regards to bank stability	Correspondence	JW
	5 00 AM	Doug Gregg called to advise that Fernvale Bridge was emerging from river. Current release 2894 cumecs	Correspondence	JW
	5 40 AM	Doug Gregg called to advise that the approach to the Fernvale Bridge from the Fernvale side was still underwater due to water backed up in the quarry	Correspondence	JW
	5 45 AM	Called John Granzien to advise that Wivenhoe gate operations would recommence close down sequence from plan as per original strategy. John to advise FOC if pumping operation at Lowood would benefit from additional 3 - 6 hours delay in gate operations	Correspondence	JW
	7 25 AM	Doug Gregg (Wivenhoe) called to advise that Surveyor Bob Hewitt is taking a routine deformation survey	Correspondence	JW
	7 35 AM	Ken Morris (BCC) enquired about preliminary assessment of magnitude of flood. Ken suggested that SEQWater, BOM and BCC should arrive at a consensus regarding any assessment on the magnitude of the event. Rob Ayre agreed. Ken also enquired if we had done an assessment of the effects of the dam on peak flow. Rob indicated that our prelim figure was 13000 cumecs peak at City Gauge without the Dams	Correspondence	JW
	8 25 AM	Matthew O'Reilly (Wivenhoe) called to acknowledge Directive 58	Correspondence	EF

DATE	TIME	ACTION	CATEGORY	INITIALS
	10:10 AM	Rob Townsley (SEQWater at Mt Crosby Phone 0419667634) has requested some forward projections for flows at Mt Crosby Weir for the next 48 hours. They are looking at sludge dilution	Correspondence	KP
	10:15 AM	Rob Ayre called Rob Townsley back to provide the following info re projected flows at Mt Crosby Weir 18/1/2011 10:00 - 2300 cumecs 19/1/2011 10:00 - 1130 cumecs 20/1/2011 10:00 - 360 cumecs	Correspondence	KP
	10:19 AM	Mark Gibson from BCC Flood Information Centre called to advise that Campbell Newman wants an indication of what the flood would have been without dams and asked if the figure of 13000 cumecs provided to Ken Morris earlier could be released to the public	Correspondence	KP
	10:24 AM	Rob Ayre spoke to Rob Drury to ask SEQWater's policy re release of information above. Rob Drury to confirm with his comms people	Correspondence	KP
	10:30 AM	Paul Bird (SEQWater comms officer) called to advise that the minister's office has recommended that no info regarding releases from WD be released to anybody. Paul Bird will now communicate this response to the BCC Flood Info Centre and specifically Mark Gibson	Correspondence	KP
	10:38 AM	Tony Jacobs (Somerset RC) requested info re when Burtons Bridge is expected to be free from inundation. Under our current shutdown sequence Rob Ayre advised that we expect Burtons to be free around midnight on Wed evening. Tony also advised that the bridge on New England Creek will become flood free at around the same time. Tony indicated that at at 8am today the approaches to Fernvale were clear of water. However powerlines and silt need to be removed. He expects the bridge to be open this afternoon	Correspondence	KP
	10:55 AM	Barton Maher (SEQWater) called to confirm that we received the hydraulic model from WRM (affirmative)	Correspondence	KP
	12:05 PM	Peter Borrows (SEQWater) called to advise tat he and Bob Reilly (DERM) will come come and visit the FOC at 2:30 this afternoon	Correspondence	KP
	12:26 PM	Rob Drury called to confirm programmed final shutdown. Rob Ayre advised scheduled for 8am Thursday 20/1 2011. Rob Drury to confirm with Rohan Thorogood re fish recovery	Correspondence	KP
	1:22 PM	Confirmed with Mat O'Reilly that gate closure sequence was in accordance with directive as email received from WD re 13:00 closure was incorrect	Correspondence	KP
	2:00 PM	John Tibaldi called for an update of the closedown sequence	Correspondence	KP
	2:15 AM	Rob Ayre called Greg Roads of WRM re hydraulic model of Brisbane River. login and password not working. Greg not available at present	Correspondence	KP
	2:30 PM	Peter Borrows (SEQWater) and Bob Reilly (DERM) visited FOC to check current situation and to pass on thanks for job performed so far. Also requested that we hold further gate operations until problems at Lowood Pump Station are resolved	Other	KP
	4:05 PM	Rob Ayre called Mal Lane to alert him to the possibility of operating North Pine Dam with incoming storms	Correspondence	KP
	4:30 PM	Rob Drury rang noting the current storms and requested that Rob Ayre call Tony Martin (Moreton RC) to advise of the possibility of operating North Pine Dam	Correspondence	KP
	4:34 PM	Email from Peter Borrows containing Bob Reilly's approval to vary the flood release regime to enable a constant flow for the Lowood WTP offtake	Correspondence	KP
	4:45 PM	Rob Ayre rang Tony Martin (Moreton RC) to advise of the possibility of operating North Pine Dam in the next day or so if predicted falls of up to 50mm occurred	Correspondence	KP
	6:25 PM	Rob Drury called to discuss situation report for North Pine	Correspondence	KP
	6:57 PM	JT phoned Tony Martin at MBRC. Message left regarding plans to open NPD gates this evening as the lake level is approaching trigger level with more rain / showers forecast	Correspondence	NGA
	7:02 PM	JT phoned Malcolm Lane regarding mobilising for NPD gate opening this evening. Tentative plan is for commencement of gate opening at 20:30	Correspondence	NGA
	7:05 PM	JT phoned the Duty Officer (Charlie) at MBRC regarding the planned imminent opening of the NPD gates. Target time is 20:30 if Council has the barriers in place closing Youngs Crossing Road and the dam is fully manned	Correspondence	NGA
	7:06 PM	Neville Abitt phoned Rob Drury to provide an update on the NPD mobilisation and proposed gate openings	Correspondence	NGA
	7:07 PM	JT phoned Murray Dunstan to advise of planned gate opening of NPD this evening. Cessation of operations (i.e. gate closure) is expected to be arranged for tomorrow morning (19/1) in order for Youngs Crossing Road to be opened to peak hour traffic. JT advised MD to plan for an early morning fish recovery exercise at NPD	Correspondence	NGA
	7:10 PM	Tony Martin from MBRC returned phone call to JT. JT repeated information already conveyed to MBRC Duty Officer - Charlie regarding requirement for Youngs Crossing Road to be closed to traffic to allow NPD gates to be operated by 20:30 if possible	Correspondence	NGA
	7:15 PM	JT phoned Cynthia Crane (Seqwater) regarding JT's inability to access Citrix. Outage (?). Message left	Correspondence	NGA
	7:15 PM	JT phoned Rob Drury regarding Citrix comms outage. Message left requesting RD to intervene to have the problem fixed	Correspondence	NGA
	7:20 PM	Lief from IT (Seqwater) rang and 'reset' Citrix for JT	Correspondence	NGA
	7:30 PM	JT phoned Malcolm Lane at NPD to confirm gate opening arrangements for 20:30 if Youngs Crossing Road has been closed to traffic by Council at that time	Correspondence	NGA
	7:40 PM	Rob Drury rang the FOC to enquire if the Citrix issue was sorted. Citrix connection now functioning. JT expressed concern about the current release strategy for Wivenhoe Dam. If the current release rate is maintained (net to accommodate Lowood temporary raw water pumps) the model indicates that the lake level could fall well below FSL (= EL 67.00 ??)	Correspondence	NGA
	7:42 PM	JT phoned Jim Pruss (Seqwater) to seek advice on who could supply the most up-to-date status report on the current situation at Lowood regarding river levels and pumping activities to supply the WTP. JP suggested John Smith (?)	Correspondence	NGA
	7:45 PM	JT phoned Mick Drews (Seqwater) seeking info Re: Lowood. Mick referred JT to Daniel Roche	Correspondence	NGA
	7:50 PM	JT phoned Daniel Roche - reportedly on site at Lowood PS. No answer. Message left	Correspondence	NGA
	7:52 PM	JT phoned John Smith - Lowood WTP operator to enquire as to current status regarding temporary pumping arrangements of raw water from the Brisbane River	Correspondence	NGA
	7:55 PM	Agg Dagan (Somerset Dam operator) phoned the FOC from home seeking the Duty Engineer's intentions for operations at Somerset Dam overnight. JT requested a Gauge Board reading of the lake level and advised that an operations strategy for Somerset Dam would be addressed within 30 minutes. Following satisfactory mobilisation of NPD	Correspondence	NGA
	8:00 PM	Mark Millman (Seqwater IT) phoned JT to check status of Citrix connection. Citrix connection is functioning	Correspondence	NGA
	8:[illegible] PM	Agg Dagan phoned from Somerset Dam. Current lake level is EL 99.40. Unchanged from lake level at 15:35 today	Correspondence	NGA
	8:05 PM	JT phoned Graham Keegan at home. JT requested GK to visit Lowood pumping intake site and report on status as unable to contact Daniel Roche	Correspondence	NGA
	8:11 PM	JT phoned Agg Dagan (Somerset Dam operator). Agg to send fax in with lake level. Likely strategy will be to close off the regulator overnight and re-assess the situation in the morning	Correspondence	NGA
	8:12 PM	JT conversed with Peter Pennell (Seqwater). PP advised that arrangements are in hand to move the temporary pumps at the Brisbane River site at Lowood. The pumps are being re-located downhill to maintain extraction of raw water from the river to supply the Lowood WTP	Correspondence	NGA
	8:15 PM	Daniel Roche contacted JT. The temporary raw water pumps at Lowood are being moved closer to the river - chasing the anticipated lower level in the river due to reduced releases from Wivenhoe	Correspondence	NGA
	8:18 PM	Rob Drury rang the FOC to seek an update on operations at all 3 storages	Correspondence	NGA
	8:20 PM	JT confirmed on-site manning arrangements at Lowood with Graham Keegan	Correspondence	NGA
	8:30 PM	Somerset Dam operator advised FOC by fax that Regulator #12 had been closed as per verbal advice from JT	Information	NGA
	8:35 PM	JT contacted Dilly [illegible] at Wivenhoe. Gate closing directive pending	Correspondence	NGA
	8:55 PM	Malcolm Lane phoned the FOC. MBRC have only just closed off Youngs Crossing Road. By the time the siren is sounded, the gate openings in Directive 31 scheduled to commence at 20:30 will be delayed by 45 minutes	Correspondence	NGA
	9:00 PM	Charlie, the Duty Officer at MBRC, rang JT to advise that Youngs Crossing Road was now closed. JT advised Charlie that it was intended to maintain releases from NPD through until 5:00am Wednesday 19/1. With this operating strategy, Young's Crossing Road should be able to be re-opened to traffic by 7:00am tomorrow	Correspondence	NGA
	9:05 PM	Note: Wivenhoe Dam fax machine is still inoperative	Correspondence	NGA
	9:08 PM	JT phoned Murray Dunstan to advise of planned gate opening of NPD this evening. Closure is	Correspondence	NGA

DATE	TIME	ACTION	CATEGORY	INITIALS
	9.15 PM	Rob Drury phoned JT to discuss the Wivenhoe release strategy and its potential to effect bank slumping at Coronation Drive. The changed situation at Lowood means that the reduction in Brisbane River levels will now be far more even. RD advised that Coronation Drive is no longer a concern	Correspondence	NGA
	9.30 PM	Neville Abitt phoned BCC and made contacted with Leanne from BCC's Flood Operations (Disaster Management) Centre. JT requested confirmation that Coronation Drive would not be adversely affected by way of bank slumping if releases from Wivenhoe were terminated on Wednesday afternoon. JT requested Leanne to investigate and call back the FOC	Correspondence	NGA
	9.38 PM	Neville Abitt contacted Doug G. at Wivenhoe Dam by 2-way radio to confirm his receipt of e mail containing Directive #59. Doug also confirmed that the Wivenhoe fax machine is still inoperative. All written comms to be by e mail	Correspondence	NGA
	9.50 PM	JT phoned Rob Drury. Wivenhoe release strategy discussed regarding Lowood WTP temporary offtake level, concerns about Coronation Drive bank slumping and lake level at cessation of releases if targetted for tomorrow afternoon	Correspondence	NGA
	9.53 PM	Chris Thorley from BCC's Flood Operations (Disaster Management) Centre phoned JT. Wivenhoe release strategy and effect on Coronation Drive discussed. BCC have no concerns about imminent ceassation of Wivenhoe releases. JT explained that it was more likely that the tidal variation at Toowong would have a greater impact on the river banks than the Wivenhoe releases	Correspondence	NGA
	10.00 PM	JT phoned Malcolm Lane at NPD to discuss release strategy. i.e. planned gate openings to setting #2 followed by closure sequence to be completed by early tomorrow morning (19/1)	Correspondence	NGA
	10.02 PM	RD phoned JT. Release strategy and final lake level at gate closure at Wivenhoe discussed	Correspondence	NGA
	10.14 PM	Graham Keegan phoned JT. Situation at Lowood is under control. JT advised Graham that the releases at Wivenhoe are planned to cease by early afternoon tomorrow (19/1)	Correspondence	NGA
Wednesday 19/01/2011	3.30 AM	JT phoned the Mount Crosby WTP to obtain an update on the status of the Mount Crosby Weir Bridge. It is currently clear of water and came out of inundation approx 14.00 yesterday (18/1). The bridge has reportedly suffered some damage. Details unknown	Correspondence	NGA
	4.38 AM	JT advised Doug G. at Wivenhoe Dam that the strategy for further gate closures after 0500 was dependant on the outcome of a discussion with Peter Borrows anticipated within the hour. Doug advised that the Fernvale Bridge was clear of floodwater but that it had powerlines down on /around it	Correspondence	NGA
	5.05 AM	Doug G. from Wivenhoe Dam phoned the FOC to report that some erosion has occurred in the vicinity of the plunge pool downstream of the flip bucket. This has become evident now that the gate releases have been reduced. Some large boulders (~10t) are evident piled up against the bench D/S of the flip bucket. JT will need to inspect the damage ASAP	Correspondence	NGA
	5.10 AM	JT phoned Peter Borrows to obtain a Govt. view on how long to maintain releases and to where the lake level should be held following closure of all gates. Timing of the gate closure might be dependant on the erosion issue	Correspondence	NGA
	5.15 AM	JT phoned TM to arrange for TM to relieve JT ASAP in the FOC as he is required to inspect the reported damage at Wivenhoe Dam	Correspondence	NGA
	5.20 AM	JT phoned Barton Maher (Seqwater) to arrange a joint inspection of the erosion damage at Wivenhoe Dam as reported by Doug G. the dam operator	Correspondence	NGA
	5.25 AM	Rob Drury phoned JT to obtain an update. JT advised RD that damage has been reported to the area D/S of the flip bucket at Wivenhoe. An inspection ASAP is warranted	Correspondence	NGA
	5.30 AM	JT phoned Peter Allan (Dam Regulator) to advise that damage had been reported at Wivenhoe Dam by the operator. Initial information indicates that large boulders are piled up in the plunge pool D/S of the flip bucket. The source of these boulders is unknown as releases are still continuing from the gates. JT has arranged to inspect the site with Barton Maher in a few hours and an invitation was extended to PA as an interested party to attend the inspection. JT will provide updates as they come to hand	Correspondence	NGA
	5.35 AM	Doug G. phoned JT on his mobile phone with an update report	Correspondence	NGA
	8.08 AM	JT phoned TM. Things seem to be O.K. but we will continue to close all gates by this afternoon	Correspondence	KH
	8.23 AM	TM phoned Flood Warning Centre advising that flood operation for current event will be shut down around lunch time	Correspondence	KH
	9.23 AM	JT phoned TM asking whether we should run a regulator	Correspondence	KH
	9.51 AM	TM phoned JT regarding modeling results	Correspondence	KH
	10.00 AM	TM phoned JT regarding modeling results. TM want to advise Doug G to stop at Gate 3 at 1 metre, but they agree to close as planned and maintain operational release instead of flood release	Correspondence	KH
	10.15 AM	JT has discussed the event closure with Peter Allen. It was agreed that the flood will be considered closed with the closure of the gates at 1200. At that time, control of the dam will revert to Seqwater. As the low flow channel to the regulator is blocked, the centre gate will be opened to 1 metre to manage on going inflows with the aim of getting to 95% (El. 68.5)	Correspondence	TM
	10.43 AM	Received QPF: 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments	Other	KH
	11.14 AM	JR phoned TM - Still operational until tonight	Correspondence	KH
	11.28 AM	Rob Townsley (SE QWater at Mt Crosby 34374112) phoned FOC requesting for peak flow at Mt Crosby Weir during the latest event	Correspondence	KH
	11.36 AM	TM phoned JT confirming that JR and LvB will be on tonight	Correspondence	KH
	11.45 AM	TM phoned Rob Townsley advising that peak flow over Mt Crosby Weir was about 9150 cumecs	Correspondence	KH
	11.51 AM	TM phoned (left message with) MBRC regarding potential for closing operation tonight	Correspondence	KH
	11.52 AM	TM phoned (left message with) Murray Dunstan to call him back	Correspondence	KH
	11.59 AM	JT phoned TM stating that divers will investigate erosion d/s Wivenhoe Dam today	Correspondence	KH
	1.25 PM	Rob Townsley phoned TM discussing about the information which TM sent	Correspondence	KH
	1.39 PM	Matthew O'Reilly phoned TM advising Wivenhoe Dam El. is 66.89 m AHD	Correspondence	KH
	3.21 PM	Kerry (MBRC) phoned wanting AJ Wylie Bridge to be closed at 9.00 PM rather than 7.00 PM, and stating that she will update 24 hour call centre number. She will send email to confirm all this	Correspondence	KH
	4.00 PM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments	Other	KH
	7.30 PM	Tom Martin from MBRC called to say that the alternate route @ Petrie is open (sooner than the 9 PM forecast)	Correspondence	LVB
	9.10 PM	Called Murray Dunstan to inform him that NPD will be mobilised	Correspondence	LVB
	9.10 PM	Called Brett Schultz NPD to mobilise. The WL is approaching trigger level for gate opening	Correspondence	LVB
	9.20 PM	Called MBRC call centre to inform them that NPD will be operated. They called back and advised that they can close Youngs crossing by 11 PM. They will confirm once road is closed	Correspondence	LVB
	9.35 PM	Brett Schultz called to confirm they are ready. The gauge reading was 39.54 @ 9.30PM	Correspondence	LVB
	2.15 AM	Tony Martin from MBRC called regarding release at NPD. He was advised that the gates will be open open for a while yet	Correspondence	LVB
	6.50 AM	Maria from MBRC called to find out when the gates on NPD will be shut. They were advised that the gates will only be closed in time for the afternoon peak	Correspondence	LVB
	7.20 AM	Rob Ayre called Tony Jacaobs at SRC to advise of flow in Lockyer Creek. Tony concerned about Burtons Bridge but RA indicated that we will endeavour to keep flows below 400 m3/s	Correspondence	RA
	7.25 AM	RA called Tony Trace at Ipswich CC and advised of renewed flows in Lockyer Creek and Middle Brisbane R	Correspondence	RA
	7.45 AM	RA called Chris Lavin at BCC and advised of increased flows in Lockyer Creek and Middle Brisbane. Advised that Savages Crossing and/will be Colleges Crossing are inundated. Estimated travel time 30 to 36 hours	Correspondence	RA
	7.55 AM	RA called NOD and spoke to Doug. Discussed proposed strategy to drain until around 2.00 PM with current gate settings. Requested hourly readings so as to monitor model performance	Correspondence	RA
	8.30 AM	Mal Lane from NPD called to discuss proposed operations. RA indicated that we will continue as is until 10.00am QPF comes in and then decide from there as to strategy	Correspondence	RA
	8.40 AM	Rob Drury called enquiring about the timeliness of the notice we gave to MBRC. Rob advised him accordingly	Correspondence	KH
	8.45 AM	John West called (re Lowood pump station) enquiring time to peak (height and discharge). FOC response was about 9 hours with height of about 3.7 m corresponding to 300 cumecs	Correspondence	KH
	8.50 AM	John West called (re Lowood pump station) enquiring current height and discharge. Together we estimated that it was about 150 cumecs (50 from Lockyer Creek and 100 from Wivenhoe Dam) corresponding to about 2.4 m	Correspondence	KH
	9.45 AM	Rob Drury advised Wivenhoe will not be drained to 66.5 m AHD, but will be maintained at or just below FSL	Correspondence	KH
	10.21 AM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments	Other	KH
	10.33 AM	Rob Drury called enquiring whether closing all releases in Wivenhoe Dam will cause level to exceed gate trigger in the next three day. RA advised that with rain on the ground he expects it not to, however forecast as per QPF is 15-25 mm, so we may need to review that decision tomorrow	Correspondence	KH
	11.12 AM	Tony Martini (MBRC) called. RA advised all gates will be closed at 2.00 PM	Correspondence	KH
	11.14 AM	RA phoned Murray Dunstan. They decided to close NPD by 2pm to allow MBRC to open Young's Crossing for afternoon peak	Correspondence	KH
	11.15 AM	John West called enquiring peak height and discharge at Lowood with Wiv Dam gates closed. We decided to use minus 100 cumecs from previous estimation. He also wants FOC to email him the Lowood rating curve	Correspondence	KH
	11.33 AM	RA called Mal re Directive #60	Correspondence	KH
	11.36 AM	RA called TM. TM will monitor situation overnight and RA will become Duty Eng again tomorrow	Correspondence	KH
	11.44 AM	Paul Bird (SEQWater) called to confirm whether we have closed all gates at Wivenhoe Dam. KH said yes	Correspondence	KH

DATE	TIME	ACTION	CATEGORY	INITIALS
	1:07 PM	Rob Drury called confirming NPD closure	Correspondence	KH
	1:35 PM	Peter Parnell (SEQWater) called about Lowood pump motor sitting on the platform and wanting to know what flow will come down from Lockyer. Rob said about 300 cumecs	Correspondence	KH
	1:37 PM	TM called. Lou will be on tonight (KH should ring him this afternoon). Mt Crosby Weir gauge is broken so Water Treatment boys will give manual readings via BoM website. City gauge is currently reading 0.3 m high	Correspondence	KH
	2:10 PM	RA advised MBRC that North Pine Dam gate operations had ceased at 14:00 and that Youngs Crossing should be clear of water within the next hour to an hour and half	Correspondence	RA
	2:15 PM	RA called Mal Lane and indicated that Terry Malone will be on call tonight monitoring the situation. Mal Lane advised that the tree branch snagged on Gate C had swung around and was now resting on pier, therefore okay. However a 75mm branch was caught in the ropes of Gate B and may need to be removed before another operation. Murray Dunsatn has organised for the Rangers to examine tomorrow	Correspondence	RA
	2:40 PM	Agg Dagan called from Somerset dam and enquired as to proposed operational release strategy. RA advised that no releases planned for now until Wivenhoe spillway issues are resolved	Correspondence	RA
	3:20 PM	RA called MBRC Call Centre to provde heads up on possible gate operations tonight. Indicated that with 25mm over catchment we will commence gate operations at 21:00	Correspondence	RA

Appendix C

CONTROL CENTRE - EVENT LOG

Duty Engineer
RA - Rob Ayre
JR - John Ruffini
TM - Terry Malone
JT - John Tabaldi

Agency
MBRC - Moreton Bay Regional Council
BCC - Brisbane City Council
FOC - Flood Operations Center
IOC Ipswich City Council
SRC - Somerset Regional Council
BOM/FWC Bureau of Meteorology Flood Warning Centre

Data Collector
MT - Mark Tan
KH - Kim Hang
NA - Neville Aalti
LVB - Lou van Blerk
AN - Al Nowak
BS - Bill Stephens
DP - Darrel Potaine
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
Thursday 6/1/2011	7:00 AM	TM duty Engineer: Rainfall and water had been remote monitored to this point in time. TM advises Senior Duty Engineer that Flood Operations are required at both Somerset, Wivenhoe and North Pine Dams. TM arrived at FOC to assess strategies and mobilises FOC, Wivenhoe, Somerset and North Pine Dam North Pine Dam At 07:00hrs Thursday, North Pine Dam was 39.60m, 0.05m below gate trigger level and having risen 0.18m since 2/1/2011 due to a combination of base flow and runoff from rain in the last 24 hours. Given the forecast rain, gate operations will commence tonight. MBRC will be advised this morning Somerset Dam At 07:00hrs Thursday, Somerset Dam was 99.34m, 0.34m above FSL, and rising slowly. The rain in the Stanley River catchment has produced a small amount of runoff in the upper Stanley but there have been significant rises in Kilcoy Ck. Further regulator operations will be required later Thursday Wivenhoe Dam The regulator and hydro were discharging at 50 cumecs to manage baseflow recession from previous flow event. At 07:00hrs Thursday, Wivenhoe Dam was 67.31m and rising slowly. This is 0.31m above FSL and above the gate trigger level of 67.25m. There have been rises recorded at rivers and stream upstream of Wivenhoe Dam. Gates will be opened in the next 24 hours to manage the inflows from the upper Brisbane River and the outflow from Somerset	Situation Report	MT
	8:00 AM	SDWD Model Updated - SDWD-201101060800.xls	Model Run	JW
	8:00 AM	NPD model updated - NPD 201101060800.xls	Model Run	JW
	8:14 AM	**Situation Report 0800 06/01/2011** Rainfall - Since 9am Wednesday, there have been widespread falls of 30mm with isolated heavy falls up to 50mm in the Somerset and Wivenhoe catchments. Totals in the North Pine catchment have generally been below 10mm. Falls up to 60mm were recorded in the Leslie Harrison catchment - The forecast for the next 24 to 48 hours is for totals up to 150mm in SE Qld - The catchments remain wet and are likely to generate additional runoff in the event of rain North Pine Dam - At 0700 Thursday, North Pine Dam was 39.60m, 0.05m below gate trigger level and having risen 0.18m since 2/1/2011 due to a combination of baseflow and runoff from rain in the last 24 hours - Given the forecast rain, gate operations will commence tonight. MBRC will be advised this morning Somerset Dam - At 0700 Thursday, Somerset Dam was 99.34m, 0.34m above FSL, and rising slowly. The rain in the Stanley River catchment has produced a small amount of runoff in the upper Stanley but there have been significant rises in Kilcoy Ck. Further regulator operations will be required later Thursday	Situation Report	TM
		Wivenhoe Dam - At 0700 Thursday, Wivenhoe Dam was 67.31m and rising slowly. This is 0.31m above FSL and above the gate trigger level of 67.25m. There have been rises recorded at rivers and stream upstream of Wivenhoe Dam. Gates will be opened in the next 24 hours to manage the inflows from the upper Brisbane River and the outflow from Somerset Impacts of Wivenhoe Dam Releases - Somerset Regional, Ipswich City and Brisbane City Councils will be advised of the potential for gate operations after a full assessment of the situation this morning. At this stage it is anticipated that peak releases from Wivenhoe will be below 500m3/s but this will depend on the forecast rain and flows downstream of the dam - The expected Wivenhoe release and local flows will at least impact upon Twin Bridges, Savages Crossing, Kholo Bridge and Colleges Crossing for several days. At this stage, there are not expected to be any adverse impacts upon Fernvale Bridge, Burfords Bridge or Mt Crosby Weir Bridge Leslie Harrison Dam Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing. Given the forecast rainfall, gate operations are expected to continue for the next 24 to 48 hours The next situation report will be issued at 1800 Thursday 6/1/2011	Situation Report	
	8:30 AM	MT spoke with Graham Keegan (Stand-in Central Coordinator) about readiness of staff for flood operations. Graham confirms that staff have been rostered and are ready	Correspondence	MT
	8:50 AM	Andy Bickerton (MBRC) called to query about flows are Fernvale bridge. TM provided an update for possible gate operations	Correspondence	MT
	9:05 AM	Glen Paterson called to inform that North Pine Dam staff have been rostered and are ready	Correspondence	MT
	9:40 AM	Rob Drury called to inform that Tony Trace has returned to the office and is contactable. He also requested for a situation update	Correspondence	MT
	11:00 AM	Tony Trace (Ipswich City Council (ICC)) called for a situation update. TM shared the release strategy for tonight	Correspondence	MT
	11:49 AM	TM advised MBRC Call Centre that North Pine Dam will commence gate operations tonight. He requested for MBRC to call him	Correspondence	MT
	12:00 PM	SDWD Model Updated - SDWD-201101060800.xls	Model Run	JW
	12:04 PM	Kerry (MBRC) called. TM advised her that the latest North Pine Dam gates may be opened will be 7:00pm today. FOC will advise them accordingly	Correspondence	MT
	12:43 PM	Andy Bickerton (MBRC) called. TM advised that water will be over Savages Crossing until end of the week	Correspondence	MT
	12:46 PM	TM advised Ken Marsh (BCC) Wivenhoe Dam will commence gate operations later today	Correspondence	MT
	1:30 PM	**Revised Operating Strategy 1200 6/1/2011** North Pine - On track to open tonight Somerset/Wivenhoe - No change to current status - expected inflow volume about 45,000Ml. Will reach about 84.7m AHD without releases - Expected inflow volume about 130,000Ml, including Somerset. Will reach about 88.3m AHD without releases - There has been further heavy falls in the Lockyer since 0900 Thursday and the flow from the Lockyer is going to be larger than initially assessed, possibly as high as 600m³/s peaking Saturday. This may close Burfords without any contribution from Wivenhoe. The opening of the Wivenhoe gates will therefore be delayed until the Lockyer peak passes	Situation Report	TM
	1:32 PM	TM left message for Tony Jacobs (SRC) to return his call	Correspondence	MT
	1:35 PM	TM advised Andy Bickerton (MBRC) Wivenhoe gate operations will be delayed to Saturday morning. This is due to higher than expected inflows from Lockyer	Correspondence	MT
	1:45 PM	TM advised Tony Trace (ICC) Wivenhoe's gate operations will be delayed till Saturday morning. This is due to higher than expected inflows from Lockyer	Correspondence	MT
	1:46 PM	TM left message for Chris Levin (BCC) to return his call	Correspondence	MT
	1:47 PM	TM left message for Ken Morris (BCC) to return his call	Correspondence	MT
	2:41 PM	Andy Bickerton (MBRC) asked for TM's mobile. He wanted to share MBRC's text message informing people living downstream from North Pine Dam	Correspondence	MT
	2:46 PM	Ken Morris (BCC) called for situation update. TM provided an update	Correspondence	MT

SRC - Somerset Regional Council
BOM/FWC Bureau of Meteorology Flood Warning Centre

AN - Al Nanua
BS - Bill Stephens
DP - David Pidgeon
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	2:54 PM	**Situation Report 1500 06/02/2011** Rainfall - In the 6 hours since 9am Wednesday, there have been general totals around 30mm with isolated heavy falls up to 60mm in the Somerset and Wivenhoe catchments. Totals in the North Pine catchment have generally been between 20 and 30mm. Falls between 20 and 30mm were recorded in the Leslie Harrison catchment. The forecast for the next 24 to 48 hours is for totals up to 100mm in SE Qld. The catchments remain wet and are likely to generate additional runoff in the event of rain. North Pine Dam At 1400 Thursday, North Pine Dam was 39.65m, 0.01m above gate trigger level. Gate operations will commence at 1900 Thursday and will impact upon Youngs Crossing. MBRC have been advised and will confirm closure of Youngs Crossing prior to gate operations. Given the forecast rainfall during Friday, gate operations may continue into Saturday. Somerset Dam At 0700 Thursday, Somerset Dam was 99.34m, 0.34m above FSL, and rising slowly. The rain in the Stanley River catchment has produced a small amount of runoff in the upper Stanley but there have been significant rises in Kilcoy Ck, adding to the Somerset inflows. Further regulator/sluice operations will be required in the next 24 to 48 hours. The estimated event inflow volume into Somerset Dam is 50,000ML.	Situation Report	TM
		Wivenhoe Dam At 0700 Thursday, Wivenhoe Dam was 67.31m and rising slowly. This is 0.31m above FSL and above the gate trigger level of 67.25m. There have been rises recorded at rivers and stream upstream of Wivenhoe Dam. The estimated event inflow volume into Wivenhoe Dam is 180,000ML including Somerset Dam outflow. - There has been significant rainfalls in the Lockyer Ck catchment since 0900 Thursday and a peak of about 600m3/s is expected from the Lockyer late Friday. Wivenhoe gates will be opened after flood levels in the lower Lockyer subside. At this stage Wivenhoe releases during Saturday may be as high as 1,500m3/s and continue for a couple of days. Impacts of Wivenhoe Dam Releases - Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the potential for gate operations during the next 24 hours. - The will at least impact upon Twin Bridges, Savages Crossing, Kholo Bridge and Colleges Crossing for several days. The relatively high Lockyer flows will at least impact upon Twin Bridges, Savages Crossing, Kholo Bridge and Colleges Crossing for several days and may impact upon Burtons Bridge early Saturday. At this stage, there are not expected to be any adverse impacts upon Fernvale Bridge or Mt Crosby Weir Bridge. Leslie Harrison Dam: Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing. Given the forecast rainfall, gate operations are expected to continue for the next 24 to 48 hours.	Situation Report	
	3:00 PM	SDWD Model Updated - SDWD-201101061500.xls	Model Run	JW
	3:11 PM	Jimmy Stewart (BoM) called to discuss with TM about readings from Upper Brisbane & Lockyer. Jimmy & TM are in agreement on readings.	Correspondence	MT
	3:19 PM	Kerry (MBRC) called. TM advised her North Pine Dam will commence gates operations from 19:00 hrs.	Correspondence	MT
	4:00 PM	SDWD Model Updated - SDWD-201101061600.xls	Model Run	JW
	4:00 PM	NPD model updated - NPD-201101061600.xls	Model Run	
	5:30 PM	Issued North Pine Directive #1 • Gate C: Open 1 increment at 1900 • Gate E: Open 1 increment at 1915 • Gate A: Open 1 increment at 1930 • Gate D: Open 1 increment at 1945 • Gate B: Open 1 increment at 2000	Directive	NGA
	6:33 PM	**Situation Report 1800 06/01/2011** Rainfall - In the 8 hours since 9am Wednesday, there have been general totals around 30mm with isolated heavy falls up to 60mm in the Somerset and Wivenhoe catchments. There have been significant rainfalls in the Lockyer Ck catchment in the last 24 hours with widespread falls of 50mm and isolated falls up to 75mm. Totals in the North Pine catchment have generally been about 30mm. Falls between 20 and 30mm were recorded in the Leslie Harrison catchment. The forecast for the next 24 to 48 hours is for totals up to 100mm in SE Qld. North Pine Dam At 1700 Thursday, North Pine Dam was 39.68m, 0.03m above gate trigger level. Gate operations will commence at 1900 Thursday and will impact upon Youngs Crossing. Moreton Bay Regional Council has been advised and will confirm closure of Youngs Crossing prior to gate operations. Given the forecast rainfall during Friday, gate operations may continue into Saturday. Somerset Dam At 1700 Thursday, Somerset Dam was 99.45m, 0.45m above FSL, and rising slowly. The rain in the Stanley River catchment has produced a small amount of runoff in the upper Stanley but there have been significant rises in Kilcoy Ck, adding to the Somerset inflows. Further regulator/sluice operations will be required in the next 24 to 48 hours. The estimated event inflow volume into	Situation Report	TM
		Wivenhoe Dam At 1700 Thursday, Wivenhoe Dam was 67.36m and rising slowly. This is 0.36m above FSL and above the gate trigger level of 67.25m. Upstream of the dam river levels are still rising at the Linville and Gregors Ck gauges. The estimated event inflow volume into Wivenhoe Dam is 180,000ML including Somerset Dam outflow. - A peak of about 600m3/s is expected from the Lockyer late Friday. At this stage there is some uncertainty associated with the estimate and it may or may not impact Burtons Bridge. Wivenhoe gates will be opened after the impact of Lockyer flows on Burtons Bridge has been ascertained and flood levels in the lower Lockyer subside. At this stage Wivenhoe releases will commence late Friday/early Saturday and may be as high as 1,500m3/s, similar to recent events, and continue for a couple of days. Impacts of Downstream of Wivenhoe - Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the potential for gate operations during the next 24 hours. - The relatively high Lockyer flows will adversely impact upon Twin Bridges, Savages Crossing, Kholo Bridge and Colleges Crossing for several days and may impact upon Burtons Bridge early Saturday. At this stage, there are not expected to be any adverse impacts upon Fernvale Bridge or Mt Crosby Weir Bridge. Leslie Harrison Dam: Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing. Given the forecast rainfall, gate operations are expected to continue for the next 24 to 48 hours.	Situation Report	
	6:57 PM	Brett Schultz (North Pine Dam) called to inform that MBRC workmen were waiting until 19:00 hrs to close Youngs Crossing boom gates. The delayed dam gate opening by 15 minutes.	Correspondence	NGA
	7:45 PM	Graham Francis (Somerset Dam) called to enquire about the release strategy. RA advised the impacts of the Lockyer flow were being monitored. Communication by e-mail was offered.	Correspondence	NGA
	8:15 PM	Issued North Pine Directive #2 • Gate C: Open to 2 increments at 20:30 • Gate E: Open to 2 increments at 20:40 • Gate A: Open to 2 increments at 21:00 • Gate D: Open to 2 increments at 21:15 • Gate B: Open to 2 increments at 21:30	Directive	NGA
	8:00 PM	NPD model updated - NPD-201101062100.xls	Model Run	
	9:00 PM	SDWD Model Updated - SDWD-201101062100.xls	Model Run	JW

SRC - Somerset Regional Council
BOMPWC Bureau of Meteorology Flood Warning Centre

AN - Al Navrak
BS - Bill Stephens
DP - David Pulgrim
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
Friday, 7 January 2011	6:07 AM	**FOC Situation Report at 06:00 on Friday 7 January 2011** Rainfall - There have been general totals around 30 to 50 mm with isolated heavy falls up to 75mm in the Somerset and Wivenhoe catchments since the event commenced on Wednesday 5 January 2011. There have been significant rainfalls in the Lockyer Ck catchment in the last 72 hours with widespread falls of 50mm and isolated falls up to 100mm. - Totals in the North Pine catchment have generally been about 35mm. - Falls between 20 and 30mm were recorded in the Leslie Harrison catchment. - The forecast for the next five days is for totals between 100 and 200mm in SE Qld. Given the saturated condition of the catchments further runoff will most likely be generated from this rainfall. North Pine Dam At 0600 Friday, North Pine Dam was at 39.48m, 0.12m below FSL. Gate operations commenced at 1915 on Thursday 6 January and are expected to continue until at least mid-day Friday 7 January when North Pine Dam is expected to be at 39.40m. These releases have impacted upon Youngs Crossing. Moreton Bay Regional Council was advised and they closed Youngs Crossing prior to gate operations commencing. Based upon the forecast rainfall, gate operations may continue into Saturday, but at this stage it is anticipated that gate operations will cease at around mid-day on Friday 7 January 2011. Somerset Dam - At 0600 Friday, Somerset Dam was at 89.59m, 0.59m above FSL, and rising slowly. The rain in the Stanley River catchment has	Situation Report	LVB
		Wivenhoe Dam - At 0600 Friday, Wivenhoe Dam was at 67.64m and rising slowly. This is 0.64m above FSL and above the gate trigger level of 67.25m. Upstream of the dam river levels have peaked at the Linville and Gregors Ck gauges. The estimated event inflow volume into Wivenhoe Dam is 230,000ML including Somerset Dam outflow. - A peak of about 470 cumecs is expected from Lockyer Creek by mid-afternoon on Friday 7 January. At this stage there is some uncertainty associated with this estimate but it may be of sufficient magnitude to inundate Burtons Bridge. - Wivenhoe gate releases will occur after the impact of Lockyer flows on Buttons Bridge has been ascertained and flood levels in the lower Lockyer subside. It is proposed that Wivenhoe releases will commence late Friday/early Saturday and may be as high as 1,200 cumecs, (similar but slightly smaller to recent events), and the releases are expected to continue over the weekend though to Monday or Tuesday. Impacts of Downstream of Wivenhoe Somerset Regional Council, Ipswich City Council and Brisbane City Council have been advised of the potential for gate operations during the next 24 hours. - The relatively high Lockyer flows will adversely impact upon Twin Bridges, Savages Crossing, and Colleges Crossing for several days and may impact upon Burtons Bridge from Friday mid-day and Kholo Bridge later on Friday evening. At this stage, there are not expected to be any adverse impacts upon Fernvale Bridge or Mt Crosby Weir Bridge. Leslie Harrison Dam Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are	Situation Report	
	7:00 AM	TM and LVB commenced day shift	Other	LVB
	8:00 AM	Advice from BoM indicates that SEQ can expect some high rainfall totals over the next 5 days up to Tuesday 11/1/11 with the largest falls predicted for Sunday and Monday	Correspondence	LVB
	8:00 AM	NPD model updated - NPD-201101070800.xls	Model Run	
	8:21 AM	Called Tony Jacobs @ Somerset Council to inform him that the Lockyer is running - all bridges in Somerset Region will be cut off this morning. Wivenhoe gates will be opened once the Lockyer peak is through.	Correspondence	LVB
	8:40 AM	FOC called Kerry (MBRC) to inform them that North Pine will be operate for the next few days - probably till Tuesday	Correspondence	LVB
	8:44 AM	Called Chris Lavin (BCC) to inform that Wivenhoe gates will be opened again this afternoon and releases might peak at 1500m3/s. This might continue until the end of next week.	Correspondence	LVB
	8:47 AM	Called Tony Trace (ICC) to inform him that Wivenhoe gates will be opened again this afternoon and releases might peak at 1500m3/s. This might continue until the end of next week.	Correspondence	LVB
	10:12 AM	Called Robert Glen (BCC) to provide situation report	Correspondence	LVB
	12:00 PM	NPD model updated - NPD-201101071200.xls	Correspondence	
	12:00 PM	SDWD Model Updated - SDWD-201101071200.xls	Model Run	JW
	12:15 PM	**SitRep** There has been falls between 15 and 30mm in the North Pine catchment in the last 3 hours. This will cause renew rises and increased inflows. There are no gate movements projected for the next 3 hours.	Situation Report	TM
	12:34 PM	Issued Wivenhoe Directive #1 • 15:00 Open Gate 3 from 0.0 metres to 0.5 metres • 16:00 Open Gate 3 from 0.5 metres to 1.0 metres • 17:00 Open Gate 3 from 1.0 metres to 1.5 metres • 18:00 Open Gate 3 from 1.5 metres to 2.0 metres • 19:00 Open Gate 3 from 2.0 metres to 2.5 metres • 20:00 Open Gate 3 from 2.5 metres to 3.0 metres • 21:00 Open Gate 3 from 2.5 metres to 3.5 metres	Directive	LVB
	3:02 PM	Don Carroll (BCC) called FOC with concerns that dam release will add another 200mm on top of abnormal high tide. TM spoke to Jimmy Stewart (BoM) who advised that the effect could be around 50mm - if that can be measured.	Correspondence	LVB
	5:00 PM	Issued Somerset Directive #1 • Please open a regulator 100%	Directive	LVB
	6:00 PM	SDWD Model Updated - SDWD-201101071630.xls	Model Run	JW
	6:00 PM	Issued Somerset Directive #2 • Please open Rupice M at 12:00	Directive	LVB
	6:00 PM	Issued North Pine Directive #3 • Gate B - Close to 1 increment at 19:00 • Gate D - Close to 1 increment at 19:15 • Gate A - Close to 1 increment at 19:30 • Gate E - Close to 1 increment at 19:45 • Gate C - Close to 1 increment at 20:00	Directive	LVB
	6:00 PM	**Situation Report 1800 Friday 07/01/2011** Rainfall - Since 0600 Friday, there has been widespread 20 to 40mm throughout North Pine, Somerset and Wivenhoe catchments with isolated higher totals of 70mm in the upper reaches of the Brisbane R. - Advice from BoM indicates that SE Qld can expect further high rainfall totals over the next 4 days. Saturday: Rain light at times 15-50mm, with higher falls along the coast Sunday: Widespread rain with totals between 50-100mm Monday: Widespread rain again with totals between 50-100mm Tuesday: Rain easing with totals between 20-50mm Given the saturated conditions of the catchments, significant inflows to Seqwater dams will be generated, especially following the forecast rainfall on Sunday/Monday. North Pine (Full Supply Level 39.60 m AHD) At 1700 Friday, North Pine currently has 5 gates open releasing runoff from rain on Wed/Thursday. Given the very high likelihood of significant runoff during the next 4 days, gates will be kept open to match inflows over the next few days, rather than opening and closing at various times with short notice. Youngs Crossing will remain adversely impacted by the duration of the gates being open. Moreton Bay Regional Council has been advised and concurs with this strategy. Somerset (Full Supply Level 99.00 m AHD) At 1700 Friday, Somerset Dam level was 100.04m AHD and rising steadily with one regulator open 100%. However, as the Wivenhoe headwater level is rising and may impact upon the operation of the regulator, this will be closed in the next few hours.	Situation Report	TM

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BS - Bill Stephens
DP - David Pulleine
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
		Wivenhoe (Full Supply Level 67.00 m AHD) - At 1700 Friday, Wivenhoe Dam was 66.10 m AHD and rising steadily with one gate open to 1.5 metres and releasing about 168m3/s. River levels upstream of Wivenhoe Dam were rising again, generating further inflow to the dam. It is intended to ramp up the release from Wivenhoe to about 1,200m3/s during the next 18 hours. However, given the high likelihood of significant inflows in the next week, this may be increased later on the weekend. - Since the commencement of the event on 07/01/2011, approximately 140,000ML has flowed into Wivenhoe Dam with a further 160,000ML expected (including Somerset release) based on the recorded rainfall to date. Approximately 24,000ML has been released from Wivenhoe via the hydro and regulator at about 50m3/s. Impacts downstream of Wivenhoe - The projected Wivenhoe release of 1,200m3/s combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing) will be adversely impacted for several days. At this stage Fernvale and Mt Crosby West Bridge are not expected to be affected. - Discussions were held with Brisbane City Council and BoM with all agencies agreeing that the combined flow in the lower Brisbane R will only add 50mm to an upper limit of 100mm to the recorded water levels in the City Reach of the Brisbane River. However, it is noted that tides in the lower Brisbane R will be 0.4 to 0.5 metres higher than predicted tides. - Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the Wivenhoe operating strategy.	Situation Report	
	9:53 PM	Issued Wivenhoe Directive #2 • 07/01/2011 22:00 Open Gate 2 from 0.0 metres to 0.5 metres • 07/01/2011 23:00 Open Gate 4 from 0.0 metres to 0.5 metres • 08/01/2011 00:00 Open Gate 2 from 0.5 metres to 1.0 metres • 08/01/2011 01:00 Open Gate 4 from 0.5 metres to 1.0 metres • 08/01/2011 02:00 Open Gate 1 from 0.0 metres to 0.5 metres • 08/01/2011 03:00 Open Gate 5 from 0.0 metres to 0.5 metres • 08/01/2011 04:00 Open Gate 2 from 1.0 metres to 1.5 metres	Directive	MT
Saturday, 8 January 2011	4:55 AM	Issued Wivenhoe Directive #3 • 08/01/2011 05:00 Open Gate 4 from 1.0 metres to 1.5 metres • 08/01/2011 06:00 Open Gate 1 from 0.5 metres to 1.0 metres • 08/01/2011 07:00 Open Gate 5 from 0.5 metres to 1.0 metres • 08/01/2011 08:00 Open Gate 3 from 3.5 metres to 4.0 metres	Directive	MT
	7:55 AM	Agg Dagan from Somerset Dam rang enquiring on Somerset's strategy. RA advised possibly opening a gate later today.	Correspondence	AN
	8:00 AM	Issued Wivenhoe Directive #4 • 08/01/2011 09:00 Open Gate 2 from 1.5 metres to 2.0 metres • 08/01/2011 10:00 Open Gate 4 from 1.5 metres to 2.0 metres • 08/01/2011 11:00 Open Gate 1 from 1.0 metres to 1.5 metres • 08/01/2011 12:00 Open Gate 5 from 1.0 metres to 1.5 metres • 08/01/2011 13:00 Open Gate 2 from 2.0 metres to 2.5 metres • 08/01/2011 14:00 Open Gate 4 from 2.0 metres to 2.5 metres	Directive	AN
	8:10 AM	RA advised Matthew O'Reilly (Wivenhoe Dam) on directive #4 and discussed strategy.	Correspondence	AN
	8:20 AM	RA rang Brett Schultz (North Pine Dam) and advised on strategy.	Correspondence	AN
	9:00 AM	SDWD Model Updated - SDWD-201101080900.xls	Model Run	JW
	9:00 AM	Agg Dagan (Somerset Dam) rang to advise he is going into Kilcoy to see the treatment plant and will be off site for a couple of hours.	Correspondence	AN
	10:00 AM	NPD model updated - NPD-201101081000.xls	Model Run	JW
	10:50 AM	Rob Drury rang. RA advised current status and strategy.	Correspondence	AN
	11:30 AM	Issued Somerset Directive #3 • Please open Sluice M to 100% at 12:00	Directive	AN
	11:30 AM	Ken Morris (BCC) rang asking about combined flows down the Brisbane River (Wivenhoe, Warrill Creek and Bremer River). AN advised that at this stage flows would not exceed 1500m3/sec.	Correspondence	AN
	3:00 PM	NPD model updated - NPD-201101081500.xls	Correspondence	
	3:00 PM	SDWD Model Updated - SDWD-201101081500.xls, SDWD-201101081500-Forecast/2hr.xls	Model Run	JW
Sunday, 9 January 2011	12:00 AM	Issued North Pine Directive #4 • Gate B - Close to 0 increments at 00:30 • Gate D - Close to 0 increment at 00:45	Directive	NGA
	1:00 AM	Issued Wivenhoe Directive #5 • Open Gate 3 from 4.0 metres to 4.5 metres	Directive	NGA
	4:30 AM	Issued Wivenhoe Directive #6 • Open Gate 1 from 1.5 metres to 2.0 metres	Directive	NGA
	6:15 AM	**FOC Situation Report at 06:00 on Sunday 9 January 2011** Rainfall Catchment average rainfall for the past 12 hours is, North Pine Dam (less than 10 mm), Somerset Dam (40 mm), Wivenhoe Dam (less than 10 mm). The bulk of the rain that has fallen in the Somerset Dam catchment has occurred in the last two hours, with recorded falls exceeding 60mm in some areas. The BOM forecast for the next seven days issued at 0450 this morning is: Sunday: Rain periods Monday: Rain periods Tuesday: Rain periods Wednesday: A few showers Thursday: A shower or two Friday: A shower or two Saturday: Mostly fine A severe weather warning remains current for heavy rainfall in the dam catchment areas. The dam catchments are relatively saturated and significant inflows will be seen start if the forecast rainfall eventuates. North Pine Dam (Full Supply Level 39.60 m AHD) The dam level is currently 39.47 m AHD and steady. Two radial gates remain open to release runoff generated from recent rainfall. Based on rainfall forecasts, the radial gates have been kept open in anticipation of further inflows over the next few days. However unless significant rain falls today, consideration will be given to closing the gates late this afternoon or early tomorrow.	Situation Report	JT
		Somerset Dam (Full Supply Level 99.00 m AHD) The dam level is currently falling slowly, with the current level being 100.27m AHD. However the rain that has fallen in the dam catchment over the last two hours (recorded falls exceed 60mm in some areas) will result in significant inflows later today. The current release rate into Wivenhoe Dam is 35,000ML/day. Since the commencement of the event on 07/01/2011 approximately 58,000ML has been released from the dam, with a total of at least 150,000ML to be released based on the currently recorded rainfall. The total release for the event is likely to increase significantly over the next few days based on the current rainfall forecasts. At this stage, releases will continue until at least Tuesday. Wivenhoe Dam (Full Supply Level 67.00 m AHD) The dam level is currently falling slowly, with the current level being 66.58m AHD. River levels upstream of the dam are receding however further inflows will result from any additional rainfall. The current gate operation strategy will maintain flows of around 1,600m3/s in the mid Brisbane River. The current release rate from Wivenhoe Dam is 116,000ML/day. Since the commencement of the event on 07/01/2011 approximately 150,000ML has been released from the dam, with a total of at least 450,000ML to be released based on the currently recorded rainfall. The total release for the event is likely to increase over the next few days based on the current rainfall forecasts. At this stage, releases will continue until at least Wednesday.	Situation Report	
	6:50 AM	Rob Drury rang. JT advised Rob on current release strategy based on recent heavy overnight rainfall.	Correspondence	NGA
	7:00 AM	SDWD Model Updated - SDWD-201101090700.xls	Model Run	JW
	8:15 AM	Issued Somerset Directive #4 • Please open Sluice K to 100% at 09:00	Directive	NGA
	8:40 AM	TM called BoM regarding advice received that widespread rain was expected to continue in the catchment areas over the next 24-48 hours.	Correspondence	NGA
	9:00 AM	SDWD Model Updated - SDWD-201101090900.xls	Model Run	JW
	9:00 AM	NPD model updated - NPD-201101090900.xls	Model Run	JW
	10:30 AM	Issued North Pine Directive #5 • Gate A - Close to 0 increment at 11:00	Directive	NGA
	10:30 AM	Issued Wivenhoe Directive #7 • Open Gate 5 from 1.5 metres to 2.0 metres	Directive	NGA
	12:00 PM	SDWD Model Updated - SDWD-201101091200.xls	Model Run	JW
	12:00 PM	RA scheduled meeting of Duty Engineers this afternoon to discuss current situation and forward release strategies.	Correspondence	NGA

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AN [illegible]
BS Bill Stephens
DP David Pokarier
JW John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	12 30 PM	Issued Somerset Directive #5 • Please open Sluice N to100% at 13 00 • Please open Sluice J to 100% at 14 00	Directive	NGA
	2 00 PM	SDWD Model Updated - SDWD-201101091400.xls	Model Run	JW
	2 00 PM	NPD model updated - NPD-201101091400.xls	Model Run	JW
	2 30 PM	NA called Agg Dagan (Somerset Dam) and requested status readings be faxed to the FOC on an hourly basis until advised otherwise. Current Somerset lake level is EL 100 54 and rising fast	Correspondence	NGA
	2 42 PM	FOC called Brett Schultz (North Pine Dam) advising of impending gate openings due to recent heavy rainfall and subsequent projected inflows	Correspondence	NGA
	2 45 PM	Issued North Pine Directive #6 • Gate A Open to 1 increment at 15 00 • Gate D Open to 1 increment at 15 15 • Gate B Open to 1 increment at 15 30	Directive	NGA
	3 00 PM	NPD model updated - NPD-201101091500.xls	Model Run	JW
	3 30 PM	Duty Engineer Conference held at the FOC. Attended by RA, JR, TM with JT on conf phone. At this stage operating at the top end of W1 and the bottom end of W2 Storing approx 300 000 Ml at present (above Wivenhoe) with an additional 500,000 Ml expected to flow into the dams from rainfall on the ground. The rainfall system is currently in the N-E part of the catchment and expected to travel south over the next 24-36 hours according to the BoM forecasts. This has the potential to significantly increase flows in Lockyer Ck & the Bremer River which potentially could close Fernvale Bridge and Mt Crosby Bridge and increase the risk of flooding in the Lower Brisbane. Releases from Wivenhoe Dam will be maintained at the current level of ~ 1,400 cumecs. If required, releases from Wivenhoe Dam will be reduced to contain the flow in the Mid-Brisbane to 1,600 cumecs and 3,900 cumecs in the Lower Brisbane. At this stage it is anticipated that levels below 102 5 in Somerset and 72 5 in Wivenhoe can be attained	Situation Report	NGA
	3 30 PM	Issued North Pine Directive #7 • Gate C Open to 2 increment at 16 00 • Gate E Open to 2 increment at 16 15 • Gate A Open to 2 increment at 16 30	Directive	NGA
	4 00 PM	SDWD Model Updated - SDWD-201101091600.xls	Model Run	JW
	4 15 PM	TM called Tony Jacobs (Somerset RC) advising that the current strategy was to maintain a flow in the Brisbane River such that the Fernvale Bridge and the Mount Crosby Bridge could be kept open. However, future rainfall could well impact on those roads remaining open. Closure next Tuesday is a real possibility at this stage	Correspondence	NGA
	4 20 PM	Terry Malone phoned Tony Trace (ICC) advising that the current strategy was to maintain flow in the Brisbane River such that the Fernvale Bridge and the Mount Crosby Bridge could be kept open. However, future rainfall could well impact on those roads remaining open. Closure next Tuesday is a real possibility at this stage	Correspondence	NGA
	4 25 PM	TM called Chris Lavin (BCC). A message was left to phone FOC	Correspondence	NGA
	4 26 PM	TM called Ken Morris (BCC). A message was left to phone FOC	Correspondence	NGA
	4 27 PM	Ken Morris returned phone call. Ken was advised by TM that the current strategy was to maintain a flow in the Brisbane River such that the Fernvale Bridge and the Mount Crosby Bridge could be kept open. However, future rainfall could well impact on those road s remaining open. Closure next Tuesday is a real possibility at this stage. Flow in the Lower Brisbane potentially might reach 3,000 cumecs by next Wednesday or Thursday	Correspondence	NGA
	5 18 PM	NA left a message with Graham Keegan (A/Co-ord) regarding the potential for Fernvale Bridge and Mount Crosby Bridge to be closed, possibly from Tuesday. This may impact on staffing issues for both Wivenhoe and Somerset Dams during this flood event. Request for Graham to contact the FOC ASAP	Correspondence	NGA
	5 25 PM	Don Carroll (BCC) returned call to TM. TM advised potential for releasing up to 2 500 cumecs by Tuesday. With further heavy rainfall, as forecast, the flow in the Lower Brisbane could increase to 3,000 cumecs with potential for closure of Fernvale Bridge and Mount Crosby Bridge by Thursday (possibly Wednesday). Releases from Wivenhoe are dependant on flows from Lockyer Ck and inflow into Wivenhoe. FOC will continue to update BCC	Correspondence	NGA
	5 32 PM	Brett Schultz (NPD) phoned the FOC with a manual reading of EL 20.660 at Lake Kurwongbah. Brett noted that should NPD gates be closed in the near future, the Lake Kurwongbah tailwater would impact on Youngs Crossing	Correspondence	NGA
	5 40 PM	Rob Drury phoned TM for an update on the current situation	Correspondence	NGA
	5 45 PM	Graham Keegan returned call and NA advised that TM had requested Graham to factor into his staffing roster of Wivenhoe and Somerset Dams the potential for the Fernvale bridge and the Mount Crosby Bridge to be closed from mid-week sometime, depending on the likelihood of further heavy rainfall	Correspondence	NGA
	5 51 PM	**Situation Report 1700 Sunday 9/1/2011** Rainfall Catchment average rainfall for the past 12 hours is North Pine Dam (60 mm), Somerset Dam (150 mm), Wivenhoe Dam (80 mm). The bulk of the rain that has fallen in the upper reaches of the Stanley and Brisbane Rivers The BOM rainfall forecast for the next few days is - Monday Very heavy rain periods with totals up to 300mm centred around North Pine Tuesday Rain periods with totals up to 150mm centred around North Pine Wednesday A few showers less than 10mm Thursday A shower or two Friday A shower or two Saturday Mostly fine A severe whether warning remains current for heavy rainfall in the dam catchment areas. The dam catchments are relatively saturated and significant inflows will be generated if the forecast rainfall eventuates North Pine Dam (Full Supply Level 39.60 m AHD) The dam level is currently 39 65 m AHD and rising at 1600. Following the rain in the 9 hours, the number of open gates has been increased from 2 to 5 which are expected to remain open for the next 12 hours. Youngs Crossing will remain closed while	Situation Report	TM
		Somerset Dam (Full Supply Level 99.00 m AHD) - The dam level is 100.75 m AHD and rising quickly. Estimated peak inflow to the dam is about 3,000m3/s. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam will reach at least 101.5 during early Tuesday morning - Since the commencement of the event on 02/01/2011 approximately 63,000ML has been released from the dam, with an event total of at least 320,000ML, based on the recorded rainfall to date. The event total is expected to increase significantly due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Wednesday Wivenhoe Dam (Full Supply Level 67.00 m AHD) - The dam level is currently rising again, with the current level being 68.70m AHD. Estimated peak inflow to the dam seat from the Upper Brisbane R is about 5,000m3/s and, at this stage, the dam will reach at least 72.5 m AHD during Wednesday morning. River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. The current gate operation strategy will maintain flows of around 1,600m3/s in the mid Brisbane River for the next 24 hours. This may mean temporarily reducing releases from Wivenhoe Dam as Lockyer flows increase. However, releases may have to be increased significantly during Monday depending on the rain in the next 12 to 24 hours. The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day) - Since the commencement of the event on 02/01/2011 approximately 210,000ML has been released from the dam, with an event total approaching 1,000,000ML (including Somerset outflow) based on the recorded rainfall to date. The total release for the event is likely to increase over the next few days based on the current rainfall forecasts. At this stage, releases will continue until at least Saturday 15th January 2011	Situation Report	
	5 58 PM	TM called Jeff Perkins (BoM) to discuss Wivenhoe Dam's release strategy i.e. Major bridge open strategy Vs increased inflow into Wivenhoe resulting from current heavy rainfall. Situation will become clearer in 24 hours time	Correspondence	NGA
	6 05 PM	SDWD Model Updated - SDWD-201101091800.xls	Model Run	JW
	6 05 PM	NPD model updated - NPD-201101091800.xls	Model Run	JW
	6 35 PM	The caretaker from the house at the Colleges Crossing Reserve rang FOC to enquire about predicted flood height at the Colleges Crossing Bridge. TM referred him to Tony Trace (ICC) for an update on flood information affecting the Ipswich area. Advised no change in Wivenhoe releases at this stage and the future options were presently unknown	Correspondence	NGA
	7 00 PM	SDWD Model Updated - SDWD-201101091900.xls, SDWD-201101091900norain.xls, SDWD-201101091900withrain.xls	Model Run	JW
	7 10 PM	FOC called Tony Jacobs (SRC) advising him that high releases from Wivenhoe (3000 cumecs) are expected to be necessary in view of heavy rain over the last 3 hours	Correspondence	BS
	7 15 PM	FOC called Peter Borrows (Seqwater) advising him that high rainfall is expected overnight and releases from Wivenhoe causing damaging flooding are likely to be necessary	Correspondence	BS
	7 15 PM	FOC called Peter Allen advising him that FOC is now looking at much larger flows and will have to ramp up releases to around 3000 cumecs as by as early as midnight which is likely to have flooding impacts on low-lying areas of Brisbane	Correspondence	BS
	7 20 PM	TM called Don Carroll (BCC) advising him of potential for high releases sooner than previously expected	Correspondence	BS
	7 25 PM	Mal Lane (North Pine Dam) called to advise dam level is at 39.62mAHD. 3 gates are at increment 2 and two are at increment 1. The two at increment 1 are currently being raised to increment 2 (next few minutes)	Correspondence	BS

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	7 30 PM	Issued North Pine Directive #8 • Open Gate B to 2 increments 19:45 • Open Gate D to 2 increments at 20:00	Directive	BS
	8 00 PM	SDWD Model Updated - SDWD-201101092000withnorain xls	Model Run	JW
	8 05 PM	RA called Shane Watson (North Pine Dam) to confirm last directive is completed All gates at increment 2	Correspondence	BS
	8 30 PM	Darryl Hickey (ICC) returned call and spoke to JR He was informed of current situation and the likelihood of high releases tomorrow causing flood damage	Correspondence	BS
	8 50 PM	RA called Ken Morris (BCC) to request copy of flood damages curve from 2007 study Ken will send a copy tomorrow	Correspondence	RA
	8 55 PM	Ken Morris called back and spoke with JR Confirmed BCC mobilisation triggers need to be in place Status report is in preparation and will be emailed out shortly	Correspondence	BS
	9 00 PM	Issued North Pine Directive #9	Directive	BS
	9 04 PM	**Situation Report 2100 9/01/2011** Rainfall - Very heavy rainfall has been recorded in the upper reaches of the Brisbane and Stanley in the last 6 hours with totals up 100 to 140mm Totals for the last 24 hours range from 100 to 300mm - Rainfall of similar magnitudes is expected in the 12 to 24 hours, especially around the Bremer/Warrill catchments as the system tracks south - A severe weather warning remains current for heavy rainfall in the dam catchment areas Somerset Dam (Full Supply Level 99.00 m AHD) - The dam level is 101.68 m AHD (about 500,000ML currently in storage) and rising quickly Peak inflow to the dam is estimated to be about 4,000 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam At this stage the dam will reach at least 103.5 early Tuesday morning which will adversely impact areas around Kilcoy - Since the commencement of the event on 03/01/2011approximately 100,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected This may increase due to the forecast rain in the next 24 to 48 hours At	Situation Report	TM
		Wivenhoe Dam (Full Supply Level 67.00 m AHD) - River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall Flows in the Brisbane River at Gregor's Ck have already reached 6,700m3/s and the river is still rising - The dam level is rising again, with the current level being 69.10m AHD (1,410,000ML with about 300,00 of flood storage) Estimated peak inflow to the dam just from the Upper Brisbane R alone may reach as high as 7,500m3/s and, at this stage, the dam will reach at least 73.0 m AHD during Tuesday morning Given the rapid increase in inflow volumes, it will be necessary to increase the release from Wivenhoe Monday morning - The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, releases will be kept below 3,500m3/s and the combined flows in the lower Brisbane will be limited to 4,000m3/s This is below the limit of urban damages in the City reaches - The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day) Gate opening will start to be increased from noon Monday and the release is expected increase to at least 2,600m3/s during Tuesday morning - Since the commencement of the event on 02/01/2011 approximately 220,000ML has been released from the dam, with an event total approaching 1,000,000ML without further rain and as much as 1,500,000ML with forecast rainfall of (both including Somerset outflow) At this stage releases will continue until at least Sunday 16th January 2011 Impacts downstream of Wivenhoe Dam - The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of	Situation Report	
	9 10 PM	Rob Drury called and spoke with RA Rob confirmed that releases will need to be ramped up from current 1400 cumecs to 2500 cumecs which will cause flooding in low lying areas of Brisbane Brisbane flood information centre has not yet been mobilised Somerset RC has no DTMR A/H contacts and will be contacting them in the morning Rob will locate DTMR contacts Confirmed volumes getting close to 1974 levels Confirmed situation report has gone out	Correspondence	BS
	9 15 PM	Geoff Perkins (BoM) called and spoke with TM They discussed on rainfall expectations and flood warning requirements for Brisbane Bremer/Warrill situation being monitored Actual and projected flows sent to Geoff	Correspondence	BS
	9 20 PM	Tony Trace (ICC) spoke with RA Emailing DTMR A/H contact to floodroom Kiosk caretaker at Colleges Crossing is being evacuated **Contact Number for DTMR: Ron Hemley** [redacted]	Correspondence	BS
	10 00 PM	SDWD Model Updated - SDWD-201101092200withnorain xls SDWD-201101092200-Forecast24hr xls	Model Run	JW
	10 00 PM	NPD model updated - NPD-201101092200 xls	Model Run	JW
	10 06 PM	JR called Wivenhoe operator (Doug Grigg) and confirmed current flooding expectations based on rainfall predictions and expected impacts	Correspondence	BS
	10 15 PM	FOC called Tony Jacobs (SRC) A situation update was provided Fernvale Bridge closure likely to be required in view of probable releases from Somerset to Wivenhoe	Correspondence	BS
	10 20 PM	Rob Drury called and spoke with RA A teleconference with Water Grid Manager and DERM was completed Explained 9 00pm situation report Water Grid Manager will be distributing media release in the morning regarding closure of bridges	Correspondence	BS
	10 30 PM	Brett Myatt (Mt Crosby WTP) called and spoke with RA He was concerned the guardrails need to be taken off bridge before bridge goes over RA recommended getting the rails straight off in view of increasing flow expectations overnight Flow expected to get to 2000ML by morning	Correspondence	BS
	10 30 PM	JR called Wivenhoe Dam operator (Doug Grigg) requesting for a visual inspection of Fernvale Bridge	Correspondence	BS
	10 40 PM	Doug Grigg (Wivenhoe Dam) called discussed Fernvale Bridge situation with JR Water was lapping the bridge girders	Correspondence	BS
	10 45 PM	Rob Drury called and spoke with RA Rob Drury will be contacting Dan Spiller to confirm closure of Mt Crosby Weir Bridge Police are on site	Correspondence	BS
	11 20 PM	JR called Tony Trace (ICC) and left message regarding rates of rise at Mt Crosby Bridge will be inundated within the next couple of hours	Correspondence	BS
	11 25 PM	JR called Ross Drabble (ICC) regarding rates of rise at Mt Crosby (approx 200 mm from going over) will be inundated within the next couple of hours Confirmed more rain is on the way and releases will need to be increased	Correspondence	BS
	11 25 PM	RA spoke with Doug Grigg (Wivenhoe Dam) Water is up to the centreline of the Chine Gully approach to Fernvale Bridge Esk police are on site and are considering placing road closure signs in Fernvale Rob Titmarsh and Darren Valley (operators living in Fernvale) will be mobilised to the dam by police prior to closure	Correspondence	BS
	11 30 PM	JR called Tony Jacobs (SRC) and left message advising of situation	Correspondence	BS
	11 35 PM	RA called Ron Hemley (DTMR) and left message regarding current road closure situation	Correspondence	BS
	11 35 PM	JR called Andy Bickerton (SRC) and left message for call to be returned re Fernvale Bridge situation	Correspondence	BS
	11 38 PM	JR called Robert Bain (CEO SRC) and left message regarding Fernvale Bridge situation and requested call be returned ASAP	Correspondence	BS
	11 40 PM	Andy Bickerton (SRC) called back and spoke with JR JR confirmed the high flow levels and anticipated further level rises will impacts road crossings Fernvale Bridge was about to go out Informed of the levels and inflows to Wivenhoe and Somerset and the expectation for more rain	Correspondence	BS
Monday 10 January 2011	12 00 AM	Andy Bickerton called again and spoke with JR JR confirmed police were on site at Fernvale Bridge and were contemplating road closure signs at Fernvale Confirmed message has been left with DTMR but call not yet returned	Correspondence	BS
	12 10 AM	Brett Myatt (Mt Crosby WTP) called to confirm Mt Crosby Weir road is closed (call taken by Bill Stephens) Confirmed that ICC has been notified and message left with DTMR	Correspondence	BS
	12 45 AM	Ken Morris (BCC) called and spoke with JR Ken indicated that 3500 cumecs is the damaging flow level for Brisbane urban areas The manual documents 4000 cumecs as the damaging level JR undertook to take this into consideration when preparing the current situation report, and would not refer to damage levels	Correspondence	BS
	12 55 AM	JR called Rob Drury to discuss Ken's view on damaging flow JR confirmed that if flows were kept below 3500 the fuse plug would be triggered Agreed that situation reports will not allude to damage levels the councils can make decisions on what to report in this regard	Correspondence	BS
	1 00 AM	SDWD Model Updated - SDWD-201101100100withnorain xls	Model Run	JW
	1 00 AM	RA called Ray Ballinger (Somerset Dam) regarding purported dam stability issues (via Tony Trace - two reports received) Ray confirmed that inspection had revealed no issues	Correspondence	BS

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JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	1:14 AM	**FOC Situation Report at 01:00 hrs on Monday 10 January 2011** Rainfall - Very heavy rainfall has been recorded in the Upper Brisbane and Stanley Rivers in the last 12 hours with totals up 100 to 240mm. Totals for the last 24 hours range from 100 to 300mm. - Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south. - A severe weather warning remains current for heavy rainfall in the dam catchment areas. North Pine Dam (Full Supply Level 39.60 m AHD) The dam level was 39.95 m and steady. Five gates are open releasing 445 m3/s. The inflow into the dam since the commencement of the event is 42,000 ML. Estimated event volume is 57,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011. Somerset Dam (Full Supply Level 99.00 m AHD) The dam level is 102.22 m AHD and rising quickly (storing 157,000 ML above FSL). Peak inflow to the dam is estimated to be about 4,200 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000ML/d) into Wivenhoe Dam. At this stage the dam will reach at least 103.5 on Monday afternoon which will adversely impact areas around Kilcoy. - Since the commencement of the event on 02/01/2011approximately 115,000ML has been released from the dam into Wivenhoe with an event total of the order of 520,000ML expected. This is expected to increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.	Situation Report	JR
		Wivenhoe Dam (Full Supply Level 67.00 m AHD) - River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have already reached 7,350m3/s and the river has just peaked at 23:00 on Sunday 9 January. - The dam level is rising quickly, with the current level being 69.60m AHD (storing 801,000 ML). Estimated peak inflow to the dam just from the Upper Brisbane R alone may reach as high as 8,800m3/s and, at this stage, the dam will reach at least 73.3 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it will be necessary to increase the release from Wivenhoe during Monday morning. - The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at the stage, releases will be kept below 3,500m3/s and the combined flows in the lower Brisbane will be limited to 4,000m3/s if possible. - Fernvale Bridge approaches and Mt Crosby Weir Bridge have been inundated and both bridges are now closed or are in the process of being closed. - The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day). Gate opening will start to be increased during early Monday morning and the release is expected to increase to at least 2,600m3/s. Since the commencement of the event on 02/01/2011 approximately 240,000ML has been released from the dam, with an event total approaching 1,500,000ML without further rain and as much as 2,100,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011. Impacts downstream of Wivenhoe Dam - The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of	Situation Report	
	2:00 AM	Issued Wivenhoe Directive #9 • Open Gate 1 from 2.0 metres To 2.5 metres At 02:00 • Open Gate 5 from 2.0 metres To 2.5 metres At 03:00 • Open Gate 2 from 2.5 metres To 3.0 metres At 04:00 • Open Gate 4 from 2.5 metres To 3.0 metres At 05:00 • Open Gate 2 from 3.0 metres To 3.5 metres At 06:00	Directive	BS
	3:00 AM	SDWD Model Updated - SDWD-20110110030Owithnorain.xls	Model Run	JW
	3:00 AM	NPD model updated - NPD-20110110030O.xls	Model Run	JW
	4:10 AM	JR discussed Wivenhoe status and release strategy with Doug Grigg	Correspondence	BS
	5:00 AM	SDWD Model Updated - SDWD-20110110060Owithnorain.xls	Model Run	JW
	5:00 AM	Graham Francis called and discussed Somerset situation with RA	Correspondence	BS
	5:00 AM	NPD model updated - NPD-20110110060O.xls	Model Run	JW
	5:05 AM	Rob Drury called and received situation update from JR	Correspondence	BS
	5:20 AM	RA called BoM regarding next forecast update - due at 8:00 am	Correspondence	BS
	6:00 AM	Send out situation report for this morning	Correspondence	LVB
	6:30 AM	**FOC Situation Report at 06:00 on Monday 10 January 2011** Rainfall - Moderate to heavy rainfall has been recorded in the Upper Brisbane and Stanley Rivers in the last 12 hours with totals up to 90 mm. Totals for the last 24 hours range from 100 to 325mm. - Mt Glorious recorded 100 mm in the last 12 hours. - Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south. - A severe weather warning remains current for heavy rainfall in the dam catchment areas. North Pine Dam (Full Supply Level 39.60 m AHD) - The dam level was 39.97 m and steady. Five gates are open releasing 475 m3/s. The inflow into the dam since the commencement of the event is 62,000 ML. Estimated event volume is 72,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011. Somerset Dam (Full Supply Level 99.00 m AHD) - The dam level at 05:00 was 102.84 m AHD and rising (storing 193,000 ML above FSL). Peak inflow to the dam is estimated to be about 4,200 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000ML/d) into Wivenhoe Dam. At this stage the dam lake level will reach about 103.5 mAHD on Monday afternoon. Areas around Kilcoy will continue to be adversely affected. - Since the commencement of the event on 02/01/2011approximately 142,000ML has been released from the dam into Wivenhoe with an event total of the order of 520,000ML expected. This is expected to increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.	Situation Report	JR
		Wivenhoe Dam (Full Supply Level 67.00 m AHD) - River levels upstream of the dam have peaked and are falling slowly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have peaked at 7,350m3/s at 23:00 on Sunday 9 January. This peak is bigger than January 1974 and February 1999 at this location. - The dam level is rising quickly, with the current level being 70.77m AHD (storing 450,000 ML). Estimated peak inflow to the dam just from the Upper Brisbane R is around 8,800m3/s and, at this stage, the dam will reach at least 73.3 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it was necessary to start to increase the release from Wivenhoe during Monday morning. - The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at the stage, releases will be kept below 3,500m3/s and the combined flows in the lower Brisbane will be limited to 4,000m3/s if possible. This is significantly less than the current estimated combined pre-dam peak inflow of 12,000 m3/s. - Fernvale Bridge approaches and Mt Crosby Weir Bridge have been inundated and both bridges are now closed. - The current release rate from Wivenhoe Dam is 1,75/ite/s (150,000ML/day). Gate opening will continue to be increased during Monday and the release is expected to increase to at least 2,600m3/s in the next 12 to 24 hours. - Since the commencement of the event on 02/01/2011 approximately 275,000ML has been released from the dam, with an event total approaching 1,600,000ML without further rain and as much as 2,100,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011. Impacts downstream of Wivenhoe Dam - The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees. - Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff etc.	Situation Report	
	6:30 AM	Issued Wivenhoe Directive #9 • Open Gate 4 from 3.0 metres To 3.5 metres At 07:00 • Open Gate 1 from 2.5 metres To 3.0 metres At 08:00 • Open Gate 5 from 2.5 metres To 3.0 metres At 09:00 • Open Gate 2 from 3.5 metres To 4.0 metres At 10:00 • Open Gate 4 from 3.5 metres To 4.0 metres At 11:00	Directive	LVB
	7:40 AM	Talked to BoM - we are in general agreement about current flows in the Brisbane River	Correspondence	LVB
	8:30 AM	FOC left a message for Ken Morris (BCC) to call back	Correspondence	LVB

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AN - Al Francis
BS - Bill Stephens
DP - David Pickering
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	8 30 AM	Issued Wivenhoe Directive #10 • Open Gate 4 from 3 0 metres To 3 5 metres at 07 00 • Open Gate 1 from 2 5 metres To 3 0 metres at 08 00 • Open Gate 5 from 2 5 metres To 3 0 metres at 09 00	Directive	LVB
	8 38 AM	Talked to Peter Baddley BOM) to discuss our planned strategy i e to maintain gate openings for the next 24 hrs This increases flood storage by 75 000ML which is equivalent to 0 2m rise and limits flows in the Brisbane to 3 000 m3/s this provides a buffer for potential runoff for the next 24 hrs	Correspondence	LVB
	9 38 AM	Conference call with Ken Morris (BCC) - informed them that release from Wivenhoe will be maintained at 2000m3/s for the next 24 hrs This will be revised in 24 hrs The strategy is to limit the flows to 3000 - 3500m3/s At 3500m3/s about 322 (the whole property) will be submerged and about 7000 properties will be affected somehow damage bill $7mill If the rainfall in the Bremmer and Lockyer increases substantially - it is likely the flows from these catchments can peak at 1000m³/s (on top of Wivenhoe releases)	Correspondence	LVB
	10 08 AM	Received QPF - 100mm in Brisbane and 150mm North Pine catchment	Other	LVB
	10 15 AM	Received phone call from Mike Shetland (FMC) and Supt Alastair Dawson - Disaster Coordinator for this District - gave them the same information as what we gave Ken Morris before	Correspondence	LVB
	10 46 AM	Called Jimmy Stewart (BoM) to inform that TM can do the model and with 600m3/s in the Bremmer the flows in Brisbane will go up to 3600m3/s BoM will discuss with BCC	Correspondence	LVB
	11 14 AM	Tony Trace (ICC) called to clarify our strategy Gave him the same info as above	Correspondence	LVB
	12 00 PM	Send out second situation report for today	Situation Report	LVB
	1 00 PM	SDWD Model Updated - SDWD-20110101300withnorain.xls	Model Run	JW
	2 58 PM	**FOC Situation Report at 12:00 on Monday 10 January 2011** Rainfall Significant rainfall has fallen in the Wivenhoe Dam catchment over the last 3 hours, with falls exceeding 100mm This rainfall will significantly increase inflows into the dam A severe weather warning remains current for heavy rainfall in the dam catchment areas The QPF issued by BOM at 10 00 estimates rainfalls for the 24 hours to 10 00 Tuesday as North Pine Dam (75mm to 150mm), Wivenhoe/Somerset Dam Catchments (50mm - 100mm) Potentially significant rain moving towards the dam catchments is currently evident on the BOM radar Somerset Dam (Full Supply Level 99 00 m AHD) The dam level is 103 41m AHD and rising Peak inflow to the dam is estimated to be about 4,200 m3/s Five sluice gates are open releasing about 1,100m3/s (95,000ML/day) into Wivenhoe Dam At this stage the dam lake level will reach about 103 5m AHD on Monday afternoon Areas around Kilcoy will continue to be adversely affected Wivenhoe Dam (Full Supply Level 67 00 m AHD) The dam level is 72 41m AHD and rising quickly The rainfall experienced over the last 2 to 3 hours will result in significant further inflows into the dam and releases from the dam will need to be increased in accordance with Flood Mitigation procedures and to ensure that a fuse plug is not initiated The initiation of a fuse plug will result in a rapid uncontrolled outflow from the dam of 2,000m3/s being added to the gate release outflow Outflows into the Brisbane River from both Lockyer Creek and the Bremer River are also increasing Five radial gates are currently open at the dam releasing about 2,000m3/s into the Brisbane River and this will need to be increased steadily to an outflow of 2,800m3/s over the next 9 hours (commencing at 1500) At this stage, the dam will reach about 73 8m AHD during Tuesday morning The objective for dam operations is currently to minimise the impact of urban flooding in areas downstream of the dam and to keep river flows in the lower Brisbane River below 4,000m3/s if possible This is significantly less than the current estimated combined pre-dam peak inflow of 12,000m3/s If further rainfall occurs dam releases may need to be increased further and this may result in river flows in the lower Brisbane River approaching or exceeding 5,000m3/s Impacts downstream of Wivenhoe Dam The projected Wivenhoe Dam releases combined with Lockyer Creek flows and local runoff will mean that all crossings	Situation Report	TM
	12 02 PM	Spoke with Peter Borrows (Seqwater) to answer elaborate on Situation Report and inform him of large rainfalls currently occurring in the Wivenhoe catchment	Correspondence	LVB
	12 33 PM	Called BCC twice. No answer, so left messages	Correspondence	LVB
	12 36 PM	Talked to Tony Trace (ICC) informed him that we are moving strategy from urban damage control to dam safety priority	Correspondence	LVB
	12 41 PM	NPD operator called to inform FOC the level is dropping. Instructed them not to close gates - heavy rain fell in catchment	Correspondence	LVB
	2 00 PM	Send out third situation report for today	Correspondence	LVB
	2 30 PM	Called BCC 3 times before getting through to Flood Information Centre (FIC) Discussed latest strategy with them i e changing from "Flood Mitigation" to "Dam Safety" We will start opening Wivenhoe gates from 15 00	Correspondence	LVB
	3 00 PM	Called Disaster Coordinator, Ian Stewart @ 3247 8098 No answer	Correspondence	LVB
	4 00 PM	NPD model updated - NPD-20110110160 0.xls	Model Run	JW
	4 00 PM	Issued Wivenhoe Directive #11 • Open Gate 2 to 4 0 m at 15 00 • Open Gate 4 to 4 0 m at 15 30 • Open Gate 3 to 5 0 m at 16 00 • Open Gate 1 to 3 5 m at 16 30 • Open Gate 5 to 3 5 m at 17 00 • Open Gate 2 to 4 5 m at 17 30 • Open Gate 4 to 4 5 m at 18 00 • Open Gate 1 to 4 0 m at 18 30 • Open Gate 5 to 4 0 m at 19 00 • Open Gate 1 to 4 5 m at 19 30	Directive	LVB
	4 15 PM	Had conference call with BoM They agree with FOC on model discharge results However, BoM included 6hrs of additional rain which takes the discharge to 4900m3/s	Correspondence	LVB
	4 09 PM	Issued North Pine Directive #10 • Gate F Close to increment 4 • Gate G Close to increment 4	Directive	LVB
	4 09 PM	TM spoke to a police officer about Cressbrook Dam advising that FOC does not manage Cressbrook but gave him a contact at Toowoomba RC	Correspondence	LVB
	5 00 PM	Issued North Pine Directive #11 • Gate B Close to increment 3 • Gate D Close to increment 3 • Gate A Close to increment 3 • Gate E Close to increment 3	Directive	LVB
	6 00 PM	SDWD Model Updated - SDWD-20110110170 0withnorain.xls SDWD-20110110170 0withfiftymmrain.xls	Model Run	JW
	6 09 PM	Aqa (Somerset Dam) phoned and reported water from Wivenhoe is getting into the hydro	Correspondence	LVB
		FOC Situation Report at 18:00 on Monday 10 January 2011 Rainfall Only minor rainfall has been experienced in the North Pine Dam and Somerset Dam catchments with a catchment averages of less than 20mm However, significant rain has fallen in the Wivenhoe Dam catchment over the last 6 hours, with isolated falls exceeding 100mm This rainfall has significantly increase inflows into the dam A severe weather warning remains current for heavy rainfall in the dam catchment areas The QPF issued by BOM at 10 00 estimates rainfalls for the 24 hours to 10 00 Tuesday as North Pine Dam (25mm to 50mm, with isolated falls to 100mm), Wivenhoe/Somerset Dam Catchments (25mm to 50mm, with isolated falls to 100mm) Potentially significant rain moving towards the dam catchments is currently evident on the BOM radar North Pine Dam (Full Supply Level 39 90 m AHD) The dam level is 39 84m AHD and falling slowly (storing 9 000ML above FSL) Five gates are open and releasing 362 m3/s The inflow into the dam since the commencement of the event is 72,000 ML Estimated event volume is 84,000 ML assuming no further rainfall Releases from the dam will continue until at least Wednesday 12 January 2011 Somerset Dam (Full Supply Level 99 00 m AHD) The dam level is 103 46m AHD and rising slowly Peak inflow to the dam is estimated to be about 4,200 m3/s Total discharge into Wivenhoe Dam is currently 1700m3/s and this discharge will decrease slowly in the next 24 hours to be around 1200m3/s late	Situation Report	TM
	6 06 PM	Get weather update from BoM - the forecast now is - still more of the same of what we had today	Other	LVB

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DATE	TIME	ACTION	CATEGORY	INITIALS
	6:43 PM	FOC Situation Report at 18:00 on Monday 10 January 2011 Rainfall - Only minor rainfall has been experienced in the North Pine Dam and Somerset Dam catchments with a catchment averages of less than 20mm. - However, significant rain has fallen in the Wivenhoe Dam catchment over the last 6 hours, with isolated falls exceeding 100mm. This rainfall has significantly increase inflows into the dam. A severe weather warning remains current for heavy rainfall in the dam catchment areas. The QPF issued by BOM at 10:00 estimates rainfalls for the 24 hours to 10:00 Tuesday as North Pine Dam (25mm to 50mm, with isolated falls to 100mm); Wivenhoe/Somerset Dam Catchments (25mm to 50mm, with isolated falls to 100mm). Potentially significant rain moving towards the dam catchments is currently evident on the BOM radar. North Pine Dam (Full Supply Level 39.60 m AHD) The dam level is 39.64m AHD and falling slowly (storing 9,000ML above FSL). Five gates are open and releasing 362 m3/s. The inflow into the dam since the commencement of the event is 72,000 ML. Estimated event volume is 84,000 ML assuming no further rainfall. Releases from the dam will continue until at least Wednesday 12 January 2011. Somerset Dam (Full Supply Level 99.00 m AHD) The dam level is 103.46m AHD and rising slowly. Peak inflow to the dam is estimated to be about 4,200 m3/s. Total discharge into Wivenhoe Dam is currently 1700m3/s and this discharge will decrease slowly in the next 24 hours to be around 1200m3/s late	Situation Report	TM
		Wivenhoe Dam (Full Supply Level 67.00 m AHD) - The dam level is 72.92m AHD and rising quickly. Releases from the dam have been increased over the last 3 hours in accordance with Flood Mitigation procedures and to ensure that a fuse plug is not initiated. The initiation of a fuse plug will result in a rapid uncontrolled outflow from the dam of 2,000m3/s being added to the gate release outflow. Outflows into the Brisbane River from both Lockyer Creek and the Bremer River are also increasing. The flash flooding experienced in the upper areas of Lockyer Creek have been examined and are not expected to significantly increase Brisbane River flows above the current projection of 4000m3/s at Moggill. - Five radial gates are currently open at the dam releasing about 2,400m3/s into the Brisbane River and this will need to be increased steadily to an outflow of 2,800m3/s. At this stage, the dam will reach about 73.8m AHD during Tuesday morning. - The objective for dam operations is currently to minimise the impact of urban flooding in areas downstream of the dam and to keep river flows in the lower Brisbane River below 4,000m3/s if possible. This is significantly less than the current estimated combined pre-dam peak inflow of 12,000m3/s. If further rainfall occurs, dam releases may need to be increased further and this may result in river flows in the lower Brisbane River approaching or exceeding 5,000m3/s. Impacts downstream of Wivenhoe Dam The projected Wivenhoe Dam releases combined with Lockyer Creek flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fairvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Sunday 16 January in varying degrees. - Water levels in the lower Brisbane River will be impacted by the combined flows of Lockyer Creek, Bremer River, local runoff and releases from Wivenhoe Dam. Outlook Heavy rainfall continues throughout South East Queensland and the situation could deteriorate rapidly over the next 24 hours. The flood operation centre will continue to monitor the situation and provide every six hours until the situation stabilizes.	Situation Report	
	6:45 PM	Brett Schultz (North Pine Dam) raised concerns with school groups using Lake Kurwongbah for rowing exercise while water is running over the spillway at 500mm. He was referred to Rangers.	Correspondence	LVB
	7:20 PM	Issued North Pine Directive #12 • Gate C Close to increment 3 • Gate B Close to increment 2 • Gate D Close to increment 2 • Gate A Close to increment 2 • Gate E Close to increment 2 • Gate C Close to increment 2	Directive	JW
	7:30 PM	Agg Degan (Somerset) called to inform that Somerset hydro is inundated with water. Agg believes he has located source of leak, has tightened seals to prevent further leakage. Agg also noted that there is oil in the water.	Correspondence	JW
	8:00 PM	SDWD Model Updated - SDWD-20110110200withrain.xls, SDWD-20110110200-Lockyer.xls, SDWD-201101102000 11Maflows.xls	Model Run	JW
	20:00 PM	Peter Baddiley (BoM) called to advise of situation regarding flows in Lockyer. Estimated very heavy localised rainfall (eg. 600mm in few hours) on Toowoomba escarpment to cause observed flood flooding. Will monitor via Glenore Grove gauging station.	Correspondence	JW
	20:45 PM	Brett Myatt (Seqwater Mt Crosby WTP) called to get situation update. Advised that at 20m there will be issues at Mt Crosby WTP. FOC to advise Brett if likely to reach that level.	Correspondence	JW
	21:00 PM	Spoke to Peter Allan regarding strategies for reducing Wivenhoe release to mitigate latest event in Lockyer. Peter endorsed variation to manual to operate at minimum gate settings to create gap to allow peak of flash flood to pass. Also endorsed concept allowing Wivenhoe HW to rise above 74 mAHD briefly.	Correspondence	JW
	21:30 PM	Provided Boyd Wilson (ICC) with situation update	Correspondence	JW
	21:40 PM	Issued North Pine Directive #13 • Gate B Close to increment 1 • Gate D Close to increment 1	Directive	JW
	21:45 PM	Issued North Pine Directive #14 • Gate A Close to increment 1 when level reaches 39.775 m • Gate E Close to increment 1 when level reaches 39.760 m	Directive	JW
	20:20 PM	Spoke to Peter Baddiley (BoM) regarding reducing Wivenhoe release to accommodate peak of Lockyer flash flood.	Correspondence	JW
	11:20 PM	Spoke to Rob Drury to give situation update. Rob agreed that if possible to reduce flow from Wivenhoe to accommodate Lockyer flash flood peak.	Correspondence	JW
	11:50 PM	**FOC Situation Report at 00:00 Tuesday 11 January 2011** Rainfall - Rainfall continues in the North Pine Dam, Somerset Dam and Wivenhoe Dam catchments with falls of generally less than 25mm since 18:00 today. However, some isolated falls in the Upper Brisbane River of up to 110 mm have been recorded at Monsalvale in this time. This rainfall will increase inflows into the dam. - A severe weather warning remains current for heavy rainfall in the dam catchment areas. The QPF issued by BOM at 10:00 estimates rainfalls for the 24 hours to 10:00 Tuesday as North Pine Dam (25mm to 50mm, with isolated falls to 100mm); Wivenhoe/Somerset Dam Catchments (25mm to 50mm, with isolated falls to 100mm). North Pine Dam (Full Supply Level 39.60 m AHD) The dam level is 39.80m AHD and falling slowly (storing 4,400ML above FSL). Five gates are open, releasing 153 m3/s. The inflow into the dam since the commencement of the event is 74,000 ML. Estimated event volume is 84,000 ML assuming no further rainfall. Releases from the dam will continue until at least Wednesday 12 January 2011. Somerset Dam (Full Supply Level 99.00 m AHD) The dam level is 103.40m AHD and falling slowly. Peak inflow to the dam is estimated to be about 4,200 m3/s. Total discharge into Wivenhoe Dam is currently 1700m3/s and this discharge will decrease slowly in the next 24 hours to be around 1200m3/s late Tuesday. The dam level peaked at 103.52m AHD at 19:00 on Monday 10 January 2011, unless further significant rainfall is experienced. Areas around Kilcoy will continue to be adversely affected.	Situation Report	RA

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BOM/FWC Bureau of Meteorology Flood Warning Centre

AN - Al Nanos
BS - Bill Stagiewicz
DP - David Pokarier
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
		Wivenhoe Dam (Full Supply Level 67.00 m AHD) - The dam level is 73.22m AHD and rising at about 50 mm/hour. Releases from the dam have been held at a rate of 2,750 m3/s since 19:30 hours. Outflows into the Brisbane River from both Lockyer Creek and the Bremer River are also increasing. - The BoM has provided further advice about the flash flooding experienced in the upper areas of Lockyer Creek. The rainfall responsible for this event was not observed at any rainfall stations but it is considered to be very significant. Flood levels in the Lockyer Creek catchment will exceed maximum recorded levels in some stations in the upper catchment. This flow may result in increases in Brisbane River levels below the junction of Lockyer Creek. - Five radial gates are currently open at the dam releasing about 2,750m3/s into the Brisbane River. At this stage, the dam will reach about 73.8m AHD during Tuesday afternoon. - The objective for dam operations is currently to minimise the impact of urban flooding in areas downstream of the dam and to keep river flows in the lower Brisbane River below 4,000m3/s if possible. This is significantly less than the current estimated combined pre-dam peak inflow of 12,000m3/s. If further rainfall occurs, dam releases may need to be increased further and this may result in river flows in the lower Brisbane River approaching or exceeding 5,000m3/s. Impacts downstream of Wivenhoe Dam - The projected Wivenhoe Dam releases combined with Lockyer Creek flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Sunday 16 January in varying degrees. - Water levels in the lower Brisbane River will be impacted by the combined flows of Lockyer Creek, Bremer River, local runoff and releases from Wivenhoe Dam. - The BoM will provide further information regarding the magnitude of the flash flood event occurring in Lockyer Creek early Tuesday morning. Consideration will be given to modifying the releases from Wivenhoe Dam to try to moderate the peak flows emanating from Lockyer Creek. Outlook Heavy rainfall continues throughout South East Queensland and the situation could deteriorate over the next 24 hours. The flood operations centre will continue to monitor the situation and provide situation reports every six hours until the situation stabilises.	Situation Report	
Tuesday, 11 January 2011	12:00 AM	SOWD Model Updated - SOWD-20110111000withnorain.xls	Model Run	JW
	12:00 AM	NPD model updated - NPD-20110111000.xls	Model Run	JW
	12:15 AM	Spoke to Ken Morris (BCC) to update on current release strategy	Correspondence	JW
	1:30 AM	Spoke to Tony Trace (SRC). Somerset Regional Council offices were flooded and email addresses are no longer working. Tony can be emailed on tonytrace@bigpond.com.net	Correspondence	JW
	2:15 AM	James Charalambous (BCC) called to confirm forecast peak height of 3.1m at Brisbane city gauge for Wednesday high tide. This is based on 4800 cumecs modelled by BoM. Provided James with update on current release strategy.	Correspondence	JW
	3:00 AM	SOWD Model Updated - SOWD-20110111030withnorain.xls	Model Run	JW
	3:15 AM	James Charalambous (BCC) has provided inundation forecast for Brisbane city to assist with devising strategy to manage Wivenhoe releases	Correspondence	JW
	4:30 AM	Issued Somerset Directive #6 • Please close Sluice J at 05:00 • Please close Sluice N at 06:00 • Please close Sluice R at 07:00	Directive	JW
	5:00 AM	Issued North Pine Directive #15 • Gate A: Open to increment 2 at 6:00 am	Directive	JW
	5:15 AM	Spoke to Peter Baddiley (BoM) regarding reducing Wivenhoe release to accommodate peak of Lockyer flash flood. Update Consensus was that reducing release from Wivenhoe would no longer be feasible due to attenuation of Lockyer peak and significant additional rainfall in upper Brisbane during the night.	Correspondence	JW
	5:45 AM	Issued North Pine Directive #15a • Gate D: Open to increment 2 at 6:00 am	Directive	JW
	6:00 AM	Issued North Pine Directive #16 • Gate B: Open to increment 2 when level reaches 39.820 • Gate C: Open to increment 3 when level reaches 39.835 • Gate E: Open to increment 3 when level reaches 39.850 • Gate A: Open to increment 3 when level reaches 39.865 • Gate D: Open to increment 3 when level reaches 39.880	Directive	JW
	6:12 AM	**FOC Situation Report at 06:00 on Tuesday 11 January 2011** Rainfall - Rainfall continues in the North Pine Dam, Somerset Dam and Wivenhoe Dam catchments. Isolated falls in the Upper Brisbane River of up to 125 mm have been recorded with widespread falls of 40 to 70 mm in the Somerset Dam catchment. This rainfall will increase inflows into the dam. - There has also been 20 to 60 mm in the Lockyer Creek catchment in the last 12 hours with falls of up to 30 mm in the Bremer River. - A severe weather warning remains current for heavy rainfall in the dam catchment areas. The QPF issued by BOM at 16:00 estimates rainfalls for the 24 hours to 10:00 Tuesday as North Pine Dam (25mm to 50mm, with isolated falls to 100mm) Wivenhoe/Somerset Dam Catchments (25mm to 50mm, with isolated falls to 100mm). North Pine Dam (Full Supply Level 39.60 m AHD) The dam level is 39.80m AHD and has commenced rising again (storing 4,400Ml, above FSL). Five gates are open releasing 177 m3/s. The inflow into the dam since the commencement of the event is 77,000 Ml. Estimated event volume is 88,000 Ml, assuming no further rainfall. Releases from the dam will continue until at least Wednesday 12 January 2011. Somerset Dam (Full Supply Level 99.00 m AHD) - The dam level is 103.27m AHD and falling slowly. Peak inflow to the dam is estimated to be about 4,200 m3/s. Total discharge into Wivenhoe Dam is currently 1400 m3/s and this discharge will be decreased in the next few hours to be around 500 m3/s later.	Situation Report	
		Wivenhoe Dam (Full Supply Level 67.00 m AHD) - The dam level is 73.51m AHD and rising at about 25 mm/hour. Releases from the dam have been held at a rate of 2,750 m3/s since 19:30 hours on Monday 10 January 2011. Outflows into the Brisbane River from both Lockyer Creek and the Bremer River are also increasing. - The BoM has provided further advice about the flash flooding experienced in the upper areas of Lockyer Creek. The rainfall responsible for this event was not observed at any rainfall stations but it is considered to be extreme. Flood levels in the Lockyer Creek catchment will exceed maximum recorded levels in some stations in the upper catchment. This flow will result in increases in Brisbane River levels below the junction of Lockyer Creek. - Five radial gates are currently open at the dam releasing about 2,750m3/s into the Brisbane River. At this stage, the dam will reach just over 74.0m AHD during Tuesday morning. - Above FL 74.0m AHD the objective for dam operations is to maintain the security of the dam and minimise downstream flood flows if possible. - If further rainfall occurs, dam releases may need to be increased further and this may result in river flows in the lower Brisbane River approaching or exceeding 5,000m3/s. Impacts downstream of Wivenhoe Dam - The projected Wivenhoe Dam releases combined with Lockyer Creek flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Sunday 16 January in varying degrees. - Water levels in the lower Brisbane River will be impacted by the combined flows of Lockyer Creek, Bremer River, local runoff and releases from Wivenhoe Dam.	Situation Report	
	7:00 AM	SOWD Model Updated - SOWD-20110111070withnorain.xls	Model Run	JW
	7:00 AM	NPD model updated - NPD-20110111070.xls	Model Run	JW
	7:15 AM	Issued North Pine Directive #17 • Gate B: Open to increment 3 when level reaches 39.885 • Gate C: Open to increment 4 when level reaches 39.910 • Gate E: Open to increment 4 when level reaches 39.925 • Gate A: Open to increment 4 when level reaches 39.940 • Gate D: Open to increment 4 when level reaches 39.955 • Gate B: Open to increment 4 when level reaches 39.970	Directive	JW
	7:20 AM	TM called Peter Borrows to appraise of latest situation of Wivenhoe and lower Brisbane	Correspondence	DP
	7:22 AM	TM called BoM to appraise of situation. BoM unable to talk and will call back	Correspondence	DP
	7:35 AM	Peter Baddiley of BoM called back. Full appraisal of SEQWater strategy. Both SE QWater and BoM models results were discussed in detail, and generally agreed with each other.	Correspondence	DP
	7:51 AM	Called Matthew O'Reilly (Wivenhoe Dam) advised that gates opening at Wivenhoe are imminent	Correspondence	DP
	7:56 AM	TM called BoM. Advised Jimmy Stewart and Peter Baddiley that Wivenhoe will ramp up to a minimum release of 3700m3/s	Correspondence	DP
	7:59 AM	JT called Peter Borrows (Seqwater) and advised that releases from Wivenhoe will reach 3700m3/s at a minimum, and BoM has been informed. Likely to affect Moggill 24 hours later. Phone call terminated due to bad connection.	Correspondence	DP

SRC - Somerset Regional Council
BOMFWC Bureau of Meteorolgy Flood Warning Centre

AN Al Nanna
BS Bill Stephens
DP David Pokarier
JW John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	8:00 AM	Issued Wivenhoe Directive #12 • Open Gate 5 to 4.5 m at 08:00 • Open Gates 2 and 4 to 5.0 m at 08:30 • Open Gate 3 to 5.5 m at 09:00	Directive	DP
	8:01 AM	Peter Borrow returned call. JT advised that model to be run for BoM first and results to be past to BoM and BCC immediately. Rain likely to continue today	Correspondence	DP
	8:05 AM	Brett from NPD informed that levels are still rising and another directive is required. JT advised to proceed as per operations manual	Correspondence	DP
	8:09 AM	Advised Matthew (Wivenhoe Dam) that Wivenhoe Directive was coming through in a matter of minutes	Correspondence	DP
	8:10 AM	JT called Peter Allen to advise of current Wivenhoe situation. Will exceed EL74m. Ramping up gate opening to a minimum of 3700 and gate operations will progress	Correspondence	DP
	8:11 AM	TM called BCC flood information centre (Duty Officer - James). Wivenhoe releases will reach 3700m3/s at a minimum and higher flows are possible	Correspondence	DP
	8:15 AM	NPD Directive # 18 An interval of 15 minutes is to be used between gate movements Gate C. Open to increment 5 when level reaches 39.985 Gate E. Open to increment 5 when level reaches 40.000 Gate A. Open to increment 5 when level reaches 40.015 Gate D. Open to increment 5 when level reaches 40.030 Gate B. Open to increment 5 when level reaches 40.045 Please also confirm by fax once these gate operations are complete	Directive	DP
	8:15 AM	JT called Rob Drury to advise of the situation that Wivenhoe will increase to 3700m3/s as a minimum	Correspondence	DP
	8:16 AM	TM called SRC and left a message	Correspondence	DP
	8:20 AM	JT Called Matthew (Wivenhoe Dam) and advised more gate opening directives are coming	Correspondence	DP
	8:21 AM	TM called Tony Trace (ICC) to advise of situation and that Wivenhoe releases to be at a minimum of 3700m3/s	Correspondence	DP
	8:25 AM	JT called Brett Schultz (North Pine Dam). Verbal directive to open gates, faxed directive to follow before 9am	Correspondence	DP
	8:50 AM	Peter Borrows (SEQwater) called TM mobile requesting 'worst case' scenario	Correspondence	DP
	8:50 AM	Doug from Wivenhoe called informing that Wivenhoe has lost power, high voltage fuse blown. Hydro outlet is shut off	Correspondence	DP
	9:00 AM	Issued Wivenhoe Directive #13 • Open Gates 2 and 4 to 5.5 m at 09:30 • Open Gates 1 and 5 to 5.5 m at 10:00 • Open Gate 3 to 6.0 m at 10:30 • Open Gates 2 and 4 to 6.0 m at 11:00 • Open Gates 1 and 5 to 6.0 m at 11:30	Directive	DP
	9:09 AM	JT called SEQWater maintenance (Jo Misner) advised that Wivenhoe has lost power, possibly blown high voltage fuses. JO to resolve issue	Correspondence	DP
	9:12 AM	Brett called. NPD at 40.140 m HAD all gates at 6, currently heading to setting 7	Correspondence	DP
	9:13 AM	Energex called. All incoming power has been lost at Wivenhoe	Correspondence	DP
	9:16 AM	JT called Tony Martin and left message: very large inflows into North Pine Dam has resulted in steep gate openings. Flood downstream can be expected	Correspondence	DP
	9:17 AM	JT called Ed Hamold and informed that very large inflows into North Pine Dam has resulted in steep gate openings. Flood downstream can be expected. Strathpine Rd (Old Gympie Rd) to be flooded within next hour	Correspondence	DP
	9:21 AM	Agg from Somerset called TM. Water ingress through doors at the bottom of dam	Correspondence	DP
	9:22 AM	JT advised Brett (NPD) that Strathpine Rd is expected to be closed	Correspondence	DP
	9:26 AM	JT advised Brett verbally that all gates can go to 9 increments based on water level as per manual	Correspondence	DP
	9:40 AM	TM called MT and requested a technically knowledgeable person be dispatched to test HF radio links and satellite phone are in working condition	Correspondence	DP
	9:51 AM	Voicemail. Jo Misner left message. He's contacted Energex and Energex suspect a dirty feed. Currently all helicopters are grounded. Garry Ludlow is lead at Mt Crosby. Energex will get as close as they can and get helicopter lift when possible	Correspondence	DP
	10:00 AM	NPD model updated - NPD-201101111000.xls	Model Run	JW
	10:25 AM	Brett (North Pine Dam) called to report Lake level at EL 40.490mAHD. All gates currently at setting No. 10	Correspondence	DP
	10:29 AM	Stan from SEQWater called TM. In conference with Barton Man. Internal questioning of release strategy. Internal discussion regarding current approved strategy	Correspondence	DP
	10:45 AM	JT advised MBC (Ed Hamold) of current situation	Correspondence	DP
	10:54 AM	Rob Drury called. Bad line and disconnected	Correspondence	DP
	11:00 AM	SDWD Model Updated - SDWD 201101111100withnorain.xls	Model Run	JW
	11:01 AM	Message received by JT. Kilcoy police rang Somerset. JT advised general status information to be provided by dam operators predictions to go through FOC	Correspondence	DP
	11:02 AM	Peter Borrows (Seqwater) requested update on situation	Correspondence	DP
	11:04 AM	JT called Doug (operator). Discussed that if forecast rain falls, fuse plug likely to go	Correspondence	DP
	11:06 AM	**FAX not working at Wivenhoe!**	Other	DP
	11:07 AM	Jimmy Stewart (BoM) called. Inflow into NPD of 1500cumecs. Advised Wivenhoe strategy to be revised	Correspondence	DP
	11:17 AM	Barton called TM - on the way to talk to Grid Manager. TM advised current strategy is 3 hourly	Correspondence	DP
	11:19 AM	JT called Ed Haold. Advised North Pine still rising. Current releases to exceed 2000cumces	Correspondence	DP
	11:30 AM	Brett (North Pine Dam) called to report lake level EL 40.740 mAHD. Water level rising slowly. All gates now at setting 14	Correspondence	DP
	11:38 AM	TM called BoM. Unable to contact Peter Baddiley. Will call back	Correspondence	DP
	11:38 AM	JT called Peter Burrows and advised that releases at Wivenhoe will be ramped up to 4300cumecs and strategy will be revised on an hourly basis. In reality releasing slightly less than the Flood Ops manual	Correspondence	DP
	11:51 AM	Incoming Phone call from Rob Ayre. Advised SS that Wivenhoe will ramp up to 4000cumecs. Also advised that staff likely to stay in offices overnight	Correspondence	DP
	11:56 AM	JT called Ed Hammon and left message again. Outflow will exceed 2000cumecs	Correspondence	DP
	11:57 AM	JT called Elanor Davidson. Left message: North Pine Dam outflow likely to exceed 2000cumecs	Correspondence	DP
	11:59 AM	JT called Tony Martin. Left message: outflow from North Pine Dam will exceed 2000cumces	Correspondence	DP
	12:00 PM	Issued Wivenhoe Directive #14 • Open Gates 2, 3 and 4 to 6.5 m at 12:00 • Open Gates 1 and 5 to 6.5 m at 12:30 • Open Gate 3 to 7.0 m at 13:00	Directive	DP
	12:04 PM	Brett (North Pine Dam) called to report lake level at EL 40.863 mAHD. Gates are currently set at setting 16	Correspondence	DP
	12:10 PM	Kim Hang called from FOC satellite phone. Made contact with Somerset and North Pine. Connection issues with Landline to Wivenhoe	Correspondence	DP
	12:11 PM	**SitRep 1200 11/1/2011** Somerset/Wivenhoe . Our current strategy revolves around trying to prevent initiation of the first fuse plug at EL 75.6m. If that happens we will get a rapid increase of about 2,000m3/s in outflow from the dam in addition to the gate release which could be as high as 4,500 to 5,500m3/s at the time. However, it may be that fuse plug initiation might provide a lower outflow than increasing the gate outflow to protect it. In this case, we would adopt an alternate scenario . Sluices have been closed at Somerset and this will result in high upstream water levels affecting Kilcoy . With no further rainfall, Wivenhoe will approach 75.3m AHD and there will be an attempt to limit the dam outflow to 4,500m3/s however this strategy currently being reviewed on an hour by hour basis. The release will be 4,000m3/s by 1300 . With 50mm rainfall in the Stanley and Upper Brisbane in the next 12 to 24 hours, the release will need to be significantly increased to be in the order 6,000m3/s . It should be noted that the flow in the lower Brisbane River in 1974 was about 9,500m3/s . Wivenhoe has lost incoming mains power and are on backup power. Energex are attempting to rectify North Pine Inflows and outflows are increasing very rapid and will exceed 2,000m3/s	Situation Report	
	12:11 PM	Tony Martin called. TM advised discharge in excess of 1989 flood (1500cumecs). Current releases in excess of 2000cumecs	Correspondence	DP
	12:30 PM	Brett (North Pine Dam) called to report lake level is now at EL 40.950mAHD and rising. Gate settings at 17	Correspondence	DP
	12:42 PM	Mike Morrison from Redlands shire requesting information for Lesley Harrison. Was told to call Craig Duncan	Correspondence	DP
	12:42 PM	Call from Glen Patterson. Asked what is required of the Northern dams. Was advised to monitor dams more closely when/if 1 in 50 year event occurs	Correspondence	DP
	1:00 PM	Issued Wivenhoe Directive #15 • Open Gates 1,2, 4 and 5 to 7.0 m at 13:15	Directive	DP
	1:00 PM	Issued Wivenhoe Directive #16 • Open Gates 1,2, 3, 4 and 5 to 7.5 m	Directive	DP
	1:02 PM	Brett Schultz (North Pine Dam) called to report Lake level EL 41.040 m AHD. Gate settings at setting 18	Correspondence	DP
	1:26 PM	Peter Burrows (Seqwater) called and requested the FOC request the BoM to consider if Wivenhoe is releasing 9000cumecs	Correspondence	DP
	1:44 PM	Jeff (North Pine Dam) called on Satellite phone to confirm it is operational	Correspondence	DP
	1:50 PM	Brett Schultz (North Pine Dam) called to report lake level at EL 41.105mAHD. Gates currently at setting 19	Correspondence	DP
	1:55 PM	SEQWater is continually revising release strategy, could be as high as 6500cumecs by tonight. If dam stabilise, then estimates may be reduce. TM also passed on information for BoM to consider the effects at Brisbane if Wivenhoe releases 9000cumecs	Situation Report	DP
	1:56 PM	Rob Drury requesting status update	Correspondence	DP

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BS Bill Stephens
DP David Pokarier
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	2:00 PM	SDWD Model Updated - SDWD-201101111400withnorain.xls	Model Run	JW
	2:00 PM	Issued Wivenhoe Directive #17 • Open Gates 1,2, 3, 4 and 5 to 8.0 m	Directive	DP
	2:15 PM	Issued Wivenhoe Directive #18 • Open Gates 1,2, 3, 4 and 5 to 8.5 m	Directive	DP
	2:24 PM	Cherlyn Wivenhoe SEQWater called to pass on message. Phil Wilson (Qld fire rescue) called to enquire about Wivenhoe Releases (0457 821 919). Unable to call at this stage	Correspondence	DP
	2:37 PM	Peter Borrows (SEQWater) called to discuss current situation	Correspondence	DP
	2:46 PM	Brett Schultz (North Pine Dam) called to report lake level steady at 41.110 for last 30 minutes	Correspondence	DP
	2:53 PM	North Pine Dam is isolated as per conversation with Brett	Correspondence	DP
	3:00 PM	NPD model updated - NPD-201101111500.xls	Model Run	JW
	3:06 PM	Stan Stevenson (SEQWater) called to enquire about the current release rate from Wivenhoe Dam	Correspondence	DP
	3:14 PM	Peter Burrows (Seqwater) called to discuss the proposed release of 10,000cumecs. JT and TM explained release strategy is constantly being revised	Correspondence	DP
	3:15 PM	Issued Wivenhoe Directive #19 • Open Gates 1,2, 3, 4 and 5 to 9.0 m	Directive	DP
	3:30 PM	Issued Wivenhoe Directive #20 • Open Gates 1,2, 3, 4 and 5 to 9.5 m	Directive	DP
	3:49 PM	Peter Baddiley & Jimmy Stewart had a conference with JT, JR, TM and RA about current release strategy and possible maximum release scenario of 10000m3/s. This would be of a similar magnitude to the 1893 event (~8.36m in Brisbane Port Office)	Correspondence	DP
	3:54 PM	Stan Stevenson (Seqwater) called and talked to JT regarding current inflow strategy	Correspondence	DP
	3:56 PM	Called Brett Schultz (Wivenhoe Dam) to check if all is ok, levels are slowly reducing	Correspondence	DP
	4:15 PM	Issued Wivenhoe Directive #21 • Open Gates 1,2, 3, 4 and 5 to 10.0 m	Directive	DP
	4:29 PM	Lowood police rang to request water level of Wivenhoe and discuss the current release strategy with respect to the fuse plug (conversed with John West)	Correspondence	DP
	4:33 PM	Phone call with TM and Peter Burrows. Discussed that even though the magnitude flood in Brisbane is similar to 1974 flood event, the no-dam flood would be significantly larger without Wivenhoe	Correspondence	DP
	4:41 PM	Peter Allen phone call. PA requested more technical information in the status reports released by Duty Engineers. PA will send through an example of the technical data requested in the report	Correspondence	DP
	4:45 PM	Issued Wivenhoe Directive #22 • Open Gates 1,2, 3, 4 and 5 to 10.5 m	Directive	DP
	4:46 PM	Dave Roberts called to request update in inflow/outflow of Wivenhoe Dam	Correspondence	DP
	5:00 PM	SDWD Model Updated - SDWD-201101111700withnorain.xls	Model Run	JW
	5:12 PM	JT called Brett Schultz (North Pine Dam) regarding gate operating strategy. JT advised to keep gates at current setting until water is clear of the controls. Gate closing strategy then to follow Flood Manual	Correspondence	DP
	5:15 PM	Issued Wivenhoe Directive #23 • Open Gates 1,2, 3, 4 and 5 to 11.0 m	Directive	DP
	5:22 PM	Jimmy Stewart (BoM), TM and JR discussed current Wivenhoe inflows and anticipated outflows. TM confirmed that 7500cumecs is still likely early tonight	Correspondence	DP
	5:27 PM	Brett Schultz (North Pine Dam) called to report of NPD level EL 40.7 m AHD. JT verbally advised 10 minute gate closure intervals is ok until 39.9 m AHD - then back to 15 min intervals	Correspondence	DP
	5:48 PM	Rob Drury asking Tarong Energy to hold off releasing water from Spiltyard Creek	Correspondence	DP
	6:00 PM	NPD model updated - NPD-201101111800.xls, NPD-201101111800 Final.xls	Model Run	JW
	6:00 PM	SDWD Model Updated - SDWD-201101111800withnorain.xls	Model Run	JW
	6:00 PM	Issued Wivenhoe Directive #24 • Open Gates 1,2, 3, 4 and 5 to 12.0 m	Directive	DP
	6:00 PM	**Situation Report 1800 11 January 2011** -In the last twelve hours totals of up to 370mm have fallen in the area around Wivenhoe Dam. In the last hour, rainfalls between 15 and 30mm have been recorded in the same area. At 1600, the BoM advised that falls between 50 to 100mm are still forecast for the 24hrs to 1600 Wednesday 12 January 2011 for the North Pine and Somerset/Wivenhoe catchments. - At 1730 Wivenhoe Dam was 74.92m AHD and rising slowly and releasing about 6,700m3/s - The current expectation is that the dam will reach a steady state (outflow equals inflow) within the next 3 hours without further significant rainfall. At this time, release from the dam will be about 8,000 m3/s - If there is no further rainfall, it may be possible to then slowly reduce this release overnight. - The dam is expected to peak below 75.5m AHD which is 100mmm below the first fuse plug initiation level. - Note that the automatic recorder as indicated on the BoM website is affected by drawdown and is not reflecting the actual lake level and tendency. - The Flood Operations Centre is continuing to monitor rainfalls and water levels through the Brisbane and Pine catchments and reviewing operating strategy every 30 minutes. The FOC is also maintaining close contact with warning agencies and local	Situation Report	TM
	6:04 PM	Glen Patterson called to advise he is unable to reach Lake MacDonald to take readings	Correspondence	DP
	6:07 PM	Recap of current release strategy amongst Duty Engineers. Current Wivenhoe scenario: 74.9 m - all gates at 12m. Won't go to 13m settings until level reaches 75.0 m AHD	Correspondence	DP
	6:35 PM	Agg (Somerset Dam) called to confirm all is good	Correspondence	DP
	6:36 PM	Bill Stevens called to inform team he is cut off due to flood waters and unable to come in	Correspondence	DP
	6:41 PM	Tarong Energy confirmed releases from Spotyard creek have stopped	Correspondence	DP
	6:56 PM	Daryl Hicky informed that tailwater gauge appears to be OOA. Confirmed by TM	Correspondence	DP
	7:00 PM	Spoke to Brett Schultz who confirmed that North Pine gate settings were at 17, with level of 40.5. Closing sequence was still to close in 10 minute increments down to level 39.9, at which time increments would increase to 15 minutes	Correspondence	JW
	7:10 PM	Brett Schultz at NPD rang is concerned that the level is dropping too fast	Correspondence	AN
	7:30 PM	Issued North Pine Directive #19 • Gate B: Close to increment 11 at 19:45 • Gate D: Close to increment 11 at 20:00 • Gate A: Close to increment 11 at 20:15 • Gate E: Close to increment 11 at 20:30 • Gate C: Close to increment 11 at 20:45	Directive	AN
	7:30 PM	Doug Grigg (Wivenhoe Dam) called to report that Wivenhoe Level 74.97mAHD is holding	Correspondence	AN
	7:30 PM	Brett Schultz (North Pine Dam) rang to say he is behind in gate settings	Correspondence	AN
	7:25 PM	JR called Brett Schultz (North Pine Dam) to advise that a directive will be sent to move all gates down to 11m	Correspondence	AN
	7:45 PM	Brett Schultz (North Pine Dam) called FOC. JT clarified directive 19 to drop gates from 16 to 11 in one go, at 15 minutes intervals	Correspondence	AN
	8:00 PM	Peter Baddiley rang. Unofficially TM advised that things have stabilised. Also advised predicted peaks at various sites	Correspondence	AN
	8:25 PM	Joe Measner rang to advise that the high voltage feeder to Wivenhoe will not be restored for the duration of this event. JT advised that Wivenhoe is operating successfully on the generator, and they have a fair bit of diesel. There are still 2 other backups to operate the gates	Correspondence	AN
	8:25 PM	Chris Hughes at Colliers Building Services rang back. Rob Ayre asked about power supply to 179 Turbot Street. Chris said to email our power requirements	Correspondence	AN
	8:30 PM	Doug Grigg (Wivenhoe Dam) called to advise that Wivenhoe's level is 5mm down	Correspondence	AN
	8:30 PM	RA called Colliers Building Services and left a message to call back (regarding loss of power to the 179 Turbot Street)	Correspondence	AN
	8:30 PM	RA rang John Thornton (SunWater) to advise that power will be shutting down in the CBD tomorrow morning	Correspondence	AN
	8:30 PM	Issued Somerset Directive #7 • Fully Open Sluice L at 10:30	Directive	AN
	8:35 PM	RA rang John Thornton to advise the power situation	Correspondence	AN
	8:35 PM	Peter Burrows (Seqwater) called FOC to speak with all duty engineers on the operating strategies for Wivenhoe releases	Correspondence	AN
	8:40 PM	MT called FOC to ensure we received the Energex message regarding power shutdown to the CBD	Correspondence	AN
	8:45 PM	Warren Shallcross rang. Rob Ayre advised that Energex will be cutting power to the CBD in the morning. Warren will call Mike Mintet and the security guys for Mineral House	Correspondence	AN
	8:50 PM	Brett Schultz (North Pine Dam) called to report NPD. Level at EL 40.07mAHD. Gates are all at 11 increments	Correspondence	AN
	8:55 PM	Peter Burrows (Seqwater) rang asking about possibly reducing releases. TM advised that we are seriously considering it, but this would have little effect on the levels in Brisbane River. Peter would like technical reports every hour throughout the night	Correspondence	AN
	9:00 PM	RA emailed Chris Hughes with our building power requirements	Correspondence	AN
	9:00 PM	Issued North Pine Directive #20 • Gate B: Close to increment 6 at 21:00 • Gate D: Close to increment 6 at 21:15 • Gate A: Close to increment 6 at 21:30 • Gate E: Close to increment 6 at 21:45 • Gate C: Close to increment 6 at 22:00	Directive	AN
	9:00 PM	Issued Wivenhoe Directive #25 • Close Gates 1,2, 3, 4 and 5 to 11.0 m	Directive	AN
	9:05 PM	TM rang Chris Lahey (BoM) to advise that power to the CBD may be cut and send him actual and releases report	Correspondence	AN
	9:10 PM	John Thornton called RA. John advised he spoke to Chris Hughes and is getting an Energex contact	Correspondence	AN
	9:20 PM	Warren Shallcross rang. Mike Mintet told him we may not be able to have air conditioning	Correspondence	AN
	9:25 PM	RA called John Thornton. Chris Hughes got back to him and has Haywoods Electrical lined up for tomorrow morning	Correspondence	AN

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AN - Al Nemca
BS - Bill Stephens
DP - David Pulaner
JW - John Wiles

DATE	TIME	ACTION	CATEGORY	INITIALS
	9 25 PM	The last directive to lower the Wivenhoe gates to 11m should have been 11 5m. A new directive to raise to 11 5m was issued	Directive	AN
	9 30 PM	Mal Lane (North Pine Dam) called. They are still behind in gate closures	Correspondence	AN
	9 30 PM	Issued Wivenhoe Directive #26 • Close Gates 1,2, 3, 4 and 5 to 11 5 m	Directive	AN
	9 35 PM	JT rang to discuss the latest directive to raise Wivenhoe Dam. JT suggested not raising	Correspondence	AN
	9 40 PM	JW called Doug Grigg (Wivenhoe Dam) to obtain a current level. EL 74 97 Gates have been raised to 11 5m	Correspondence	AN
	10 00 PM	SDWD Model Updated - SDWD-20110111220wthnoran.xls	Model Run	JW
	10 00 PM	John Thornton rang to advise the phone number for Steve from Energex [redacted]	Correspondence	AN
	10 00 PM	John Thornton rang requesting RA mobile number to pass on onto Energex	Correspondence	AN
	10 15 AM	Issued North Pine Directive #21a • Gate B Close to increment 4 at 22 30 • Gate D Close to increment 4 at 22 45 • Gate A Close to increment 4 at 23 00 • Gate E Close to increment 4 at 23 15 • Gate C Close to increment 4 at 23 30 • Gate B Close to increment 3 at 23 45	Directive	AN
	10 30 PM	John Thornton rang to say Geoff White has pleaded our case with the CEO of Energex and it is likely 179 Turbot Street will not lose power	Correspondence	AN
	10 35 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74 94mAHD @ 10 30hrs	Correspondence	AN
	11 00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74 92mAHD @ 11 00hrs	Correspondence	AN
	11 00 AM	Issued Wivenhoe Directive #27 note directive #28 was a duplicate and not sent. • Close Gates 5,1,4,2 and 3 to 10 0 m	Directive	AN
	11 10 PM	Rob Drury rang to request discharge from Wivenhoe when the gates are lowered to 10m. Advised 6100m3/sec	Correspondence	AN
Wednesday, 12 January 2011	11 30 PM	JW called Doug Grigg (Wivenhoe Dam) to obtain a current level. EL 74 97 Gates have been raised to 11 5m	Correspondence	AN
	12 00 AM	Issued North Pine Directive #22 • Gate D Close to increment 3 at 00 15 • Gate A Close to increment 3 at 00 30 • Gate E Close to increment 3 at 00 45 • Gate C Close to increment 3 at 01 00 • Gate B Close to increment 2 at 01 15	Directive	AN
	12 30 AM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74 88mAHD @ 12 30hrs	Correspondence	AN
	1 00 AM	John Thornton (SunWater) called to provide Energex contact details. Steve, phone number [redacted] Steve indicated that he didn't believe 179 Turbot St would be disconnected from power grid in the morning	Correspondence	JW
	1 15 AM	RA rang Doug Grigg (Wivenhoe Dam) advising next directive. We want to get releases down as quick as possible while still lowering lake levels. Advised that we may possibly have a communications problem in the morning if power to 179 Turbot Street is cut	Correspondence	AN
	1 15 AM	Issued Wivenhoe Directive #29 • Close Gates 5,1,4,2 and 3 to 9 0 m	Directive	AN
	2 00 AM	Issued North Pine Directive #23 • Gate D Close to increment 2 at 02 15 • Gate A Close to increment 2 at 02 30 • Gate E Close to increment 2 at 02 45 • Gate C Close to increment 2 at 03 00	Directive	AN
	2 10 AM	James Charalambous (BCC) rang enquiring about a release strategy. Advised one will be issued at about 3 00am. Talked about the activities of the last 24 hours	Correspondence	AN
	3 10 AM	JR rang Mal Lane (NPD) and advised no changes to gate settings planned for the next hour or so	Correspondence	AN
	3 15 AM	Issued Wivenhoe Directive #30 • Close Gates 5,1,4,2 and 3 to 8 0 m	Directive	AN
	3 20 AM	Brett Myatt (SEQWater Mt Crosby WTP) called enquiring about levels at Mt Crosby	Correspondence	AN
	3 50 AM	RA called Chris Lahey (BoM) advising him that because inflows are not as much as earlier anticipated, the releases from Wivenhoe are less than previously suggested	Correspondence	AN
	4 05 AM	Ian Douglas, OIC of Lowood Police, rang enquiring about the Wivenhoe fuse plug. JW advised that there is no danger of the fuse plug failing, and that current releases from Wivenhoe Dam are about 4 900 cumecs	Correspondence	AN
	4 15 AM	Issued North Pine Directive #24 • Gate B Close to increment 1 at 04 30 • Gate D Close to increment 1 at 04 45 • Gate A Close to increment 1 at 05 00 • Gate E Close to increment 1 at 05 15	Directive	AN
	4 30 AM	Issued Wivenhoe Directive #31 • Close Gates 5,1,4,2 and 3 to 7 0 m	Directive	AN
	4 40 AM	Brett Myatt (Seqwater Mt Crosby WTP) rang to check that his emails with the Mt Crosby levels were being received. They are	Correspondence	AN
	5 15 AM	Rob Drury rang enquiring current storage levels and releases. JR advised	Correspondence	AN
	5 30 AM	Rob Drury rang enquiring estimated time for closing North Pine Dam. RA advised possible today, but it has not yet been decided. Also advised the inflows into North Pine Dam were equivalent to a 1 10,000 event	Correspondence	AN
	5 30 AM	Issued Wivenhoe Directive #32 • Close Gates 5,1,4,2 and 3 to 6 0 m	Directive	AN
	5 30 AM	Issued Wivenhoe Directive #33 • Close Gates 5,1,4,2 and 3 to 5 0 m	Directive	AN
	6 30 AM	JR called Wivenhoe Dam for the current level. Dropped 2 cm in 30 minutes	Correspondence	AN
	8 49 AM	**Situation Report 0600 Wed 12/01/2011** No significant rain has fallen over the catchments in the past twelve hours. Less than 10 to 15 millimeters of rainfall is expected over the next 24-48 hours Wivenhoe Dam peaked on the 11th January, Tuesday night at 19 00 at 74 97 mAHD with a corresponding discharge of 7 450 m3/s. The release have now been scaled back to 4 300m3/s at 05 00 am. Wivenhoe Dam is currently 74 72 m AHD and falling slowly The releases from Wivenhoe Dam will be temporarily reduced to 2 500 m3/s to allow the peak of Lockyer Creek to enter the Brisbane River, after which they will be increased to maximum of 3,500 m3/s. This release will then be maintained to drain the flood storage component within the required 7 days. Somerset Dam is at 105 10 mAHD and slowly rising. The dam is discharging 1,230 m3/s over the spillway. The dam is expected to peak this morning near its current level. Sluice gates will be utilised to assist the draining of the flood storage compartment commencing on Thursday The combined flood event volume in Somerset and Wivenhoe Dams is estimated to be in excess of 2 million megalitres North Pine Dam is currently releasing 105 m3/s through five gates. At 17 00 the lake was 69 78 mAHD. This event has a volume of around 200 000 ML. The peak discharge from the dam was 2 800 m3/s. This is categorised as an extreme event in the order of 1 in 10 000	Situation Report	RA
	5 50 AM	TM called Jim Stewart (BoM) advising him that we have significantly scaled back releases from Wivenhoe Dam, and will probably continue to scale back more. Agreed that Savages Crossing has peaked	Correspondence	AN
	6 00 AM	SDWD Model Updated - SDWD-20110111206Owthnoran.xls	Model Run	JW
	6 00 AM	North Pine Dam rang enquiring about closing down. JT advised that we have not yet decided	Correspondence	AN
	6 10 AM	Rob Drury rang and suggested that the fish recovery may be a fairly big job. JT suggested that our staff can check this morning and then decide	Correspondence	AN
	6 15 AM	Brendan Bradley (BCC) rang enquiring the level of the pump station at Mt Crosby. JT said we can't help, but that he should contact the treatment plant. Brett Myatt	Correspondence	AN
	6 30 AM	JT rang Doug Grigg (Wivenhoe Dam) advising that a directive will soon follow to lower gates to 5m	Correspondence	AN
	6 35 AM	Paul Martin rang. JT discussed current strategy	Correspondence	AN
	00 AM	Liaised with Bureau regarding expected peak in lower Brisbane	Correspondence	JW
	18 AM	Issued Wivenhoe Directive #34 • Close Gates 1 and 5 to 3 5 m • Close Gates 2 and 4 to 4 0 m	Directive	KH
	50 AM	John Thornton (SunWater) called to confirm that 179 Turbot St had power	Correspondence	JW

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AN - Al Nanuk
BS - Bill Stephens
DP - David Polanie
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	7 57 AM	**Situation Report 0800 Wed 12/01/2011** Rainfall - No significant rain has fallen over the catchments in the past twelve hours. Less than 10 to 15 millimeters of rainfall is expected over the next 24-48 hours. Somerset/Wivenhoe - Somerset Dam has peaked at 105.11 mAHD at 06:00 on 12 January 2011 and the dam is discharging 1,230 m3/s over the spillway. Sluice gates will be utilised to assist the draining of the flood storage compartment commencing later Wednesday. - Wivenhoe Dam peaked at 74.97 mAHD at 19:00 on 11 January 2011 with a corresponding discharge of 7,450 m3/s. Wivenhoe Dam was 74.75 m AHD at 07:30 and generally falling slowly. The releases from Wivenhoe Dam have been temporarily reduced to 2,500 m3/s at 07:30 to allow the peak of Lockyer Creek to enter the Brisbane River. After the downstream peak in the lower Brisbane River has passed, releases will be increased to maximum of 3,500 m3/s. This release will then be maintained to drain the flood storage component within the required 7 days. The combined flood event volume in Somerset and Wivenhoe Dams is estimated to be in excess of 2 million megalitres. North Pine At 07:00 North Pine Dam was 39.78 mAHD falling and releasing about 105 m3/s. North Pine has peaked at 41.11 mAHD at 14:00 on 11 January 1974 with peak release of 2,800 m3/s. The event has a volume of around 200,000 Ml. It is expected that gates will be close later Wednesday or early Thursday. Strategy The Flood Operations Centre is continuing to monitor rainfalls and water levels through the Brisbane and Pine catchments and reviewing operating strategy every 30 minutes. The FOC is maintaining close contact with warning agencies and local councils.	Situation Report	TM
	8 20 AM	Rob Drury rang enquiring current storage levels and releases. JT advised.	Correspondence	KH
	8 30 AM	Issued North Pine Directive #25 • Gate E: Open to increment 2 at 08:45	Directive	KH
	9 20 AM	Brett Schultz (North Pine Dam) rang wanting to speak to JT	Correspondence	KH
	9 50 AM	Ken from Lowood Police rang enquiring current storage releases from Wivenhoe Dam. JT advised.	Correspondence	KH
	10 15 AM	Issued Somerset Directive #8 • Fully Open Sluice L at 10:30	Directive	KH
	10 20 AM	Agg (Somerset Dam) called querying whether FOC have received fax and email regarding storage level. He was checking the walls before and will be at his desk for the next 30 minutes. Adam is there with him.	Correspondence	KH
	10 50 PM	Sam (SEQWater) rang wanting to thank Neville for his and John's heroic effort in clearing SEQWater basement.	Correspondence	KH
	11 20 AM	MT called to inform that he and Caroline Ellis Mallard (Seqwater) are not able to access Environion. He asked if TM can check the system.	Correspondence	KH
	11 50 AM	Peter Borrows (Seqwater) called to ask that all communications be forwarded to him.	Correspondence	JW
	12 20 PM	NA called Mathew O'Reilly (Wivenhoe Dam) to advise that Seqwater comms are to be switched off due to flooding of the Margaret Street offices. Please send all future hourly bulletins to the FOC via fax, or alternatively, phone or TPG link.	Correspondence	NGA
	12 25 PM	NA called Jeff Francis (North Pine Dam) advising him & Brett that Seqwater comms are to be switched off due to flooding of the Margaret Street offices. Please send all future hourly bulletins to the FOC via fax, or alternatively, phone or TPG link.	Correspondence	NGA
	12 32 PM	Mick O'Halloran (Leslie Harrison Dam) called JT. Due to the failure of Seqwater comms, he was seeking direction on how to submit a final report on operations at approx. 1600 today. JT said to phone in to the FOC.	Correspondence	NGA
	12 55 PM	Peter Baddiley, Rob Tasse, Jim Stevenson from BoM visited FOC to liaise with the Duty Engineers.	Correspondence	NGA
	1 10 PM	Barton Maher called to request electronic copy of Wiv. Som Flood Ops manual to be forwarded to him.	Correspondence	NGA
	1 15 PM	Mathew (Wivenhoe Dam) called to report lake level: 74.71mAHD @13:00hrs. Note: Reading taken in surging water. Wivenhoe fax appears to have failed.	Correspondence	NGA
	2 05 PM	Brett Schultz (North Pine Dam) called to inform that North Pine level was 39.74mAHD and based on this level he is recommending at least one gate closure.	Correspondence	NGA
	2 10 PM	Graham Keegan phoned from Wivenhoe Dam. The SES (and irrigators) at Fernvale have concerns that a flood peak might be coming down the Lockyer within the next couple of hours. Rob Ayre assured Graham that the flood heights have reduced by up to 3 metres and any increase would be less than 1 metre.	Correspondence	NGA
	2 15 PM	Issued North Pine Directive #26 • Gate E: Close to increment 1 at 14:15	Directive	NGA
	2 25 PM	Mathew (Wivenhoe Dam) called to report lake level: 74.81mAHD @14:00hrs. Note: Reading taken in surging water. Wivenhoe fax confirmed as failed.	Correspondence	NGA
	2 30 PM	Brett Schultz (North Pine Dam) called to advise that the automatic height gauge is drifting further from the manual gauge board readings. He will continue to provide both versions at hourly intervals but will rely on the manual gauge readings for gate operations.	Correspondence	NGA
	2 45 PM	Issued North Pine Directive #27 • Gate C: Close to increment 1 at 14:45	Directive	NGA
	3 00 PM	**Situation Report 1500 Wed 12/01/2011** Rainfall Rainfall in the last 12 hours is generally below 5mm with a couple of 10mm falls in the Stanley and North Pine catchments. There is no significant rain expected fin the next 4 days. Somerset/Wivenhoe - Somerset Dam has peaked at 105.11 mAHD at 06:00 on 12 January 2011. One sluice was opened at 1030 12 January 2011 and the dam is discharging 1,440 m3/s. Sluice gates will be utilised to drain of the flood storage compartment during the next 5 days. - Wivenhoe Dam peaked at 74.97 mAHD at 19:00 on 11 January 2011 with a corresponding discharge of 7,450 m3/s. Wivenhoe Dam was 74.81 m AHD at 15:00 and steady. The releases from Wivenhoe Dam have been temporarily reduced to 2,500 m3/s at 07:30 12 January 2011 to allow the peak of Lockyer Creek to enter the Brisbane River. After the downstream peak in the lower Brisbane River has passed, releases will be increased to maximum of 3,500 m3/s. This release will then be maintained to drain the flood storage component within the required 7 days. The combined flood event volume in Somerset and Wivenhoe Dams is estimated to be in excess of 2 million megalitres. North Pine At 15:00 North Pine Dam was 39.74 mAHD falling with all gates open 1 increment, releasing about 80 m3/s. North Pine peaked at 41.11 mAHD at 14:00 on 11 January 1974 with peak release of 2,800 m3/s. The event has a volume of around 200,000 Ml. It is expected that gates will be closed on Thursday or Friday. Strategy The Flood Operations Centre is continuing to monitor rainfalls and water levels through the Brisbane and Pine catchments and reviewing operating strategy every 30 minutes. The FOC is maintaining close contact with warning agencies and local councils. The next report will be issued at 16:00 12 January 2011.	Situation Report	TM
	3 05 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.81mAHD @ 15:00hrs.	Correspondence	NGA
	3 30 PM	Peter Baddiley (BoM) called TM to discuss re-appraisal of the expected flood peak in Brisbane. Peak now may be 5.2 metres early on Thursday 13/1/2011.	Correspondence	NGA
	4 00 PM	SDWD Model Updated - SDWD_20110112 1500.sls	Model Run	JW
	4 00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.80mAHD @16:00hrs.	Correspondence	NGA
	4 00 PM	Brett Schultz (North Pine Dam) called to report that Sideling Creek Dam is spilling at 20.56mAHD. Spillway level is 20.37mAHD.	Correspondence	NGA
	4 20 PM	Ken Morris (BCC) called FOC and had phone conference with Duty Engs. He was seeking update for briefing with Lord Mayor.	Correspondence	NGA
	4 52 PM	Paul Martin (DERM) called FOC and left message for TM. They (DERM) will be gauging at Jindalee all night to catch the peak. Carolyn Ellis Mallard has been contacted and will be joining the crew.	Correspondence	NGA
	5 00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.92mAHD @17:00hrs.	Correspondence	NGA
	6 00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.90mAHD @18:00hrs.	Correspondence	NGA

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AN - Al Naimi
BS - Bill Stephans
DP - David Pokarier
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	6:00 PM	**Situation Report 1800 Wed 12/01/2011** Rainfall Rainfall in the last 12 hours is generally below 5mm with a couple of 10mm falls in the Stanley and North Pine catchments. There is no significant rain expected fin the next 4 days Somerset/Wivenhoe - Somerset Dam has peaked at 105.11 mAHD at 06:00 on 12 January 2011. One sluice was opened at 1030 12 January 2011. Somerset Dam was 104.87 mAHD at 1700 12 January 2011 and discharging 1 410 m3/s. Sluice gates will be utilised to drain of the flood storage compartment during the next 5 days - Wivenhoe Dam peaked at 74.97 mAHD at 19:00 on 11 January 2011 with a corresponding discharge of 7 450 m3/s. Wivenhoe Dam was 74.82 m AHD at 17:00 and steady - The release from Wivenhoe Dam was reduced to 2,500 m3/s at 07:30 12 January 2011 to allow the peak of Lockyer Creek to enter the Brisbane River and this release has been maintained since. After the downstream peak in the lower Brisbane River has passed, releases will be increased to maximum of 3,500 m3/s. The release is expected to commence Thursday and then be maintained at this level to drain the flood storage component within the required 7 days. The releases will not result in any renewed rises at downstream locations - The combined flood event volume in Somerset and Wivenhoe Dams is estimated to be 2.6 million megalitres North Pine At 17:00 North Pine Dam was 39.74 mAHD steady with all gates open 1 increment, releasing about 80 m3/s. North Pine peaked at 41.11 mAHD at 14:00 on 11 January 1974 with peak release of 2 800 m3/s. The event has a volume of around 200 000 ML. It is expected that gates will be closed on Thursday or Friday	Situation Report	TM
	7:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.82 @19:00hrs	Correspondence	MT
	7:45 PM	RA & JR advised Chris Laney (BoM) that FOC will be sending updated projected releases from Wivenhoe Dam. This has been prepared with the aim of limiting flows at Moggill to 3,500 cumecs	Correspondence	MT
	8:00 PM	RA & JR advised David (BCC Flood Information Centre) that FOC will be sending updated projected releases from Wivenhoe Dam. This has been prepared with the aim of limiting flows at Moggill to 3,500 cumecs	Correspondence	MT
	8:55 PM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.82mAHD @ 21.00hrs. They will now report levels every 2 hours	Correspondence	RA
	9:15 PM	Doug Grigg (Wivenhoe Dam) called to inform that Energex restored power at Wivenhoe Dam at 21:15 hours	Correspondence	MT
	9:50 PM	Brett Myatt (Mt Crosby WTP) provided an update on Kholo & Mt Crosby Kholo 19:15hrs 20.0m Mt Crosby 21:00 23.5m He asked for a situation update. RA shared Wivenhoe Dam's release strategy	Correspondence	MT
Thursday, 13 January 2011	10:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.81mAHD @22.00hrs. Will now report levels every 2 hours	Correspondence	MT
	12:00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.79mAHD @ 00:00	Correspondence	MT
	1:00 AM	James (BCC) called FOC to enquire if Wivenhoe Dam has been compromised. JR assured him that that is not the case	Correspondence	MT
	1:05 AM	RA called BoM hotline number to check communications	Correspondence	MT
	1:10 AM	BCC called the FOC regarding a viral text rumour that Wivenhoe Dam has failed. JR assured him that that is not true and will speak with Rob Drury about this matter	Correspondence	MT
	1:20 AM	Gareth Bossley (Queensland Police) called to inform of rumours that Wivenhoe Dam has been compromised	Correspondence	MT
	1:25 AM	JR called Doug Grigg (Wivenhoe Dam) to confirm Wivenhoe Dam has not been compromised	Correspondence	MT
	1:30 AM	JR called Rob Drury advising him about the rumours that Wivenhoe Dam has been compromised. JR will send him the BCC contact details	Correspondence	MT
	2:00 AM	Doug Grigg (Wivenhoe Dam) called to report level 74.765mAHD @ 2.00hrs	Correspondence	MT
	4:00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.74mAHD @4.00hrs. Will now report levels every 2 hours	Correspondence	MT
	5:43 AM	**Situation Report 0600 13 January 2011** Rainfall Rainfall in the last 12 hours is generally below 5mm with isolated falls of up to 15mm in the Stanley, Lockyer and Pine River catchments. There is no significant rain expected fin the next 4 days Somerset/Wivenhoe - Somerset Dam peaked at 105.11 mAHD at 06:00 on Wednesday 12 January 2011. The current level is 104.34 mAHD. One sluice was opened at 10:30 on 12 January 2011 and the dam is currently discharging 1,130 m3/s. Sluice gates will be utilised to drain of the flood storage compartment during the next 5 days - Wivenhoe Dam peaked at 74.97 mAHD at 19:00 on Tuesday 11 January 2011 with a corresponding discharge of 7 450 m3/s. Wivenhoe Dam was 74.72 m AHD at 06:00 and commence to fall slowly - The releases from Wivenhoe Dam have been temporarily reduced to 2,500 m3/s at 07:30 on Wednesday 12 January 2011 to allow the peak of Lockyer Creek to enter the Brisbane River. The Brisbane River has peaked at the Port Office Gauge early Thursday morning. Releases from Wivenhoe Dam will be managed to achieve a target flow of around 3,500 m3/s at Moggill. This release will then be maintained to drain the flood storage component within the required 7 days - The combined flood event volume in Somerset and Wivenhoe Dams is estimated to be in excess of 2.6 million megalitres	Situation Report	RA
		North Pine At 06:00 North Pine Dam was 39.70 mAHD falling with all gates open 1 increment, releasing about 80 m3/s. North Pine peaked at 41.11 mAHD at 14:00 on Tuesday 11 January 2011 with peak release of 2 800 m3/s. The event has a volume of around 200,000 ML. It is expected that all gates will be closed on Friday Strategy - The Flood Operations Centre is continuing to monitor rainfalls and water levels throughout the Brisbane and Pine River catchments and reviewing operating strategy. The FOC will continue to maintain close contact with warning agencies and local councils - The next report will be issued at 18:00 on Thursday 13 January 2011	Situation Report	
	6:00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.71mAHD @6.00hrs. Will now report levels every 2 hours	Correspondence	MT
	6:43 AM	Peter Baddiley (BoM) called to inform that BoM has lost their telephone system. He provided 2 contact numbers: 3229 2904 & 3221 1580. Thornton St 4.45m Telemeter 4.20m	Correspondence	MT
	7:30 AM	Agg Dagan has been advising Kilcoy Police of the FOC strategy for lower Somerset during the next 24 hours of opening sluice later today	Correspondence	RA
	7:50 AM	Peter Baddiley (BOM) called to ask heights 3,500m3/s would be at Savages and Mt Crosby. TM advised 34.5m AHD and 16.5m AHD respectively	Correspondence	TM
	8:05 AM	Kerry (MBRC) wanted to know when NPD gates will be closed. Advised to be closed by 0500 Friday	Correspondence	TM
	8:15 AM	Somerset directive #9 issued	Correspondence	JW
	9:00 AM	Rob Drury wants to know when gates setting are changed on Wivenhoe and Somerset. Advised that NPD will be closed at 05 Friday	Correspondence	RA
	9:00 AM	Agg Dagan advised of projected level for Somerset, 103.5 by 2000 Thursday and 102.5 early Friday morning. Will open another sluice this afternoon	Correspondence	TM
	10:10 AM	Rob Drury called to inform that power and IT services have been restored at Seqwater	Correspondence	JW
	10:30 AM	Rob Drury called to request if he could be notified of any changes to releases from Wivenhoe	Correspondence	JW
	11:00 AM	SDWD Model Updated - SDWD-201101131100.sis	Model Run	JW
	12:30 PM	Wivenhoe directive #35 issued • Open Gate 2 from 4.0 metres to 4.5 metres at 1300 • Open Gate 4 from 4.0 metres to 4.5 metres at 1400	Directive	JW
	12:30 PM	Somerset directive #10 issued • Fully Open Sluice K at 13:00	Directive	JW
	1:00 PM	Tony Jacobs rang to enquire about Kilcoy Creek and Mary Smokes Bridge. Duty Engineers advised that it may be out of water tonight, certainly by tomorrow morning	Correspondence	JW
	1:15 PM	Rob Drury called to advise that Police had called to ask when Kilcoy would be accessible. John Tibaldi advised Rob that it would be by 6am tomorrow morning (14/1)	Correspondence	JW
	1:40 PM	Brett Myatt called for update on Mt Crosby. Terry Malone informed him that level would be maintained at 17.5 metres for next 3 days	Correspondence	JW
	2:15 PM	Phone call from Steve Ross, MBRC. Advice as follows: * damage to Gympie Rd abutments * No evacuations * No suburban flooding * Not aware of any over floor flooding. Pine Shire has 0.75m freeboard	Correspondence	JW
	2:10 PM	Wivenhoe directive #36 issued • Open Gate 1 from 3.5 metres to 4.0 metres at 1500 • Open Gate 5 from 3.5 metres to 4.0 metres at 1600 • Open Gate 1 from 4.0 metres to 4.5 metres at 1700 • Open Gate 5 from 4.0 metres to 4.5 metres at 1800	Correspondence	JW
	3:45 PM	Provided situation report to Rob Drury	Situation Report	JW
	3:50 PM	Brett Schultz called to confirm if FOC received Dam Observation report for North Pine Dam. Approx 6 of 40 uplift pressure gauges have abnormal readings	Correspondence	JW
	4:45 PM	Judy (MBRC) was advised that NPD gates will be closed at 0500 Friday	Correspondence	TM

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JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	6.00 PM	Wivenhoe directive #37 issued • Open Gate 2 from 4.5 metres to 5.0 metres at 1830 • Open Gate 4 from 4.5 metres to 5.0 metres at 1900 • Open Gate 1 from 4.5 metres to 5.0 metres at 1930 • Open Gate 5 from 4.5 metres to 5.0 metres at 2000 • Open Gate 3 from 5.0 metres to 5.5 metres at 2030	Directive	JW
	7.37 PM	John Thornton of SunWater called to confirm building services were working and all in order	Correspondence	DP
	7.51 PM	Rob called Mal Lane (North Pine Dam) to discuss the current drainage strategy to close all gates by 5am tomorrow. Water level in North Pine Dam will be frequently monitored against the predictive model results, and gate opening will be adjusted accordingly if required	Correspondence	DP
	8.15 PM	Wivenhoe directive #38 issued • Open Gate 2 from 5.0 metres to 5.5 metres at 2100 • Open Gate 4 from 5.0 metres to 5.5 metres at 2200 • Open Gate 1 from 5.0 metres to 5.5 metres at 2300 • Open Gate 5 from 5.0 metres to 5.5 metres at 2000 • Open Gate 3 from 5.5 metres to 6.0 metres at 0100 on 14/1/11 • Open Gate 3 from 5.5 metres to 6.0 metres at 0200 • Open Gate 3 from 5.5 metres to 6.0 metres at 0300	Directive	DP
	8.28 PM	Somerset directive #11 issued • Fully Open Sluice N at 21.00	Directive	DP
	8.30 PM	Rob Ayre called Graham Francis to advise of directive #11	Correspondence	DP
	8.41 PM	Rob Ayre called Rob Drury top advise of current release rates from Wivenhoe, Somerset and North Pine Dams	Correspondence	DP
Friday, 14 January 2011	12.46 AM	David Preston of Ipswich District (Fernvale) Police rang to enquire into the integrity of Somerset Dam, based on information received by the police. Rob Ayre indicated that surveillance procedures are in place to monitor the integrity of the Dam, and that RA will confirm with the operators	Correspondence	DP
	12.47 AM	Rob Ayre called Ray Ballinger at Somerset to enquire to the integrity of Somerset Dam. Operator indicated all was good and no anomalies have been detected	Correspondence	DP
	12.49 AM	RA called David Preston back on 3817 1436 to confirm that Somerset was recently inspected and all was ok	Correspondence	DP
	2.10 AM	Rob Ayre called Shane Watson to advise commencement of shut down of gates in accordance with Directive #30 Please undertake the following gate operations commencing at 03.15 on Friday 14 January 2011 The interval between gate operations is to be 15 minutes • Gate A: Close to 1 increment at 03.15 • Gate E: Close to 1 increment at 03.30 • Gate C: Close to 1 increment at 03.45 • Fully Close Gate B at 04.00 • Fully Close Gate D at 04.15 • Fully Close Gate A at 04.30 • Fully Close Gate E at 04.45 • Fully Close Gate C at 05.00	Directive	DP
	5.13 AM	Fax received from North Pine Dam confirming closure of all gates	Correspondence	DP
	5.15 AM	Rob Ayre called MBRC to advise that North Pine Dam has closed the final gate at 5am	Correspondence	DP
	5.16 AM	Malcom from North Pine Dam called to confirm that all gates are closed, and Young's Crossing should be passable within 2 hours. Lake Kurwongbah level is 20.43 m	Correspondence	DP
	5.28 AM	Rob Drury called to obtain a situation report. Rob Ayre provided the key information	Correspondence	DP
	5.37 AM	James C from BCC called requesting information for Wivenhoe Dam and checking sit-rep data. Enquired about flows throughout the event. TM advised that not currently in a position to discuss these	Correspondence	DP
	7.40 AM	Rob Drury rang FOC to enquire about river levels at Lowood. Pumps required to be installed to supply Lowood WTP. TM advised RD that no significant rises were expected in the Brisbane River levels in the foreseeable future	Correspondence	NGA
	7.45 AM	Andrew Tesse from ICC phoned the FOC. Enquiring about renewed rises in the Brisbane / Bremer River systems. He cannot contact BOM for an update. TM advised that no significant rises were expected at Moggill. A constant flow in the river was the plan as a consequence of Wivenhoe releases	Correspondence	NGA
	8.20 AM	Barton Maher phoned TM. Enquiry regarding the Wivenhoe Dam fuse plugs (design calcs/parameters)	Correspondence	NGA
	8.21 AM	Peter Borrows phoned the FOC. TM discussed with Peter Borrows the release strategy from Wivenhoe Dam with a view to opening the Fernvale Bridge and Mt Crosby Bridge at the earliest possible time. TM also updated PB on the projected City Gauge height over the next few days. This being ~2.5 metres due to continuous releases from Wivenhoe Dam	Correspondence	NGA
	8.30 AM	TM returned call back to Barton Maher. TM extended an invitation to Barton and others to pay a visit to the FOC to inspect operations	Correspondence	NGA
	10.10 AM	Agg Dagan rang from Somerset Dam. Checking that all comms avenues (faxes & e-mails) are functioning. All good	Correspondence	NGA
	10.25 AM	Ken Morris from BCC rang TM. Enquiring if any chance of cutting back Wivenhoe releases to lower flows than the current figure of 3,500 cumecs. TM's response was NO !	Correspondence	NGA
	10.40 AM	Rob Keogh (SunWater) transmitted a message via Daryl Brigden (SunWater) to Barton Maher that the right bank abutment to Mt Crosby Bridge has suffered some erosion due to the flooding and there are concerns that the abutment may be further affected by piping once the water level falls	Correspondence	NGA
	10.50 AM	Murray Dunstan rang from North Pine. The dam ceased flood operations at 5.00am this morning and fish recovery and clean up has been completed. Approx. 31 lung fish were rescued. Quite a number of dead lung fish and other species. Erosion damage downstream of the dam is severe with loss of vegetation, stripped and fallen trees, bank erosion, and many dead fish caught within the root ball of fallen trees. Murray is organising back hoes and front end loader machinery to clear the debris between the NP dam wall and Grant Street	Correspondence	NGA
	12.33 PM	Mark Tan phoned TM. Request from Seqwater Corp Comms about hourly updates. Particular concern about NPD which ceased flood operations at 5.00am this morning !! TM advised that updates from the dams would continue to be channeled solely through the FOC	Correspondence	NGA
	12.35 PM	Ali Cameron from DERM phoned TM. Re: Gauging exercise at Jindalee Soundtek M9 from boat (6 passes) Jindalee gauging result - 4,300m³/sec at 6.45 metres AHD at 12.00 hrs	Correspondence	NGA
	12.37 PM	Peter Borrows rang TM. Discussion about mis-informed reporting	Correspondence	NGA
	1.45 PM	TM rang Ken Morris at BCC seeking clarification on BCC's flood mapping. Ken Morris advised that at 3,500 cumecs, BCC records indicate that 220 properties will have water on the property. TM confirmed that 'water on the property' did not mean water above floor level. i.e. Likely to be land inundation only	Correspondence	NGA
	1.53 PM	Rob Drury rang TM. Routine call. Update on current status	Correspondence	NGA
	2.45 PM	Rob Drury rang TM. Routine call. Update on current status	Correspondence	NGA
	3.30 PM	Matthew O'Reilly rang from Wivenhoe Dam with concerns about some 'swirling' apparent in the downstream tailwater opposite 'The Common'. Matthew thought there could be some erosion occurring under the flow. Matthew forwarded a marked photo of the phenomenon to TM. The consensus reached was that the phenomenon was the result of an 'hydraulic jump'. The matter would be referred to John Tibaldi for further investigation	Correspondence	NGA
	3.55 PM	TM rang John Tibaldi to discuss the 'swirling' phenomenon identified by Matthew O'Reilly. Effect is at D/S end of plunge pool and is almost certainly a 'hydraulic jump'. JT advised the issue was not of concern unless the phenomenon moves toward the flip bucket	Correspondence	NGA
	4.05 PM	TM phoned Matthew O'Reilly at Wivenhoe Dam to pass on advice that John Tibaldi had no concerns about the 'hydraulic jump' phenomenon identified by him earlier today	Correspondence	NGA
	4.50 PM	Brett Myatt phoned the FOC. TM advised Brett that the current release strategy from Wivenhoe Dam (and therefore flows past the Mount Crosby WTPs) would be maintained until at least Monday (17/1)	Correspondence	NGA
	5.50 PM	Rob Drury rang John Tibaldi enquiring when the bridges to the east of Lake Wivenhoe would be clear of floodwater. JT advised all but the Sandy Ck - A&PM Conroy Bridge on the Wivenhoe Somerset Rd would be clear by tomorrow (Sat) morning	Correspondence	NGA
	7.00 PM	FOC change over	Other	KH
Saturday, 15 January 2011	2.15 AM	Somerset directive #40 issued • Open Gate 5 from 5.5 metres to 6.0 metres at 02.30	Directive	KH
	8.40 AM	Rob Drury rang. Terry advised strategy to possibly go below FSL at Wivenhoe by Thursday	Correspondence	AN
	8.42 AM	Peter Burrows rang to advise that the media come into the FOC today to take photos	Correspondence	AN
	10.20 AM	Wivenhoe directive #41 issued Open Gate 3 from 6.0m to 6.5m at 10.30	Directive	AN
	11.30 AM	Rob Drury rang to request a summary of the Operations Manual for Wivenhoe. Terry to provide after checking with all duty engineers	Correspondence	AN
	12.12 PM	Rob Drury rang to advise of a phone hook-up with the Minister and Peter Burrows at 2.00pm, and requested that RA be in at the FOC at that time	Correspondence	AN
	12.20 PM	Peter Burrows rang to confirm a phone hook up with the Minister and Peter Burrows at 2.00pm	Correspondence	AN
	12.55 PM	Terry Malone advised Rob Ayre to come into the FOC for the phone hook up at 2.00pm	Correspondence	AN
	13.10 AM	Peter Allen phoned about the Wivenhoe Flood manual summary. Terry Malone told Peter that the summary is with the other duty engineers for checking before issuing	Correspondence	AN
	1.15 PM	Rob Drury rang with some questions on the Wivenhoe Flood manual summary	Correspondence	AN
	1.45 PM	Rob Ayre and John Tibaldi arrived at the FOC for the 2.00pm phone hook-up	Correspondence	AN
	2.00 PM	Phone hook-up with TM, RA, JT with Rob Drury, Peter Allen, Peter Boroughs, Joh Bradley and Bob Reilly to discuss a report for the minister by COB Sunday	Correspondence	AN

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DATE	TIME	ACTION	CATEGORY	INITIALS
	4:30 PM	Wivenhoe directive #42 issued Open Gate 2 from 6.0m to 6.5m at 10:30	Directive	AN
	5:00 PM	Rob Drury arrived to help write report for minister briefing	Correspondence	AN
	7:30 PM	Doug from Wivenhoe called to discuss strategy for the next 12 hours	Correspondence	DP
	10:22 PM	Directive #43 sent to Doug at Wivenhoe Please undertake the following gate operations commencing at 22:00 on 15/01/2011 • Open Gate 4 from 6.0 metres to 6.5 metres at 22:00 Please advise the Flood Operations Centre by fax once you have completed these operations	Directive	DP
Sunday, 16 January 2011	2:45 AM	Directive #44 sent to Doug at Wivenhoe Please undertake the following gate operations commencing at 04:00 on 16/01/2011 • Open Gate 1 from 6.0 metres to 6.5 metres at 04:00 Please advise the Flood Operations Centre by fax once you have completed these operations	Directive	DP
	4:12 AM	Called Doug at Wivenhoe to confirm directive received via email. Directive being actioned ASAP	Correspondence	DP
	7:10 AM	Anthony Dagan (Somerset Dam) emailed floodcentre indicating he believed floodcentre phones were out. Tried to contact Ag by office and mobile phones with no success (Telstra message bank on office phone and Ag's message on mobile). Floodcentre phones were checked - working OK. Problem is with Somerset phones. Believe fax also not receiving. Ag emailed to confirm they have local calls but no STD. Continued checking mobile - no response	Correspondence	BS
	8:15 AM	Directive #45 sent to Matt at Wivenhoe Please undertake the following gate operations commencing at 09:00 on 16/01/2011 • Open Gate 5 from 6.0 metres to 6.5 metres at 09:00 on 16/01/2011 Please advise the Flood Operations Centre by fax once you have completed these operations	Directive	DP
	8:20 AM	Called Matt at Wivenhoe to confirm directive 45 received. Confirmed not received - busy status on fax confirmation. Confirmed directive received via email	Correspondence	BS
	9:05 AM	Directive #12 sent to Ag at Somerset Please undertake the following operations • Fully close Sluice N at 10:00 Please confirm this gate operation by fax once you have completed the requested operations	Directive	BS
	9:40 AM	Retried all phones at Somerset - no response. Ag emailed to confirm that all phones are down at Wivenhoe. Email is still working and he will be checking emails every hour on the hour	Correspondence	BS
	10:20 AM	Email confirmation received that Somerset Directive #12 implementation has been completed	Correspondence	BS
	11:30 AM	FOC contacted by police (Robbie Goodger - ph 3817 1436) notifying that the Wivenhoe viewing area has been damaged. Rob Ayre unable to contact Wivenhoe staff (Matt) - message left. Then contacted Doug Grigg, who confirmed that the area is damaged and has been locked off and 2 security guards are on site. It won't be opened until the water level falls and a full inspection of the structure has been completed. Rob Ayre confirmed this with police, who reported that there was damage to safety rails and water supply to toilets. Matt also responded to Rob's call and confirmed the details	Correspondence	BS
	12:15 PM	Directive #46 sent (fax and email) to Matt at Wivenhoe (confirmed by phone) Please undertake the following gate operations commencing at 13:00 on 16/01/2011 • Open Gate 3 from 6.5 metres to 7.0 metres at 13:00 on 16/01/2011 Please advise the Flood Operations Centre by fax once you have completed these operations	Directive	BS
	12:30 PM	Phone call from Matt (Wivenhoe) - neither fax nor email received. Verbal instruction given to implement gate operation as per Directive #46 and email resent	Correspondence	BS
	12:40 PM	Ian Holland (contract programmer) called to advise that the back-up Linux box "Namah" at Mineral House is showing file system corruption errors, so the FCC is effectively without backup. The hydraulic model in the RTFN is missing because two Fortran programs "Modcom 2" and "Model" have not been ported to the Linux box	Correspondence	BS
	12:55 PM	Rob Ayre advised Warren Shallcross about the situation at Mineral House, and he will visit the backup operations centre ASAP	Correspondence	BS
	1:10 PM	Ag (Somerset) called to report that the phones are now working	Correspondence	BS
	2:40 PM	Terry Malone spoke to Rob Ayre. Grid manager wants a summary of flood volumes and peak discharges	Correspondence	BS
	3:00 PM	Warren Shallcross called - confirmed with Rob Ayre that the computer system at Mineral House has been rebooted and is functional	Correspondence	BS
	3:10 PM	Rob Drury rang to confirm current discharges. Confirmed 600 cumecs for Somerset and 3500 cumecs for Wivenhoe (approx)	Correspondence	BS
	3:15 PM	Directive #47 sent (fax and email) to Matt at Wivenhoe (confirmed by phone) Please undertake the following gate operations commencing at 16:00 on 16/01/2011 • Open Gate 2 from 6.5 metres to 7.0 metres at 16:00 on 16/01/2011 Please advise the Flood Operations Centre by fax once you have completed these operations	Directive	BS
	4:00 PM	Directive #47 implemented - Gate 2 opened to 7.0 m	Correspondence	BS
	6:45 PM	Wivenhoe Directive #48 sent (fax and email) to Wivenhoe Dam. Open gate 4 from 6.5 metres to 7 metres at 20:00 on 16/1/2011	Directive	MT
	6:52 PM	Rob Ayre spoke with Doug Grigg (Wivenhoe Dam) about Directive #48 Wivenhoe strategy. Doug confirmed receipt of Directive	Correspondence	MT
	7:00 PM	FOC change over	Other	MT
	9:30 PM	Somerset Directive #13 sent (fax and email) to Somerset Dam Fully close Sluice K at 22:00 on 16/1/2011 Fully close Sluice M at 03:00 on 17/1/2011 Fully close Sluice L at 07:00 on 17/1/2011 Fully open Regulator 12 at 07:15 on 17/1/2011	Directive	MT
	10:00 PM	Doug Grigg (Wivenhoe Dam) called to inform 3 floor panels missing from bulks	Correspondence	MT
Monday, 17 January 2011	7:15 AM	Rob Drury called to get Sit Rep. Advised that Somerset should remain mobilised until further notice	Correspondence	LVB
	7:35 AM	Agg Duggan called - discussed strategy i.e. operate cone valves only from now on	Correspondence	LVB
	9:15 AM	Brett Myatt from Mt Crosby called to find out about strategy for Wivenhoe shut down. Informed him that we will start closing down mid afternoon and aiming to have it closed by Wednesday	Correspondence	LVB
	9:35 AM	Rob Drury called to enquire when closing down will start and reminded us to inform Councils	Correspondence	LVB
	10:00 AM	Advise Peter Allen about inconsistency between readings form BoM and actual HW gauges	Correspondence	LVB
	10:15 AM	Tony Jacobs SRC was contacted and advised gate close will commence the afternoon and Fernvale Bridge will be out of the water sometime Tuesday morning	Correspondence	LVB
	10:20 PM	Chris Lawn BCC was contacted (left message) advising gate close will commence this afternoon	Correspondence	LVB
	10:20 PM	Tony Trace ICC was contacted (left message) advising gate close will commence this afternoon	Correspondence	LVB
	11:15 PM	Called Bret Myatt to inform him that flow in Lockyer is 75m3/s and falling	Correspondence	LVB
	11:15 PM	Talked to Ken Morris BCC. Advised him about gate closure. He mentioned that BCC will not provide any info on flood recurrence until they discussed with FoC	Correspondence	LVB
	11:20 AM	Rob Drury called - Council wants to know draw down rates, so they can determine the effects on Coronation Dr. JR informed RD that Ken did not raise this when they spoke 10 mins before	Correspondence	LVB
	11:20 AM	Peter Burrows called saying he will email a revised copy of Michael O'Brian's document	Correspondence	LVB
	12:20 PM	JR contacted BCC to get an update on Coro Dr situation. JR spoke to Ken Morris. Ken advised he had spoken to BCC Geotech Officers and they had advised that @ this stage as Coro Dr was back within the banks that they could not see an immediate problem. Some bank slumping have been identified further up the river. Council would like the recession of flow to be as flat as practicable but also that releases be as small as possible @ the Port Office gauge by the time of the high tide on Friday. This is consistent with our current strategy of closing releases by Wednesday 20 Jan 2010	Correspondence	LVB
	12:30 PM	Rob Drury called, requesting an update on discussions with BCC. He requested that BCC confirm the discussion of 12:20 in writing	Correspondence	LVB
	1:01 PM	Rob Drury called, saying Morton Bay wanted to know if there will be any more releases from NPD. JR said no planned unless we get more rain	Correspondence	LVB
	2:00 PM	Send directive No 49 to Wivenhoe for gate closures for the next 80 minutes • Close Gate 4 from 7.0 metres to 6.5 metres at 14:00 on 17/01/2011 • Close Gate 2 from 7.0 metres to 6.5 metres at 14:20 on 17/01/2011 • Close Gate 3 from 7.0 metres to 6.5 metres at 14:40 on 17/01/2011 • Close Gate 5 from 6.5 metres to 6.0 metres at 15:00 on 17/01/2011	Directive	LVB
	2:15 PM	Rob Drury called, asking for dates and times for Wivenhoe operations at the peak of the flood	Correspondence	LVB
	3:15 PM	Peter Badley form BoM called to confirm that he received the info on the discrepancy in the auto level recorder	Correspondence	LVB
	3:15 PM	Send directive No 50 to Wivenhoe for gate closures • Close Gate 4 from 6.5 metres to 6.0 metres at 15:20 on 17/01/2011 • Close Gate 2 from 6.5 metres to 6.0 metres at 15:40 on 17/01/2011	Directive	LVB
	4:15 PM	Jim from BoM - they have not received manual observations for days	Correspondence	LVB
	6:00 PM	Send directive No 51 to Wivenhoe for gate closures on the half hour • Close Gate 1 from 6.5 metres to 6.0 metres at 16:00 on 17/01/2011 • Close Gate 3 from 6.5 metres to 6.0 metres at 16:20 on 17/01/2011 • Close Gate 5 from 6.0 metres to 5.5 metres at 16:40 on 17/01/2011 • Close Gate 1 from 6.0 metres to 5.5 metres at 17:00 on 17/01/2011 • Close Gate 4 from 6.0 metres to 5.5 metres at 17:20 on 17/01/2011 • Close Gate 2 from 6.0 metres to 5.5 metres at 17:40 on 17/01/2011 • Close Gate 3 from 6.0 metres to 5.5 metres at 18:00 on 17/01/2011	Directive	LVB

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DATE	TIME	ACTION	CATEGORY	INITIALS
	6:30 PM	Send directive No 52 to Wivenhoe for gate closures • Close Gate 5 from 5.5 metres to 5.0 metres at 18:30 on 17/01/2011 • Close Gate 1 from 5.5 metres to 5.0 metres at 19:00 on 17/01/2011 • Close Gate 4 from 5.5 metres to 5.0 metres at 19:30 on 17/01/2011 • Close Gate 2 from 5.5 metres to 5.0 metres at 20:00 on 17/01/2011 • Close Gate 3 from 5.5 metres to 5.0 metres at 20:30 on 17/01/2011 • Close Gate 5 from 5.0 metres to 4.5 metres at 21:00 on 17/01/2011 • Close Gate 1 from 5.0 metres to 4.5 metres at 21:30 on 17/01/2011 • Close Gate 2 from 5.0 metres to 4.5 metres at 22:00 on 17/01/2011 • Close Gate 4 from 5.0 metres to 4.5 metres at 22:30 on 17/01/2011 • Close Gate 5 from 4.5 metres to 4.0 metres at 22:00 on 17/01/2011	Directive	LVB
	9:30 PM	Wivenhoe directive no 53 emailed to dam operators (fax machine at Wivenhoe inoperative) • Close Gate 5 from 4.5 metres to 4.0 metres at 23:00 on 17/01/2011 • Close Gate 1 from 4.5 metres to 4.0 metres at 23:30 on 17/01/2011 • Close Gate 5 from 4.0 metres to 3.5 metres at 00:00 on 18/01/2011 • Close Gate 1 from 4.0 metres to 3.5 metres at 00:30 on 18/01/2011 • Close Gate 4 from 4.5 metres to 4.0 metres at 01:00 on 18/01/2011 • Close Gate 2 from 4.5 metres to 4.0 metres at 01:30 on 18/01/2011 • Close Gate 5 from 3.5 metres to 3.0 metres at 02:00 on 18/01/2011 • Close Gate 1 from 3.5 metres to 3.0 metres at 03:00 on 18/01/2011 • Close Gate 3 from 5.0 metres to 4.5 metres at 04:00 on 18/01/2011 • Close Gate 4 from 4.0 metres to 3.5 metres at 05:00 on 18/01/2011 • Close Gate 2 from 4.0 metres to 3.5 metres at 06:00 on 18/01/2011 • Close Gate 5 from 3.0 metres to 2.5 metres at 07:00 on 18/01/2011 • Close Gate 1 from 3.0 metres to 2.5 metres at 08:00 on 18/01/2011	Directive	JW
Tuesday 18 January 2011	12:30 AM	Peter Borrows called to inform that rapidly dropping water level at Lowood was causing issues with pumping for WTP. Asked if FOC could call John Granzien and then notify him via txt of the outcome	Correspondence	JW
	12:35 AM	FOC contacted John Granzien in regards to pumping issues at Lowood. Terry decided to halt all gate operations until further notice in order to ensure security of water supply to Lowood	Correspondence	JW
	12:45 AM	Wivenhoe directive #54 issued, halting all gate operations at Wivenhoe until further notice	Directive	JW
	1:00 AM	txt message sent to Peter Borrows to advise of cessation of Wivenhoe gate operations until further notice	Correspondence	JW
	2:00 AM	BCC advise that the recession at Coronation Drive is not an issue with regards to bank stability	Correspondence	JW
	5:00 AM	Doug Grigg called to advise that Fernvale Bridge was emerging from river. Current release 2054 cumecs	Correspondence	JW
	5:40 AM	Doug Grigg called to advise that the approach to the Fernvale Bridge from the Fernvale side was still underwater due to water backed up in the quarry	Correspondence	JW
	5:45 AM	Called John Granzien to advise that Wivenhoe gate operations would recommence close down sequence from 9am as per original strategy. John to advise FOC if pumping operation at Lowood would benefit from additional 3 - 6 hours delay in gate operations	Correspondence	JW
	8:15 AM	**Situation Report 08:15 18 January 2011** Rainfall There has been no significant rainfall in the last 24 hours and no significant rainfall is expected in the next twenty four hours. Mostly fine conditions are expected over the weekend, but showers will return early next week. Somerset/Wivenhoe At 16:00 Monday Somerset Dam was 99.02 mAHD and steady. The last sluice gate was closed at 07:00 17/01/2011 and one regulator remains open managing the base flow into the Dam. Somerset Dam peaked at 105.11 mAHD at 18:00 on Wednesday 12 January 2011. At 06:00 Tuesday Wivenhoe Dam was 67.82 mAHD and continuing to fall slowly. Releases were held constant overnight at about 2 050 m3/s to assist water supply pumping at Lowood. Following discussions with water supply operators, it has been decided to resume closing gates at 09:00 Tuesday before final closure on Thursday morning. The Dam will be near full supply and releases will be made through the regulator to account for ongoing base flow. Wivenhoe Dam peaked at 74.97 mAHD at 19:00 on Tuesday 11 January 2011 with a corresponding discharge of 7 450 m3/s. The combined flood event volume in Somerset and Wivenhoe Dams is estimated to be in excess of 2.6 million megalitres. It should be noted that the Seqwater water level gauge currently being reported on the BoM website is currently slightly under reading by about 50mm. North Pine At 09:00 North Pine Dam was 39.5 mAHD. All gates are closed. No further gate operations are expected unless additional rainfall falls. North Pine peaked at 41.11 mAHD at 14:00 on Tuesday 11 January 2011 with a peak release of 2 800 m3/s. The flood event volume is estimated to be around 200 000 ML. Strategy The Flood Operations Centre is continuing to monitor rainfalls and water levels throughout the Brisbane and Pine River catchments and is maintaining close contact with warning agencies and local councils. Councils have been informed of the	Situation Report	KP
	7:25 AM	Doug Grigg (Wivenhoe) called to advise that Surveyor Bill Hewitt is taking a routine deformation survey	Correspondence	KP
	7:35 AM	Ken Moore (BCC) enquired about preliminary assessment of magnitude of flood. Ken suggested that SEQWater, BOM and BCC should arrive at a consensus regarding any assessment on the magnitude of the event. Rob Ayre agreed. Ken also enquired if we had done an assessment of the effects of the dam on peak flow. Rob indicated that our prelim figure was 13000 cumec peak at City Gauge without the Dams	Correspondence	KP
	8:19 AM	Wivenhoe directive no 55 faxed and emailed to dam operators • Close Gate 4 from 4.5 metres to 4.0 metres at 09:00 on 18/01/2011 • Close Gate 2 from 4.5 metres to 4.0 metres at 09:30 on 18/01/2011 • Close Gate 5 from 3.5 metres to 3.0 metres at 10:00 on 18/01/2011 • Close Gate 1 from 3.5 metres to 3.0 metres at 10:30 on 18/01/2011 • Close Gate 3 from 5.0 metres to 4.5 metres at 11:00 on 18/01/2011 • Close Gate 4 from 4.0 metres to 3.5 metres at 11:30 on 18/01/2011 • Close Gate 2 from 4.0 metres to 3.5 metres at 12:00 on 18/01/2011	Directive	KP
	8:25 AM	Matthew O'Reilly (Wivenhoe) called to acknowledge Directive 55.	Correspondence	KP
	10:10 AM	Rob Townsley (SEQWater at Mt Crosby Phone 0419667634) has requested some forward projections for flows at Mt Crosby Weir for the next 48 hours. They are looking at sludge dilution	Correspondence	KP
	10:15 AM	Rob Ayre called Rob Townsley back to provide the following info re projected flows at Mt Crosby Weir 18/1/2011 10:00 2,000 cumecs 19/1/2011 10:00 1130 cumecs 20/1/2011 10:00 360 cumecs	Correspondence	KP
	10:19 AM	Mark Gibson from BCC Flood Information Centre called to advise that Campbell Newman wants an indication of what the flood would have been without dams and asked if the figure of 13000 cumecs provided to Ken Morse earlier could be released to the public.	Correspondence	KP
	10:24 AM	Rob Ayre spoke to Rob Drury to ask SE QWater's policy re release of information above. Rob Drury to confirm with his comms people	Correspondence	KP
	10:30 AM	Paul Bird (SEQWater comms officer) called to advise that the minister's office has recommended that no info regarding releases from WD be released to anybody. Paul Bird will now communicate this response to the BCC Flood Info Centre and specifically Mark Gibson	Correspondence	KP
	10:38 AM	Tony Jacobs (Somerset RC) requested info re when Burtons Bridge is expected to be free from inundation. Under out current shutdown sequence Rob Ayre advised that we expect Burtons to be free around midnight on Wed evening. Tony also advised that the bridge on New England Creek will become flood free at around the same time. Tony indicated that at at 8am today the approaches to Fernvale were clear of water. However, powerlines and lift need to be removed. He expects the bridge to be open this afternoon	Correspondence	KP
	10:55 AM	Ralton Maher (SEQWater) called to confirm that we received the hydraulic model from WRM (affirmative)	Correspondence	KP

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	12:05 PM	Peter Borrows (SEQWater) called to advise tat he and Bob Reilly (DERM) will come some and visit the FOC at 2:30 this afternoon	Correspondence	KP
	12:06 PM	Wivenhoe directive no 56 faxed and emailed to dam operators • Close Gate 5 from 3.0 metres to 2.5 metres at 12:30 on 18/01/2011 • Close Gate 1 from 3.0 metres to 2.5 metres at 13:00 on 18/01/2011 • Close Gate 4 from 3.5 metres to 3.0 metres at 14:00 on 18/01/2011 • Close Gate 2 from 3.5 metres to 3.0 metres at 14:30 on 18/01/2011 • Close Gate 4 from 3.0 metres to 2.5 metres at 15:00 on 18/01/2011 • Close Gate 2 from 3.0 metres to 2.5 metres at 15:30 on 18/01/2011	Directive	KP
	12:26 PM	Rob Drury called to confirm programmed final shutdown. Rob Ayre advised scheduled for 9am Thursday 20/1 2011. Rob Drury to confirm with Rohan Thoragood re fish recovery	Correspondence	KP
	1:22 PM	Confirmed with Mat O'Reilly that gate closure sequence was in accordance with directive as email received from WD re 13:00 closure was incorrect	Correspondence	KP
	2:00 PM	John Tihalda called for an update of the closedown sequence	Correspondence	KP
	2:15 AM	Rob Ayre called Greg Roads of WRM re hydraulic model of Brisbane River. login and password not working. Greg not available at present	Correspondence	KP
	2:30 PM	Peter Borrows (SEQWater) and Bob Reilly (DERM) visited FOC to check current situation and to pass on thanks for job performed so far. Also requested that we hold further gate operations until problems at Lowood Pump Station are resolved.	Other	KP
	2:55 PM	Rob Ayre called Mat O'Reilly to direct a hold in gate operations. to be confirmed by email	Directive	KP
	3:00 PM	Wivenhoe directive no 57 emailed to dam operators Please cease gate operations as at 15:00 on 18/01/2011 so as to accommodate the repairs at Lowood pump station. Current gate settings of Gate 1 – Open 2.5 metres Gate 2 – Open 3.0 metres Gate 3 – Open 4.5 metres Gate 4 – Open 3.0 metres Gate 5 – Open 2.5 metres. to be maintained for up to 12 hours	Directive	KP
	4:05 PM	Rob Ayre called Mal Lane to alert him to the possibility of operating North Pine Dam with incoming storms	Correspondence	KP
	4:30 PM	Rob Drury rang noting the current storms and requested that Rob Ayre call Tony Martini (Moreton RC) to advise of the possibility of operating North Pine Dam	Correspondence	KP
	4:34 PM	Email from Peter Borrows containing Bob Reilly's approval to vary the flood release regime to enable a constant flow for the Lowood WTP offtake	Correspondence	KP
	4:45 PM	Rob Ayre rang Tony Martini (Moreton RC) to advise of the possibility of operating North Pine Dam in the next day or so if predicted falls of up to 50mm occurred	Correspondence	KP
	5:45 PM	**Situation Report 18:00 18 January 2011** Rainfall There has been no significant rainfall in the last 24 hours and no significant rainfall is expected in the next twenty-four hours. Mostly fine conditions are expected over the weekend, but showers will return early next week. Somerset/Wivenhoe At 16:00 Monday Somerset Dam was 99.02 mAHD and steady. The last sluice gate was closed at 07:00 17/01/2011 and one regulator remains open managing the base flow into the Dam. Somerset Dam peaked at 105.11 mAHD at 18:00 on Wednesday 12 January 2011 At 06:00 Tuesday Wivenhoe Dam was 67.62 mAHD and continuing to fall slowly. Releases were held constant overnight at about 2,050 m3/s to assist water supply pumping at Lowood. Following discussions with water supply operators, it has been decided to resume closing gates at 09:00 Tuesday before final closure on Thursday morning. The Dam will be near full supply and releases will be made through the regulator to account for ongoing base flow. Wivenhoe Dam peaked at 74.97 mAHD at 19:00 on Tuesday 11 January 2011 with a corresponding discharge of 7,450 m3/s. The combined flood event volume in Somerset and Wivenhoe Dams is estimated to be in excess of 2.6 million megalitres. It should be noted that the Seqwater water level gauge currently being reported on the BoM website is currently slightly under reading by about 50mm. North Pine At 09:00 North Pine Dam was 39.5 mAHD. All gates are closed. No further gate operations are expected unless additional rainfall falls. North Pine peaked at 41.11 mAHD at 14:00 on Tuesday 11 January 2011 with a peak release of 2,800 m3/s. The flood event volume is estimated to be around 200,000 ML. Strategy The Flood Operations Centre is continuing to monitor rainfalls and water levels throughout the Brisbane and Pine River	Situation Report	RP
	6:25 PM	Rob Drury called to discuss situation report for North Pine	Correspondence	KP
	6:57 PM	JT phoned Tony Martini at MBRC. Message left regarding plans to open NPD gates this evening as the lake level is approaching trigger level with more rain / showers forecast	Correspondence	NGA
	7:02 PM	JT phoned Malcolm Lane regarding mobilising for NPD gate opening this evening. Tentative plan is for commencement of gate opening at 20:30	Correspondence	NGA
	7:05 PM	JT phoned the Duty Officer (Charlie) at MBRC regarding the planned imminent opening of the NPD gates. Target time is 20:30 if Council has the barriers in place closing Youngs Crossing Road and the dam is fully manned	Correspondence	NGA
	7:05 PM	Neville Ablitt phoned Rob Drury to provide an update on the NPD mobilisation and proposed gate openings	Correspondence	NGA
	7:07 PM	JT phoned Murray Donalan to advise of planned gate opening of NPD this evening. Cessation of operations (i.e. gate closure) is expected to be arranged for tomorrow morning (19/1) in order for Youngs Crossing Road to be opened to peak hour traffic. JT advised MD to plan for an early morning fish recovery exercise at NPD	Correspondence	NGA
	7:10 PM	Tony Martini from MBRC returned phone-call to JT. JT repeated information already conveyed to MBRC Duty Officer - Charlie regarding requirement for Youngs Crossing Road to be closed to traffic to allow NPD gates to be operated by 20:30 if possible	Correspondence	NGA
	7:15 PM	JT phoned Cynthia Crane (Seqwater) regarding JT's inability to access Citrix. Outage (?). Message left	Correspondence	NGA
	7:15 PM	JT phoned Rob Drury regarding Citrix comms outage. Message left requesting RD to intervene to have the problem fixed	Correspondence	NGA
	7:20 PM	Liel from IT (Seqwater) rang and resetted Citrix for JT	Correspondence	NGA
	7:30 PM	JT phoned Malcolm Lane at NPD to confirm gate opening arrangements for 20:30 if Youngs Crossing Road has been closed to traffic by Council at that time	Correspondence	NGA
	7:35 PM	North Pine Dam directive no 31 faxed to dam operators • Gate C. Open to 1 increment at 2030 - Tuesday 18/1/2011 • Gate E. Open to 1 increment at 2045 • Gate A. Open to 1 increment at 2100 • Gate D. Open to 1 increment at 2115 • Gate B. Open to 1 increment at 2130	Directive	NGA
	7:40 PM	Rob Drury rang the FOC to enquire if the Citrix issue was sorted. Citrix connection now functioning. JT expressed concern about the current release strategy for Wivenhoe Dam. If the current release rate is maintained (set to accommodate Lowood temporary raw water pumps) the model indicates that the lake level could fall well below FSL (~61.40-00 ?).	Correspondence	NGA
	7:42 PM	JT phoned Jim Pruss (Seqwater) to seek advice on who could supply the most up to date status report on the current situation at Lowood regarding river levels and pumping activities to supply the WTP. JP suggested John Smith (?)	Correspondence	NGA
	7:45 PM	JT phoned Mick Drews (Seqwater) seeking info Re Lowood. Mick referred JT to Daniel Roche	Correspondence	NGA
	7:50 PM	JT phoned Daniel Roche - reportedly on site at Lowood PS. No answer. Message left	Correspondence	NGA
	7:52 PM	JT phoned John Smith - Lowood WTP operator to enquire as to current status regarding temporary pumping arrangements of raw water from the Brisbane River	Correspondence	NGA
	7:55 PM	Agg Dagan (Somerset Dam operator) phoned the FOC from home seeking the Duty Engineer's intentions for operations at Somerset Dam overnight. JT requested a Gauge Board reading of the lake level and advised that an operations strategy for Somerset Dam would be addressed within 30 minutes - following satisfactory mobilisation of NPD	Correspondence	NGA

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BOM/FWC Bureau of Meteorology Flood Warning Centre

AN - Al Narduk
BS - Bill Stephens
DP - Daniel Pulanski
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	8 00 PM	Mark Millman (Seqwater - IT) phoned JT to check status of Citrix connection. Citrix connection is functioning	Correspondence	NGA
	8 05 PM	Agg Dagan phoned from Somerset Dam. Current lake level is EL 98.95. Unchanged from lake level at 15 35 today	Correspondence	NGA
	8 05 PM	JT phoned Graham Keegan at home. Jt requested GK to visit Lowood pumping intake site and report on status as unable to contact Daniel Roche	Correspondence	NGA
	8 11 PM	JT phoned Agg Dagan (Somerset Dam operator). Agg to send fax in with lake level. Likely strategy will be to close off the regulator overnight and re-assess the situation in the morning	Correspondence	NGA
	8 12 PM	JT conversed with Peter Pennell (Seqwater). PP advised that arrangements are in hand to move the temporary pumps at the Brisbane River site at Lowood. The pumps are being re-located downhill to maintain extraction of raw water from the river to supply the Lowood WTP	Correspondence	NGA
	8 15 PM	Daniel Roche contacted JT. The temporary raw water pumps at Lowood are being moved closer to the river - chasing the anticipated lower level in the river due to reduced releases from Wivenhoe	Correspondence	NGA
	8 18 PM	Rob Drury rang the FOC to seek an update on operations at all 3 storages	Correspondence	NGA
	8 25 PM	JT confirmed on-site manning arrangements at Lowood with Graham Keegan	Correspondence	NGA
	8 30 PM	Somerset Dam operator advised FOC by fax that Regulator #12 had been closed as per verbal advice from JT	Information	NGA
	8 40 PM	Wivenhoe directive no 58 emailed to dam operators • Close Gate 4 from 3 0 metres to 2 5 metres at 20 45 on 18/01/2011 • Close Gate 2 from 3 0 metres to 2 5 metres at 21 15 on 18/01/2011	Directive	NGA
	8 35 PM	JT contacted Doug G at Wivenhoe. Gate closing directive pending	Correspondence	NGA
	8 55 PM	Malcolm Lane phoned the FOC. MBRC have only just closed off Youngs Crossing Road. By the time the siren is sounded the gate openings in Directive 31 scheduled to commence at 20 30 will be delayed by 45 minutes	Correspondence	NGA
	9 00 PM	Charlie, the Duty Officer at MBRC, rang JT to advise that Youngs Crossing Road was now closed. JT advised Charlie that it was intended to maintain releases from NPD through until 5 00am Wednesday 19/1. With this operating strategy, Young's Crossing Road should be able to be re-opened to traffic by 7 00am tomorrow	Correspondence	NGA
	9 05 PM	Note. Wivenhoe Dam fax machine is still inoperative	Correspondence	NGA
	9 08 PM	JT phoned Murray Dunstan to advise of planned gate opening of NPD this evening. Closure is	Correspondence	NGA
	9 15 PM	Rob Drury phoned JT to discuss the Wivenhoe release strategy and its potential to effect bank slumping at Coronation Drive. The changed situation at Lowood means that the reduction in Brisbane River levels will now be far more even. RD advised that Coronation Drive is no longer a concern	Correspondence	NGA
	9 30 PM	Neville Ablitt phoned BCC and made contacted with Leanne from BCC's Flood Operations (Disaster Management) Centre. JT requested confirmation that Coronation Drive would not be adversely affected by way of bank slumping if releases from Wivenhoe were terminated on Wednesday afternoon. JT requested Leanne to investigate and call back the FOC	Correspondence	NGA
	9 35 PM	Wivenhoe directive no 59 emailed to dam operators • Close Gate 5 from 2 5 metres to 2 0 metres at 22 00 on 18/01/2011 • Close Gate 1 from 2 5 metres to 2 0 metres at 22 30 on 18/01/2011	Directive	NGA
	9 38 PM	Neville Ablitt contacted Doug G at Wivenhoe Dam by 2-way radio to confirm his receipt of e-mail containing Directive #59. Doug also confirmed that the Wivenhoe fax machine is still inoperative. All written comms to be by e-mail	Correspondence	NGA
	9 50 PM	JT phoned Rob Drury. Wivenhoe release strategy discussed regarding Lowood WTP temporary offtake level, concerns about Coronation Drive bank slumping and lake level at cessation of releases if targetted for tomorrow afternoon	Correspondence	NGA
	9 53 PM	Chris Thorley from BCC's Flood Operations (Disaster Management) Centre phoned JT. Wivenhoe release strategy and effect on Coronation Drive discussed. BCC have no concerns about imminent cessasuion of Wivenhoe releases. JT explained that it was more likely that the tidal variation at Toowong would have a greater impact on the river banks than the Wivenhoe releases	Correspondence	NGA
	10 00 PM	JT phoned Malcolm Lane at NPD to discuss release strategy. i.e. planned gate openings to setting #2 followed by closure sequence to be completed by early tomorrow morning (19/1)	Correspondence	NGA
	10 02 PM	RD phoned JT. Release strategy and final lake level at gate closure at Wivenhoe discussed	Correspondence	NGA
	10 14 PM	Graham Keegan phoned JT. Situation at Lowood is under control. JT advised Graham that the releases at Wivenhoe are planned to cease by early afternoon tomorrow (19/1)	Correspondence	NGA
	10 15 PM	North Pine Dam directive no 32 faxed to dam operators • Gate C. Open to 2 increments at 2230 - Tuesday 18/1/2011 • Gate E. Open to 2 increments at 2245 • Gate A. Open to 2 increments at 2300 • Gate D. Open to 2 increments at 2315 • Gate B. Open to 2 increments at 2330	Directive	NGA
	10 40 PM	Wivenhoe directive no 60 emailed to dam operators • Close Gate 5 from 2 0 metres to 1 5 metres at 23 00 on 18/01/2011 • Close Gate 1 from 2 0 metres to 1 5 metres at 23 30 on 18/01/2011 • Close Gate 3 from 4 5 metres to 4 0 metres at 00 00 on 19/01/2011 • Close Gate 4 from 2 5 metres to 2 0 metres at 00 30 on 19/01/2011 • Close Gate 2 from 2 5 metres to 2 0 metres at 01 00 on 19/01/2011 • Close Gate 5 from 1 5 metres to 1 0 metres at 01 30 on 19/01/2011 • Close Gate 1 from 1 5 metres to 1 0 metres at 02 00 on 19/01/2011 • Close Gate 4 from 2 0 metres to 1 5 metres at 02 30 on 19/01/2011 • Close Gate 2 from 2 0 metres to 1 5 metres at 03 00 on 19/01/2011 • Close Gate 5 from 1 0 metres to 0 5 metres at 03 30 on 19/01/2011 • Close Gate 1 from 1 0 metres to 0 5 metres at 04 00 on 19/01/2011 • Close Gate 4 from 1 5 metres to 1 0 metres at 04 30 on 19/01/2011 • Close Gate 2 from 1 5 metres to 1 0 metres at 05 00 on 19/01/2011	Directive	NGA
	11 45 PM	North Pine Dam directive no 33 faxed to dam operators • Gate B. Close to 1 increment at 0245 - Wednesday 19/1/2011 • Gate D. Close to 1 increment at 0300 • Gate A. Close to 1 increment at 0315 • Gate E. Close to 1 increment at 0330 • Gate C. Close to 1 increment at 0345 • Gate B. Fully Close at 0400 • Gate D. Fully Close at 0415 • Gate A. Fully Close at 0430 • Gate E. Fully Close at 0445 • Gate C. Fully Close at 0500	Directive	NGA
Wednesday 19/01/2011	3 30 AM	JT phoned the Mount Crosby WTP to obtain an update on the status of the Mount Crosby Weir Bridge. It is currently clear of water and came out of inundation approx 24 00 yesterday (18/1). The bridge has reportedly suffered some damage. Details unknown	Correspondence	NGA
	4 38 AM	JT advised Doug G at Wivenhoe Dam that the strategy for further gate closures after 0500 was dependant on the outcome of a discussion with Peter Borrows anticipated within the hour. Doug advised that the Fernvale Bridge was clear of floodwater but that it had powerlines down on /around it	Correspondence	NGA
	5 05 AM	Doug G from Wivenhoe Dam phoned the FOC to report that some erosion has occurred in the vicinity of the plunge pool downstream of the flip bucket. This has become evident now that the gate releases have been reduced. Some large boulders (10t) are evident piled up against the bench D/S of the flip bucket. JT will need to inspect the damage ASAP	Correspondence	NGA
	5 10 AM	JT phoned Peter Borrows to obtain a Govt view on how long to maintain releases and to where the lake level should be held following closure of all gates. Timing of the gate closure might be dependant on the erosion issue	Correspondence	NGA
	5 15 AM	JT phoned TM to arrange for TM to relieve JT ASAP as the FOC as he is required to inspect the reported damage at Wivenhoe Dam	Correspondence	NGA
	5 20 AM	JT phoned Barbie Maher (Seqwater) to arrange a joint inspection of the erosion damage at Wivenhoe Dam as reported by Doug G the dam operator	Correspondence	NGA
	5 25 AM	Rob Drury phoned JT to obtain an update. JT advised RD that damage has been reported to the area D/S of the flip bucket at Wivenhoe. An inspection ASAP is warranted	Correspondence	NGA
	5 25 AM	Wivenhoe directive no 61 emailed to dam operators • Close Gate 5 from 0 5 metres to fully closed at 5 30 on 19/01/2011 • Close Gate 1 from 0 5 metres to fully closed at 6 00 on 19/01/2011 • Close Gate 4 from 1 0 metres to 0 5 metres at 6 30 on 19/01/2011 • Close Gate 2 from 1 0 metres to 0 5 metres at 7 00 on 19/01/2011	Directive	NGA

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DP - David Pokarier
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS
	5 30 AM	JT phoned Peter Allan (Dam Regulator) to advise that damage had been reported at Wivenhoe Dam by the operator. Initial information indicates that large boulders are piled up in the plunge pool D/S of the flip bucket. The source of these boulders is unknown as releases are still continuing from the gates. JT has arranged to inspect the site with Barton Maher in a few hours and an invitation was extended to PA as an interested party to attend the inspection. JT will provide updates as they come to hand	Correspondence	NGA
	5 35 AM	Doug G. phoned JT on his mobile phone with an update report	Correspondence	NGA
	8 08 AM	JT phoned TM. Things seem to be O.K. but we will continue to close all gates by this afternoon	Correspondence	KH
	8 20 AM	TM phoned Flood Warning Centre advising that flood operation for current event will be shut down around lunch time	Correspondence	KH
	9 23 AM	JT phoned TM asking whether we should run a regulator	Correspondence	KH
	9 51 AM	TM phoned JT regarding modelling results	Correspondence	KH
	10 00 AM	TM phoned JT regarding modelling results. TM want to advise Doug G to stop at Gate 3 at 1 metre, but they agree to close as planned and maintain operational release instead of flood release	Correspondence	KH
	10 15 AM	JT has discussed the event closure with Peter Allen. It was agreed that the flood will be considered closed with the closure of the gates at 1200. At that time, control of the dam will revert to Seqwater. As the low flow channel to the regulator is blocked, the centre gate will be opened to 1 metre to manage on going inflows with the aim of getting to 95% (EL 66 5)	Correspondence	TM
	10 43 AM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments	Other	KH
	11 14 AM	JR phoned TM. Still operational until tonight	Correspondence	KH
	11 28 AM	Rob Townsley (SEQWater at Mt Crosby [redacted] phoned FOC requesting for peak flow at Mt Crosby Weir during the latest event	Correspondence	KH
	11 36 AM	TM phoned JT confirming that JR and LVB will be on tonight	Correspondence	KH
	11 45 AM	TM phoned Rob Townsley advising that peak flow over Mt Crosby Weir was about 9150 cumecs	Correspondence	KH
	11 51 AM	TM phoned (left message with) MBRC regarding potential for closing operation tonight	Correspondence	KH
	11 52 AM	TM phoned (left message with) Murray Donelan to call him back	Correspondence	KH
	11 59 AM	JT phoned TM stating that divers will investigate erosion d/s Wivenhoe Dam today	Correspondence	KH
	1 25 PM	Rob Townsley phoned TM discussing about the information which TM sent	Correspondence	KH
	1 39 PM	Matthew O'Reilly phoned TM advising Wivenhoe Dam EL is 66 89 m AHD	Correspondence	KH
	3 21 PM	Kerry (MBRC) phoned wanting AJ Wyllie Bridge to be closed at 9 00 PM rather than 7 00 PM and stating that she will update 24 hour call centre number. She will send email to confirm all this	Correspondence	KH
	4 00 PM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments	Other	KH
	7 30 PM	Toni Martini from MBRC called to say that the alternate route @ Petri is open (sooner than the 9 PM forecast)	Correspondence	LVB
	9 10 PM	Called Murray Dunstan to inform him that NPD will be mobilised	Correspondence	LVB
	9 10 PM	Called Brett Schultz NPD to mobilise. The WL is approaching trigger level for gate opening	Correspondence	LVB
	9 20 PM	Called MBRC call centre to inform them that NPD will be operated. They called back and advised that they can close Young's crossing by 11 PM. They will confirm once road is closed	Correspondence	LVB
	9 38 PM	Brett Schultz called to confirm they are ready. The gauge reading was 39 54 @ 9 30PM	Correspondence	LVB
Thursday 20/01/2011	12 15 AM	Send Directive 34 to NPD to start opening gates	Directive	LVB
	2 00 AM	Send Directive 35 to NPD to start opening gates	Directive	LVB
	2 15 AM	Tony Martini from MBRC called regarding release at NPD. He was advised that the gates will be open open for a while yet	Correspondence	LVB
	6 50 AM	Maria from MBRC called to find out when the gates on NPD will be shut. They were advised that the gates will only be closed in time for the afternoon peak	Correspondence	LVB
	7 20 AM	Rob Ayre called Tony Jacaotis at SRC to advise of flow in Lockyer Creek. Tony concerned about Burtons Bridge but RA indicated that we will endeavour to keep flows below 400 m3/s	Correspondence	RA
	7 25 AM	RA called Tony Trace at Ipswich CC and advised of renewed flows in Lockyer Creek and Middle Brisbane R	Correspondence	RA
	7 40 AM	RA called Chris Lavin at BCC and advised of increased flows in Lockyer Creek and Middle Brisbane. Advised that Savages Crossing and/will be Colleges Crossing are inundated. Estimated travel time 30 to 36 hours	Correspondence	RA
	7 55 AM	RA called NOD and spoke to Doug. Discussed proposed strategy to drain until around 2 00 PM with current gate settings. Requested hourly readings so as to monitor model performance	Correspondence	RA
	8 00 AM	Mal Lane from NPD called to discuss proposed operations. RA indicated that we will continue as is until 10 00am QPF comes in and then decide from there as to strategy	Correspondence	RA
	8 40 AM	Rob Drury called enquiring about the timeliness of the notice we gave to MBRC. Rob advised him accordingly	Correspondence	KH
	8 45 AM	John West called (re Lowood pump station) enquiring time to peak (height and discharge). FOC response was about 9 hours with height of about 3 7 m corresponding to 300 cumecs	Correspondence	KH
	9 50 AM	John West called (re Lowood pump station) enquiring current height and discharge. Together we estimated that it was about 150 cumecs (50 from Lockyer Creek and 100 from Wivenhoe Dam) corresponding to about 2 4 m	Correspondence	KH
	9 45 AM	Rob Drury advised Wivenhoe will not be drained to 66 5 m AHD, but will be maintained at or just below FSL	Correspondence	KH
	10 21 AM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments	Other	KH
	10 30 AM	Rob Drury called enquiring whether closing all releases in Wivenhoe Dam will cause level to exceed gate trigger in the next three day. RA advised that with rain on the ground he expects it not to, however forecast as per QPF is 15-25 mm, so we may need to review that decision tomorrow	Correspondence	KH
	11 10 AM	Tony Martini (MBRC) called. RA advised all gates will be closed at 2 00 PM	Correspondence	KH
	11 14 AM	RA phoned Murray Dunstan. They decided to close NPD by 2pm to allow MBRC to open Young's Crossing for afternoon peak	Correspondence	KH
	11 15 AM	John West called enquiring peak height and discharge at Lowood with Wiv Dam gates closed. We decided to just minus 100 cumecs from previous estimation. He also wants FOC to email him the Lowood rating curve	Correspondence	KH
	11 33 AM	RA called Mal (re Directive 36)	Correspondence	KH
	11 36 AM	RA called TM. TM will monitor situation overnight and RA will become Duty Eng again tomorrow	Correspondence	KH
	11 44 AM	Paul Bird (SEQWater) called to confirm whether we have closed all gates at Wivenhoe Dam. KH said yes	Correspondence	KH
	1 07 PM	Rob Drury called confirming NPD closure	Correspondence	KH
	1 35 PM	Peter Harrell (SEQWater) called about Lowood pump motor sitting on the platform and wanting to know what flow will come down from Lockyer. Rob said about 300 cumecs	Correspondence	KH
	1 37 PM	TM called. I'm will be on tonight (KH should ring him this afternoon). Mt Crosby Weir gauge is broken so Water Treatment boys will give manual readings via BoM website. City gauge is currently reading 0 3 m high	Correspondence	KH
	2 10 PM	RA advised MBRC that North Pine Dam gate operations had ceased at 14 00 and that Youngs Crossing should be clear of water within the next hour to an hour and half	Correspondence	RA
	2 15 PM	RA called Mal Lane and indicated that Terry Malone will be on call tonight monitoring the situation. Mal Lane advised that the tree branch snagged on Gate E had swung around and was now resting on pier - therefore okay. However a 75mm branch was caught in the ropes of Gate B and may need to be removed before another operation. Murray Dunstan has organised for the Rangers to examine tomorrow	Correspondence	RA
	2 40 PM	Agg Dagan called from Somerset dam and enquired as to proposed operational release strategy. RA advised that no releases planned for now until Wivenhoe spillway issues are resolved	Correspondence	RA
	3 20 PM	RA called MBRC Call Centre to provide hourly up on weather gate operations tonight. Indicated that with 25mm over catchment we will commence gate operations at 21 00	Correspondence	RA

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BOMFWC Bureau of Meteorology Flood Warning Centre

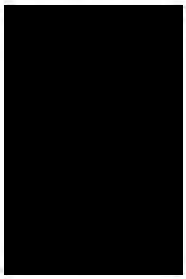
AN - Al Nanuk
BS - Bill Stephens
DP - David Pickerer
JW - John West

DATE	TIME	ACTION	CATEGORY	INITIALS

Appendix D

M N
McGRATHNICOL

Mark Garnett
Partner



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Sydney NSW 2000

Mark is a Partner of McGrathNicol Forensic, the leader of its Forensic Technology team and specialises in seizing and analysing digital evidence, data recovery, electronic discovery, electronic evidence preservation and conducting other computer related and fraud investigations.

Experience

A qualified investigator and forensic technology practitioner with 14 years experience as a Detective in the Queensland Police Service and over nine years specialist forensic experience, Mark has led a broad range of matters in Australia and overseas involving digital evidence recovery and analysis, network intrusion, asset tracing and misappropriation.

Industry Sector Experience

Mark has extensive experience across a wide range of industry sectors including business services, financial services, government, insurance, manufacturing, retail and technology.

led the forensic technology analysis, investigation, electronic discovery and data warehousing of all electronic information and data relating to the collapse of HIH Insurance, including providing an expert report to the Australian Securities and Investments Commission (ASIC) in respect of the presentation of electronic documents during litigation associated with the collapse;

provided forensic technology assistance to a leisure company with respect to the production of electronic information to legal teams based in the USA as a result of discovery orders, including the capture, analysis and preservation of a substantial amount of electronic evidence and developing methodologies for data production;

managed an investigation for the Australian Prudential Regulation Authority (APRA) with respect to a global insurance institution involving liaising with the subject organisation to ensure all APRA orders for the production of information were met and conducting keyword searches for relevant data;

assisted ASIC with the execution of search warrants in order to locate electronic information relating to the creation of fraudulent business documents;

provided expert witness services in respect of the discovery process undertaken by a major Australian bank, including critiquing reports provided by the bank to determine whether or not the discovery process was undertaken correctly;

provided expert testimony in the New South Wales Supreme Court regarding a forensic technology analysis undertaken for a homicide investigation, including the analysis of electronic data, reporting the results to the Court and subsequently providing evidence with regard to these results;

provided forensic technology assistance regarding the recovery and analysis of electronic evidence to support an investigation into inappropriate trade practices between a Hong Kong and Chinese company;

led an investigation in order to locate electronic evidence with respect to an attempt

by an employee of a superannuation company to misappropriate $10 million from the organisation, involving electronic data capture, analysis and the presentation of results;

provided ongoing forensic technology services to a major Australian bank in order to assist them to investigate misconduct by employees or to locate evidence of frauds committed externally to the bank. The work also comprised of providing assistance with analysing an electronic security threat to the bank;

undertook an analysis of computer systems for a client with respect to an employee suspected of breaching the information systems policies of the organisation, including electronic data capture and analysis. This resulted in the location of approximately 35,000 inappropriate images and movies, the immediate dismissal of the employee and the referral of the matter to law enforcement agencies in Australia and Canada;

provided project management and technical assistance with regard to the ION corporate collapse, including identifying, locating and analysing a wide variety of data sources in order to identify information specific to the ongoing administration and to support litigation proceedings;

project managed the implementation of a full service electronic discovery capability in support of investigations arising out of corporate collapses and to support specific litigation proceedings;

appointed by a legal firm to provide independent expert forensic technology services with regard to an employee dismissed from a Sydney company for removing intellectual property from the organisation and using that information to form a competitor company. The work comprised of data capture and analysis and required the preparation of an expert witness report outlining the findings of the analysis;

led the forensic data capture of several computer systems for an Indonesian based client and conducted an analysis of the data in order to locate information relating to fraudulent behaviour by a group of employees;

engaged as an independent expert to provide forensic technology services with respect to litigation involving music publishers and a company providing an application that facilitated internet file sharing capabilities. The work consisted of an expert review of the data capture techniques used by opposing experts, the provision of reports and data analysis;

conducted an investigation for a New Zealand based client who suspected that their network security had been breached and systems compromised, including analysing the network infrastructure, interviewing relevant employees and conducting data analysis;

provided an expert report with respect to electronic documents presented during a major litigation in New South Wales involving a large media company. Reviewed opposing expert reports, conducted an independent review and analysis of available data and provided reports outlining the findings;

assisted a Commonwealth agency with the execution of a court order to seize electronic information from an internet service provider. Identified and subsequently captured information from a complex network environment and assisted the agency to identify instances of inappropriate behaviour by the organisation;

assisted a Commonwealth agency to investigate the inappropriate behaviour of an employee, including onsite data analysis, subsequent analysis and the provision of a report outlining our findings;

provided an expert report for a New Zealand based client regarding the process of electronic discovery and also conducted an in-depth analysis of a series of relevant documents in order to identify and explain certain aspects of the document metadata;

conducted an investigation for a Brisbane based organisation relating to inappropriate tendering by a third-party business, including conducting interviews and obtaining statements from persons involved in the tender and organising the capture of data relevant to the investigation;

assisted a Victorian regulator with the execution of search warrants in order to locate electronic information relevant to their enquiries, comprising onsite data acquisition, data analysis and the provision of a statement outlining the findings;

provided data capture and analysis services with respect to the corporate collapse of the One.Tel organisation;

project managed the discovery process regarding the identification and presentation of all electronic information relating to a US Securities and Exchange Commission (SEC) investigation;

conducted an investigation into the theft of computerised intellectual property from a large Brisbane company. The work comprised of the capture and analysis of electronic data in order to determine what information had been taken;

provided data capture and analysis services for a Perth based Government department relating to suspected inappropriate behaviour by inmates of a Perth jail; and

developed software that implemented covert computer techniques to assist in the identification of internet based paedophiles.

led an investigation into a New Zealand subsidiary of a European based client. The work comprised of interviewing and obtaining statements from the New Zealand based employees regarding suspected fraudulent behaviour of their manager;

appointed by the Receiver of a wholesale food and spice company to investigate fraudulent financing the company had allegedly obtained from a major Australian bank. The company's senior management were able to obtain more than $2.75 million of funds through an invoice discounting facility provided by the bank by overstating the debtor balances it reported to the bank and providing fraudulent information to support the inflated debtor balances; and

led an investigation into the misappropriation of over $4 million from a joint venture set up by three major Australian television networks. The business manager engaged in a systemic series of fraudulent transactions over a period of almost five years involving more than 270 unauthorised withdrawals from the company's bank account.

Qualifications

Master of Business Administration, University of Central Queensland

Graduate Diploma of Information Systems, University of Central Queensland

Certified Computer Examiner (CCE), International Society of Forensic Computer Examiners

Diploma of Government (Fraud Investigation), Charles Sturt University

Diploma of Government (Fraud Prevention/Detection), Charles Sturt University

A+ Certification, CompTIA Certification Program

Certificate III - Investigative Services

Certificate IV - Investigation Methods

Advanced Training in Computer Forensics, Guidance Software

Intermediate Training in Computer Forensics, AccessData Corporation

NSW CAPI Operation License – Investigation of persons

Member of the Australian Computer Society

Member of the Information Systems Audit and Control Association (ISACA)

EnCase Certified Examiner (EnCE), Guidance Software

Publications

Company Secretaries Australia

"Minimising the risks and costs of electronic discovery" (2011)

Australian Corporate Lawyer Magazine

"Cost effect electronic discovery" (2010)

New Zealand Lawyer Magazine

"White collar crime blues – a forensic perspective" (2006)

"Litigation support – an electronic perspective" (2005)

The Queensland Law Society Journal

"Forensics new bloodhounds" – Proctor (2003)

Presentations

IPRO Innovations Conference Phoenix

- International Discovery Management (2010)

LegalTech New York

- "International electronic discovery trends – Litigation trends in the UK, Australia and Asia" (2010)

BankTech.08

- "Identity theft – Creating enterprise wide fraud management systems" (2008)

The Australian Association of Crown Prosecutors Conference

- "Computer forensics – emerging trends" (2007)

Corporate Counsel Summit

- "Achieving best practice in document retention and management (2007)

New Zealand INSOL06 Conference

- "White collar crime blues" (2006)

Practical Insolvency & Practice Management Conference

- "Sham transactions" (2006)

The Insurance Institute of Australia and New Zealand

- "Data mining – truth by numbers" (2003)

Institute of Certified Practising Accountants

- "eFraud" (2003)

Australian Computer Society

- "Forensic computing" (2003)