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| DATE              | TIME     | ACTION   | CATEGORY         | INITIALS |
|-------------------|----------|--|------------------|----------|
| Thursday 6/1/2011 | 7:00 AM  | <p>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 mobilise FOC, Wivenhoe, Somerset and North Pine Dam.</p> <p><u>North Pine Dam</u><br/>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.</p> <p><u>Somerset Dam</u><br/>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.</p> <p><u>Wivenhoe Dam</u><br/>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. The</p>   | 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  | <p><u>Situation Report 0800 06/01/2011</u><br/><u>Rainfall</u><br/>- 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.<br/>- The forecast for the next 24 to 48 hours is for totals up to 150mm in SE Qld.<br/>- The catchments remain wet and are likely to generate additional runoff in the event of rain.</p> <p><u>North Pine Dam</u><br/>- At 07:00 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.<br/>- Given the forecast rain, gate operations will commence tonight. MBRC will be advised this morning.</p> <p><u>Somerset Dam</u><br/>- At 07:00 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.</p>   | Situation Report | TM       |
|                   |          | <p><u>Wivenhoe Dam</u><br/>- At 07:00 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.</p> <p><u>Impacts of Wivenhoe Dam Releases</u><br/>- 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 500m<sup>3</sup>/s but this will depend on the forecast rain and flows downstream of the dam.<br/>- 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, Burtons Bridge or Mt Crosby Weir Bridge.</p> <p><u>Leslie Harrison Dam</u><br/>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.</p> <p>The next situation report will be issued at 1800 Thursday 6/1/2011.</p> | Situation Report |          |
|                   | 9:30 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       |
|                   | 9:50 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-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       |
|                   | 1:30 PM  | <p><u>Revised Operating Strategy 1200 6/1/2011</u><br/><u>North Pine</u><br/>- On track to open tonight</p> <p><u>Somerset/Wivenhoe</u><br/>- No change to current status - expected inflow volume about 45,000ML. Will reach about 99.7m AHD without releases.<br/>- Expected inflow volume about 130,000ML including Somerset. Will reach about 68.3m AHD without releases.<br/>- 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 600m<sup>3</sup>/s peaking Saturday. This may close Burtons without any contribution from Wivenhoe. The opening of the Wivenhoe gates will therefore be delayed until the Lockyer peak passes.</p>  | 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       |
|                   | 2:45 PM  | Ken Morris (BCC) called for situation update. TM provided an update.   | Correspondence   | MT       |

| DATE                   | TIME    | ACTION  | CATEGORY         | INITIALS |
|------------------------|---------|---|------------------|----------|
|                        | 2:54 PM | <p><b>Situation Report 1500 06/02/2011</b></p> <p><u>Rainfall</u></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- The forecast for the next 24 to 48 hours is for totals up to 100mm in SE Qld.</li> <li>- The catchments remain wet and are likely to generate additional runoff in the event of rain.</li> </ul> <p><u>North Pine Dam</u></p> <p>At 1400 Thursday, North Pine Dam was 39.66m, 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.</p> <p><u>Somerset Dam</u></p> <p>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 in</p>   | Situation Report | TM       |
|                        |         | <p><u>Wivenhoe Dam</u></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- There has been significant rainfalls in the Lockyer Ck catchment since 0900 Thursday and a peak of about 800m<sup>3</sup>/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 1,500m<sup>3</sup>/s and continue for a couple of days.</li> </ul> <p><u>Impacts of Wivenhoe Dam Releases</u></p> <ul style="list-style-type: none"> <li>- Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the potential for gate operations during the next 24 hours.</li> <li>- 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</li> </ul>  | 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 | <p>Issued North Pine Directive #1</p> <ul style="list-style-type: none"> <li>• Gate C : Open 1 increment at 1900</li> <li>• Gate E : Open 1 increment at 1915</li> <li>• Gate A : Open 1 increment at 1930</li> <li>• Gate D : Open 1 increment at 1945</li> <li>• Gate B : Open 1 increment at 2000</li> </ul>   | Directive        | NGA      |
|                        | 5:33 PM | <p><b>Situation Report 1800 06/01/2011</b></p> <p><u>Rainfall</u></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- The forecast for the next 24 to 48 hours is for totals up to 100mm in SE Qld.</li> </ul> <p><u>North Pine Dam</u></p> <p>At 1700 Thursday, North Pine Dam was 39.66m, 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.</p> <p><u>Somerset Dam</u></p> <p>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 in</p>   | Situation Report | TM       |
|                        |         | <p><u>Wivenhoe Dam</u></p> <ul style="list-style-type: none"> <li>- At 1700 Thursday, Wivenhoe Dam was 67.39m and rising slowly. This is 0.39m 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.</li> <li>- A peak of about 800m<sup>3</sup>/s is expected from the Lockyer late Friday. At this stage there is some uncertainty associated with this 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 1,500m<sup>3</sup>/s, similar to recent events, and continue for a couple of days.</li> </ul> <p><u>Impacts of Downstream of Wivenhoe</u></p> <ul style="list-style-type: none"> <li>- Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the potential for gate operations during the next 24 hours.</li> <li>- The relatively high Lockyer flows will adversely impact upon Twin Bridges, Savages Crossing, Kholo Bridge and Colleges</li> </ul>  | Situation Report |          |
|                        | 6:57 PM | Brett Schuit (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      |
|                        | 8:15 PM | <p>Issued North Pine Directive #2</p> <ul style="list-style-type: none"> <li>• Gate C : Open to 2 increments at 20:30</li> <li>• Gate E : Open to 2 increments at 20:45</li> <li>• Gate A : Open to 2 increments at 21:00</li> <li>• Gate D : Open to 2 increments at 21:15</li> <li>• Gate B : Open to 2 increments at 21:30</li> </ul>  | Directive        | NGA      |
|                        | 9:00 PM | NPD model updated - NPD-201101062100.xls  | Model Run        |          |
|                        | 9:00 PM | SDWD Model Updated - SDWD-201101062100.xls  | Model Run        | JW       |
| Friday, 7 January 2011 | 6:07 AM | <p><b>FOC Situation Report at 06:00 on Friday 7 January 2011</b></p> <p><u>Rainfall</u></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- Totals in the North Pine catchment have generally been about 35mm.</li> <li>- Falls between 20 and 30mm were recorded in the Leslie Harrison catchment.</li> <li>- 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.</li> </ul> <p><u>North Pine Dam</u></p> <p>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.</p> <p><u>Wivenhoe Dam</u></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- 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.</li> <li>- Wivenhoe gate releases will occur after the impact of Lockyer flows on Burtons 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.</li> </ul> <p><u>Impacts of Downstream of Wivenhoe</u></p> <ul style="list-style-type: none"> <li>- Somerset Regional Council, Ipswich City Council and Brisbane City Council have been advised of the potential for gate operations</li> </ul> | Situation Report | LVB      |
|                        | 7:00 AM | TM and LVB commenced day shift.   | Other            | LVB      |

| DATE                     | TIME     | ACTION   | CATEGORY         | INITIALS |
|--------------------------|----------|--|------------------|----------|
|                          | 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 open 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   | Model Run        | JW       |
|                          | 12:00 PM | SDWD Model Updated - SDWD-201101071200.xls   | Model Run        | JW       |
|                          | 12:15 PM | SitRep<br>There has been falls between 15 and 30mm in the North Pine catchment in the last 3 hours. This will cause renewed rises and increased inflows.<br><br>There are no gate movements projected for the next 3 hours.  | Situation Report | TM       |
|                          | 12:34 PM | Issued Wivenhoe Directive #1:<br>• 15:00 Open Gate 3 from 0.0 metres to 0.5 metres<br>• 16:00 Open Gate 3 from 0.5 metres to 1.0 metres<br>• 17:00 Open Gate 3 from 1.0 metres to 1.5 metres<br>• 18:00 Open Gate 3 from 1.5 metres to 2.0 metres<br>• 19:00 Open Gate 3 from 2.0 metres to 2.5 metres<br>• 20:00 Open Gate 3 from 2.5 metres to 3.0 metres<br>• 21:00 Open Gate 3 from 2.5 metres to 3.5 metres   | Directive        | LVB      |
|                          | 3:02 PM  | Don Carrol (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.<br>• Please open a regulator 100%  | Directive        | LVB      |
|                          | 6:00 PM  | SDWD Model Updated - SDWD-201101071800.xls   | Model Run        | JW       |
|                          | 6:00 PM  | Issued Somerset Directive #2.<br>• Please open Sluice M at 12:00   | Directive        | LVB      |
|                          | 6:00 PM  | Issued North Pine Directive #3.<br>• Gate B : Close to 1 increment at 19:00<br>• Gate D : Close to 1 increment at 19:15<br>• Gate A : Close to 1 increment at 19:30<br>• Gate E : Close to 1 increment at 19:45<br>• Gate C : Close to 1 increment at 20:00  | Directive        | LVB      |
|                          | 6:00 PM  | <b>Situation Report 1800 Friday 07/01/2011</b><br><u>Rainfall</u><br>- Since 0900 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.<br>- Advice from BoM indicates that SE Qld can expect further high rainfall totals over the next 4 days.<br><br>Saturday: Rain light at times 15-50mm with higher falls along the coast<br>Sunday: Widespread rain with totals between 50-100mm<br>Monday: Widespread rain again with totals between 50-100mm<br>Tuesday: Rain easing with totals between 25-50mm<br><br>Given the saturated conditions of the catchments, significant inflows to Seqwater dams will be generated, especially following the forecast rainfall on Sunday/Monday.<br><br><u>North Pine (Full Supply Level 39.60 m AHD)</u><br>- 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.<br><br><u>Wivenhoe (Full Supply Level 67.00 m AHD)</u><br>- At 1700 Friday, Wivenhoe Dam was 68.10 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.<br>- Since the commencement of the event on 02/01/2011, 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.<br><br><u>Impacts downstream of Wivenhoe</u><br>- 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 Collegos Crossing) will be adversely | Situation Report | TM       |
|                          | 9:53 PM  | Issued Wivenhoe Directive #2.<br>• 07/01/2011 22:00 Open Gate 2 from 0.0 metres to 0.5 metres<br>• 07/01/2011 23:00 Open Gate 4 from 0.0 metres to 0.5 metres<br>• 08/01/2011 00:00 Open Gate 2 from 0.5 metres to 1.0 metres<br>• 08/01/2011 01:00 Open Gate 4 from 0.5 metres to 1.0 metres<br>• 08/01/2011 02:00 Open Gate 1 from 0.0 metres to 0.5 metres<br>• 08/01/2011 03:00 Open Gate 5 from 0.0 metres to 0.5 metres<br>• 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.<br>• 08/01/2011 05:00 Open Gate 4 from 1.0 metres to 1.5 metres<br>• 08/01/2011 06:00 Open Gate 1 from 0.5 metres to 1.0 metres<br>• 08/01/2011 07:00 Open Gate 5 from 0.5 metres to 1.0 metres<br>• 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.<br>• 08/01/2011 09:00 Open Gate 2 from 1.5 metres to 2.0 metres<br>• 08/01/2011 10:00 Open Gate 4 from 1.5 metres to 2.0 metres<br>• 08/01/2011 11:00 Open Gate 1 from 1.0 metres to 1.5 metres<br>• 08/01/2011 12:00 Open Gate 5 from 1.0 metres to 1.5 metres<br>• 08/01/2011 13:00 Open Gate 2 from 2.0 metres to 2.5 metres<br>• 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       |
|                          | 8:00 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.<br>• 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, Warill 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   | Model Run        | JW       |
|                          | 3:00 PM  | SDWD Model Updated - SDWD-201101081500.xls, SDWD-201101081500-Forecast72hr.xls   | Model Run        | JW       |
| Sunday, 9 January 2011   | 12:00 AM | Issued North Pine Directive #4.<br>• Gate B : Close to 0 increments at 00:30<br>• Gate D : Close to 0 increment at 00:45   | Directive        | NGA      |
|                          | 1:00 AM  | Issued Wivenhoe Directive #5.<br>• Open Gate 3 from 4.0 metres to 4.5 metres   | Directive        | NGA      |
|                          | 4:30 AM  | Issued Wivenhoe Directive #6.<br>• Open Gate 1 from 1.5 metres to 2.0 metres   | Directive        | NGA      |

| DATE | TIME     | ACTION  | CATEGORY         | INITIALS |
|------|----------|---|------------------|----------|
|      | 6:15 AM  | <p>FOC Situation Report at 06:00 on Sunday 9 January 2011</p> <p><b>Rainfall</b><br/>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:-</p> <p>Sunday: Rain periods.<br/>Monday: Rain periods.<br/>Tuesday: Rain periods.<br/>Wednesday: A few showers.<br/>Thursday: A shower or two.<br/>Friday: A shower or two.<br/>Saturday: Mostly fine.</p> <p>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 generated if the forecast rainfall eventuates.</p> <p><b>North Pine Dam (Full Supply Level 39.60 m AHD)</b><br/>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.</p> | Situation Report | JT       |
|      |          | <p><b>Somerset Dam (Full Supply Level 99.00 m AHD)</b><br/>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 80mm 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 02/01/2011 approximately 56,000ML 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.</p> <p><b>Wivenhoe Dam (Full Supply Level 67.00 m AHD)</b><br/>The dam level is currently falling slowly, with the current level being 68.58m 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</p>   | 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.<br>• 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.<br>• Gate A: Close to 0 increment at 11:00  | Directive        | NGA      |
|      | 10:30 AM | Issued Wivenhoe Directive #7.<br>• Open Gate S 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      |
|      | 12:30 PM | Issued Somerset Directive #5.<br>• Please open Sluice N to 100% at 13:00<br>• 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.<br>• Gate A: Open to 1 increment at 15:00<br>• Gate D: Open to 1 increment at 15:15<br>• 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 3,000 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.<br>• Gate C: Open to 2 increment at 16:00<br>• Gate E: Open to 2 increment at 16:15<br>• 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 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      |
|      | 5:18 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      |



| DATE | TIME     | ACTION  | CATEGORY         | INITIALS |
|------|----------|---|------------------|----------|
|      | 5:51 PM  | <p><b>Situation Report 1700 Sunday 9/1/2011</b></p> <p><b>Rainfall</b><br/>Catchment average rainfall for the past 12 hours is: North Pine Dam (60 mm); Somerset Dam (150 mm); Wivenhoe Dam (60 mm). The bulk of the rain that has fallen in the upper reaches of the Stanley and Brisbane Rivers.</p> <p>The BOM rainfall forecast for the next few days is:-<br/> Monday: Very heavy rain periods with totals up to 300mm centred around North Pine.<br/> Tuesday: Rain periods with totals up to 150mm centred around North Pine.<br/> Wednesday: A few showers less than 10mm<br/> Thursday: A shower or two.<br/> Friday: A shower or two.<br/> Saturday: Mostly fine.</p> <p>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 generated if the forecast rainfall eventuates.</p> <p><b>North Pine Dam (Full Supply Level 39.60 m AHD)</b><br/>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</p>  | Situation Report | TM       |
|      |          | <p><b>Somerset Dam (Full Supply Level 99.00 m AHD)</b><br/>- The dam level is 100.75 m AHD and rising quickly. Estimated peak inflow to the dam is about 3,000m<sup>3</sup>/s. Five sluice gates are open releasing about 1,100m<sup>3</sup>/s (95,000ML/d) into Wivenhoe Dam. At this stage the dam will reach at least 101.5 during early Tuesday morning.<br/>- Since the commencement of the event on 02/01/2011 approximately 80,000ML 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.</p> <p><b>Wivenhoe Dam (Full Supply Level 67.00 m AHD)</b><br/>- The dam level is currently rising again, with the current level being 68.70m AHD. Estimated peak inflow to the dam just from the Upper Brisbane R is about 5,000m<sup>3</sup>/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</p>   | 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      |
|      | 6:00 PM  | SDWD Model Updated - SDWD-201101091800.xls  | Model Run        | JW       |
|      | 6:00 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 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 39.82m AHD, 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       |
|      | 7:30 PM  | Issued North Pine Directive #8.<br>• Open Gate B to 2 increments 18:45<br>• 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  | <p><b>Situation Report 2100 9/01/2011</b></p> <p><b>Rainfall</b><br/>- 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.<br/>- Rainfall of similar magnitudes is expected in the 12 to 24 hours, especially around the Bremer/Warrill catchments as the system tracks south.<br/>- A severe weather warning remains current for heavy rainfall in the dam catchment areas.</p> <p><b>Somerset Dam (Full Supply Level 99.00 m AHD)</b><br/>- 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 m<sup>3</sup>/s based on observed rainfall and could be as high as 5,000m<sup>3</sup>/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m<sup>3</sup>/s (95,000ML/d) into Wivenhoe Dam. At this stage the dam will reach at least 102.5 early Tuesday morning which will adversely impact areas around Kilcoy.<br/>- Since the commencement of the event on 02/01/2011 approximately 100,000ML has been released from the dam into Wivenhoe.</p> <p><b>Wivenhoe Dam (Full Supply Level 67.00 m AHD)</b><br/>- 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 6,700m<sup>3</sup>/s and the river is still rising.<br/>- 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 7,500m<sup>3</sup>/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.<br/>- 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 3,500m<sup>3</sup>/s and the combined flows is the lower Brisbane will be limited to 4,000m<sup>3</sup>/s. This is below the limit of urban damages in the City reaches.<br/>- The current release rate from Wivenhoe Dam is 1,400m<sup>3</sup>/s (120,000ML/day). Gate opening will start to be increased from noon</p> | Situation Report | TM       |
|      | 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  | 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 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 Tilmann 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       |

| DATE                    | TIME     | ACTION   | CATEGORY         | INITIALS |
|-------------------------|----------|--|------------------|----------|
|                         | 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 impact 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 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-201101100100withnorsin.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       |
|                         | 1:14 AM  | <b>FOC Situation Report at 01:00 hrs on Monday 10 January 2011</b><br><b>Rainfall</b><br>- Very heavy rainfall has been recorded in the Upper Brisbane and Stanley Rivers in the last 12 hours with totals up to 240mm. Totals for the last 24 hours range from 100 to 300mm.<br>- Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south.<br>- A severe weather warning remains current for heavy rainfall in the dam catchment areas.<br><br><b>North Pine Dam (Full Supply Level 39.60 m AHD)</b><br>- 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.<br><br><b>Somerset Dam (Full Supply Level 99.00 m AHD)</b><br>- 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 at<br>- Since the commencement of the event on 02/01/2011 approximately 115,000ML has been released from the dam into Wivenhoe. | Situation Report | JR       |
|                         |          | <b>Wivenhoe Dam (Full Supply Level 67.00 m AHD)</b><br>- 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.<br>- The dam level is rising quickly, with the current level being 69.80m AHD (storing 301,000 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.<br>- 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 if possible.<br>- 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.<br>- The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day). Gate opening will start to be increased during early   | Situation Report |          |
|                         | 2:00 AM  | Issued Wivenhoe Directive #9.<br>• Open Gate 1 from 2.0 metres To 2.5 metres At 02:00<br>• Open Gate 5 from 2.0 metres To 2.5 metres At 03:00<br>• Open Gate 2 from 2.5 metres To 3.0 metres At 04:00<br>• Open Gate 4 from 2.5 metres To 3.0 metres At 05:00<br>• Open Gate 2 from 3.0 metres To 3.5 metres At 06:00  | Directive        | BS       |
|                         | 3:00 AM  | SDWD Model Updated - SDWD-201101100300withnorsin.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-201101100500withnorsin.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      |
|                         | 6:30 AM  | <b>FOC Situation Report at 06:00 on Monday 10 January 2011</b><br><b>Rainfall</b><br>- 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.<br>- Mt Glorious recorded 100 mm in the last 12 hours.<br>- Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south.<br>- A severe weather warning remains current for heavy rainfall in the dam catchment areas.<br><br><b>North Pine Dam (Full Supply Level 39.60 m AHD)</b><br>- 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 52,000 ML. Estimated event volume is 72,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011.<br><br><b>Somerset Dam (Full Supply Level 99.00 m AHD)</b><br>- 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<br>- Since the commencement of the event on 02/01/2011 approximately 142,000ML has been released from the dam into Wivenhoe.   | Situation Report | JR       |
|                         |          | <b>Wivenhoe Dam (Full Supply Level 67.00 m AHD)</b><br>- 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.<br>- 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.<br>- 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 if possible. This is significantly less than the current estimated combined pre-dam peak inflow of 12,000 m3/s.  | Situation Report |          |
|                         | 6:30 AM  | Issued Wivenhoe Directive #9.<br>• Open Gate 4 from 3.0 metres To 3.5 metres At 07:00<br>• Open Gate 1 from 2.5 metres To 3.0 metres At 08:00<br>• Open Gate 5 from 2.5 metres To 3.0 metres At 09:00<br>• Open Gate 2 from 3.5 metres To 4.0 metres At 10:00<br>• 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      |

| DATE | TIME     | ACTION  | CATEGORY         | INITIALS |
|------|----------|---|------------------|----------|
|      | 8:30 AM  | Issued Wivenhoe Directive #10.<br>• Open Gate 4 from 3.0 metres To 3.5 metres at 07:00<br>• Open Gate 1 from 2.5 metres To 3.0 metres at 08:00<br>• 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 \$7ml. 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 release)  | 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 (EMQ) and Suplt Alistair 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-201101101300withnorain.xls  | Model Run        | JW       |
|      | 2:58 PM  | FOC Situation Report at 12:00 on Monday 10 January 2011<br><u>Rainfall</u><br>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.<br><u>Somerset Dam (Full Supply Level 99.00 m AHD)</u><br>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.<br><u>Wivenhoe Dam (Full Supply Level 67.00 m AHD)</u><br>- 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<br>- 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<br>- The objective for dam operations is currently to minimise the impact of urban flooding in areas downstream of the dam and to keep<br><u>Impacts downstream of Wivenhoe Dam</u><br>- The projected Wivenhoe Dam releases combined with Lockyer Creek flows and local runoff will mean that all crossings downstream<br>- Water levels in the lower Brisbane River will be impacted by the combined flows of Lockyer Creek, Bremer River, local runoff and<br><u>Outlook</u><br>Heavy rainfall continues throughout South East Queensland and the situation could deteriorate rapidly over the next 24 hours. The | Situation Report | TM       |
|      | 12:02 PM | Spoke with Peter Borrowes (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 [REDACTED] No answer.  | Correspondence   | LVB      |
|      | 4:00 PM  | NPD model updated - NPD-201101101600.xls  | Model Run        | JW       |
|      | 4:00 PM  | Issued Wivenhoe Directive #11.<br>• Open Gate 2 to 4.0 m at 15:00<br>• Open Gate 4 to 4.0 m at 15:30<br>• Open Gate 3 to 5.0 m at 16:00<br>• Open Gate 1 to 3.5 m at 16:30<br>• Open Gate 5 to 3.5 m at 17:00<br>• Open Gate 2 to 4.5 m at 17:30<br>• Open Gate 4 to 4.5 m at 18:00<br>• Open Gate 1 to 4.0 m at 18:30<br>• Open Gate 5 to 4.0 m at 19:00<br>• Open Gate 1 to 4.5 m at 19:30  | Directive        | LVB      |
|      | 3:15 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 4500m3/s   | Correspondence   | LVB      |
|      | 4:09 PM  | Issued North Pine Directive #10.<br>• Gate E : Close to Increment 4.<br>• Gate C : Close to Increment 4.  | Directive        | LVB      |
|      | 4:09 PM  | TM spoke to a police officer about Crestbrook Dam - advising that FOC does not manage Crestbrook but gave him a contact at Toowoomba RC   | Correspondence   | LVB      |
|      | 5:00 PM  | Issued North Pine Directive #11<br>• Gate B : Close to Increment 3.<br>• Gate D : Close to Increment 3.<br>• Gate A : Close to Increment 3.<br>• Gate E : Close to Increment 3.   | Directive        | LVB      |
|      | 5:00 PM  | SDWD Model Updated - SDWD-201101101700withnorain.xls, SDWD-201101101700with50mmrain.xls   | Model Run        | JW       |
|      | 5:09 PM  | Agg (Somerset Dam) phoned and reported water from Wivenhoe in getting into the hydro  | Correspondence   | LVB      |
|      |          | FOC Situation Report at 18:00 on Monday 10 January 2011<br><u>Rainfall</u><br>- Only minor rainfall has been experienced in the North Pine Dam and Somerset Dam catchments with a catchment averages of less than 20mm.<br>- 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.<br><u>North Pine Dam (Full Supply Level 39.60 m AHD)</u><br>- 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.  | Situation Report | TM       |
|      | 8:06 PM  | Get weather update from BoM - the forecast now is - still more of the same of what we had today   | Other            | LVB      |
|      | 8:43 PM  | FOC Situation Report at 18:00 on Monday 10 January 2011<br><u>Rainfall</u><br>- Only minor rainfall has been experienced in the North Pine Dam and Somerset Dam catchments with a catchment averages of less than 20mm.<br>- 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.<br><u>North Pine Dam (Full Supply Level 39.60 m AHD)</u><br>- 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.  | Situation Report | TM       |

| DATE                     | TIME     | ACTION  | CATEGORY         | INITIALS |
|--------------------------|----------|---|------------------|----------|
|                          |          | <p>Wivenhoe Dam (Full Supply Level 67.00 m AHD)</p> <ul style="list-style-type: none"> <li>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 2,000m<sup>3</sup>/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 4000m<sup>3</sup>/s at Moggi.</li> <li>Five radial gates are currently open at the dam releasing about 2,400m<sup>3</sup>/s into the Brisbane River and this will need to be increased steadily to an outflow of 2,800m<sup>3</sup>/s. At this stage, the dam will reach about 73.8m AHD during Tuesday morning.</li> <li>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 4,000m<sup>3</sup>/s if possible. This is significantly less than the current estimated combined impacts downstream of Wivenhoe Dam.</li> </ul> <p>The projected Wivenhoe Dam releases combined with Lockyer Creek flows and local runoff will mean that all crossings downstream - Water levels in the lower Brisbane River will be impacted by the combined flows of Lockyer Creek, Bremer River, local runoff and</p> <p>Outlook</p> <p>Heavy rainfall continues throughout South East Queensland and the situation could deteriorate rapidly over the next 24 hours. The</p>  | Situation Report |          |
|                          | 6:45 PM  | Brett Schuit (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   | LYB      |
|                          | 7:20 PM  | <p>Issued North Pine Directive #12</p> <ul style="list-style-type: none"> <li>Gate C : Close to Increment 3</li> <li>Gate B : Close to Increment 2</li> <li>Gate D : Close to Increment 2</li> <li>Gate A : Close to Increment 2</li> <li>Gate E : Close to Increment 2</li> <li>Gate C : Close to Increment 2</li> </ul>   | Directive        | JW       |
|                          | 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 lightened 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       |
|                          | 20:00 PM | Peter Baddiley (BoM) called to advise of situation regarding flows in Lockyer. Estimated very heavy localised rainfall (eg. 800mm 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 Allen 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 m AHD briefly.  | Correspondence   | JW       |
|                          | 21:30 PM | Provided Boyd Wilson (ICC) with situation update.   | Correspondence   | JW       |
|                          | 21:30 PM | <p>Issued North Pine Directive #13.</p> <ul style="list-style-type: none"> <li>Gate B : Close to Increment 1.</li> <li>Gate D : Close to Increment 1.</li> </ul>  | Directive        | JW       |
|                          | 21:45 PM | <p>Issued North Pine Directive #14.</p> <ul style="list-style-type: none"> <li>Gate A : Close to Increment 1 when level reaches 39.775 m</li> <li>Gate E : Close to Increment 1 when level reaches 39.760 m</li> </ul>  | 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       |
|                          | 11:56 PM | <p>FOC Situation Report at 00:00 Tuesday 11 January 2011</p> <p>Rainfall</p> <ul style="list-style-type: none"> <li>Rainfall continues in the North Pine Dam, Somerset Dam and Wivenhoe Dam catchments with falls of generally less than 20mm since 18:00 today. However, some isolated falls in the Upper Brisbane River of up to 110 mm have been recorded at Monsildale in this time. This rainfall will increase inflows into the dam.</li> <li>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).</li> </ul> <p>North Pine Dam (Full Supply Level 39.60 m AHD)</p> <p>The dam level is 39.80m AHD and falling slowly (storing 4,400ML above FSL). Five gates are open, releasing 153 m<sup>3</sup>/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</p> <p>Somerset Dam (Full Supply Level 99.00 m AHD)</p> <p>The dam level is 103.40m AHD and falling slowly. Peak inflow to the dam is estimated to be about 4,200 m<sup>3</sup>/s. Total discharge into</p>  | Situation Report | RA       |
|                          |          | <p>Wivenhoe Dam (Full Supply Level 67.00 m AHD)</p> <ul style="list-style-type: none"> <li>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 m<sup>3</sup>/s since 19:30 hours. Outflows into the Brisbane River from both Lockyer Creek and the Bremer River are also increasing.</li> <li>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.</li> <li>Five radial gates are currently open at the dam releasing about 2,750m<sup>3</sup>/s into the Brisbane River. At this stage, the dam will reach about 73.8m AHD during Tuesday afternoon.</li> <li>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 4,000m<sup>3</sup>/s if possible. This is significantly less than the current estimated combined impacts downstream of Wivenhoe Dam.</li> </ul> <p>The projected Wivenhoe Dam releases combined with Lockyer Creek flows and local runoff will mean that all crossings downstream - Water levels in the lower Brisbane River will be impacted by the combined flows of Lockyer Creek, Bremer River, local runoff and</p> <ul style="list-style-type: none"> <li>The BoM will provide further information regarding the magnitude of the flash flood event occurring in Lockyer Creek early Tuesday</li> </ul> <p>Outlook</p> <p>Heavy rainfall continues throughout South East Queensland and the situation could deteriorate over the next 24 hours. The flood o</p> | Situation Report |          |
| Tuesday, 11 January 2011 | 12:00 AM | SDWD Model Updated - SDWD-20110110000withnorain.xls   | Model Run        | JW       |
|                          | 12:00 AM | NPD model updated - NPD-20110110000.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 <a href="mailto:tonelee@internode.on.net">tonelee@internode.on.net</a>  | 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-20110110300withnorain.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       |



| DATE | TIME     | ACTION   | CATEGORY         | INITIALS |
|------|----------|--|------------------|----------|
|      | 4:30 AM  | Issued Somerset Directive #8<br>• Please close Sluice J at 05:00<br>• Please close Sluice N at 06:00<br>• Please close Sluice K at 07:00   | Directive        | JW       |
|      | 5:00 AM  | Issued North Pine Directive #15.<br>• Gate A: Open to Increment 2 at 6:00 am   | Directive        | JW       |
|      | 5:15 AM  | Spoke to Peter Baddley (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.<br>• Gate D: Open to Increment 2 at 6:00 am  | Directive        | JW       |
|      | 6:00 AM  | Issued North Pine Directive #16.<br>• Gate B: Open to Increment 2 when level reaches 39.820<br>• Gate C: Open to Increment 3 when level reaches 39.835<br>• Gate E: Open to Increment 3 when level reaches 39.850<br>• Gate A: Open to Increment 3 when level reaches 39.865<br>• Gate D: Open to Increment 3 when level reaches 39.880  | Directive        | JW       |
|      | 6:12 AM  | <b>FOC Situation Report at 06:00 on Tuesday 11 January 2011</b><br><b>Rainfall</b><br>- 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.<br>- 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.<br>- 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).<br><br><b>North Pine Dam (Full Supply Level 39.80 m AHD)</b><br>The dam level is 39.80m AHD and has commenced rising again (storing 4,400ML above FSL). Five gates are open releasing 177 m <sup>3</sup> /s. The inflow into the dam since the commencement of the event is 77,000 ML. Estimated event volume is 88,000 ML.<br><br><b>Wivenhoe Dam (Full Supply Level 67.00 m AHD)</b><br>- 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 m <sup>3</sup> /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.<br>- 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.<br>- Five radial gates are currently open at the dam releasing about 2,750m <sup>3</sup> /s into the Brisbane River. At this stage, the dam will reach just over 74.0m AHD during Tuesday evening.<br>- Above EL 74.0m AHD the objective for dam operations is to maintain the security of the dam and minimise downstream flood | Situation Report |          |
|      | 7:00 AM  | SDWD Model Updated - SDWD-201101110700withnorrain.xls  | Model Run        | JW       |
|      | 7:00 AM  | NPD model updated - NPD-201101110700.xls   | Model Run        | JW       |
|      | 7:15 AM  | Issued North Pine Directive #17.<br>• Gate B: Open to Increment 3 when level reaches 39.895<br>• Gate C: Open to Increment 4 when level reaches 39.910<br>• Gate E: Open to Increment 4 when level reaches 39.925<br>• Gate A: Open to Increment 4 when level reaches 39.940<br>• Gate D: Open to Increment 4 when level reaches 39.955<br>• 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 Baddley 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'Reilly (Wivenhoe Dam) advised that gates opening at Wivenhoe are imminent.  | Correspondence   | DP       |
|      | 7:56 AM  | TM called BoM. Advised Jimmy Stewart and Peter Baddley that Wivenhoe will ramp up to a minimum release of 3700m <sup>3</sup> /s.   | Correspondence   | DP       |
|      | 7:59 AM  | JT called Peter Borrows (Seqwater) and advised that releases from Wivenhoe will reach 3700m <sup>3</sup> /s at a minimum, and BoM has been informed. Likely to affect Moggi 24 hours later. Phone call terminated due to bad connection.   | Correspondence   | DP       |
|      | 8:00 AM  | Issued Wivenhoe Directive #12.<br>• Open Gate 5 to 4.5 m at 08:00<br>• Open Gates 2 and 4 to 5.0 m at 08:30<br>• 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 3700m <sup>3</sup> /s at a minimum and higher flows are possible.  | Correspondence   | DP       |
|      | 8:15 AM  | NPD Directive # 16 An interval of 15 minutes is to be used between gate movements.<br>Gate C: Open to increment 5 when level reaches 39.985<br>Gate E: Open to increment 5 when level reaches 40.000<br>Gate A: Open to increment 5 when level reaches 40.015<br>Gate D: Open to increment 5 when level reaches 40.030<br>Gate B: Open to increment 5 when level reaches 40.045<br>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 3700m <sup>3</sup> /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 3700m <sup>3</sup> /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.<br>• Open Gates 2 and 4 to 5.5 m at 08:30<br>• Open Gates 1 and 5 to 5.5 m at 10:00<br>• Open Gate 3 to 6.0 m at 10:30<br>• Open Gates 2 and 4 to 6.0 m at 11:00<br>• 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 Martini 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 40.490m AHD. All gates currently at setting No. 10.   | Correspondence   | DP       |
|      | 10:29 AM | Stan from SEQWater called TM. In conference with Barton Marr. 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-201101111100withnorrain.xls  | Model Run        | JW       |

| DATE | TIME     | ACTION   | CATEGORY         | INITIALS |
|------|----------|--|------------------|----------|
|      | 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 Burrows (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       |
|      | 11:05 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 Harold. 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 m AHD. 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 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 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 Eiano Davidson. Left message: North Pine Dam outflow likely to exceed 2000cumecs.  | Correspondence   | DP       |
|      | 11:59 AM | JT called Tony Martini. Left message, outflow from North Pine Dam will exceed 2000cumecs.  | Correspondence   | DP       |
|      | 12:00 PM | Issued Wivenhoe Directive #14.<br>• Open Gates 2, 3 and 4 to 6.5 m at 12:00<br>• Open Gates 1 and 5 to 6.5 m at 12:30<br>• 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 40.883 m AHD. 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 | <b>SitRep 1200 11/1/2011</b><br><b>Somerset/Wivenhoe</b><br>- Our current strategy revolves around trying to prevent initiation of the first fuse plug at EL 75.8m. If this happens we will get a rapid increase of about 2,000m <sup>3</sup> /s in outflow from the dam in addition to the gate release which could be as high as 4,500 to 5,000m <sup>3</sup> /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.<br>- Sluices have been closed at Somerset and this will result in high upstream water levels affecting Kilcoy<br>- With no further rainfall, Wivenhoe will approach 75.0m AHD and there will be an attempt to limit the dam outflow to 4,500m <sup>3</sup> /s, however this strategy currently being reviewed on an hour by hour basis. The release will be 4,000m <sup>3</sup> /s by 1300.<br>- 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 6,000m <sup>3</sup> /s.<br>- It should be noted that the flow in the lower Brisbane River in 1974 was about 9,500m <sup>3</sup> /s<br>- Wivenhoe has lost incoming mains power and are on backup power. Energex are attempting to rectify. | Situation Report |          |
|      | 12:17 PM | Tony Martini 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 40.950m AHD 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 1 in 50 year event occurs.  | Correspondence   | DP       |
|      | 1:00 PM  | Issued Wivenhoe Directive #15.<br>• Open Gates 1, 2, 4 and 5 to 7.0 m at 13:15   | Directive        | DP       |
|      | 1:00 PM  | Issued Wivenhoe Directive #16.<br>• 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 41.105m AHD. 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 stabilises, 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       |
|      | 2:00 PM  | SDWD Model Updated - SDWD-201101111400withnorrain.xls  | Model Run        | JW       |
|      | 2:00 PM  | Issued Wivenhoe Directive #17.<br>• Open Gates 1, 2, 3, 4 and 5 to 8.0 m   | Directive        | DP       |
|      | 2:15 PM  | Issued Wivenhoe Directive #18.<br>• 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 Burrows (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.<br>• Open Gates 1, 2, 3, 4 and 5 to 9.0 m   | Directive        | DP       |
|      | 3:30 PM  | Issued Wivenhoe Directive #20.<br>• 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 10000m <sup>3</sup> /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       |
|      | 3:58 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.<br>• 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.<br>• 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-201101111700withnorrain.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.<br>• 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 Spillway 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-201101111800withnorrain.xls  | Model Run        | JW       |
|      | 6:00 PM  | Issued Wivenhoe Directive #24.<br>• Open Gates 1, 2, 3, 4 and 5 to 12.0 m  | Directive        | DP       |
|      | 6:00 PM  | <b>Situation Report 1800 11 January 2011</b><br>- 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 1800, 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.<br>- At 1730 Wivenhoe Dam was 74.92m AHD and rising slowly and releasing about 8,700m <sup>3</sup> /s<br>- 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 m <sup>3</sup> /s.<br>- If there is no further rainfall, it may be possible to then slowly reduce this release overnight.<br>- The dam is expected to peak below 75.5m AHD which is 100mm below the first fuse plug initiation level.<br>- Note that the automatic recorder as indicated on the BoM website is affected by drawdown and is not reflecting the actual lake   | Situation Report | TM       |
|      | 6:04 PM  | Glen Patterson called to advise he is unable to reach Lake MacDonalid 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       |

| DATE                       | TIME     | ACTION  | CATEGORY       | INITIALS |
|----------------------------|----------|---|----------------|----------|
|                            | 6:35 PM  | Bill Stevens called to inform team he is out off due to flood waters and unable to come in.   | Correspondence | DP       |
|                            | 6:41 PM  | Tarong Energy confirmed releases from Spillway 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.<br>• Gate B: Close to increment 11 at 19:45.<br>• Gate D: Close to increment 11 at 20:00.<br>• Gate A: Close to increment 11 at 20:15.<br>• Gate E: Close to increment 11 at 20:30.<br>• Gate C: Close to increment 11 at 20:45.                                   | Directive      | AN       |
|                            | 7:30 PM  | Doug Grigg (Wivenhoe Dam) called to report that Wivenhoe Level 74.87mAHd 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 Baddley rang. Unofficially TM advised that things have stabilised. Also advised predicted peaks at various sites.   | Correspondence | AN       |
|                            | 8:25 PM  | Joe Meisner 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.<br>• 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 Shallicross 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       |
|                            | 9:00 PM  | Issued North Pine Directive #20.<br>• Gate B: Close to increment 6 at 21:00.<br>• Gate D: Close to increment 6 at 21:15.<br>• Gate A: Close to increment 6 at 21:30.<br>• Gate E: Close to increment 6 at 21:45.<br>• Gate C: Close to increment 6 at 22:00.  | Directive      | AN       |
|                            | 9:00 PM  | Issued Wivenhoe Directive #25.<br>• 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 Shallicross 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       |
|                            | 9:25 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.<br>• 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 74.87 Gates have been raised to 11.5m.  | Correspondence | AN       |
|                            | 10:00 PM | SDWD Model Updated - SDWD-201101112200withnrain.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.<br>• Gate B: Close to increment 4 at 22:30<br>• Gate D: Close to increment 4 at 22:45<br>• Gate A: Close to increment 4 at 23:00<br>• Gate E: Close to increment 4 at 23:15<br>• Gate C: Close to increment 4 at 23:30<br>• 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 74.84mAHd @ 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<br>• 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 74.87 Gates have been raised to 11.5m   | Correspondence | AN       |
|                            | 12:00 AM | Issued North Pine Directive #22.<br>• Gate D: Close to increment 3 at 00:15<br>• Gate A: Close to increment 3 at 00:30<br>• Gate E: Close to increment 3 at 00:45<br>• Gate C: Close to increment 3 at 01:00<br>• 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.<br>• Close Gates 5, 1, 4, 2 and 3 to 9.0 m   | Directive      | AN       |
|                            | 2:00 AM  | Issued North Pine Directive #23.<br>• Gate D: Close to increment 2 at 02:15<br>• Gate A: Close to increment 2 at 02:30<br>• Gate E: Close to increment 2 at 02:45<br>• 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.<br>• Close Gates 5, 1, 4, 2 and 3 to 8.0 m   | Directive      | 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 falling, and that current releases from Wivenhoe Dam are about 4,900 cumecs.  | Correspondence | AN       |
|                            | 4:15 AM  | Issued North Pine Directive #24.<br>• Gate B: Close to increment 1 at 04:30<br>• Gate D: Close to increment 1 at 04:45<br>• Gate A: Close to increment 1 at 05:00<br>• Gate E: Close to increment 1 at 05:15  | Directive      | AN       |
|                            | 4:30 AM  | Issued Wivenhoe Directive #31.<br>• 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       |



| DATE | TIME     | ACTION  | CATEGORY         | INITIALS |
|------|----------|---|------------------|----------|
|      | 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.<br>• Close Gates 5, 1, 4, 2 and 3 to 6.0 m   | Directive        | AN       |
|      | 5:30 AM  | Issued Wivenhoe Directive #33.<br>• Close Gates 5, 1, 4, 2 and 3 to 5.0 m   | Directive        | AN       |
|      | 5:30 AM  | JR called Wivenhoe Dam for the current level. Dropped 2 cm in 30 minutes.   | Correspondence   | AN       |
|      | 5:49 AM  | <b>Situation Report 0600 Wed 12/01/2011</b><br>- 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.<br>- Wivenhoe Dam peaked on the 11th January, Tuesday night at 19:00 at 74.97 m AHD with a corresponding discharge of 7,450 m <sup>3</sup> /s. The release have now been scaled back to 4,300 m <sup>3</sup> /s at 05:00 am. Wivenhoe Dam is currently 74.77 m AHD and falling slowly.<br>- The releases from Wivenhoe Dam will be temporarily reduced to 2,500 m <sup>3</sup> /s to allow the peak of Lockyer Creek to enter the Brisbane River, after which they will be increased to maximum of 3,500 m <sup>3</sup> /s. This release will then be maintained to drain the flood storage component within the required 7 days.<br>- Somerset Dam is at 105.10 m AHD and slowly rising. The dam is discharging 1,230 m <sup>3</sup> /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.  | 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-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       |
|      | 7:15 AM  | Issued Wivenhoe Directive #34.<br>• Close Gates 1 and 5 to 3.5 m<br>• Close Gates 2 and 4 to 4.0 m  | Directive        | KH       |
|      | 7:50 AM  | John Thornton (SunWater) called to confirm that 179 Turbot St had power.  | Correspondence   | JW       |
|      | 7:57 AM  | <b>Situation Report 0800 Wed 12/01/2011</b><br><b>Rainfall</b><br>- 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.<br><br><b>Somerset/Wivenhoe</b><br>- Somerset Dam has peaked at 105.11 m AHD at 06:00 on 12 January 2011 and the dam is discharging 1,230 m <sup>3</sup> /s over the spillway. Sluice gates will be utilised to assist the draining of the flood storage compartment commencing later Wednesday.<br>- Wivenhoe Dam peaked at 74.97 m AHD at 19:00 on 11 January 2011 with a corresponding discharge of 7,450 m <sup>3</sup> /s. Wivenhoe Dam was 74.75 m AHD at 07:30 and generally falling slowly.<br>- The releases from Wivenhoe Dam have been temporarily reduced to 2,500 m <sup>3</sup> /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 m <sup>3</sup> /s. This release will then be maintained to drain the flood storage component within the required 7 days.<br>- The combined flood event volume in Somerset and Wivenhoe Dams is estimated to be in excess of 2 million megalitres.<br><br><b>North Pine</b>      | 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.<br>• 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.<br>• 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 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: 74.78m AHD @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 39.74m AHD 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.<br>• Gate E: Close to increment 1 at 14:15   | Directive        | NGA      |
|      | 2:25 PM  | Mathew (Wivenhoe Dam) called to report lake level: 74.81m AHD @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.<br>• Gate C: Close to increment 1 at 14:45   | Directive        | NGA      |
|      | 3:00 PM  | <b>Situation Report 1500 Wed 12/01/2011</b><br><b>Rainfall</b><br>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 for the next 4 days.<br><br><b>Somerset/Wivenhoe</b><br>- Somerset Dam has peaked at 105.11 m AHD at 06:00 on 12 January 2011. One sluice was opened at 1030 12 January 2011 and the dam is discharging 1,440 m <sup>3</sup> /s. Sluice gates will be utilised to drain of the flood storage compartment during the next 5 days.<br>- Wivenhoe Dam peaked at 74.97 m AHD at 19:00 on 11 January 2011 with a corresponding discharge of 7,450 m <sup>3</sup> /s. Wivenhoe Dam was 74.81 m AHD at 15:00 and steady.<br>- The releases from Wivenhoe Dam have been temporarily reduced to 2,500 m <sup>3</sup> /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 m <sup>3</sup> /s. This release will then be maintained to drain the flood storage component within the required 7 days.<br>- The combined flood event volume in Somerset and Wivenhoe Dams is estimated to be in excess of 2 million megalitres. | Situation Report | TM       |
|      | 3:05 PM  | Doug Grigg (Wivenhoe Dam) called to report lake level of 74.81m AHD @ 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-201101121600.xls  | Model Run        | JW       |
|      | 4:00 PM  | Doug Grigg (Wivenhoe Dam) called to report lake level of 74.80m AHD @16:00hrs.  | Correspondence   | NGA      |
|      | 4:00 PM  | Brett Schultz (North Pine Dam) called to report that Siding Creek Dam is spilling at 20.560m AHD. Spillway level is 20.37m AHD.   | 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 74.82m AHD @17:00hrs.  | Correspondence   | NGA      |
|      | 6:00 PM  | Doug Grigg (Wivenhoe Dam) called to report lake level of 74.80m AHD @18:00hrs.  | Correspondence   | NGA      |



| DATE                      | TIME     | ACTION  | CATEGORY         | INITIALS |
|---------------------------|----------|---|------------------|----------|
|                           | 6:00 PM  | <b>Situation Report 1800 Wed 12/01/2011</b><br><u>Rainfall</u><br>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 for the next 4 days.<br><u>Somerset/Wivenhoe</u><br>- 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.<br>- 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.<br>- 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  | Situation Report | TM       |
|                           | 7:00 PM  | Doug Grigg (Wivenhoe Dam) called to report lake level of 74.82 mAHd @ 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 Moggi 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 Moggi 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:<br>Kholo 19:15hrs 20.0m<br>Mt Crosby 21:00 23.5m   | Correspondence   | MT       |
|                           |          | He asked for a situation update. RA shared Wivenhoe Dam's release strategy.   |                  |          |
|                           |          |   |                  |          |
|                           |          |   |                  |          |
| Thursday, 12 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  | <b>Situation Report 0600 13 January 2011</b><br><u>Rainfall</u><br>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 for the next 4 days.<br><u>Somerset/Wivenhoe</u><br>- 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.<br>- 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 commenced to fall slowly.<br>- 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 Moggi. This | Situation Report | RA       |
|                           |          | <u>North Pine</u><br>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.<br><u>Strategy</u><br>- 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.<br>- 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: 3228-2964 & 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 102.8 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       |
|                           | 12:30 PM | Wivenhoe directive #35 issued<br>• Open Gate 2 from 4.0 metres to 4.5 metres at 1300.<br>• Open Gate 4 from 4.0 metres to 4.5 metres at 1400.   | Directive        | JW       |
|                           | 12:30 PM | Somerset directive #10 issued<br>• 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 7 days.  | Correspondence   | JW       |
|                           | 2:15 PM  | Phone call from Steve Roso, MBRC. Advice as follows:<br>• damage to Gympie Rd abutments<br>• No evacuations.<br>• No suburban flooding<br>• Not aware of any over floor flooding. Pine Shire had 0.75m freeboard.   | Correspondence   | JW       |
|                           | 2:30 PM  | Wivenhoe directive #36 issued<br>• Open Gate 1 from 3.5 metres to 4.0 metres at 1500.<br>• Open Gate 5 from 3.5 metres to 4.0 metres at 1600.<br>• Open Gate 1 from 4.0 metres to 4.5 metres at 1700.<br>• 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       |
|                           | 6:00 PM  | Wivenhoe directive #37 issued<br>• Open Gate 2 from 4.5 metres to 5.0 metres at 1830.<br>• Open Gate 4 from 4.5 metres to 5.0 metres at 1900.<br>• Open Gate 1 from 4.5 metres to 5.0 metres at 1930.<br>• Open Gate 5 from 4.5 metres to 5.0 metres at 2000.<br>• 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       |

| DATE                      | TIME     | ACTION  | CATEGORY       | INITIALS |
|---------------------------|----------|---|----------------|----------|
| Friday, 14 January 2011   | 8:15 PM  | Wivenhoe directive #38 issued<br>• Open Gate 2 from 5.0 metres to 5.5 metres at 2100<br>• Open Gate 4 from 5.0 metres to 5.5 metres at 2200<br>• Open Gate 1 from 5.0 metres to 5.5 metres at 2300<br>• Open Gate 5 from 5.0 metres to 5.5 metres at 2000<br>• Open Gate 3 from 5.5 metres to 6.0 metres at 0100 on 14/1/11<br>• Open Gate 3 from 5.5 metres to 6.0 metres at 0200<br>• Open Gate 3 from 5.5 metres to 6.0 metres at 0300   | Directive      | DP       |
|                           | 8:28 PM  | Somerset directive #11 issued<br>• 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 to advise of current release rates from Wivenhoe, Somerset and North Pine Dams.   | Correspondence | DP       |
|                           | 12:45 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:<br>Please undertake the following gate operations commencing at 03:15 on Friday 14 January 2011.<br><br>The interval between gate operations is to be 15 minutes.<br><br>• Gate A: Close to 1 increment at 03:15<br>• Gate E: Close to 1 increment at 03:30<br>• Gate C: Close to 1 increment at 03:45<br><br>• Fully Close Gate B at 04:00<br>• Fully Close Gate D at 04:15<br>• Fully Close Gate A at 04:30<br>• Fully Close Gate E at 04:45<br>• 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       |
|                           | 5:18 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 all-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 Moggi. 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 Borrowes phoned the FOC. TM discussed with Peter Borrowes 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 Bridgen (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 channelled solely through the FOC.  | Correspondence | NGA      |
|                           | 12:35 PM | Ali Cameion from DERM phoned TM. Re: Gauging exercise at Jindailee - Soundtek M9 from boat (6 passes)   | Correspondence | NGA      |
|                           |          | Jindailee gauging result:- 4,300m <sup>3</sup> /sec at 6.45 metres AHD at 12:00 hrs   |                |          |
|                           | 12:37 PM | Peter Borrowes 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      |
| Saturday, 15 January 2011 | 7:00 PM  | FOC change over.  | Other          | KH       |
|                           | 2:15 AM  | Somerset directive #40 issued<br>• 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<br>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 Burroughs, Joh Bradley and Bob Reilly to discuss a report for the minister by COB Sunday.  | Correspondence | AN       |
|                           | 4:30 PM  | Wivenhoe directive #42 issued<br>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       |
| Sunday, 16 January 2011   | 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:<br>Please undertake the following gate operations commencing at 22:00 on 15/01/2011<br>• Open Gate 4 from 6.0 metres to 6.5 metres at 22:00.<br>Please advise the Flood Operations Centre by fax once you have completed these operations.  | Directive      | DP       |
|                           | 2:45 AM  | Directive #44 sent to Doug at Wivenhoe:<br>Please undertake the following gate operations commencing at 04:00 on 16/01/2011<br>• Open Gate 1 from 6.0 metres to 6.5 metres at 04:00<br>Please advise the Flood Operations Centre by fax once you have completed these operations.   | Directive      | DP       |

| DATE                    | TIME     | ACTION  | CATEGORY       | INITIALS |
|-------------------------|----------|---|----------------|----------|
|                         | 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:<br>Please undertake the following gate operations commencing at 08:00 on 16/01/2011<br>• Open Gate 5 from 6.0 metres to 5.5 metres at 08:00 on 16/01/2011.<br>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:<br>Please undertake the following operations:<br>• Fully close Sluice N at 10:00.<br>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 - p[REDACTED]) notifying that the Wivenhoe viewing area has been damaged. Rob Ayre unable to contact Wivenhoe staff (Matt) - message left. Then contacted Doug Gigg, 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):<br>Please undertake the following gate operations commencing at 13:00 on 16/01/2011<br>• Open Gate 3 from 6.5 metres to 7.0 metres at 13:00 on 16/01/2011.<br>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 "Narnah" 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):<br>Please undertake the following gate operations commencing at 16:00 on 16/01/2011<br>• Open Gate 2 from 6.5 metres to 7.0 metres at 16:00 on 16/01/2011.<br>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 Gigg (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:<br>Fully close Sluice K at 22:00 on 16/1/2011.<br>Fully close Sluice M at 03:00 on 17/1/2011.<br>Fully close Sluice L at 07:00 on 17/1/2011.<br>Fully open Regulator 12 at 07:15 on 17/1/2011.   | Directive      | MT       |
| Monday, 17 January 2011 | 10:00 PM | Doug Gigg (Wivenhoe Dam) called to inform 3 floor panels missing from buiks.  | Correspondence | MT       |
|                         | 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 MI 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 from 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 FoC.  | Correspondence | LVB      |
|                         | 11:20 AM | Rob Dury 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 nil 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<br>• Close Gate 4 from 7.0 metres to 5.5 metres at 14:00 on 17/01/2011.<br>• Close Gate 2 from 7.0 metres to 6.5 metres at 14:20 on 17/01/2011<br>• Close Gate 3 from 7.0 metres to 5.5 metres at 14:40 on 17/01/2011<br>• 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 from 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<br>• Close Gate 4 from 6.5 metres to 6.0 metres at 15:20 on 17/01/2011.<br>• 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<br>• Close Gate 1 from 6.5 metres to 6.0 metres at 16:00 on 17/01/2011<br>• Close Gate 3 from 6.5 metres to 6.0 metres at 16:20 on 17/01/2011.<br>• Close Gate 5 from 6.0 metres to 5.5 metres at 16:40 on 17/01/2011<br>• Close Gate 1 from 6.0 metres to 5.5 metres at 17:00 on 17/01/2011<br>• Close Gate 4 from 6.0 metres to 5.5 metres at 17:20 on 17/01/2011<br>• Close Gate 2 from 6.0 metres to 5.5 metres at 17:40 on 17/01/2011<br>• Close Gate 3 from 6.0 metres to 5.5 metres at 18:00 on 17/01/2011   | Directive      | LVB      |
|                         | 6:30 PM  | Send directive No 52 to Wivenhoe for gate closures<br>• Close Gate 5 from 5.5 metres to 5.0 metres at 18:30 on 17/01/2011<br>• Close Gate 1 from 5.5 metres to 5.0 metres at 19:00 on 17/01/2011.<br>• Close Gate 4 from 5.5 metres to 5.0 metres at 19:30 on 17/01/2011<br>• Close Gate 2 from 5.5 metres to 5.0 metres at 20:00 on 17/01/2011<br>• Close Gate 3 from 5.5 metres to 5.0 metres at 20:30 on 17/01/2011<br>• Close Gate 5 from 5.0 metres to 4.5 metres at 21:00 on 17/01/2011<br>• Close Gate 1 from 5.0 metres to 4.5 metres at 21:30 on 17/01/2011<br>• Close Gate 2 from 5.0 metres to 4.5 metres at 22:00 on 17/01/2011<br>• Close Gate 4 from 5.0 metres to 4.5 metres at 22:30 on 17/01/2011<br>• Close Gate 5 from 4.5 metres to 4.0 metres at 22:00 on 17/01/2011 | Directive      | LVB      |

| DATE                     | TIME     | ACTION  | CATEGORY         | INITIALS |
|--------------------------|----------|---|------------------|----------|
| Tuesday, 16 January 2011 | 9:30 PM  | Wivenhoe directive no.53 emailed to dam operators (fax machine at Wivenhoe inoperative).<br>• Close Gate 5 from 4.5 metres to 4.0 metres at 23:00 on 17/01/2011<br>• Close Gate 1 from 4.5 metres to 4.0 metres at 23:30 on 17/01/2011<br>• Close Gate 5 from 4.0 metres to 3.5 metres at 00:00 on 18/01/2011<br>• Close Gate 1 from 4.0 metres to 3.5 metres at 00:30 on 18/01/2011<br>• Close Gate 4 from 4.5 metres to 4.0 metres at 01:00 on 18/01/2011<br>• Close Gate 2 from 4.5 metres to 4.0 metres at 01:30 on 18/01/2011<br>• Close Gate 5 from 3.5 metres to 3.0 metres at 02:00 on 18/01/2011<br>• Close Gate 1 from 3.5 metres to 3.0 metres at 03:00 on 18/01/2011<br>• Close Gate 3 from 5.0 metres to 4.5 metres at 04:00 on 18/01/2011<br>• Close Gate 4 from 4.0 metres to 3.5 metres at 05:00 on 18/01/2011<br>• Close Gate 2 from 4.0 metres to 3.5 metres at 06:00 on 18/01/2011<br>• Close Gate 5 from 3.0 metres to 2.5 metres at 07:00 on 18/01/2011<br>• Close Gate 1 from 3.0 metres to 2.5 metres at 08:00 on 18/01/2011   | Directive        | JW       |
|                          | 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 Granzen and then notify him via txt of the outcome.  | Correspondence   | JW       |
|                          | 12:35 AM | FOC contacted John Granzen 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 Granzen 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       |
|                          | 6:15 AM  | <b>Situation Report 06:15 18 January 2011</b><br><u>Rainfall</u><br>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.<br><u>Somerset/Wivenhoe</u><br>At 16:00 Monday Somerset Dam was 99.02 mAH 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 mAH at 18:00 on Wednesday 12 January 2011.<br>At 06:00 Tuesday Wivenhoe Dam was 67.82 mAH 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.<br>Wivenhoe Dam peaked at 74.97 mAH at 19:00 on Tuesday 11 January 2011 with a corresponding discharge of 7,450 m3/s. | 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 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 cumec peak at City Gauge without the Dams.   | Correspondence   | KP       |
|                          | 8:19 AM  | Wivenhoe directive no.55 faxed and emailed to dam operators<br>• Close Gate 4 from 4.5 metres to 4.0 metres at 09:00 on 18/01/2011<br>• Close Gate 2 from 4.5 metres to 4.0 metres at 09:30 on 18/01/2011<br>• Close Gate 5 from 3.5 metres to 3.0 metres at 10:00 on 18/01/2011<br>• Close Gate 1 from 3.5 metres to 3.0 metres at 10:30 on 18/01/2011<br>• Close Gate 3 from 5.0 metres to 4.5 metres at 11:00 on 18/01/2011<br>• Close Gate 4 from 4.0 metres to 3.5 metres at 11:30 on 18/01/2011<br>• 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 0419667834) 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:<br>18/1/2011 10:00 - 2300 cumecs<br>19/1/2011 10:00 - 1130 cumecs<br>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 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 that he and Bob Reilly (DERM) will come and visit the FOC at 2:30 this afternoon.   | Correspondence   | KP       |
|                          | 12:08 PM | Wivenhoe directive no.56 faxed and emailed to dam operators<br>• Close Gate 5 from 3.0 metres to 2.5 metres at 12:30 on 18/01/2011<br>• Close Gate 1 from 3.0 metres to 2.5 metres at 13:00 on 18/01/2011<br>• Close Gate 4 from 3.5 metres to 3.0 metres at 14:00 on 18/01/2011<br>• Close Gate 2 from 3.5 metres to 3.0 metres at 14:30 on 18/01/2011<br>• Close Gate 4 from 3.0 metres to 2.5 metres at 15:00 on 18/01/2011<br>• 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 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       |
|                          | 2:55 PM  | Rob Ayre called Mat O'Reilly to direct a hold in gate operations...to be confirmed by email   | Directive        | KP       |



| DATE | TIME    | ACTION  | CATEGORY         | INITIALS |
|------|---------|---|------------------|----------|
|      | 3:00 PM | Wivenhoe directive no.57 emailed to dam operators<br>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 :-<br>Gate 1 – Open 2.5 metres<br>Gate 2 – Open 3.0 metres<br>Gate 3 – Open 4.5 metres<br>Gate 4 – Open 3.0 metres<br>Gate 5 – Open 2.5 metres to be maintained for up to 12 hours  | Directive        | KP       |
|      | 4:05 PM | Rob Ayre called Mai 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 | <b>Situation Report 18:00 18 January 2011</b><br><b>Rainfall</b><br>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.<br><b>Somerset/Wivenhoe</b><br>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.<br>At 05:00 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.<br>Wivenhoe Dam peaked at 74.97 mAHd at 19:00 on Tuesday 11 January 2011 with a corresponding discharge of 7,450 m3/s. | Situation Report | KP       |
|      | 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 Abilt 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 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 Grene (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      |
|      | 7:35 PM | North Pine Dam directive no.31 faxed to dam operators<br>• Gate C: Open to 1 increment at 2030 - Tuesday 18/1/2011<br>• Gate E: Open to 1 increment at 2045<br>• Gate A: Open to 1 increment at 2100<br>• Gate D: Open to 1 increment at 2115<br>• 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.<br>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 (~ EL 65.00 ??).   | 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      |
|      | 8:05 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<br>• Close Gate 4 from 3.0 metres to 2.5 metres at 20:45 on 18/01/2011<br>• Close Gate 2 from 3.0 metres to 2.5 metres at 21:15 on 18/01/2011   | Directive        | NGA      |
|      | 8:55 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      |

| DATE                 | TIME     | ACTION   | CATEGORY       | INITIALS |
|----------------------|----------|--|----------------|----------|
|                      | 8:15 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 contact 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<br>• Close Gate 5 from 2.5 metres to 2.0 metres at 22:00 on 18/01/2011<br>• 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 targeted 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 cessation 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<br>• Gate C: Open to 2 increments at 2230 - Tuesday 18/1/2011<br>• Gate E: Open to 2 increments at 2245<br>• Gate A: Open to 2 increments at 2300<br>• Gate D: Open to 2 increments at 2315<br>• Gate B: Open to 2 increments at 2330  | Directive      | NGA      |
|                      | 10:40 PM | Wivenhoe directive no.60 emailed to dam operators<br>• Close Gate 5 from 2.0 metres to 1.5 metres at 23:00 on 18/01/2011<br>• Close Gate 1 from 2.0 metres to 1.5 metres at 23:30 on 18/01/2011<br>• Close Gate 3 from 4.5 metres to 4.0 metres at 00:00 on 19/01/2011<br>• Close Gate 4 from 2.5 metres to 2.0 metres at 00:30 on 19/01/2011<br>• Close Gate 2 from 2.5 metres to 2.0 metres at 01:00 on 19/01/2011<br>• Close Gate 5 from 1.5 metres to 1.0 metres at 01:30 on 19/01/2011<br>• Close Gate 1 from 1.5 metres to 1.0 metres at 02:00 on 19/01/2011<br>• Close Gate 4 from 2.0 metres to 1.5 metres at 02:30 on 19/01/2011<br>• Close Gate 2 from 2.0 metres to 1.5 metres at 03:00 on 19/01/2011<br>• Close Gate 5 from 1.0 metres to 0.5 metres at 03:30 on 19/01/2011<br>• Close Gate 1 from 1.0 metres to 0.5 metres at 04:00 on 19/01/2011<br>• Close Gate 4 from 1.5 metres to 1.0 metres at 04:30 on 19/01/2011<br>• 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<br>• Gate B: Close to 1 increment at 0245 - Wednesday 19/1/2011<br>• Gate D: Close to 1 increment at 0300<br>• Gate A: Close to 1 increment at 0315<br>• Gate E: Close to 1 increment at 0330<br>• Gate C: Close to 1 increment at 0345<br>• Gate B: Fully Close at 0400<br>• Gate D: Fully Close at 0415<br>• Gate A: Fully Close at 0430<br>• Gate E: Fully Close at 0445<br>• 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 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      |
|                      | 5:25 AM  | Wivenhoe directive no.61 emailed to dam operators<br>• Close Gate 5 from 0.5 metres to fully closed at 5:30 on 19/01/2011<br>• Close Gate 1 from 0.5 metres to fully closed at 6:00 on 19/01/2011<br>• Close Gate 4 from 1.0 metres to 0.5 metres at 6:30 on 19/01/2011<br>• Close Gate 2 from 1.0 metres to 0.5 metres at 7:00 on 19/01/2011  | Directive      | 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       |
|                      | 8:20 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) 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       |

[illegible]