

QFCI

Date:

11/2/12

Exhibit Number:

1141

QUEENS AND FLOODS COMMISSION OF INQUIRY

On Tuesday, 7 February 2012, at 11.00am

[REDACTED], 400 George Street, Brisbane QLD

Conducted by: Ms Kerri Mellifont SC and
Mr Julian Ensbey

Also present: Ms Katherine Hayes,
Allens Arthur Robinson

Private interview of Chloe De Marchi

1 MS MELLIFONT: It is 7 February 2012 at 11.00am. My name
2 is Kerri Mellifont. I am a barrister with the Inquiry.
3 This is Julian Ensbey, who is a solicitor with the Inquiry.
4 Just for the record, if I could get you both to state your
5 names.

6
7 MS DE MARCHI: Sure. I am Chloe de Marchi, previously
8 known as Chloe Cross.

9
10 MS HAYES: Katherine Hayes, Allens Arthur Robinson.

11
12 MS MELLIFONT: Thanks for coming along. You have been
13 formally required to attend under a notice issued by the
14 Commissioner on 4 February 2012. I will tender that
15 requirement as Exhibit CDM1.

16
17 **EXHIBIT #CDM1 NOTICE OF REQUIREMENT TO ATTEND FOR CHLOE**
18 **DE MARCHI, DATED 4/2/12**
19

20 MS MELLIFONT: What that means is that, although we are not
21 in a court, so it is not that sort of formal environment,
22 you are here as required by a statutory notice, so you are
23 required to answer questions unless you have a reasonable
24 excuse for not doing so. If at any stage you need to have
25 a break, whether it is just that you want to have a break,
26 need to go to the ladies or want to talk with your
27 solicitor, that is no problem at all; just ask for a break.

28
29 This transcript will be typed up and it might form
30 part of the open evidence available, so it may be actually
31 tendered as part of the proceedings in the formal hearing
32 which you are no doubt aware is going on and may become
33 available on the internet.

34
35 MS DE MARCHI: Okay.

36
37 MS MELLIFONT: Obviously your obligation here is to answer
38 the questions and tell the truth. If you don't know
39 something, please just say so

40
41 MS DE MARCHI: Yep.

42
43 MS MELLIFONT: If you are not sure of something, tell me
44 you are not sure. If you don't understand a question that
45 Mr Ensbey or I ask, just ask for clarification, on
46 anything.
47

1 MS DE MARCHI: Okay.

2

3 MS MELLIFONT: Because what is really important for us is
4 that any answers you give us are meaningful, in the sense
5 that you understand what we are asking and we understand
6 what you are telling us in response.

7

8 MS DE MARCHI: Okay.

9

10 MS MELLIFONT: We are going to show you some documents as
11 we go along. In essence, the purpose of today is for us to
12 get an understanding of the process and the chain of
13 documents which led to the 2 March 2011 report. When I say
14 "the 2 March 2011 report", what do you understand that
15 document to be?

16

17 MS DE MARCHI: That's the first final flood event report.

18

19 MS MELLIFONT: Yes. So we want to understand that and we
20 want to get an understanding of what material was given to
21 the reviewers and how that came to be and the interaction.
22 So, we will be covering questions from the period from
23 about January through to March 2011 and just showing you
24 some documents as we go along. We will show you those
25 documents as we go along and we will tender them so we have
26 a proper record

27

28 MS HAYES: Yes.

29

30 MS MELLIFONT: One of the documents we will show you is an
31 electronic document. We have a hard copy printout but,
32 when this is finished, we will make a CD copy of it --

33

34 MS DE MARCHI: Right.

35

36 MS MELLIFONT: -- and it will become a formal exhibit in
37 the interview

38

39 MS HAYES: Thank you.

40

41 MS MELLIFONT: If you do get cold, there are spare jackets
42 in the office so I can grab you one.

43

44 MS DE MARCHI: That's fine.

45

46 MS MELLIFONT: Because this is a really cold room. We
47 don't want freezing you to be an interrogation technique.

1 <CHLOE DE MARCHI, interviewed:

2

3 MS MELLIFONT: Q. Shall I call you Ms De Marchi, Ms Cross

4 --

5 A. Oh, Chloe is fine.

6

7 Q. Chloe?

8 A. Yeah.

9

10 Q. Okay. We're Kerri and Julian, in that case.

11 A. Mmm-hmm.

12

13 Q. Where are you working now?

14 A. Seqwater still, yes.

15

16 Q. What is your job there?

17 A. At the moment, incident management officer.

18

19 Q. What is that?

20 A. Pretty much any incident that occurs within the
21 company - it could be at a water treatment plant or first
22 aid, or something - it will get reported and we will just
23 manage that and how it's handled and debrief it as well,
24 just so we can grab some learnings from it.

25

26 Q. Where are you physically located when you do your job?

27 A. Market Street.

28

29 Q. Who are your supervisors at the moment?

30 A. David Roberts. So this is my new position. Last year
31 I was in a totally different position.

32

33 Q. How long have you been in this position for?

34 A. Since 5 December last year.

35

36 Q. It goes you, then David Roberts and then how far up
37 the chain before we get to, say, the chief executive?

38 A. So David Roberts, Rob Drury, Jim Pruss, Peter Borrows.

39

40 Q. Your job last year?

41 A. Dam safety and emergency response support officer.
42 It's a long title.

43

44 Q. It is.

45 A. Pretty much, I reported straight to John Tibaldi.

46

47 Q. Can you tell me what that role was?

1 A. With the dam safety team, I would assist hydrologists,
2 the engineers within there, just with any admin sort of
3 duties.
4
5 Q. Right.
6 A. Also mainly directed towards John. I wouldn't really
7 say a personal assistant but similar, I suppose. Just
8 mainly working for him.
9
10 Q. Would you describe your role last year as being an
11 administrative --
12 A. Yeah.
13
14 Q. -- assistant type job?
15 A. Yeah, yeah. Just with a fancy title, pretty much,
16 yeah.
17
18 Q. How long had you been in that title?
19 A. August --
20
21 Q. In that position?
22 A. Yeah. August 2008.
23
24 Q. And before then?
25 A. Before then, I worked at Queensland Education.
26
27 Q. Do you have any formal education qualifications?
28 A. I am nearly finished a degree but before that I have a
29 Certificate III in Business, so, yeah, that.
30
31 Q. That would have been a TAFE qualification you had?
32 A. Yes.
33
34 Q. When did you finish that?
35 A. Oh, 2006 I think it was, yeah. A while ago.
36
37 Q. What are you almost done now?
38 A. Business communication with Griffith Uni.
39
40 Q. Oh, good on you. Where were you physically located
41 when you were doing your job last year?
42 A. Karalee office. However, during that period I was
43 working from the flood centre on Turbot Street.
44
45 Q. Now, I'm not sure that I have a sense of the Flood
46 Operations Centre, so can you just describe it to me?
47 A. Yeah.

1
2 Q. The physical aspects of it?
3 A. Oh okay, sure. It was - last year during that time,
4 within the Sunwater building we just had a room dedicated
5 to the Floods Ops Centre, which has now changed but that's
6 what it was back then.
7
8 Q. You said before that you would do things by way of
9 assisting hydrologists and engineers.
10 A. Mmm.
11
12 Q. Just a couple of examples, so I can get a sense of the
13 job --
14 A. Yeah, sure.
15
16 Q. -- you were doing?
17 A. So, for example, for a hydrologist, they may have an
18 Excel spreadsheet full of a data; I would graph flows and
19 things like that, like a hydrograph. For the engineers I
20 would assist with the dam safety conditions, which is a
21 list of when documents need to be reviewed and written -
22 oh, sorry - and just, yeah, things around pretty much just
23 the conditions with DERM, so just making sure we comply
24 with everything that's listed in those documents for each
25 dam.
26
27 Q. A bit of quality control; is that probably --
28 A. Oh, I suppose you could look at it like that. It also
29 included aspects like historical documents for the dams,
30 construction works, design, drawings; just anything for the
31 dams. Documentation, yeah.
32
33 Q. You were sort of a navigator, if I could put it that
34 way, in the sense of there might be some documents and
35 procedures in place which required bring-ups for --
36 A. Yeah, a review.
37
38 Q. -- reviews?
39 A. So, yeah. For example, annual inspections for each
40 dam, I would have to make sure that they were due by the
41 review date and submitted to the dam safety regulator; data
42 books as well, they had to be reviewed by a certain time.
43 That's just a collation of all the design materials per
44 dam. Yeah, there's a huge group of documents surrounding
45 that.
46
47 Q. I'm sure I will get a better sense of what your job

1 was as we go along.

2 A. Yes.

3

4 Q. So feel free at any point, if I am asking you a
5 question, to say "This was part of my job" --

6 A. Yeah.

7

8 Q. -- so I can, sort of, put the jigsaw together for
9 myself.

10 A. Okay.

11

12 Q. Thanks. Back then, who were you reporting to?

13 A. John Tibaldi.

14

15 Q. Was he your formal supervisor or was he the person you
16 just tended to have a lot - the most communication with?

17 A. Formal, yes.

18

19 Q. What about the other flood engineers, what was your
20 interaction with them?

21 A. Not too much at all. I only first met John Ruffini
22 and Rob Ayre when I first went to the Flood Operations
23 Centre during that time, so that was the first time I had
24 ever met them.

25

26 Q. Okay.

27 A. Terry Malone I had met before because he is a
28 hydrologist for us, so I would do work for him now and
29 then.

30

31 Q. What sort of work for him would you do?

32 A. So, like, the hydrographs or just any - like, they've
33 got flood studies, so sometimes he would need to find a
34 particular document and I would find it for him and just,
35 yeah, little things like that.

36

37 Q. When you talk about hydrographs, you were plotting
38 things onto documents or --

39 A. So I would just get the data and create a graph.
40 Because there were - there could be hundreds of them, he
41 just didn't have the time to do it, so it was pretty basic.

42

43 Q. What do you know of the interaction between the four
44 flood engineers?

45 A. Not too much. I learnt, during my time working at the
46 Turbot Street building, a little bit about their
47 relationship but not too much because they weren't always

1 together in the one room.

2

3 Q. Right.

4 A. So, yeah, I don't know too much, but I do know John
5 and Terry work really well together because they were the
6 main two that were in the room with me.

7

8 Q. You are talking about in the room with you during the
9 January '11 --

10 A. Yeah.

11

12 Q. -- flood event?

13 A. No, not during the event. After.

14

15 Q. After. After the event?

16 A. I wasn't actually there.

17

18 Q. Sorry. Of course.

19 A. Yeah.

20

21 Q. Yeah.

22 A. Yeah.

23

24 Q. When you say that they worked really well together,
25 can you just give me a bit of an understanding of that?

26 A. Yeah. Oh, they would just think out loud when
27 writing, just discuss things and make sure that they've got
28 things right, so that - they didn't keep to themselves;
29 they were always, yeah, making sure they were on the same
30 page.

31

32 Q. Now, you know what I talk about when I talk about a
33 flood event log?

34 A. Yes.

35

36 Q. During the actual January '11 event, did you have any
37 role in keeping that flood event log?

38 A. No.

39

40 Q. No. When did you first have a role at all with respect
41 to the flood event log?

42 A. That would be during the write-up of the report. I
43 helped build the appendices. I can't remember which
44 appendix it was, sorry, but John needed help in formatting
45 it to go into the report, so I just went along and did
46 that. So that was the first time.

47

1 Q. He needed help formatting the flood event log?

2 A. Yes.

3

4 MR ENSBEY: Q. Do you have a sense of when, approximately,
5 that might have been, whether it was January or February?

6 A. I would guess it was beginning of February but I'm not
7 entirely sure. I'm not entirely sure.

8

9 MS MELLIFONT: Q. We will just step back a little bit. In
10 terms of the January '11 flood event, what was your first
11 involvement?

12 A. The very first was - I think it was the Sunday after
13 the 11th. I just remember the 11th, Tuesday, so it was the
14 Sunday after that.

15

16 Q. After 11 January?

17 A. Yes, yes. So whatever that date is. Sorry, I can't
18 remember.

19

20 Q. That's all right.

21 A. I received a phone call late Saturday night from John,
22 just seeing if I could come in to Margaret Street the next
23 day to help with a brief for the Minister. So that was the
24 first thing I ever did.

25

26 Q. Did he tell you anything else at that point in time?

27 A. No, no. I just turned up Sunday and then there was a
28 meeting and then we worked on writing up that brief.

29

30 Q. Well, let's talk about that. You turned up for a
31 meeting. Where was that?

32 A. Margaret Street at our Seqwater building.

33

34 Q. Who was present?

35 A. I don't remember everyone but Peter Borrows, Jim
36 Pruss, Paul Bird, comms team, Rob Drury, John Tibaldi and
37 myself. They're the main people. There may have been
38 others but I just - yeah, I can't really remember.

39

40 Q. What was your role during that meeting?

41 A. In the meeting I didn't have any input, I just sat by,
42 and then when we left the meeting, I think Rob Drury, Jim
43 Pruss and John were together, writing the brief. Oh, there
44 may have been other - oh, Paul Bird, probably, with the
45 comms aspect. And then they --

46

47 Q. Just fill me in. What do you mean by "Paul Bird"

1 "with the comms aspect"?
2 A. Probably just making sure that it's written in the
3 right way for the Minister. Yeah. I'm not entirely sure.
4
5 Q. Grammar and style of language --
6 A. Yes, yeah
7
8 Q. -- is that what you mean?
9 A. Yeah, and formatting of the document because, from
10 memory, I think the guys were just typing in a Word
11 document, then he would go over it and then I would pull
12 the pieces together and pop it into one document for the
13 brief.
14
15 Q. Just sticking with the actual meeting, how long do you
16 think it went for?
17 A. Oh, maybe an hour. It wouldn't have been longer than
18 an hour.
19
20 Q. Do you remember anything that was discussed during the
21 meeting?
22 A. Oh, no. Yeah, no details.
23
24 Q. Just your general recollection of what the meeting was
25 about, are you able to assist with that?
26 A. Yeah. Just surrounding information to be passed on to
27 the Minister about the current status of Seqwater and the
28 Flood Ops Centre. Yeah, I don't exactly remember what it
29 was mainly surrounding, yeah.
30
31 Q. Do you have a recollection of whether its focus was on
32 the current status, as you have just indicated, or whether
33 it was on a report as to what had happened in the previous
34 days?
35 A. Oh, yeah, it definitely would - it definitely would
36 include that.
37
38 Q. The previous days' discussions?
39 A. Yes, yes. Oh, definitely. Just probably how Wivenhoe
40 was working, or something. I remember seeing a graph, like
41 a hydrograph.
42
43 Q. Do you remember who showed that?
44 A. I'd say it would be Terry because that was his area.
45 Yeah, I'm not - I wouldn't a hundred percent know, though.
46 Yeah.
47

1 Q. Who was conducting that meeting? Who was the Chair,
2 even if --
3 A. Peter Borrows, I'm pretty sure he - yeah. He was
4 doing most of the directing from people, yeah.
5
6 Q. You said that people, sort of, worked on different
7 things in documents --
8 A. Mmm.
9
10 Q. -- and you brought it all together?
11 A. Mmm.
12
13 Q. Was that at that meeting or was that later?
14 A. No, that was after. So after the meeting we went back
15 up to the office and just started it all there, that same
16 day.
17
18 Q. Do you recall at the meeting, so at the end it would
19 have been, "You go off and do this" and "You go off and do
20 that"? Was there something like that?
21 A. Yeah, yeah.
22
23 Q. Do you have a recollection of what the various people
24 were told to go off and do?
25 A. Oh, no, no.
26
27 Q. You left the meeting?
28 A. Mmm.
29
30 MS MELLIFONT: Do you have anything else on the meeting
31 itself?
32
33 MR ENSBEY: Not on the meeting, no.
34
35 MS MELLIFONT: Q. Moving off from the meeting, then what
36 happened after that?
37 A. So we went back to our office. I worked on some other
38 stuff, I think, just my usual work until they were ready to
39 pass on work to me. Yeah, I - not a lot else happened,
40 just a collation of the report - the brief, sorry.
41
42 Q. For the Minister?
43 A. Yeah, yes, yeah.
44
45 Q. Tell me how that happened, the collation of the report
46 for the Minister?
47 A. Yeah. So, like I said before, they went to their -

1 John was in a separate room because of the computers, the
2 way they're set up, and Rob was in another room. I can't
3 remember exactly. I just remember they were writing; it
4 would've taken probably a couple of hours in all; pass on
5 to me, collate into the brief and then probably sent off to
6 Paul Bird to check as well and then from there, I've got no
7 idea. I went home, so yeah.

8

9 Q. When it came to you, you were sort of just piecing it
10 together into --

11 A. Yeah. So --

12

13 Q. -- one Word document?

14 A. Yeah. I don't know if it was changed but when I was
15 working on it, it was all in the one, so just with
16 different headings and I think there was a table of
17 contents, just with the - oh, that's right. The Minister
18 had questions and we were addressing those questions, so
19 the table of contents was headed as those questions.

20

21 Q. Was there a formal list of questions or there just -
22 there was an oral kind of briefing from the Minister down?

23 A. I don't know if it was formal.

24

25 Q. Yes?

26 A. I was just presented with just a list of questions.
27 I'm not sure where it came from.

28

29 Q. Do you know who presented that to you?

30 A. No, I don't remember.

31

32 Q. I just want to show you this document, which is an
33 email coming from you at 4.22pm that Sunday, by the looks
34 of things?

35 A. Mmm-hmm.

36

37 MS MELLIFONT: Just have a look at it so you can orient
38 yourself.

39

40 MS HAYES: Is that mine to keep or do you need that back?

41

42 MR ENSBEY: No, that's yours.

43

44 MS HAYES: Thank you.

45

46 THE INTERVIEWEE: Oh, yes. That's that. Yeah, they're
47 those questions.

1
2 MS MELLIFONT: Q. Well, do you recall now sending this
3 email?
4 A. No, actually I don't remember sending that. Yeah,
5 sorry.
6
7 Q. But now that you have seen it, does it look like
8 something you have sent?
9 A. Oh, yes, yes, yeah.
10
11 Q. Well, let's just have a look at it. You will see on
12 the front page, "Please find briefing and report
13 attached.", and so you're sending it to Peter Borrows?
14 A. Mmm-hmm.
15
16 Q. "Adjusted for Peter Allen's comments." Do you
17 remember what those words were directed to, "Adjusted for
18 Peter Allen's comments."?
19 A. No.
20
21 Q. Do you know who Peter Allen was?
22 A. Peter Allen, yes. He's dam safety regulator, DERM.
23
24 Q. Do you know whether Peter Allen had a role in this
25 document before you sent it out at 4.22?
26 A. Oh, I've got no idea, sorry. I've only just - yeah, I
27 totally even forgot he was involved in it 'til seeing his
28 name now.
29
30 Q. That's all right. Just --
31 A. Yeah.
32
33 Q. -- having a think about it, do you know whether - can
34 you have a recollection --
35 A. So, before?
36
37 Q. Well, do you have a recollection of him being there at
38 the meeting in the morning?
39 A. No, I'm pretty sure he wasn't. Oh well - yeah, I
40 probably would've remembered him being there. Yeah, like -
41 yeah, I can't a hundred percent remember, though, but I
42 just - at the moment, I can't remember him being there.
43
44 Q. I will just get you to think about those words,
45 "Adjusted for Peter Allen's comments.", and if something
46 comes to you about what you think they mean, we'll just
47 come back to it. But let's have a look at the actual

1 document itself. You will see that on the first page there
2 is a list of headings and subheadings. The subheadings
3 contain questions.
4 A. Mmm.
5
6 Q. Is that the list of questions you were --
7 A. Yeah, yeah. That --
8
9 Q. -- talking about before?
10 A. Yeah, that would've been them.
11
12 Q. Then you will see - I won't take you through any of
13 the detail in it, but you will see, just flicking through,
14 that there's parts under each heading and subheading?
15 A. Yeah.
16
17 Q. Some tables, and then just after page 14 is what looks
18 like a heading page, "Seqwater, Water For Life, January
19 2011 Flood Event"?
20 A. Yeah.
21
22 Q. Then a table of contents, and then roughly 13 pages,
23 plus some appendices?
24 A. Mmm.
25
26 Q. What I want to do, Chloe, is just to go through this
27 document a little bit --
28 A. Sure.
29
30 Q. -- to get a sense of how each part came to be, so far
31 as you can recall.
32 A. Okay.
33
34 Q. And if you can recall who was responsible for drafting
35 its various bits?
36 A. Oh, is this the back one?
37
38 Q. Yeah. We'll start at the --
39 A. At --
40
41 Q. We'll start at the beginning.
42 A. Okay.
43
44 Q. Because I probably need to get a sense of - you know,
45 it looks like there's, sort of, two documents here.
46 A. Mmm.
47

1 Q. One looks like it's a draft report, the January '11
2 one, and that's the one in the latter half, and then you've
3 got the ministerial briefing note at the beginning.

4
5 MR ENSBEY: Yeah. I think, to be clear, it may be that
6 they are two documents, in that I think there are two
7 attachments to the email on the front.

8
9 MS MELLIFONT: Yes. Thank you

10
11 THE INTERVIEWEE: Oh, yeah.

12
13 MS MELLIFONT: Q. We will start on the ministerial
14 briefing note, which is the first document. I think I've
15 got this clear but let me know if I've got it wrong.

16 A. Mmm-hmm.

17
18 Q. This is the document you were talking about before
19 that people had prepared some bits --

20 A. Mmm-hmm.

21
22 Q. -- in the couple of hours that they had back at the
23 office, sent it to you and you compiled?

24 A. Mmm-hmm.

25
26 Q. Is that correct?

27 A. Yes, yeah.

28
29 Q. Do you recall whether you changed content at all?

30 A. Oh, no. If I picked up, say, Wivenhoe was spelt wrong
31 or there's some spelling mistake, I would fix that
32 obviously, yeah.

33
34 Q. But in terms of any technical content --

35 A. No.

36
37 Q. -- you wouldn't have touched that?

38 A. No. I didn't have the knowledge to anyway, so --

39
40 Q. Sure. What I might do then is just go through each of
41 the headings and see if you have a recollection of who you
42 think was responsible --

43 A. Oh, right.

44
45 Q. -- for preparing the draft or preparing the bits which
46 came to you.

47 A. Mmm-hmm.

1
2 Q. Obviously, tell me if you can't recall or --
3 A. Mmm-hmm.
4
5 Q. -- if you're not sure. That first heading is
6 "Background Information on Wivenhoe Dam".
7 A. Mmm.
8
9 Q. Do you know who that would have come from?
10 A. It looks similar to what we write at the beginning of
11 an annual inspection, so it may have been extracted from an
12 annual inspection, the latest one, because usually
13 background information won't really change.
14
15 Q. Sure. Would you have been asked to do that or
16 somebody would have just given that to you?
17 A. I would say I probably would've done that. Again, not
18 a hundred percent sure, but that's what it's looking like.
19
20 Q. Moving over then to 2, "Wivenhoe Dam flood mitigation
21 and flood operations"; 2.1, "What were the benefits
22 provided by Wivenhoe Dam during the current event?"
23 A. Going by the content, I would assume Terry Malone but
24 I'm not --
25
26 Q. Not sure?
27 A. I'm not a hundred percent sure.
28
29 Q. Are you assuming Terry Malone because that seemed to
30 be his sort of area of work?
31 A. Yes, yes.
32
33 Q. Can I ask you, when you received the bits and pieces
34 from various people, would that have been by email or disc
35 or--
36 A. I'm pretty sure it would've been electronically
37 somehow. I do not remember how. I would say it would be
38 email. That would be the most effective way.
39
40 Q. Yeah?
41 A. Yeah.
42
43 Q. You don't have any sort of recollection that email was
44 down in the office that day, that people --
45 A. Yeah. Well, that's --
46
47 Q. -- were bringing you in discs or anything?

1 A. That's what I was trying to remember. It could've
2 been because I know it was - there was a time period where
3 it did go out. Whether it was that day I'm not - yeah, I
4 don't remember.
5
6 Q. In terms of your own emails that you keep at work, do
7 you go through and delete or do --
8 A. Yes.
9
10 Q. -- they get archived?
11 A. I delete any, like, personal emails that I may send
12 around.
13
14 Q. Yeah.
15 A. But anything that I think is important, I'll keep.
16
17 Q. Yeah.
18 A. However, everything can be extracted by our IT team
19 anyway.
20
21 Q. Oh, okay.
22 A. So if you delete it, it's not actually deleted, it
23 just cleans your inbox.
24
25 Q. Would you expect then that if you did receive the bits
26 and pieces --
27 A. Yeah, it --
28
29 Q. -- by email, it should still be there somewhere?
30 A. And - yeah, and if it's not there then I'm assuming
31 then maybe it was down, because I have given everything
32 over --
33
34 Q. Yeah.
35 A. -- yeah, from that time period.
36
37 MS MELLIFONT: No worries. Do you have any questions about
38 that?
39
40 MR ENSBEY: Q. When the email system was down, did you
41 ever exchange emails using personal email addresses?
42 A. Not myself, no, no.
43
44 MS MELLIFONT: Q. We will go on to 2.2 which is on page 5:
45 "Why was Wivenhoe Dam only allowed to rise up to 191
46 percent and not 230 percent?"
47 A. I don't know, sorry. I don't know who that would have

1 been.

2

3 Q. No problem. 2.3, "What is the role of the erodible
4 fuse plug embankments?"

5 A. I'm guessing maybe John.

6

7 Q. Why would you guess that?

8 A. Well, because he's the dam safety engineer, so that's
9 surrounding the dam itself, and I know Barton Maher is -
10 he's the expert on the fuse plugs, so - I don't know -
11 maybe he gave John some info, but I'm not too sure.

12

13 MR ENSBEY: Q. When you say "John", do you mean John
14 Tibaldi?

15 A. Yes, yeah.

16

17 MS MELLIFONT: Q. 2.4, "Why weren't pre-emptive releases
18 undertaken prior to the start of the flood event?"

19 A. I don't know, sorry.

20

21 Q. That's all right. Next page over, the heading is 2.5,
22 "Is there a detailed record of the events associated with
23 the current flood?", and it just says, "A preliminary
24 report has been prepared and is attached to this briefing."

25 A. Oh, okay.

26

27 Q. Do you recall that being the second document we've got
28 attached here, the draft report?

29 A. Yeah, it would be relating to that one, yes. That
30 would be it, yeah.

31

32 Q. Moving on, number 3, "The Manual of Flood Mitigation
33 at Wivenhoe Dam and Somerset Dam."; 3.1, "What is the
34 Manual of Flood Mitigation and how was it developed?"

35 A. That would be John.

36

37 Q. Tibaldi?

38 A. Yeah, yeah. John Tibaldi, yeah.

39

40 Q. You say that because it was his area?

41 A. Yes, yes, yeah.

42

43 Q. Tell me if there's some other reason, as we go along.
44 I don't want to put words in your mouth at all, okay?

45 A. Okay.

46

47 Q. Yeah. 3.2, "What is contained in the Manual?"

1 A. That would be John.
2
3 Q. Same reason?
4 A. Yes, yeah.
5
6 Q. 4, "Regulatory context". Now, we've got here
7 "(Provided by Peter Allen and unedited)."
8 A. Oh, maybe that's why we've got attachment - maybe the
9 red writing is referring to this front bit here.
10
11 Q. The "front bit" where you say --
12 A. "Adjusted for Peter Allen's comments." Perhaps, yeah,
13 that might be what we're referring to there.
14
15 Q. But you don't have a precise --
16 A. No.
17
18 Q. -- recollection of it?
19 A. No.
20
21 Q. Apart from the red writing, do you know who would have
22 - who wrote the regulatory context section?
23 A. Well, I'm assuming Peter Allen, if it's been provided
24 by him. That's what I would take that as.
25
26 Q. Entirely?
27 A. Yeah.
28
29 Q. Not as some sort of joint work between --
30 A. Well --
31
32 Q. -- somebody else and Peter? You just don't know?
33 A. Yeah, I don't know. I just don't know.
34
35 Q. You will see then there's a heading number 5,
36 "Compliance with the Manual (To be provided)." Do you
37 recall any discussion around that on that day?
38 A. No.
39
40 Q. Do you recall any discussion that day at all about
41 whether there had been compliance with the manual?
42 A. Oh, I don't remember but I'm assuming they would. I
43 mean, it's to do with the situation, but I don't know.
44
45 Q. Probably just - I should specifically ask you do you
46 have any recollection of discussion around choice of
47 strategy during the January '11 event?

1 A. No. It probably wouldn't have stood out to me because
2 back then I had no idea what Ws meant, so it probably
3 wasn't something I was really listening for.

4
5 Q. Sure.

6 A. Yeah.

7
8 Q. I suppose, if you had been there since, what, January
9 - sorry. Since '07, did you say?

10 A. '08.

11
12 Q. '08. You wouldn't have been there in a time of
13 floods?

14 A. No. Well, I was never a flood officer during any
15 time, so I'd never actually stepped into that area. So,
16 yeah, I've got no knowledge back then.

17
18 MR ENSBEY: Q. Were you involved in preparing any flood
19 event reports for earlier floods?

20 A. No, no, never.

21
22 MS MELLIFONT: Q. Number 1, the Seqwater report.

23 A. I don't a hundred percent know. I would assume maybe
24 Rob Drury because, you know, he directs things, but I don't
25 know.

26
27 Q. That's fine.

28 A. Yeah.

29
30 Q. Then we've got the Draft Seqwater January 2011 Flood
31 Event report, so we'll go through that as well. Do you
32 recall whether you compiled this particular document on
33 that day?

34 A. I think perhaps I would have, yeah. It - I'm not sure
35 if the guys would have formatted it quite like this. This
36 is my formatting, like the headings I use, the
37 header/footer I use, yeah.

38
39 Q. Again, from pieces given to you by others or a
40 document all together that you just went over and
41 formatted?

42 A. It looks quite similar to some parts in there
43 (indicating). So this would've been from Tibaldi and
44 Malone, I'm guessing, because Rob Drury or anyone else
45 didn't have direct involvement, like, in the flood room and
46 from my knowledge, it would be one of the engineers who
47 would compile a flood event report. So - but with the

1 Introduction, again, some of this information is how we
2 write in an annual inspection, so it's probably just your
3 standard information about the dam, so I probably would
4 have compiled that part.

5

6 Q. I'm just not sure whether I understand at the moment
7 whether your belief is that you compiled this from pieces
8 from various people or whether you believe that you were
9 given this document as a whole and then you just went and
10 did a format over the top?

11 A. Yeah. I don't - I don't remember because, like I
12 said, I just - I've only just remembered it now.
13 Originally, I thought it was just the brief that we did.

14

15 Q. It's okay if you don't remember.

16 A. Yeah.

17

18 Q. If you do remember, I just need to get an
19 understanding in my own head as to what you were doing.

20 A. Yeah, yeah. I'm not too sure actually. Yeah.

21

22 Q. The Introduction looks like it's, sort of, a cut and
23 paste from annual reports, type things, together with some
24 additional information, and the additional information you
25 would expect probably would have come from?

26 A. About the dam itself?

27

28 Q. Yeah?

29 A. Probably John. He knows all the bits and pieces about
30 Wivenhoe.

31

32 Q. Heading to, "Wivenhoe Dam flood mitigation and flood
33 operations"; 2.1 "Flood Mitigation", any idea who that came
34 from?

35 A. Again, I would suggest Tibaldi.

36

37 Q. Because of the content?

38 A. Yeah, yeah.

39

40 Q. 2.2, "Flood Operations"?

41 A. It could either be John or Terry. I'm not - I'm not
42 a hundred percent.

43

44 Q. Why would you say it could be either of those?

45 A. Well, they both have knowledge around this. Probably
46 mostly Terry would know the forecasting systems but, again,
47 it could be either one. I'm just not sure.

1
2 Q. That's fine. Number 3, "Manual of flood mitigation
3 for Wivenhoe and Somerset Dams"?
4 A. I would suggest John Tibaldi.
5
6 Q. Because of the content?
7 A. Yeah, just because of the content.
8
9 Q. You will see on the second page there, which is
10 actually page 5, the four strategies are listed?
11 A. Mmm.
12
13 Q. I think before you said you don't have any
14 recollection of any discussion of --
15 A. No.
16
17 Q. -- of strategy?
18 A. No.
19
20 Q. Do you have any recollection of reviewing the
21 particular text on this on that day?
22 A. No.
23
24 Q. Number 4, "January 2011 Flood Event"; 4.1,
25 "Background"?
26 A. I'm just getting a tissue. Yep?
27
28 Q. Are you okay?
29 A. Yeah. I've just got a bit of a cold, sorry.
30
31 Q. Oh, okay.
32 A. I would assume John.
33
34 Q. Tibaldi?
35 A. Yes, John Tibaldi.
36
37 Q. Because of content or anything in particular?
38 A. It just seems like - a background on the flood event,
39 it just seems like something he would probably do.
40
41 Q. 4.2, "Event Decision Making"?
42 A. I'm not too sure, sorry.
43
44 Q. Then just flipping over to page 12, "Event Review"?
45 A. I'll say Tibaldi.
46
47 Q. Because?

1 A. Well, we're talking about compliance here and that's
2 something - again, in his team, dam safety condition is
3 something I would help with, so when he --
4
5 Q. Can you just - yeah?
6 A. What was that, sorry?
7
8 Q. Just explain that to me a bit more.
9 A. So when he's got here the "requirement that a report
10 must be prepared as per the wording" and then you've got
11 here - maybe it looks like something from the dam safety
12 conditions. The conditions are a document issued for each
13 dam that outline everything with the documents that need to
14 be done. If there's an emergency or an event, it tells you
15 how long you've got to write up a report on that. So I
16 would say Tibaldi.
17
18 Q. Is that the sort of thing that you would work with -
19 you had worked with Mr Tibaldi --
20 A. I wouldn't - I've never worked on a flood event report
21 before.
22
23 Q. No but, sorry, just in terms of the compliance with
24 the dam safety documents --
25 A. Yes, yes.
26
27 Q. -- that's the sort of thing that you would've had
28 interaction with Mr Tibaldi about in the past?
29 A. Yes.
30
31 MS MELLIFONT: Do you have any questions about that?
32
33 MR ENSBEY: Q. You have worked in preparing dam safety
34 reports on the annual basis?
35 A. Yeah, annual inspections.
36
37 Q. They're to be submitted to the dam safety regulator?
38 A. Yes.
39
40 Q. Would Mr Allen or someone else from the dam safety
41 regulator be involved in reviewing those in draft?
42 A. Yes. Well, we would, I think, mail in a hard copy or
43 email and if he had any comments on the report, he would
44 make those comments. As for editing or reviewing it to be
45 edited, no.
46
47 Q. That would be in draft and then a final version would

1 then be submitted to the dam safety regulator?
2 A. No. We would submit the final to him. There's a
3 section in there called Recommendations For a Dam and it
4 would list, you know, just actions for a dam in safety
5 aspects and he would comment on those recommendations.
6
7 MS MELLIFONT: Q. You were sending him a final report?
8 A. Yes.
9
10 Q. He would give you recommendations that would come back
11 to you?
12 A. Yes.
13
14 Q. Then you would?
15 A. That would go to another engineer, so I wouldn't
16 really see the response from that. It would go straight to
17 the engineer.
18
19 Q. Just moving then to the next couple of pages, it's got
20 a page saying "Appendix A"?
21 A. Mmm-hmm.
22
23 Q. Which appears to be a "Table of Contents". It's just
24 a little bit hard to follow this part, I think. You've got
25 one sheet saying "Appendix A" and then you've got three
26 pages which is a "Table of Contents" for the final report.
27 Do you have any recollection about what those documents
28 were?
29 A. No. No, I don't.
30
31 Q. Just turning back then to the ministerial briefing, as
32 you see, you've sent it out on 16 January 2011 at 4.22pm.
33 "Please find briefing and report attached." Do you know
34 what happened with it then?
35 A. So after the email --
36
37 Q. Yeah?
38 A. -- had been sent?
39
40 Q. Yeah?
41 A. What happened with the briefing note?
42
43 Q. Yes. I'm trying to understand what happened between
44 here and when it actually got to the Minister's office;
45 whether comments came back, whether they were incorporated,
46 whether there were further discussions or meetings?
47 A. I'm not too sure, actually. I think that day I may

1 have left between 5.00, 5.30, somewhere like that.

2

3 Q. Okay.

4 A. Yeah. It wasn't too late. Sorry, I don't remember
5 exactly.

6

7 Q. Okay.

8 A. Yeah.

9

10 Q. Is it consistent with your recollection that it didn't
11 come back to you before going to the Minister?

12 A. Yeah, I don't - I wouldn't have done anything with a
13 final and I definitely wouldn't have forwarded it to the
14 Minister, yeah.

15

16 Q. Do you know who did forward it to the Minister?

17 A. Oh, no idea, sorry. No idea, yeah.

18

19 Q. After this day and this time it went off to the
20 Minister, did you have anything further to do with the
21 ministerial briefing aspect?

22 A. No, no. That was the only one ever during that -
23 yeah, the whole report.

24

25 Q. Have you ever had to have a role in ministerial
26 briefings before?

27 A. No. That was the only time ever in working for
28 Seqwater, yeah.

29

30 MS MELLIFONT: Well then, what we might move on to - unless
31 Julian has got any further questions on this --

32

33 MR ENSBEY: No.

34

35 MS MELLIFONT: -- is how we went from this draft report to
36 the 2 March 2011 report.

37 A. Mmm-hmm.

38

39 Q. If you can take me through what you recall, what your
40 involvement was, and how it came to be from this document
41 to the document which was tendered?

42 A. Okay.

43

44 MS MELLIFONT: Actually, I should just tender that email of
45 16 January 2011, 4.22pm from Chloe Cross to Peter Borrows,
46 with cc's to Tibaldi, Drury, Bird and Foster as CDM2.

47

1 EXHIBIT #CDM2 EMAIL FROM CHLOE CROSS TO PETER BORROWS,
2 SENT 16/1/11 4.22PM, CC JOHN TIBALDI, ROB DRURY, PAUL BIRD,
3 MIKE FOSTER
4

5 MS MELLIFONT: Q. Let's talk about how - what happened
6 after that?

7 A. I think I continued with, you know, normal work until
8 I got the heads-up to come in to the flood centre to begin
9 work, and I didn't - I had no idea what was going on at
10 that stage until I arrived, obviously.
11

12 Q. When do you think you had to start work at the flood
13 centre?

14 A. Yeah, I was just trying to remember. I don't know. I
15 have - yeah, I cannot remember. Not remember a date,
16 sorry.
17

18 Q. No, that's fine. Let's try and peg it by reference to
19 events. This was a Sunday meeting, 16 January, and
20 obviously 2 March was when it went to the Minister?

21 A. Mmm.
22

23 Q. Do you have a sense of it being, sort of, towards the
24 January part or towards the end of February?

25 A. Oh --
26

27 Q. Was there any significant event you can peg it to?
28 Were you a Valentine's Day kind of person and it was before
29 or after that?

30 A. Okay. It wouldn't have been too much longer after
31 this.
32

33 Q. After 16 January?

34 A. I would say whenever John got the okay or the
35 direction to compile, like, an official document, he would
36 have then approached me to just have some basic admin
37 assistance with that.
38

39 Q. Do you recall who he got that directive from?

40 A. No.
41

42 Q. Do you know the purpose for which the report was being
43 prepared?

44 A. Well, I knew for any flood event that a report had to
45 be compiled. At that stage, I didn't know how it was
46 directed or - yeah, I didn't know details.
47

1 Q. Did anybody discuss with you that the report was being
2 prepared, say, for presentation to the Floods Commission?
3 Do you recall any discussion like that?
4 A. Yeah. I'm pretty sure I would've been told that it
5 was, you know, more than just a basic, usual report - like
6 this, you know. It was to be published. Yeah, I don't
7 have any more details than that, yeah.
8
9 Q. Do you remember whether the notion that it would be
10 published was in the context of the Flood Commission or
11 just in the context --
12 A. No.
13
14 Q. -- of it being a public document at large?
15 A. Well, I thought, yeah - yeah, I don't even remember.
16 Yeah, sorry.
17
18 Q. You're called in to do some work in the flood centre?
19 A. Mmm.
20
21 Q. And to assist with the report?
22 A. Yeah.
23
24 Q. Was that administrative assistance or something else?
25 A. Yeah, total administration.
26
27 Q. What did you do?
28 A. My role was to help build the appendices. Because
29 there were so many things to pop into each one, it was
30 quite time-consuming, so that was my role.
31
32 Q. Who gave you that role?
33 A. John Tibaldi.
34
35 Q. What were you told to do?
36 A. Well, as - like, right at the beginning we didn't know
37 exactly every single appendices, so we'd start with the
38 main ones - I don't remember the order - and then depending
39 on what the content was for that, he would give me
40 directions around where it was saved, you know, basic - if
41 he wanted a header, just things like that. It was very
42 basic stuff.
43
44 Q. Well, we'll take you through a couple, or at least one
45 specifically. Were you at any stage asked to leave
46 anything out of appendices?
47 A. No.

1
2 Q. You were asked to put together appendices. Was that
3 a, sort of, ongoing process as the report developed?
4 A. Yes, yes.
5
6 Q. Were you always taking your direction from John
7 Tibaldi about that?
8 A. Yes, unless there were - it was related to modelling.
9 There were a few graphs in there. Then I'd go to Terry and
10 he would show me where his documents were kept and which
11 ones to take out, so he would show me exactly what he
12 wanted.
13
14 Q. The modelling graphs would have come from Terry
15 Malone?
16 A. Yes, yes.
17
18 Q. Are you aware that the March report was sent to some
19 reviewers?
20 A. Yes.
21
22 Q. Do you remember who they were?
23 A. So they're Colin Apelt - sorry, I can't remember
24 exactly.
25
26 Q. That's all right.
27 A. Yeah. Brian Shannon.
28
29 Q. Yeah.
30 A. Oh, there's another one. There's four.
31
32 Q. Yeah, okay.
33 A. Sorry, I don't - yeah
34
35 Q. That's okay. I'll give you a couple of names and you
36 tell me whether they --
37 A. Mmm.
38
39 Q. Roads?
40 A. Oh, Greg Roads, yeah.
41
42 Q. That's all in my head. Who's the fourth?
43 A. The fourth was - I know he was interstate. Oh.
44
45 Q. That's all right. It'll come back to us all in a
46 minute.
47 A. There's an L in there somewhere.

1
2 Q. That's all right. It'll come back to us. Now, did
3 you have to put together material to go out to the experts
4 for them to review?
5 A. Yes. I remember printing and binding.
6
7 Q. Printing and binding?
8 A. Yes.
9
10 Q. Who told you to do that?
11 A. That would've been Tibaldi.
12
13 Q. What did he tell you to print?
14 A. The draft flood event report.
15
16 Q. The draft flood event report? So the thing that --
17 A. Not that one.
18
19 Q. Not the --
20 A. It would've been the one on its way to - the 2 March
21 one, yeah
22
23 Q. When you said "Not that one" - just for the record -
24 you're saying not the one that's attached to CDM2?
25 A. Mmm-hmm.
26
27 Q. When you talk about the one on the way to the March
28 report, how --
29 A. It's the draft of that final one.
30
31 Q. Were there multiple drafts prepared along the way?
32 A. I think there may have been two. Yeah, I wouldn't
33 exactly know how many. It was just an ongoing piece of
34 work.
35
36 Q. Who had control of the document itself? Let me
37 explain what I mean by that. Often when you have lots of
38 different authors having --
39 A. Yes.
40
41 Q. -- contributions to a particular document, you might
42 have somebody who is the grandmaster of the documents, so
43 you don't have control issues?
44 A. Yes.
45
46 Q. Was that you or was that John Tibaldi?
47 A. Oh, that would have been John, yeah.

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Q. In terms of subsequent drafts of the report, that would've been something that would've been on John's computer and he would've been changing and amending?

A. Yeah. It was all on the 'flood drive', so not on his personal drive, so we were all working from that 'flood drive'.

Q. But in terms of who was actually working in that document, was it just John Tibaldi or was it everyone?

A. I think there were particular sections relating to Terry's side of things and he would've been working on those sections.

Q. Right.

A. But mostly I just remember John.

Q. Did you go in and change this document at any stage?

A. The flood event report?

Q. Yes.

A. No. Initially I set up headings, just to have a structure. You know, he would say, "Oh, heading one this, heading two that", that sort of thing.

Q. But beyond that it was --

A. Yeah.

Q. It was John?

A. Content, yeah, I had no idea about the - yeah.

Q. You remember printing the draft flood event report.

A. Mmm-hmm.

Q. Was that the draft which John Tibaldi told you to print?

A. Yes.

Q. By that, I need to get a sense of what he was telling you. I don't want to assume that he's told you this - told you anything in particular.

A. Mmm.

Q. Did he say, "Print this document which is called this" or did he say "Go to the 'flood drive' and print out the latest version", or what?

A. A USB. It was a folder on a USB.

1
2 Q. What was a folder?
3 A. The folder is just the draft flood event report and
4 within that you've got - there were a number of sections.
5 So I would print each section and collate and bind.
6
7 Q. He gave you a USB and told you to print it from there?
8 A. Yes.
9
10 Q. Before, when you were talking about the flood - did
11 you call it the 'flood drive'? 'Flood'? Sorry --
12 A. Yeah, the 'flood drive'. I don't know what else to
13 call it, sorry.
14
15 Q. There was --
16 A. That's just how I refer to it.
17
18 Q. There was something on a server?
19 A. Yes, yes, yeah.
20
21 Q. That's the thing that people could have access to and
22 have a look at?
23 A. Yeah, yeah.
24
25 Q. But what was actually given to you to print was
26 something on a USB from John?
27 A. Yes. It was taken straight from the 'flood drive' and
28 popped on to the USB. I remember that.
29
30 Q. How do you know what was on the USB was exactly what
31 was on the drive?
32 A. I saw him transfer it. So I was in the flood centre
33 waiting.
34
35 Q. Yeah?
36 A. He had let me know, "Oh, later today I need you to go
37 down to Margaret Street and print this."
38
39 Q. Yeah?
40 A. And then when it nearly came the time, I was just
41 waiting there, so I saw him put it on there.
42
43 Q. It was a direct copy?
44 A. Yes.
45
46 Q. So then you printed things out?
47 A. Mmm-hmm.

1
2 MR ENSBEY: Q. Is that the share drive called NAS, do you
3 know?
4 A. Sorry, I don't remember the, yeah, technical names. I
5 just refer to it as the 'flood drive'. It's the - I think
6 it had the word "flood" in it. "Flood S"? "Flood" - oh, I
7 don't remember, sorry.
8
9 MS MELLIFONT: Q. You've got the USB, you've printed all
10 these things off, you've bound them?
11 A. Mmm-hmm.
12
13 Q. Put the spiral binder on, or something?
14 A. Yes, yeah, yeah.
15
16 Q. Then what?
17 A. From there, I think - I had to hire a car and I had
18 some addresses and then I hand delivered three of them
19 because one was interstate, yeah.
20
21 Q. Did you have any other contact with them apart from
22 delivering up the --
23 A. Apart from that? No, no, not myself.
24
25 MS MELLIFONT: Have we got the final March report here?
26
27 MR ENSBEY: We don't have a printed copy but we could bring
28 it up.
29
30 MS MELLIFONT: Bring it up electronically. Okay.
31
32 Q. We are just going to bring up "the March report", the
33 2 March report, just to show you a couple of entries on
34 there. In particular, I want to ask you what the process
35 was by which situation reports were added into the March
36 report, if you know that?
37 A. Mmm-hmm.
38
39 Q. Would it help you to see the March report to answer
40 that question?
41 A. Oh, no. That's fine.
42
43 Q. All right.
44 A. Yeah. So you want to know the process how they got
45 from one place into the appendices?
46
47 Q. Yes.

1 A. Yeah. So the - you're aware of the duty engineer
2 mailbox?

3
4 Q. Yes.

5 A. I would go into the mailbox and collate all of the
6 situation reports that were sent out, because back then it
7 was emailed; I would copy everything, paste straight into
8 the document I had created to be the appendix, and I would
9 give it a heading saying "Situation Report 1", date, time
10 and then there's a line and then I just pasted whatever was
11 in the email there and then I just continued that pattern.

12
13 Q. All the way through?

14 A. Yeah.

15
16 Q. In terms of undergoing that process, who told you to
17 do that?

18 A. John and Terry helped where he could. Like, if I
19 couldn't find how to access the mailbox or something, he
20 would just let me know where to go to find all this stuff.

21
22 Q. Was that a fairly lengthy task or did it not take very
23 long, in terms of finding it on the flood mailbox?

24 A. Oh, I found it quite easily once Terry showed me,
25 because before that I had no idea what the duty engineer
26 mailbox was. Creating the document itself, oh, it probably
27 would've been - just to make sure, you know, that I had
28 what I needed in there, all the headings were correct and
29 relating to the right one, yeah, just - it probably
30 would've been a bit time-consuming. There were hundreds, I
31 imagine. I don't know. There were quite a few.

32
33 Q. When you were searching across the mailbox, were you
34 searching just an Inbox or Deleted as well, Sent archives?

35 A. Well, they had nothing in Deleted, so it would have
36 been Sent and I also went into received, like the main
37 Inbox, just to make sure that I had everything in there.

38
39 Q. When you say there was nothing deleted, there was
40 nothing in the Deleted box?

41 A. No, no. I don't think they ever delete anything from
42 there. I don't know.

43
44 Q. One of the situation reports is missing from the March
45 report and that's a report of 8 January 2011 at 5.53. Do
46 you have any knowledge as to why that was missing from the
47 March report?

1 A. No.
2
3 Q. Does that time and date mean anything to you?
4 A. No.
5
6 Q. So I understand, you would have prepared this and put
7 it into the appendices?
8 A. Mmm-hmm.
9
10 Q. Did somebody then check your work to make sure you'd
11 got everything?
12 A. I was under the impression that John was checking
13 everything, just to make sure I had formatted, you know,
14 the headings right, the way he wanted it. It all came back
15 down to formatting, I think, and just making sure I didn't
16 do any stuff-ups.
17
18 Q. Sure. When you say you were under that impression
19 that he was checking things, what gave you that impression?
20 A. Oh, well, he said he would check things. I never
21 witnessed it, though, because I would always go off to my
22 computer and then continue working.
23
24 Q. Do you know of anybody else, including Mr Tibaldi, who
25 independently checked the content to make sure that nothing
26 was missed?
27 A. Anyone else?
28
29 Q. Or even Mr Tibaldi?
30 A. Oh, Terry Malone probably would have checked his side
31 of stuff, like the hydrographs, just to make sure that I
32 had put what he wanted in there.
33
34 Q. But specifically with respect to situation reports?
35 A. Oh, sit reps. Oh, sorry, I don't know.
36
37 MS MELLIFONT: Anything else on that before I move on?
38
39 MR ENSBEY: Not on the sit reps.
40
41 MS MELLIFONT: Q. I just want to move on to the technical
42 situation reports. Now, as I understand it, that's a
43 different creature from a situation report. Is that right?
44 A. I assume so. I don't remember much about them.
45
46 Q. I probably should have asked you what you understand a
47 situation report to be?

1 A. Well, a situation report: a basic summary on the
2 current operational status at the dam. That's what I
3 understand it to be.
4
5 Q. Prepared by?
6 A. Prepared by one of the - I think the duty engineer,
7 whoever is on.
8
9 Q. Now, what do you understand a technical situation
10 report to be?
11 A. Oh, I don't even remember, sorry.
12
13 Q. I can tell you that there are technical situation
14 reports in the March report. Do you remember whether you
15 had any role in compiling that?
16 A. I would have. If it's one of the appendices, I
17 would've done it. I just - I don't remember exactly every
18 appendix. I think there's, oh, maybe 10, 15 or something,
19 isn't there? There's quite a number.
20
21 Q. No specific recollection as to what you were told in
22 terms of going off to gather all the technical situation
23 reports?
24 A. It probably would've been similar to the sit reps.
25 If they were emailed, I would've done them the same way.
26
27 Q. The direction would have come from?
28 A. Technical? Probably John Tibaldi.
29
30 Q. Do you know whether he checked your work about that,
31 in terms --
32 A. Well, not a hundred percent but, yeah, I would assume
33 so.
34
35 Q. In respect of, say, either the - any of the appendices
36 that you prepared, did Mr Tibaldi come back to you at any
37 stage and say, "Look, you've missed that" or "That
38 shouldn't be in there"?
39 A. No - oh, I think, you know, there may have been a
40 heading that I had formatted and he didn't like the way I
41 did the time, just little things like that. Like, "Oh, I
42 want the time presented this way, not that way."
43
44 Q. Like --
45 A. Yeah.
46
47 Q. -- 5.53pm versus 1753 --

1 A. Yeah, exactly.
2
3 Q. -- or something like that?
4 A. Yes.
5
6 Q. Do you recall the flood event log being added into the
7 March report?
8 A. Yes, yes.
9
10 Q. Do you recall the process by which that happened?
11 A. So there - when I initially came onto the scene, the
12 flood event report included Wivenhoe, Somerset and North
13 Pine, so everything surrounding those dams. For this
14 report, we extracted - well, I extracted North Pine entries
15 because we were focusing on the two, Somerset and Wivenhoe,
16 and I replaced names with "Engineer 1", "Engineer 2," the
17 codes. Any personal emails or, like, for a council, if
18 they had a direct work number in there, I would get rid of
19 it, just so it wasn't published, as well as their name. So
20 if someone out of council - if their name was there, I
21 would put their position instead of their name.
22
23 Q. You've got the flood event log and so you're taking
24 out personal features?
25 A. Yes, yes.
26
27 Q. Names and phone numbers?
28 A. Yes.
29
30 Q. Any other changes you made to the flood event log?
31 A. I remember there were a few spelling mistakes, like
32 Somerset or just basic spelling mistakes. I hate seeing
33 spelling mistakes, so I just quickly fix them up. I never
34 change anything to do with content.
35
36 Q. Were you at any stage asked to take out of the flood
37 event report - flood event log any types of entries, apart
38 from personal features?
39 A. Like a complete line of --
40
41 Q. Yes?
42 A. No.
43
44 Q. Now I just want to show you a version of the flood
45 event log which is called on the document itself
46 "Chloe_Ver", so presumably "Chloe version"?
47 A. Mmm-hmm.

1
2 Q. Do you recall saving a document under that name?
3 A. I would have, just to keep it separate from the
4 original.
5
6 Q. You mean so that you didn't save over --
7 A. Yes. I didn't want to save over the original.
8
9 Q. Let's just talk about that, the original. Are you
10 talking about the original which is on the server --
11 A. Yes.
12
13 Q. -- or are you talking about a document which was given
14 to you on some sort of disc or USB?
15 A. No, the one on the server that included North Pine, so
16 the combined - everything.
17
18 Q. You would have saved it under "Chloe_Ver" so as to not
19 modify the original, as it were?
20 A. Yes.
21
22 Q. Now, just having a look at that one, do you recall
23 when that was produced?
24 A. When?
25
26 Q. Yes.
27 A. I couldn't say exactly when but I know it was one of
28 the first that I would've done.
29
30 Q. Who asked you to do it?
31 A. John Tibaldi.
32
33 Q. Did he ask you to take out the personal details?
34 A. Yes.
35
36 Q. And the details with respect to the other dams?
37 A. Yes.
38
39 Q. Is that right?
40 A. Yeah, so any personal information.
41
42 Q. We understand this document to be prepared - well,
43 we think it's been prepared in early February. Does that
44 match up with what your recollection would be?
45 A. Yeah, yeah, I would say so. It was one of the first
46 ones I ever did out of the whole appendices.
47

1 MR ENSBEY: Q. If it was around 8 or 9 February, does that
2 sound about right?
3 A. Oh, I wouldn't know the - yeah, sorry. I just know
4 early Feb.
5
6 MS MELLIFONT: Q. Do you recall where you saved this
7 document?
8 A. It would've been in the 'flood drive' under the
9 Wivenhoe/Somerset or the flood administration folder, I
10 would say, yeah.
11
12 Q. Would it make sense to you for it to have been saved
13 under the draft report folder?
14 A. Oh, yes, yes, because the - when I was working on the
15 appendices in the draft folder, that's where I would save
16 all my stuff, so it would've been in there.
17
18 Q. Do you know why this document was prepared?
19 A. Oh, just to go with the flood event report, just like
20 all the other information.
21
22 Q. Do you know whether there was any discussion about
23 this document being sent to the peer reviewers?
24 A. No. Well, I can't even remember if they got any of
25 the appendices at all, actually. I don't quite remember.
26 Yeah.
27
28 Q. No recollection either way?
29 A. No. Well, I just know it would've been a huge
30 document if it did include the appendices. I just - I
31 don't remember it being too large. No, I'm not too sure,
32 sorry. Yeah.
33
34 Q. Yeah. No, that's okay. It's very difficult to
35 remember these things.
36 A. Yeah.
37
38 Q. But do you have a sense of, sort of, when you're in
39 your car driving out to deliver things to people, whether
40 you were delivering an inch or whether you were delivering
41 3 inches?
42 A. Yeah, it would've been a - it was definitely bigger
43 than, say, that (indicating).
44
45 Q. By "that" --
46 A. Yeah.
47

1 Q. -- you're just referring to the bundle of documents --
2 A. Yes.
3
4 Q. -- I've got in front of me, which is about a couple of
5 centimetres high?
6 A. Yes, yeah. It was decent but it wasn't, you know,
7 that size or anything (indicating).
8
9 Q. It wasn't the size of two --
10 A. Yeah.
11
12 Q. -- Lever Arch folders full?
13 A. Mmm.
14
15 Q. Something somewhere in between that?
16 A. Yeah. Sorry, I just --
17
18 Q. No, that's okay. I take it then from when you printed
19 out from the USB the stuff to go to the reviewers, you
20 weren't doing any sort of crosscheck as to the documents
21 there? Say, for example, the flood event log - if it went
22 to the peer reviewers - if that matched up with your
23 earlier versions?
24 A. No. Whatever was on that USB I just printed and made
25 sure that I had the sections in the right order, like, one,
26 two, three.
27
28 Q. Did you do more than one version of the flood event
29 log?
30 A. Printed? The --
31
32 Q. Did you work on more than one version of the flood
33 event log? You've got one off the server and you have
34 saved it as "Chloe_Ver".
35 A. Oh. That would've been the only one, otherwise I'd
36 just confuse myself, yeah.
37
38 Q. The place where this was stored, does it sound right
39 that it was in the draft folder?
40 A. Yeah, yeah.
41
42 Q. Or the draft report folder?
43 A. Yeah, that - yeah.
44
45 Q. Who else had access to --
46 A. That folder?
47

1 Q. Yes?
2 A. Well, anyone who worked in the flood room, so
3 engineers, flood officers; anyone who went into that room.
4
5 Q. Do you have any knowledge at all as to whether the
6 document that you prepared was subsequently accessed or
7 modified by anybody else?
8 A. No, no, I don't believe so.
9
10 MS MELLIFONT: I am just going to tender that as CDM3.
11 That is the flood event log, marked in the bottom left-hand
12 corner "Event Log_Chloe Ver".
13
14 **EXHIBIT #CDM3 FLOOD EVENT LOG, MARKED IN BOTTOM LEFT-HAND**
15 **CORNER "EVENT LOG_CHLOE VER"**
16
17 MS MELLIFONT: Just a couple of questions on these
18 documents. Tell me if you need a break at any stage, too.
19 Same with you, Katherine.
20
21 MS HAYES: All right.
22
23 MS MELLIFONT: Q. You will see in the left-hand column
24 under the heading "Date" there aren't always date headings
25 or at least for the first page. Were you asked to change
26 anything with respect to date entries at all?
27 A. I think once I saw there was an overlap, they missed
28 out a date, like it went from 10pm or something and then it
29 went straight to the next day, but there was no actual
30 title for the date, so I've gone in and entered the
31 changeover for the day. Apart from that, I think just
32 making sure that, yeah, each section had the correct date,
33 so that you could see the swap over from one day to
34 another.
35
36 Q. I want to show you this document electronically
37 because electronically, as opposed to a printout - you will
38 need to come closer - it shows more information. Perhaps
39 I'll let Julian take you through this because he is well
40 and truly across this.
41 A. Sure.
42
43 Q. But, in essence, between the electronic document we
44 see on the screen and what we see here, some rows have been
45 hidden.
46 A. Oh, okay.
47

1 MR ENSBEY: Q. For example, it's easy - most obvious if
2 you look down the numbering on the side where, for example,
3 here it goes 40, 41, 42, 43, 46, 47, 49, 50, 53. It
4 appears as if a number of rows have been selected and the
5 hide function in Excel used.

6 A. Mmm-hmm.

7
8 Q. We can now, of course, select them and use unhide and
9 they become --

10 A. Yeah.

11
12 Q. -- visible again.

13 A. So they would be related to North Pine, I would
14 assume.

15
16 MR ENSBEY: I'm just going to select those and I'll - if I
17 can, I will right click and unhide them.

18
19 MS MELLIFONT: Q. While Julian is doing that, can I just
20 ask you, when you were taking out, say, entries for
21 Somerset, were you deleting --

22 A. North Pine.

23
24 Q. Oh, sorry. North Pine. Were you deleting them or
25 were you hiding them?

26 A. I don't remember. I could've hidden them, just to
27 make sure that they weren't deleted completely but, I don't
28 know, I just remember that I was getting rid of them. I'm
29 not too sure how I went about it.

30
31 MR ENSBEY: Q. One of the rows that was hidden and is now
32 visible is row 51, which contains the date and also a
33 summary of the FOC situation report at 0600 on Friday,
34 7 January 2011. That sets out both rainfall for Somerset
35 and Wivenhoe and also some information about North Pine Dam
36 and the category is a situation report?

37 A. Mmm-hmm.

38
39 Q. Do you know why that might have been hidden?

40 A. Is it just relating to North Pine, did you say, sorry?

41
42 MS MELLIFONT: Q. You can come closer to see it. It'll
43 show you the - can you see it from there? If you can't --

44 A. Oh, yep, yep. I would've looked at that and then saw
45 "North Pine Dam", it relating to North Pine Dam, and then
46 below it is going into Wivenhoe Dam, so just that line
47 there was hidden; is that correct?

1
2 MR ENSBEY: Q. I think it was lines 51 and 52.
3 A. Both of them?
4
5 Q. Both.
6 A. I'm not too sure then, sorry. I don't know why that
7 was hidden.
8
9 MS MELLIFONT: Q. Do you have a recollection now as to
10 whether you hid both of them, hid one of them, or you just
11 don't know?
12 A. Oh, I just - yeah, I don't know.
13
14 MS MELLIFONT: Thank you. Anything more on that one?
15
16 MR ENSBEY: No.
17
18 MS MELLIFONT: I will just tender this version - oh, the
19 CDM3, that's fine. I will tender for the record, but
20 aren't releasing at this stage, CDM4, which is the
21 electronic version
22
23 **EXHIBIT #CDM4 ELECTRONIC VERSION OF CDM3**
24
25 MS HAYES: When you say you're not releasing, what does
26 that mean?
27
28 MS MELLIFONT: Not for public dissemination --
29
30 MS HAYES: Oh, yes.
31
32 MS MELLIFONT: -- at this point in time. You and I can
33 have a discussion afterwards, too.
34
35 MS HAYES: Yes, sure. Yeah, we've got that.
36
37 MS MELLIFONT: Yeah, I thing you've got it.
38
39 MS HAYES: Yeah, because we gave it to you, I think.
40
41 MS MELLIFONT: Yeah, so you've got it.
42
43 MS HAYES: Yeah, yeah.
44
45 MS MELLIFONT: So it's probably a non-issue.
46
47 MS HAYES: Yeah.

1 MS MELLIFONT: Yeah.

2

3 Q. We'll just move on from there to a specific appendix.
4 This one is Appendix M, attached to a 24 February draft of
5 the report which became the 2 March report. I'll just show
6 that to you. You'll see that this is "Appendix M, Flood
7 Event Log"?

8 A. Mmm.

9

10 Q. I will just give you a chance to have a look through
11 that. Is that a document familiar to you?

12 A. Yes, yes.

13

14 Q. Did you have a role in preparing that document?

15 A. Yes. I would've popped this into here.

16

17 Q. What do you mean by "popped" it "into" there?

18 A. So from here --

19

20 Q. So from CDM3?

21 A. Mmm-hmm, extracting North Pine, moving it into this
22 document.

23

24 Q. Appendix M?

25 A. Yeah, sorry. So I've popped in the codes here and I
26 would've got rid of all the, like, contact details,
27 personal details. I did that before, just so it was easier
28 in here; like, extracted North Pine here (indicating).

29

30 Q. Just explain that to me.

31 A. So in this document - this would've been in Excel - I
32 would've extracted North Pine information.

33

34 Q. Out of that?

35 A. Yes.

36

37 Q. Yes?

38 A. And then from here I would've transferred it, just so
39 I didn't have to transfer a large amount of work into here.

40

41 Q. Is it a cut and paste then from Excel?

42 A. Yeah. I --

43

44 Q. From CDM2?

45 A. Yeah, that's probably what I would've done.

46

47 Q. Into Appendix M?

1 A. Yes.

2

3 MS MELLIFONT: Do you have any questions about this
4 particular document?

5

6 MR ENSBEY: Q. Just on this particular document, the dates
7 have been --

8 A. Mmm-hmm.

9

10 Q. We can see in the "Date" column, for example, on page
11 1 of 37 a date does appear, whereas it didn't in the Excel
12 version we looked at earlier.

13 A. Well, like I said, I probably would've popped that in,
14 if there was a date missing, just to make sure that each
15 transition from day-to-day was shown here.

16

17 Q. Then if we look at page 2 of 37, there is another
18 date, being Saturday, 8 January 2011. On that day, though,
19 the times run through from am to pm back to am.

20 A. Oh, okay. I don't know what's going on there. I
21 don't know why it's just ended at 3pm. I can't explain
22 that.

23

24 MS MELLIFONT: Q. In respect to preparation of this
25 appendix, who asked you to put it together?

26 A. John Tibaldi.

27

28 Q. Did he give you any - can you recall any specific
29 instructions he gave to you about how this was to be
30 prepared?

31 A. Only, like I said before, names to codes, taking out
32 numbers.

33

34 Q. Do you know whether this one was sent to the peer
35 reviewers?

36 A. I can't remember, sorry.

37

38 Q. In this Appendix M there are situation reports?

39 A. Mmm-hmm.

40

41 Q. Do you know how they got in there?

42 A. Well, usually they would note when a situation report
43 was issued. Is it just that or the actual information from
44 the sit rep?

45

46 Q. I will just take you to an example.

47 A. Okay.

1
2 MS MELLIFONT: This one's not jumping out at me.
3
4 MR ENSBEY: Q. I think it may be that in this version
5 there are no situation reports that appear, although in the
6 version that is eventually published on 2 March 2011 there
7 are situation reports listed in Appendix M.
8 A. Oh, okay.
9
10 MS MELLIFONT: Sorry. My fault
11
12 MR ENSBEY: Q. What we are interested in is how the
13 situation reports were entered in by 2 March --
14 A. Right.
15
16 Q. -- when they don't appear on this version that was
17 saved in a folder entitled "24 Feb Draft".
18 A. I'm not sure actually. I'm assuming someone's
19 probably wanting to add more information to benefit what
20 everyone else is wanting to know about the event but I
21 myself don't recall doing that.
22
23 MS MELLIFONT: Q. Do you recall how many versions of this
24 Appendix M you would've worked on?
25 A. No, sorry, but I would've - any changes I would've
26 just saved over this, I would imagine.
27
28 Q. You were just working off one document?
29 A. Yes.
30
31 Q. Do you have any recollection of anybody asking you to
32 then go back and reinsert - go back and insert further
33 information into Appendix M, like situation reports?
34 A. No. Yeah, no.
35
36 Q. I take it from what you have said just a couple of
37 minutes ago, if that did in fact occur, you're not sure who
38 did it or you don't know who did it?
39 A. Yeah, yeah. I wouldn't know who entered those in.
40
41 Q. Was anybody else performing administrative functions
42 like yourself for Mr Tibaldi or any of the other engineers?
43 A. There came - before it was published, like towards the
44 end, I know Rowland were involved. Apart from that, no.
45
46 Q. What was Rowland's involvement?
47 A. Rowland were helping with grammar, presentation,

1 formatting, that sort of thing; you know, more indepth from
2 what I could do because they're - you know, that's what
3 they do for a living.

4
5 Q. Yeah. They're language people?

6 A. Yeah.

7
8 Q. But in terms of administrative assistance like
9 yourself --

10 A. Yeah, they --

11
12 Q. -- you know, collating documents, getting documents
13 together; apart from you, was there anyone?

14 A. Oh, not to my knowledge.

15
16 Q. In terms of who was preparing and collating the draft
17 report, there would have been you and the four engineers?

18 A. Yes, although mostly it was John and Terry in the
19 room. Only every now and then I saw Ruffini and Ayre come
20 in and then they would, I don't know, do their thing,
21 discuss things, I don't know.

22
23 Q. When they came in for discussions or when there were
24 discussions going on, do you have any recollection of any
25 discussions about compliance issues with the manual or
26 choice of strategy?

27 A. No. Back then I didn't have much knowledge, so I
28 wouldn't be listening for it. I was just doing what I was
29 directed to do.

30
31 Q. Just doing --

32 A. Yeah.

33
34 MS MELLIFONT: Do you have anything else?

35
36 MR ENSBEY: No, I don't.

37
38 MS MELLIFONT: I've got a couple more topics to go to. We
39 might have a five minute break, though, if that's okay.

40
41 **SHORT ADJOURNMENT**

42
43 MS MELLIFONT: We have just had a short break. We are
44 resuming at 12.30pm. Persons present are the same as
45 before.

46
47 Q. Chloe, what we were talking about before was just in

1 the final version of the March report, the 2 March report,
2 the Appendix M contains some situation reports. We just
3 wanted to show you a couple to see whether that jogs your
4 memory at all as to whether you had any role in popping
5 them back in or not?
6 A. Mmm-hmm.
7
8 MS MELLIFONT: Julian will just show you some up on the
9 screen here.
10
11 MR ENSBEY: Q. I've brought up electronically the copy of
12 the report as it appears on the DERM website.
13 A. Okay.
14
15 Q. Which is Exhibit 24 before the Commission and it's
16 Appendix M. For example, on the entry that reads Friday,
17 7 January 2011, the first line is 6.07am, situation report,
18 0600, Friday 7 January 2011.
19 A. Mmm.
20
21 MS MELLIFONT: That is just an example of how that
22 information was put back into the report.
23
24 MS HAYES: Can you say the date and time again?
25
26 THE INTERVIEWEE: So that line wasn't in there before?
27
28 MS MELLIFONT: No.
29
30 THE INTERVIEWEE: Okay.
31
32 MR ENSBEY: 6.07 --
33
34 MS MELLIFONT: Q. From the Appendix M printout, which I
35 will tender as CDM5, which is the version I was talking
36 about of 24 February, that does not have entries like has
37 just been read to you from the screen, which has the
38 situation report.
39 A. Yeah, I'm not too sure, sorry. I'm just assuming that
40 they're trying to give as much information as they can,
41 when things were issued, yeah.
42
43 **EXHIBIT #CDM5 APPENDIX M - FLOOD EVENT LOG, ATTACHED TO**
44 **24 FEBRUARY DRAFT REPORT WHICH BECAME 2 MARCH REPORT**
45
46 MS MELLIFONT: Q. I think you said, before we had a little
47 break, that you don't think you put them back in here?

1 A. No, no, no.
2
3 Q. You're quite sure of that?
4 A. I don't - yeah. I don't recall doing that at all.
5
6 Q. No worries. We'll just move on then. In terms of the
7 material that was sent out to the reviewers, you said you
8 printed it out from the USB that John Tibaldi gave you.
9 Did that include a version of the flood event report?
10 A. Yeah. I don't remember exactly, yeah.
11
12 Q. Do you know whether they were sent anything apart from
13 what you delivered to them and, in the case of the
14 interstate expert, what you - did you post it to him or --
15 A. I don't remember myself posting it but it would have
16 been posted. Yeah, I don't remember any additional items.
17
18 Q. Electronically, even?
19 A. I don't know, sorry.
20
21 Q. There is some information which tends to indicate that
22 there were some meetings held with some of the reviewers
23 about how to prepare the draft report and some of the
24 minutes suggest that you attended some of those. Do you
25 have a recollection of going to some of those meetings?
26 A. I remember going to one meeting with Colin Apelt, I
27 think his last name is, sorry.
28
29 Q. Can you recall anything about that meeting?
30 A. I just know there were a lot of people there, yeah.
31 Sorry, I don't remember details.
32
33 Q. Do you remember what your role was in being there?
34 A. I believe I took a few minutes or notes. Apart from
35 that, I didn't have any input.
36
37 Q. We will just show you a document headed "Corporate -
38 Template, Meeting Agenda/Minutes", "8 February 2011", with
39 a meeting start time of 1.00pm. It reads, "Overview of
40 technical report." I appreciate those minutes don't tell
41 us very much but does that look like the meeting you might
42 have attended?
43 A. Yeah. Well, there's Colin there and there are quite a
44 few people there. Yeah, Carrie, I remember Carrie being
45 there from Rowland.
46
47 Q. Do you have any recollection now as to what was being

1 said during the meeting?

2 A. No, not really. I didn't - I couldn't even remember
3 it was titled that.

4
5 Q. Would you have prepared these minutes or something
6 else?

7 A. No. I just took a few notes. They weren't even
8 official minutes, as such, they were just a few notes
9 chucked onto paper, which I think I typed up. Yeah, sorry,
10 I don't really have too many details to add.

11
12 Q. That's all right. If you did take some notes and type
13 them up, where would they have been saved?

14 A. I don't remember where they were saved, I just
15 remember emailing a copy to Brooke because Brooke, she - I
16 believe she may have been taking notes as well.

17
18 Q. What was Brooke's job?

19 A. I didn't really know Brooke too well back then. So,
20 she's PA, I think, to Jim Pruss.

21
22 Q. If you emailed notes to Brooke, for what purpose would
23 that have been?

24 A. Just so she could collate her information as well as
25 mine.

26
27 Q. By way of some sort of record of the meeting that
28 occurred?

29 A. Yes.

30
31 MS MELLIFONT: I will just tender that as CDM5.

32
33 **EXHIBIT #CDM5 ONE-PAGE DOCUMENT, CORPORATE-TEMPLATE**
34 **MEETING AGENDA/MINUTES, DATED 8/2/11**

35
36 MS HAYES: So you've got them? The Commission has --

37
38 MS MELLIFONT: The minutes?

39
40 MS HAYES: Yeah.

41
42 MS MELLIFONT: Yes.

43
44 Q. I will show you another similar document. This is,
45 again, a technical review meeting but this one is dated
46 18 February 2011 at 10.00am.

47 A. Actually, that date's ringing more of a bell, the

1 18th. Perhaps that may have been when I had taken the
2 notes. I'm remembering that date.

3
4 Q. Do you recall being at two meetings about this?

5 A. No, no. I just - I remember one and I remember the
6 18th. That's popping out at me.

7
8 Q. You will see on the 18 February one, the people there
9 included Brian Shannon? He was one of the --

10 A. Oh, okay.

11
12 Q. He was one of the reviewers. Do you remember being at
13 a meeting where Brian Shannon was there?

14 A. No. I can't even remember what he looks like. I just
15 really remember Colin because he's - you know, he's quite
16 older and short, so I just really remembered him.

17
18 Q. You will see --

19 A. So I'm --

20
21 Q. You will see on the 8 February one it records Colin as
22 being there?

23 A. Yeah, so I probably would've been to both, I just
24 don't remember going to two. They've probably just muddled
25 themselves into one in my mind.

26
27 MS MELLIFONT: I will tender the 18 February minutes as
28 CDM6.

29
30 **EXHIBIT #CDM6 ONE-PAGE DOCUMENT, CORPORATE-TEMPLATE**
31 **MEETING AGENDA/MINUTES, DATED 18/2/11**

32
33 MS MELLIFONT: Q. I'll just show you this email, which is
34 an email from you to John Tibaldi, 21 February 2011,
35 attaching meeting notes from 18 February, which tend to
36 indicate --

37 A. Okay, yeah.

38
39 Q. -- that you were obviously there.

40 A. Yeah, so that's - yeah, that's the one I remember
41 doing.

42
43 Q. Are these the notes you recall sending to Brooke or is
44 that --

45 A. Yeah.

46
47 Q. -- something different?

1 A. This. Yeah, these ones.

2
3 MS MELLIFONT: I will tender these as CDM7. That is the
4 email and the attachment. The attachment is two pages of
5 minutes from the 18 February 2011 meeting.

6
7 **EXHIBIT #CDM7 EMAIL FROM CHLOE CROSS TO JOHN TIBALDI,**
8 **SENT 21/2/11, AND TWO-PAGE ATTACHMENT, MINUTES OF**
9 **18 FEBRUARY MEETING**

10
11 MS MELLIFONT: Q. Chloe, I do want to ask you a fair bit
12 about this meeting, so I might just give you a few minutes
13 just to read through it to orient yourself.

14 A. Okay, you can - yep.

15
16 Q. I'm just trying to get a sense of the timeframes for
17 all of this.

18 A. Mmm-hmm.

19
20 Q. You will you see that the meeting was on 18 February
21 2011 and that your email on the front says, "There is also
22 a list at the bottom of who had copies of the report for
23 review."

24 A. Mmm-hmm.

25
26 Q. Then you will see on the second page of the minutes,
27 copies have been given to 11 people?

28 A. Mmm-hmm.

29
30 Q. Do you know who "Col" would be?

31 A. Col Apelt.

32
33 Q. Yeah.

34 A. I think at that stage I wasn't sure of his last name.
35 Well, Colin Apelt.

36
37 Q. You will see copies were given to "Legal". So that's
38 Allens, is it, who are the lawyers?

39 A. Yeah. I'm not too sure what I was doing there. Yeah,
40 sorry.

41
42 Q. That's all right. Just have a look at the Agenda/
43 Minutes on 18 February. You will see it's got Bill
44 McCredie and Michael Ilott from AAR?

45 A. Oh, okay. I would assume it's referring to them then.
46 I'm not a hundred percent sure.

1 Q. Yeah. I see there's a couple of other lawyers there,
2 too.
3 A. Oh, okay.
4
5 Q. We've got Paul Hardman, Sunwater External.
6 A. Oh, they're - oh yeah.
7
8 Q. Ashley Uren, Sunwater External.
9 A. Oh, right.
10
11 Q. You're not quite sure --
12 A. Oh, yeah. Sorry, no.
13
14 Q. You don't know who the number 2 and 3 "Legal" are in
15 that list?
16 A. No.
17
18 Q. What we have here are copies of the draft report that
19 were with the people numbered 1 through 11; is that what
20 you take these minutes to mean?
21 A. Yes.
22
23 Q. Is that how you recall things were?
24 A. Yeah, I believe they were given a copy just to have a
25 look over.
26
27 Q. Do you recall who made up the copies?
28 A. I think I did because I remember staying at work late
29 one night, printing and binding a whole heap of documents.
30 I'm pretty sure it was these ones.
31
32 Q. Do you recall who told you what to print and bind?
33 A. Again, I think it was like before, put onto a USB and
34 then I printed from there, yeah.
35
36 Q. The USB was from?
37 A. John, yeah.
38
39 Q. In respect of this particular occasion, do you have a
40 recollection of whether you saw him copy from the drive
41 onto the USB or were you just given a USB?
42 A. Yeah, I think it was the same, same way, because at
43 the start of the day I was up at the flood centre and I
44 remember him saying "We need these", and then getting a cab
45 voucher to get home late because I knew I'd be working
46 late. So then I went back down to Margaret Street and
47 printed from there.

1
2 Q. When you were printing that night, do you recall
3 whether it was just the draft reports or did it include all
4 the appendices?

5 A. Oh, I don't remember, sorry.
6

7 Q. That's all right. Do you have a sense of the size of
8 the documents you were binding up?

9 A. Yeah. They were large and a pain, yes.
10

11 Q. Were they going into spiral binders?

12 A. Yes.
13

14 Q. Multiple per recipient? Do you recall?

15 A. No, no. Each person was just given one copy. Yeah, I
16 just don't remember if it included all appendices or not.
17

18 Q. That's all right. Just in terms of size, are we
19 talking, sort of, the largest version of the spiral binder?

20 A. Oh yeah, yes, yeah.
21

22 Q. I think they're about --

23 A. Yeah.
24

25 Q. -- 4 to 5 centimetres deep. Does that --

26 A. Yes, it was definitely - yeah, yeah.
27

28 Q. Just going then to what you can recall about the
29 meeting, do you know why the reviewers - so these are the
30 people who are going to be reviewing the final report,
31 Mr Shannon and Mr Apelt or Professor Apelt. Do you know
32 why they were present at this earlier meeting on 18
33 February 2011?

34 A. I don't know why, no.
35

36 Q. Were these notes typed up from your handwritten notes
37 you took during the meeting?

38 A. Yes.
39

40 Q. Did you retain the handwritten notes or would they
41 have been discarded?

42 A. Well, yeah. Well, because I have since transferred
43 positions and moved offices, I got rid of a whole heap of
44 scrap like that.
45

46 Q. But is it your ordinary course to keep those kind of
47 notes once you've typed them up or do you normally throw

1 them?
2 A. Once I've typed them up, I usually throw them out.
3
4 Q. I do want to go through some of the content here.
5 A. Yes.
6
7 Q. I appreciate these are dot points and this is a year
8 ago.
9 A. Yes.
10
11 Q. When you talk about the "Executive Summary", are you
12 talking about that heading in the flood event report?
13 A. Yes, yes.
14
15 Q. Do you see the subheading or the heading "Review of
16 Wivenhoe Full Supply Level", then you've got a second dot
17 point there, "Question why in report - requirement to
18 outline all flood relevant matters." Do you know what
19 that's about?
20 A. No.
21
22 Q. Then you will see under there an indented dot point,
23 "Pruss: will discuss offline." What do you take that to
24 mean; that is, the words "Will discuss offline"?
25 A. Outside of the meeting.
26
27 Q. Do you know who he was to discuss that with?
28 A. No, no.
29
30 Q. Do you recall the content of what he was to discuss?
31 A. No, sorry.
32
33 Q. This sort of "Will discuss offline", is that a new
34 term to you or is this a term that's frequently used at
35 Seqwater? I'm just trying to get a sense of it. For
36 example, you might've said "Will discuss later" as opposed
37 to "Will discuss offline". I'm just trying to get a sense
38 of what "offline" --
39 A. Oh, okay. What it - oh, I don't know. I would just
40 take it as outside of the meeting.
41
42 Q. You didn't take it as being need to discuss this in
43 private?
44 A. Not necessarily in private, no. I didn't get that
45 feeling. Just outside of the meeting, yeah.
46
47 Q. Moving on to "Report Conclusions", the first dot

1 point, "Tibaldi: conclusions need correcting." Do you have
2 a recollection of what that relates to?
3 A. That would have been the conclusion of the flood event
4 report. That's all I, yeah, know in regards to that one.
5
6 Q. The next one is "Shannon". Does this mean - so I can
7 get a sense of the style here, if you've got "Tibaldi:
8 conclusions need correcting", is that something he is
9 saying or a task that's been allocated to him, or something
10 else?
11 A. No, I would say probably something he said.
12
13 Q. The next one, "Shannon: 4th point - if discretion was
14 used, in accordance with manual?"
15 A. Oh --
16
17 Q. "To discuss offline."
18 A. Oh, that confuses me just reading it. I don't know
19 what I was on about there, sorry.
20
21 Q. Are we likely to take the "4th point" as being the
22 fourth point in the conclusions in the draft report at that
23 point in time, or are you not able to say now?
24 A. At that point in time, yeah.
25
26 Q. Any recollection of what that was about?
27 A. No, sorry.
28
29 Q. The text, "If discretion was used, in accordance with
30 manual?", any idea what that's about?
31 A. Sorry. I don't remember much relating to that, yeah.
32 Like I said, I didn't know much at all about this whole
33 thing. Like, this was such a learning process for me. I
34 may have been taking anything wrong, in the wrong way. I
35 don't know.
36
37 Q. Then you've got Mr Shannon saying, well, that's "to
38 discuss offline"?
39 A. Mmm-hmm.
40
41 Q. Going to discuss out of the meeting, I take it?
42 A. Yes.
43
44 Q. But we don't know who with? Do you know who with?
45 A. No.
46
47 Q. Then we've got an indented dot point, "Discretionary

1 issues? Discuss with reviewers." Any recollection of what
2 that was about?
3 A. No.
4
5 Q. Then, "Shannon: if you did step outside manual, show
6 you did what was necessary." Any recollection of what that
7 was about?
8 A. No.
9
10 Q. Do you have any recollection in this meeting of
11 somebody saying 'We've done something outside the manual
12 but we exercised our discretion'?
13 A. No, no. I never got a feeling that something was
14 wrong; never got a negative feeling at all.
15
16 Q. Then you've got "Fiona". That's Fiona Murdoch, is it?
17 A. Yes, must be.
18
19 Q. What was Fiona's job?
20 A. Fiona Murdoch. I don't even remember Fiona Murdoch.
21
22 Q. You don't know who she is?
23 A. No. The name's ringing a bell but I just - I can't
24 even put a face to it.
25
26 Q. "Outline Wivenhoe Dam successfully absorbed first
27 peak, not second peak 30 hours later?" Any recollection
28 what that's about?
29 A. She's probably suggesting that we explain that in the
30 conclusion. It probably wasn't in there at that current
31 point of time.
32
33 Q. Is there any particular reason you've got that
34 impression from this? Are you going from recollection or a
35 presumption?
36 A. Oh, yeah. Just by reading that, that's what I'm
37 assuming, yeah.
38
39 Q. You're assuming she has suggested that?
40 A. Yeah, that we explain.
41
42 Q. "Foster", is that Mike Foster?
43 A. Yes.
44
45 Q. Who's he?
46 A. He's within our comms team - in communications, sorry.
47

1 Q. Do you have any knowledge as to why the reviewers were
2 brought in at this early stage; that is, before --
3 A. No.
4
5 Q. -- the report was finished?
6 A. No, sorry.
7
8 Q. Was that discussed with you in any way?
9 A. No.
10
11 MS HAYES: These are the minutes I was thinking of, sorry.
12 I don't mean to confuse it.
13
14 MS MELLIFONT: Yeah, I took that as being the case.
15
16 Q. Your role in this meeting was --
17 A. Just to take --
18
19 Q. -- administrative support?
20 A. Yeah. Just to take some notes.
21
22 MS MELLIFONT: The next topic I want to move to is that
23 we've seen some emails which tend to show that in late
24 March some tables of comments were prepared on the 2 March
25 2011 report, so we will show you that now. I will show you
26 an example of such an email. 7.40?
27
28 MR ENSBEY: Yes.
29
30 MS MELLIFONT: Q. I'm showing you an email from the Duty
31 Engineer email address to ccrosse [REDACTED] Monday,
32 21 March 2011 at 7.40am. You will see the subject heading,
33 "Can you fix this up for Engineers 1, 2 and 3 please (see
34 attached)." It attaches a document called "Engineer 4 -
35 Appendix M - 01.doc". Do you have a recollection of this
36 process?
37 A. No. I don't even know what I did there.
38
39 Q. Do you know who Engineer 4 was?
40 A. John Tibaldi.
41
42 Q. And, just for the record, 1, 2 and 3?
43 A. Engineer 1, Rob Ayre; 2, Terry Malone; 3, Ruffini. It
44 went in alphabetical order.
45
46 Q. Just trying to trace it through as best we can, we've
47 got this document which looks like a version of a flood

1 event log with, in the second from right-hand column,
2 "Comment by Engineer 4". You will see, for example, on the
3 first page there is an entry from Engineer 4, "The log
4 shows that I am responsible for this entry. This is an
5 error and should read", and it finishes there. We don't
6 know what else - it doesn't say anything else there. You
7 are asked by the covering email, "Can you fix this up for
8 Engineers 1, 2 and 3 please." Any of this make any sense
9 to you or jog a recollection?

10 A. No, no. I don't remember. I find it strange that
11 it's the only comment. I don't --

12
13 Q. Sorry? You "find it strange" what?

14 A. That there is a column added for comments but there's
15 only one anyway. I don't remember.

16
17 Q. Were you still in the same role as at 21 March 2011?

18 A. Yes.

19
20 Q. Was anybody else having access to your email, that
21 you're aware of?

22 A. My personal email? No.

23
24 Q. The ccross@[REDACTED]?

25 A. No, no.

26
27 MS MELLIFONT: I will tender that one, and I'll just show
28 you another. That's CDM8.

29
30 **EXHIBIT #CDM8 EMAIL FROM SEQWATER DUTY ENGINEER TO**
31 **CCROSS@[REDACTED], SENT 21/3/11 7.40AM, AND 11-PAGE**
32 **ATTACHMENT "ENGINEER 4 - APPENDIX M - 01.DOC"**

33
34 MS MELLIFONT: I'll show you another one. This is 21 March
35 2011, 4.29pm, but this time this one is from the Duty
36 Engineer to jtibaldi@[REDACTED]. "Subject: Engineer
37 4 - Appendix M - 01.doc". The 4.29pm email will be CDM9.

38
39 **EXHIBIT #CDM9 EMAIL FROM SEQWATER DUTY ENGINEER TO**
40 **JTIBALDI@[REDACTED], SENT 21/3/11 4.29PM, AND 12-PAGE**
41 **ATTACHMENT "ENGINEER 4 - APPENDIX M - 01.DOC"**

42
43 MS MELLIFONT: Q. I'll show you this one. As I say, this
44 email didn't come to you, Chloe.

45 A. Mmm-hmm.

46
47 Q. I think that's important for you to know. But you

1 will see this time there are lots of comments in the
2 comment column.
3 A. Okay.
4
5 Q. Just have a bit of a read through that to see if any
6 of this is jogging your mind in terms of process.
7 A. No, sorry, I'm just not remembering anything about it.
8
9 Q. Do you have any recollection of receiving comments by
10 any of the flood engineers and then going back in and
11 making changes to the content of the flood event log that
12 you worked on?
13 A. No.
14
15 Q. That never happened?
16 A. No, definitely not, no.
17
18 Q. If I can recap as to my understanding of your
19 involvement with the flood event log, you were asked by
20 Mr Tibaldi to take the flood event log, redact it for
21 personal names and phone information and to take out the
22 North Pine Dam entries?
23 A. Mmm-hmm.
24
25 Q. Were you asked to do anything else with respect to
26 that document?
27 A. The only things, like I said, were spelling mistakes
28 of major things like Wivenhoe Dam; I think I may have
29 formatted, you know, like the shading a lighter colour or
30 something, something to just make it more readable. Apart
31 from that, yeah, it's just all really basic stuff; nothing
32 about content.
33
34 Q. You may have added in a date wherever the date --
35 A. Yes.
36
37 Q. -- didn't appear --
38 A. Yes.
39
40 Q. -- on the face of the document. Then once that was
41 done, it was saved into the --
42 A. It should've been saved as Appendix M. Like I said,
43 from here I moved it into Appendix M, did all the little -
44 you know, like the codes here for each person, dates, and
45 stuff like that. So it should be saved as Appendix M.
46
47 Q. But in terms of the version - that Excel spreadsheet,

1 which is CDM3, it would have been saved as Chloe version,
2 as we've discussed?

3 A. Mmm-hmm.

4
5 Q. Then you moved it into another document, which became
6 Appendix M?

7 A. Yes.

8
9 Q. All right, that's fine. I've just got to make sure
10 I've got my understanding correct, and I think I do. But
11 beyond that, you didn't make any additional changes or
12 amendments, so far as you're aware?

13 A. Yeah, nothing that I can recall from there.

14
15 MS MELLIFONT: Anything else?

16
17 MR ENSBEY: Q. On the process of how you moved "Chloe_Ver"
18 to become Appendix M, Appendix M, as we have seen it, is a
19 Word version and eventually a PDF.

20 A. Oh, okay.

21
22 Q. In order to transform the Excel document into the Word
23 document, did you copy and paste or did you use a tool to
24 extract the information?

25 A. No, I would've copied and pasted and in that process,
26 obviously, you're going to lose some formatting, so that's
27 why I said I've made it more readable.

28
29 MS MELLIFONT: Q. When you were redacting - if I can use
30 that word - the flood event log, it may have been by a
31 process of deletion or hiding rows?

32 A. Mmm.

33
34 Q. But you're not sure which --

35 A. Yeah.

36
37 Q. -- at this point in time?

38 A. I'm not too sure what I did there.

39
40 MS MELLIFONT: Well, they're all my questions

41
42 MR ENSBEY: And mine.

43
44 MS MELLIFONT: Do you have any questions for us?

45
46 THE INTERVIEWEE: No, no.

47

1 MS MELLIFONT: Katherine? No?

2

3 MS HAYES: Yep.

4

5 MS MELLIFONT: Well, thank you very much for attending.

6

7 THE INTERVIEWEE: Okay.

8

9 MS MELLIFONT: We appreciate it.

10

11 **AT 1.05PM, THE INTERVIEW CONCLUDED.**

12

13

14

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'07 [1] - 20:9 '08 [2] - 20:10, 20:12 '11 [5] - 8:9, 8:36, 9:10, 15:1, 19:47 'flood [8] - 30:5, 30:6, 30:45, 31:11, 31:12, 31:27, 32:5, 38:8 'flood' [1] - 31:11 'We've [1] - 56:11	2.2 [2] - 17:44, 21:40 2.3 [1] - 18:3 2.4 [1] - 18:17 2.5 [1] - 18:21 2006 [1] - 5:35 2008 [1] - 5:22 2011 [25] - 3:13, 3:14, 3:23, 14:19, 20:30, 22:24, 24:32, 25:36, 25:45, 33:45, 41:34, 44:18, 45:6, 47:17, 47:18, 48:38, 49:46, 50:34, 51:5, 51:21, 53:33, 57:25, 57:32, 58:17, 58:35 2012 [3] - 1:18, 2:1, 2:14 21 [4] - 50:34, 57:32, 58:17, 58:34 21/2/11 [1] - 51:8 21/3/11 [2] - 58:31, 58:40 230 [1] - 17:46 24 [5] - 43:4, 45:17, 47:15, 47:36, 47:44	47 [1] - 41:3 49 [1] - 41:3 4th [2] - 55:13, 55:21	addressing [1] - 12:18 ADJOURNMENT [1] - 46:41 adjusted [2] - 13:16, 19:12 Adjusted [2] - 13:17, 13:45 admin [2] - 5:2, 26:36 administration [2] - 27:25, 38:9 administrative [5] - 5:11, 27:24, 45:41, 46:8, 57:19 afterwards [1] - 42:33 Agenda [1] - 51:42 Agenda/Minutes [1] - 48:38 AGENDA/MINUTES [2] - 49:34, 50:31 ago [3] - 5:35, 45:37, 54:8 aid [1] - 4:22 Allen [6] - 13:21, 13:22, 13:24, 19:7, 19:23, 23:40 Allen's [4] - 13:16, 13:18, 13:45, 19:12 Allens [3] - 1:31, 2:10, 51:38 allocated [1] - 55:9 allowed [1] - 17:45 almost [1] - 5:37 alphabetical [1] - 57:44 amending [1] - 30:4 amendments [1] - 60:12 amount [1] - 43:39 AND [3] - 51:8, 58:31, 58:40 annual [7] - 6:39, 16:11, 16:12, 21:2, 21:23, 23:34, 23:35 answer [3] - 2:23, 2:37, 32:39 answers [1] - 3:4 anyway [3] - 15:38, 17:19, 58:15 apart [10] - 19:21, 32:21, 32:23, 36:37, 40:31, 45:44, 46:13, 48:12, 48:34, 59:30 Apelt [6] - 28:23, 48:26, 51:31, 51:35, 53:31 appear [4] - 44:11, 45:5, 45:16, 59:37 appendices [16] - 8:43, 14:23, 27:28, 27:37, 27:46, 28:2,	32:45, 34:7, 35:16, 35:35, 37:46, 38:15, 38:25, 38:30, 53:4, 53:16 Appendix [20] - 24:25, 43:4, 43:6, 43:24, 43:47, 44:38, 45:7, 45:24, 45:33, 47:2, 47:16, 47:34, 57:35, 58:37, 59:42, 59:43, 59:45, 60:6, 60:18 APPENDIX [3] - 47:43, 58:32, 58:41 appendix [6] - 8:44, 24:20, 33:8, 35:18, 43:3, 44:25 appreciate [3] - 48:40, 54:7, 61:9 approached [1] - 26:36 Arch [1] - 39:12 archived [1] - 17:10 archives [1] - 33:34 area [4] - 10:44, 16:30, 18:40, 20:15 arrived [1] - 26:10 Arthur [2] - 1:31, 2:10 Ashley [1] - 52:8 aspect [3] - 9:45, 10:1, 25:21 aspects [3] - 6:2, 6:29, 24:5 assist [4] - 5:1, 6:20, 10:25, 27:21 assistance [3] - 26:37, 27:24, 46:8 assistant [2] - 5:7, 5:14 assisting [1] - 6:9 associated [1] - 18:22 assume [8] - 16:23, 20:23, 22:32, 30:40, 34:44, 35:32, 41:14, 51:45 assuming [8] - 16:29, 17:30, 19:23, 19:42, 45:18, 47:39, 56:37, 56:39 AT [1] - 61:11 attached [6] - 13:13, 18:24, 18:28, 24:33, 29:24, 43:4 ATTACHED [1] - 47:43 attached) [1] - 57:34 attaches [1] - 57:34 attaching [1] - 50:35 attachment [3] - 19:8, 51:4 ATTACHMENT [3] - 51:8, 58:32, 58:41
0				
01.doc" [1] - 58:37 0600 [2] - 41:33, 47:18				
1				
1 [9] - 20:22, 33:9, 36:16, 44:11, 52:19, 57:33, 57:42, 57:43, 58:8 1.00pm [1] - 48:39 1.05PM [1] - 61:11 10 [1] - 35:18 10.00am [1] - 49:46 10pm [1] - 40:28 11 [3] - 9:16, 51:27, 52:19 11-PAGE [1] - 58:31 11.00am [2] - 1:18, 2:1 11th [2] - 9:13 12 [1] - 22:44 12-PAGE [1] - 58:40 12.30pm [1] - 46:44 13 [1] - 14:22 14 [1] - 14:17 15 [1] - 35:18 16 [4] - 24:32, 25:45, 26:19, 26:33 16/1/11 [1] - 26:2 1753 [1] - 35:47 18 [9] - 49:46, 50:8, 50:27, 50:35, 51:5, 51:9, 51:20, 51:43, 53:32 18/2/11 [1] - 50:31 18th [2] - 50:1, 50:6 191 [1] - 17:45	2.2 [2] - 17:44, 21:40 2.3 [1] - 18:3 2.4 [1] - 18:17 2.5 [1] - 18:21 2006 [1] - 5:35 2008 [1] - 5:22 2011 [25] - 3:13, 3:14, 3:23, 14:19, 20:30, 22:24, 24:32, 25:36, 25:45, 33:45, 41:34, 44:18, 45:6, 47:17, 47:18, 48:38, 49:46, 50:34, 51:5, 51:21, 53:33, 57:25, 57:32, 58:17, 58:35 2012 [3] - 1:18, 2:1, 2:14 21 [4] - 50:34, 57:32, 58:17, 58:34 21/2/11 [1] - 51:8 21/3/11 [2] - 58:31, 58:40 230 [1] - 17:46 24 [5] - 43:4, 45:17, 47:15, 47:36, 47:44	47 [1] - 41:3 49 [1] - 41:3 4th [2] - 55:13, 55:21	addressing [1] - 12:18 ADJOURNMENT [1] - 46:41 adjusted [2] - 13:16, 19:12 Adjusted [2] - 13:17, 13:45 admin [2] - 5:2, 26:36 administration [2] - 27:25, 38:9 administrative [5] - 5:11, 27:24, 45:41, 46:8, 57:19 afterwards [1] - 42:33 Agenda [1] - 51:42 Agenda/Minutes [1] - 48:38 AGENDA/MINUTES [2] - 49:34, 50:31 ago [3] - 5:35, 45:37, 54:8 aid [1] - 4:22 Allen [6] - 13:21, 13:22, 13:24, 19:7, 19:23, 23:40 Allen's [4] - 13:16, 13:18, 13:45, 19:12 Allens [3] - 1:31, 2:10, 51:38 allocated [1] - 55:9 allowed [1] - 17:45 almost [1] - 5:37 alphabetical [1] - 57:44 amending [1] - 30:4 amendments [1] - 60:12 amount [1] - 43:39 AND [3] - 51:8, 58:31, 58:40 annual [7] - 6:39, 16:11, 16:12, 21:2, 21:23, 23:34, 23:35 answer [3] - 2:23, 2:37, 32:39 answers [1] - 3:4 anyway [3] - 15:38, 17:19, 58:15 apart [10] - 19:21, 32:21, 32:23, 36:37, 40:31, 45:44, 46:13, 48:12, 48:34, 59:30 Apelt [6] - 28:23, 48:26, 51:31, 51:35, 53:31 appear [4] - 44:11, 45:5, 45:16, 59:37 appendices [16] - 8:43, 14:23, 27:28, 27:37, 27:46, 28:2,	32:45, 34:7, 35:16, 35:35, 37:46, 38:15, 38:25, 38:30, 53:4, 53:16 Appendix [20] - 24:25, 43:4, 43:6, 43:24, 43:47, 44:38, 45:7, 45:24, 45:33, 47:2, 47:16, 47:34, 57:35, 58:37, 59:42, 59:43, 59:45, 60:6, 60:18 APPENDIX [3] - 47:43, 58:32, 58:41 appendix [6] - 8:44, 24:20, 33:8, 35:18, 43:3, 44:25 appreciate [3] - 48:40, 54:7, 61:9 approached [1] - 26:36 Arch [1] - 39:12 archived [1] - 17:10 archives [1] - 33:34 area [4] - 10:44, 16:30, 18:40, 20:15 arrived [1] - 26:10 Arthur [2] - 1:31, 2:10 Ashley [1] - 52:8 aspect [3] - 9:45, 10:1, 25:21 aspects [3] - 6:2, 6:29, 24:5 assist [4] - 5:1, 6:20, 10:25, 27:21 assistance [3] - 26:37, 27:24, 46:8 assistant [2] - 5:7, 5:14 assisting [1] - 6:9 associated [1] - 18:22 assume [8] - 16:23, 20:23, 22:32, 30:40, 34:44, 35:32, 41:14, 51:45 assuming [8] - 16:29, 17:30, 19:23, 19:42, 45:18, 47:39, 56:37, 56:39 AT [1] - 61:11 attached [6] - 13:13, 18:24, 18:28, 24:33, 29:24, 43:4 ATTACHED [1] - 47:43 attached) [1] - 57:34 attaches [1] - 57:34 attaching [1] - 50:35 attachment [3] - 19:8, 51:4 ATTACHMENT [3] - 51:8, 58:32, 58:41
2				
2 [20] - 3:13, 3:14, 16:20, 25:36, 26:20, 29:20, 32:33, 36:16, 43:5, 44:17, 45:6, 45:13, 47:1, 47:44, 52:14, 57:24, 57:33, 57:42, 57:43, 58:8 2.1 [2] - 16:21, 21:33	2.2 [2] - 17:44, 21:40 2.3 [1] - 18:3 2.4 [1] - 18:17 2.5 [1] - 18:21 2006 [1] - 5:35 2008 [1] - 5:22 2011 [25] - 3:13, 3:14, 3:23, 14:19, 20:30, 22:24, 24:32, 25:36, 25:45, 33:45, 41:34, 44:18, 45:6, 47:17, 47:18, 48:38, 49:46, 50:34, 51:5, 51:21, 53:33, 57:25, 57:32, 58:17, 58:35 2012 [3] - 1:18, 2:1, 2:14 21 [4] - 50:34, 57:32, 58:17, 58:34 21/2/11 [1] - 51:8 21/3/11 [2] - 58:31, 58:40 230 [1] - 17:46 24 [5] - 43:4, 45:17, 47:15, 47:36, 47:44	47 [1] - 41:3 49 [1] - 41:3 4th [2] - 55:13, 55:21	addressing [1] - 12:18 ADJOURNMENT [1] - 46:41 adjusted [2] - 13:16, 19:12 Adjusted [2] - 13:17, 13:45 admin [2] - 5:2, 26:36 administration [2] - 27:25, 38:9 administrative [5] - 5:11, 27:24, 45:41, 46:8, 57:19 afterwards [1] - 42:33 Agenda [1] - 51:42 Agenda/Minutes [1] - 48:38 AGENDA/MINUTES [2] - 49:34, 50:31 ago [3] - 5:35, 45:37, 54:8 aid [1] - 4:22 Allen [6] - 13:21, 13:22, 13:24, 19:7, 19:23, 23:40 Allen's [4] - 13:16, 13:18, 13:45, 19:12 Allens [3] - 1:31, 2:10, 51:38 allocated [1] - 55:9 allowed [1] - 17:45 almost [1] - 5:37 alphabetical [1] - 57:44 amending [1] - 30:4 amendments [1] - 60:12 amount [1] - 43:39 AND [3] - 51:8, 58:31, 58:40 annual [7] - 6:39, 16:11, 16:12, 21:2, 21:23, 23:34, 23:35 answer [3] - 2:23, 2:37, 32:39 answers [1] - 3:4 anyway [3] - 15:38, 17:19, 58:15 apart [10] - 19:21, 32:21, 32:23, 36:37, 40:31, 45:44, 46:13, 48:12, 48:34, 59:30 Apelt [6] - 28:23, 48:26, 51:31, 51:35, 53:31 appear [4] - 44:11, 45:5, 45:16, 59:37 appendices [16] - 8:43, 14:23, 27:28, 27:37, 27:46, 28:2,	32:45, 34:7, 35:16, 35:35, 37:46, 38:15, 38:25, 38:30, 53:4, 53:16 Appendix [20] - 24:25, 43:4, 43:6, 43:24, 43:47, 44:38, 45:7, 45:24, 45:33, 47:2, 47:16, 47:34, 57:35, 58:37, 59:42, 59:43, 59:45, 60:6, 60:18 APPENDIX [3] - 47:43, 58:32, 58:41 appendix [6] - 8:44, 24:20, 33:8, 35:18, 43:3, 44:25 appreciate [3] - 48:40, 54:7, 61:9 approached [1] - 26:36 Arch [1] - 39:12 archived [1] - 17:10 archives [1] - 33:34 area [4] - 10:44, 16:30, 18:40, 20:15 arrived [1] - 26:10 Arthur [2] - 1:31, 2:10 Ashley [1] - 52:8 aspect [3] - 9:45, 10:1, 25:21 aspects [3] - 6:2, 6:29, 24:5 assist [4] - 5:1, 6:20, 10:25, 27:21 assistance [3] - 26:37, 27:24, 46:8 assistant [2] - 5:7, 5:14 assisting [1] - 6:9 associated [1] - 18:22 assume [8] - 16:23, 20:23, 22:32, 30:40, 34:44, 35:32, 41:14, 51:45 assuming [8] - 16:29, 17:30, 19:23, 19:42, 45:18, 47:39, 56:37, 56:39 AT [1] - 61:11 attached [6] - 13:13, 18:24, 18:28, 24:33, 29:24, 43:4 ATTACHED [1] - 47:43 attached) [1] - 57:34 attaches [1] - 57:34 attaching [1] - 50:35 attachment [3] - 19:8, 51:4 ATTACHMENT [3] - 51:8, 58:32, 58:41

<p>attachments [1] - 15:7 attend [1] - 2:13 ATTEND [1] - 2:17 attended [2] - 48:24, 48:42 attending [1] - 61:5 august [1] - 5:19 August [1] - 5:22 authors [1] - 29:38 available [2] - 2:30, 2:33 aware [5] - 2:32, 28:18, 33:1, 58:21, 60:12 Ayre [3] - 7:22, 46:19, 57:43</p>	<p>BIRD [1] - 26:2 bit [13] - 6:27, 7:46, 8:25, 9:9, 14:27, 19:9, 19:11, 22:29, 23:8, 24:24, 33:30, 51:11, 59:5 bits [6] - 14:35, 15:19, 15:45, 16:33, 17:25, 21:29 books [1] - 6:42 Borrows [5] - 4:38, 9:35, 11:3, 13:13, 25:45 BORROWS [1] - 26:1 BOTTOM [1] - 40:14 bottom [2] - 40:11, 51:22 bound [1] - 32:10 box [1] - 33:40 break [7] - 2:25, 2:27, 40:18, 46:39, 46:43, 47:47 Brian [3] - 28:27, 50:9, 50:13 brief [7] - 9:23, 9:28, 9:43, 10:13, 11:40, 12:5, 21:13 briefing [9] - 12:22, 13:12, 15:3, 15:14, 18:24, 24:31, 24:33, 24:41, 25:21 briefings [1] - 25:26 bring [4] - 6:35, 32:27, 32:30, 32:32 bring-ups [1] - 6:35 bringing [1] - 16:47 Brisbane [1] - 1:22 Brooke [5] - 49:15, 49:19, 49:22, 50:43 Brooke's [1] - 49:18 brought [3] - 11:10, 47:11, 57:2 build [2] - 8:43, 27:28 building [3] - 6:4, 7:46, 9:32 bundle [1] - 39:1 Business [1] - 5:29 business [1] - 5:38</p>	<p>ccross@seqwater [1] - 58:24 CCROSS@SEQWATER [1] - 58:31 ccross@seqwater.com.au [1] - 57:31 CD [1] - 3:32 CDM1 [2] - 2:15, 2:17 CDM2 [4] - 25:46, 26:1, 29:24, 43:44 CDM3 [6] - 40:10, 40:14, 42:19, 42:23, 43:20, 60:1 CDM4 [2] - 42:20, 42:23 CDM5 [4] - 47:35, 47:43, 49:31, 49:33 CDM6 [2] - 50:28, 50:30 CDM7 [2] - 51:3, 51:7 CDM8 [2] - 58:28, 58:30 CDM9 [2] - 58:37, 58:39 centimetres [2] - 39:5, 53:25 centre [6] - 5:43, 26:8, 26:13, 27:18, 31:32, 52:43 Centre [4] - 5:46, 6:5, 7:23, 10:28 certain [1] - 6:42 Certificate [1] - 5:29 chain [2] - 3:12, 4:37 Chair [1] - 11:1 chance [1] - 43:10 change [4] - 16:13, 30:18, 36:34, 40:25 changed [3] - 6:5, 12:14, 15:29 changeover [1] - 40:31 changes [4] - 36:30, 45:25, 59:11, 60:11 changing [1] - 30:4 check [3] - 12:6, 34:10, 34:20 checked [3] - 34:25, 34:30, 35:30 checking [2] - 34:12, 34:19 chief [1] - 4:37 Chloe [11] - 1:36, 2:7, 2:8, 4:5, 14:26, 25:45, 36:46, 46:47, 51:11, 58:44, 60:1 chloe [1] - 4:7 CHLOE [4] - 2:17, 4:1, 26:1, 51:7</p>	<p>Chloe_Ver [3] - 36:46, 37:18, 60:17 Chloe_Ver" [1] - 39:34 choice [2] - 19:46, 46:26 chucked [1] - 49:9 clarification [1] - 2:45 cleans [1] - 17:23 clear [2] - 15:5, 15:15 click [1] - 41:17 closer [2] - 40:38, 41:42 codes [4] - 36:17, 43:25, 44:31, 59:44 Col [2] - 51:30, 51:31 cold [3] - 3:41, 3:46, 22:29 Colin [6] - 28:23, 48:26, 48:43, 50:15, 50:21, 51:35 collate [4] - 12:5, 31:5, 33:5, 49:24 collating [2] - 46:12, 46:16 collation [3] - 6:43, 11:40, 11:45 colour [1] - 59:29 column [5] - 40:23, 44:10, 58:1, 58:14, 59:2 combined [1] - 37:16 coming [2] - 2:12, 12:33 Comment [1] - 58:2 comment [3] - 24:5, 58:11, 59:2 comments [11] - 13:16, 13:18, 13:45, 19:12, 23:43, 23:44, 24:45, 57:24, 58:14, 59:1, 59:9 Commission [4] - 27:2, 27:10, 47:15, 49:36 COMMISSION [1] - 1:10 Commissioner [1] - 2:14 comms [4] - 9:36, 9:45, 10:1, 56:46 communication [2] - 5:38, 7:16 communications [1] - 56:46 company [1] - 4:21 compile [2] - 20:47, 26:35 compiled [5] - 15:23, 20:32, 21:4, 21:7, 26:45</p>	<p>26:45 compiling [1] - 35:15 complete [1] - 36:39 completely [1] - 41:27 Compliance [1] - 19:36 compliance [4] - 19:41, 23:1, 23:23, 46:25 comply [1] - 6:23 computer [2] - 30:4, 34:22 computers [1] - 12:1 CONCLUDED [1] - 61:11 conclusion [2] - 55:3, 56:30 Conclusions [1] - 54:47 conclusions [3] - 55:1, 55:8, 55:22 condition [1] - 23:2 conditions [4] - 6:20, 6:23, 23:12 conducted [1] - 1:26 conducting [1] - 11:1 confuse [2] - 39:36, 57:12 confuses [1] - 55:18 consistent [1] - 25:10 construction [1] - 6:30 consuming [2] - 27:30, 33:30 contact [2] - 32:21, 43:26 contain [1] - 14:3 contained [1] - 18:47 contains [2] - 41:32, 47:2 content [15] - 15:29, 15:34, 16:23, 21:37, 22:6, 22:7, 22:37, 27:39, 30:30, 34:25, 36:34, 54:4, 54:30, 59:11, 59:32 contents [3] - 12:17, 12:19, 14:22 Contents [1] - 24:26 Contents" [1] - 24:23 context [3] - 19:22, 27:10, 27:11 context" [1] - 19:6 continue [1] - 34:22 continued [2] - 26:7, 33:11 contributions [1] - 29:41 control [3] - 6:27, 29:36, 29:43</p>
B				
<p>Background [2] - 16:6, 22:25 background [2] - 16:13, 22:38 barrister [1] - 2:2 Barton [1] - 18:9 basic [8] - 7:41, 26:36, 27:5, 27:40, 27:42, 35:1, 36:32, 59:31 basis [1] - 23:34 became [2] - 43:5, 60:5 BECAME [1] - 47:44 become [4] - 2:32, 3:36, 41:9, 60:18 begin [1] - 26:8 beginning [5] - 9:6, 14:41, 15:3, 16:10, 27:36 belief [1] - 21:7 bell [2] - 49:47, 56:23 below [1] - 41:46 benefit [1] - 45:19 benefits [1] - 16:21 best [1] - 57:46 better [1] - 6:47 between [6] - 7:43, 19:29, 24:43, 25:1, 39:15, 40:43 beyond [2] - 30:26, 60:11 bigger [1] - 38:42 Bill [1] - 51:43 bind [2] - 31:5, 52:32 binder [2] - 32:13, 53:19 binders [1] - 53:11 binding [4] - 29:5, 29:7, 52:29, 53:8 Bird [5] - 9:36, 9:44, 9:47, 12:6, 25:46</p>				
C				
<p>cab [1] - 52:44 cannot [1] - 26:15 car [2] - 32:17, 38:39 Carrie [2] - 48:44 case [3] - 4:10, 48:13, 57:14 category [1] - 41:36 CC [1] - 26:2 cc's [1] - 25:46</p>				

<p>copied [1] - 60:25</p> <p>copies [5] - 51:22, 51:27, 51:37, 52:18, 52:27</p> <p>copy [12] - 3:31, 3:32, 23:42, 31:43, 32:27, 33:7, 47:11, 49:15, 52:24, 52:40, 53:15, 60:23</p> <p>corner [1] - 40:12</p> <p>CORNER [1] - 40:15</p> <p>Corporate [1] - 48:37</p> <p>CORPORATE [2] - 49:33, 50:30</p> <p>CORPORATE-TEMPLATE [2] - 49:33, 50:30</p> <p>correct [5] - 15:26, 33:28, 40:32, 41:47, 60:10</p> <p>correcting [2] - 55:1, 55:8</p> <p>could've [2] - 17:1, 41:26</p> <p>council [2] - 36:17, 36:20</p> <p>couple [13] - 6:12, 12:4, 15:22, 24:19, 27:44, 28:35, 32:33, 39:4, 40:17, 45:36, 46:38, 47:3, 52:1</p> <p>course [3] - 8:18, 41:8, 53:46</p> <p>court [1] - 2:21</p> <p>covering [2] - 3:22, 58:7</p> <p>create [1] - 7:39</p> <p>created [1] - 33:8</p> <p>creating [1] - 33:26</p> <p>creature [1] - 34:43</p> <p>Cross [3] - 2:8, 4:3, 25:45</p> <p>CROSS [2] - 26:1, 51:7</p> <p>crosscheck [1] - 39:20</p> <p>current [6] - 10:27, 10:32, 16:22, 18:23, 35:2, 56:30</p> <p>cut [2] - 21:22, 43:41</p>	<p>6:41, 6:44, 13:22, 18:8, 18:9, 21:3, 21:26, 23:2, 23:11, 23:13, 23:24, 23:33, 23:37, 23:40, 24:1, 24:4, 35:2</p> <p>Dam [1] - 16:6</p> <p>dams [4] - 6:29, 6:31, 36:13, 37:36</p> <p>Dams [1] - 22:3</p> <p>data [3] - 6:18, 6:41, 7:39</p> <p>Date [1] - 44:10</p> <p>date [19] - 6:41, 9:17, 26:15, 33:9, 34:3, 40:24, 40:26, 40:28, 40:30, 40:32, 41:32, 44:11, 44:14, 44:18, 47:24, 50:2, 59:34</p> <p>date's [1] - 49:47</p> <p>DATED [3] - 2:18, 49:34, 50:31</p> <p>dated [1] - 49:45</p> <p>dates [2] - 44:6, 59:44</p> <p>David [3] - 4:30, 4:36, 4:38</p> <p>day-to-day [1] - 44:15</p> <p>days [1] - 10:34</p> <p>days' [1] - 10:38</p> <p>De [2] - 1:36, 4:3</p> <p>DE [10] - 2:7, 2:18, 2:35, 2:41, 3:1, 3:8, 3:17, 3:34, 3:44, 4:1</p> <p>de [1] - 2:7</p> <p>debrief [1] - 4:23</p> <p>December [1] - 4:34</p> <p>decent [1] - 39:6</p> <p>Decision [1] - 22:41</p> <p>dedicated [1] - 6:4</p> <p>deep [1] - 53:25</p> <p>definitely [7] - 10:35, 10:39, 25:13, 38:42, 53:26, 59:16</p> <p>degree [1] - 5:28</p> <p>delete [4] - 17:7, 17:11, 17:22, 33:41</p> <p>Deleted [3] - 33:34, 33:35, 33:40</p> <p>deleted [3] - 17:22, 33:39, 41:27</p> <p>deleting [2] - 41:21, 41:24</p> <p>deletion [1] - 60:31</p> <p>deliver [1] - 38:39</p> <p>delivered [2] - 32:18, 48:13</p> <p>delivering [3] - 32:22, 38:40</p> <p>DERM [3] - 6:23, 13:22, 47:12</p>	<p>describe [2] - 5:10, 5:46</p> <p>design [2] - 6:30, 6:43</p> <p>detail [1] - 14:13</p> <p>detailed [1] - 18:22</p> <p>details [9] - 10:22, 26:46, 27:7, 37:33, 37:36, 43:26, 43:27, 48:31, 49:10</p> <p>developed [2] - 18:34, 28:3</p> <p>different [6] - 4:31, 11:6, 12:16, 29:38, 34:43, 50:47</p> <p>difficult [1] - 38:34</p> <p>direct [3] - 20:45, 31:43, 36:18</p> <p>directed [4] - 5:6, 13:17, 26:46, 46:29</p> <p>directing [1] - 11:4</p> <p>direction [3] - 26:35, 28:6, 35:27</p> <p>directions [1] - 27:40</p> <p>directive [1] - 26:39</p> <p>directs [1] - 20:24</p> <p>disc [2] - 16:34, 37:14</p> <p>discarded [1] - 53:41</p> <p>discretion [2] - 55:13, 55:29</p> <p>discretion' [1] - 56:12</p> <p>Discretionary [1] - 55:47</p> <p>discs [1] - 16:47</p> <p>discuss [15] - 8:27, 27:1, 46:21, 54:23, 54:24, 54:27, 54:30, 54:33, 54:36, 54:37, 54:42, 55:17, 55:38, 55:41, 56:1</p> <p>discussed [3] - 10:20, 57:8, 60:2</p> <p>discussion [7] - 19:37, 19:40, 19:46, 22:14, 27:3, 38:22, 42:33</p> <p>discussions [5] - 10:38, 24:46, 46:23, 46:24, 46:25</p> <p>dissemination [1] - 42:28</p> <p>DOCUMENT [2] - 49:33, 50:30</p> <p>document [56] - 3:15, 3:31, 7:34, 10:9, 10:11, 10:12, 12:13, 12:32, 13:25, 14:1, 14:27, 15:14, 15:18, 18:27, 20:32, 20:40, 21:9, 23:12, 25:40, 25:41, 26:35, 27:14,</p>	<p>29:36, 29:41, 30:10, 30:18, 30:44, 33:8, 33:26, 36:45, 37:2, 37:13, 37:42, 38:7, 38:18, 38:23, 38:30, 40:6, 40:36, 40:43, 43:11, 43:14, 43:22, 43:31, 44:4, 44:6, 45:28, 48:37, 49:44, 57:34, 57:47, 59:26, 59:40, 60:5, 60:22, 60:23</p> <p>documentation [1] - 6:31</p> <p>documents [26] - 3:10, 3:13, 3:24, 3:25, 3:30, 6:21, 6:24, 6:29, 6:34, 6:44, 7:38, 11:7, 14:45, 15:6, 23:13, 23:24, 24:27, 28:10, 29:42, 39:1, 39:20, 40:18, 46:12, 52:29, 53:8</p> <p>done [10] - 5:37, 16:17, 23:14, 25:12, 35:17, 35:25, 37:28, 43:45, 56:11, 59:41</p> <p>dot [5] - 54:7, 54:16, 54:22, 54:47, 55:47</p> <p>doubt [1] - 2:32</p> <p>down [8] - 12:22, 16:44, 17:31, 17:40, 31:37, 34:15, 41:2, 52:46</p> <p>draft [22] - 15:1, 15:45, 18:28, 23:41, 23:47, 25:35, 29:14, 29:16, 29:29, 30:32, 30:35, 31:3, 38:13, 38:15, 39:39, 39:42, 43:4, 46:16, 48:23, 52:18, 53:3, 55:22</p> <p>Draft [1] - 20:30</p> <p>DRAFT [1] - 47:44</p> <p>Draft" [1] - 45:17</p> <p>drafting [1] - 14:34</p> <p>drafts [2] - 29:31, 30:2</p> <p>drawings [1] - 6:30</p> <p>drive [4] - 30:6, 31:31, 32:2, 52:40</p> <p>drive' [8] - 30:5, 30:7, 30:45, 31:11, 31:12, 31:27, 32:5, 38:8</p> <p>driving [1] - 38:39</p> <p>DRURY [1] - 26:2</p> <p>Drury [6] - 4:38, 9:36, 9:42, 20:24, 20:44, 25:46</p> <p>due [1] - 6:40</p>	<p>during [16] - 5:42, 6:3, 7:23, 7:45, 8:8, 8:13, 8:36, 8:42, 9:40, 10:20, 16:22, 19:47, 20:14, 25:22, 49:1, 53:37</p> <p>duties [1] - 5:3</p> <p>DUTY [2] - 58:30, 58:39</p> <p>Duty [2] - 57:30, 58:35</p> <p>duty [3] - 33:1, 33:25, 35:6</p>
E				
<p>early [3] - 37:43, 38:4, 57:2</p> <p>easier [1] - 43:27</p> <p>easily [1] - 33:24</p> <p>easy [1] - 41:1</p> <p>edited [1] - 23:45</p> <p>editing [1] - 23:44</p> <p>Education [1] - 5:25</p> <p>education [1] - 5:27</p> <p>effective [1] - 16:38</p> <p>either [5] - 21:41, 21:44, 21:47, 35:35, 38:28</p> <p>ELECTRONIC [1] - 42:23</p> <p>electronic [3] - 3:31, 40:43, 42:21</p> <p>electronically [6] - 16:36, 32:30, 40:36, 40:37, 47:11, 48:18</p> <p>email [25] - 12:33, 13:3, 15:7, 16:34, 16:38, 16:43, 17:29, 17:40, 17:41, 23:43, 24:35, 25:44, 33:11, 50:33, 50:34, 51:4, 51:21, 57:26, 57:30, 57:31, 58:7, 58:20, 58:22, 58:37, 58:44</p> <p>EMAIL [4] - 26:1, 51:7, 58:30, 58:39</p> <p>emailed [3] - 33:7, 35:25, 49:22</p> <p>emailing [1] - 49:15</p> <p>emails [5] - 17:6, 17:11, 17:41, 36:17, 57:23</p> <p>embankments [1] - 18:4</p> <p>emergency [2] - 4:41, 23:14</p> <p>emptive [1] - 18:17</p> <p>end [3] - 11:18, 26:24, 45:44</p> <p>ended [1] - 44:21</p>				

ENGINEER [4] - 58:30, 58:32, 58:39, 58:41 engineer [7] - 18:8, 24:15, 24:17, 33:1, 33:25, 35:6, 57:43 Engineer [9] - 36:16, 57:31, 57:34, 57:39, 58:2, 58:3, 58:36 Engineers [2] - 57:33, 58:8 engineers [10] - 5:2, 6:9, 6:19, 7:19, 7:44, 20:46, 40:3, 45:42, 46:17, 59:10 ENSBY [27] - 9:4, 11:33, 12:42, 15:5, 17:40, 18:13, 20:18, 23:33, 25:33, 32:2, 32:27, 34:39, 38:1, 41:1, 41:16, 41:31, 42:2, 42:16, 44:6, 45:4, 45:12, 46:36, 47:11, 47:32, 57:28, 60:17, 60:42 Ensbey [3] - 1:27, 2:3, 2:45 entered [3] - 40:30, 45:13, 45:39 entirely [4] - 9:7, 10:3, 19:26 entitled [1] - 45:17 entries [7] - 32:33, 36:14, 36:37, 40:26, 41:20, 47:36, 59:22 entry [3] - 47:16, 58:3, 58:4 environment [1] - 2:21 erodible [1] - 18:3 error [1] - 58:5 essence [2] - 3:11, 40:43 event [46] - 3:17, 8:12, 8:13, 8:15, 8:33, 8:36, 8:37, 8:41, 9:1, 9:10, 16:22, 18:18, 19:47, 20:19, 20:47, 22:38, 23:14, 23:20, 26:27, 26:44, 29:14, 29:16, 30:19, 30:32, 31:3, 36:6, 36:12, 36:23, 36:30, 36:37, 36:45, 38:19, 39:21, 39:28, 39:33, 40:11, 45:20, 48:9, 54:12, 55:3, 58:1, 59:11, 59:19, 59:20, 60:30 Event [7] - 14:19, 20:31, 22:24, 22:41, 22:44, 40:12, 43:7	EVENT [3] - 40:14, 40:15, 47:43 events [2] - 18:22, 26:19 eventually [2] - 45:6, 60:19 evidence [1] - 2:30 exactly [12] - 10:28, 12:3, 25:5, 27:37, 28:11, 28:24, 29:33, 31:30, 35:17, 36:1, 37:27, 48:10 example [12] - 6:17, 6:39, 39:21, 41:1, 41:2, 44:10, 44:46, 47:16, 47:21, 54:36, 57:26, 58:2 examples [1] - 6:12 Excel [7] - 6:18, 41:5, 43:31, 43:41, 44:11, 59:47, 60:22 exchange [1] - 17:41 excuse [1] - 2:24 Executive [1] - 54:11 executive [1] - 4:37 exercised [1] - 56:12 exhibit [1] - 3:36 Exhibit [2] - 2:15, 47:15 EXHIBIT [10] - 2:17, 26:1, 40:14, 42:23, 47:43, 49:33, 50:30, 51:7, 58:30, 58:39 expect [2] - 17:25, 21:25 expert [2] - 18:10, 48:14 experts [1] - 29:3 explain [6] - 23:8, 29:37, 43:30, 44:21, 56:29, 56:40 External [2] - 52:5, 52:8 extract [1] - 60:24 extracted [6] - 16:11, 17:18, 36:14, 43:28, 43:32 extracting [1] - 43:21	features [2] - 36:24, 36:38 Feb [2] - 38:4, 45:17 FEBRUARY [2] - 47:44, 51:9 February [21] - 1:18, 2:1, 2:14, 9:5, 9:6, 26:24, 37:43, 38:1, 43:4, 47:36, 48:38, 49:46, 50:8, 50:21, 50:27, 50:34, 50:35, 51:5, 51:20, 51:43, 53:33 few [8] - 28:9, 33:31, 36:31, 48:34, 48:44, 49:7, 49:8, 51:12 fill [1] - 9:47 final [10] - 3:17, 23:47, 24:2, 24:7, 24:26, 25:13, 29:29, 32:25, 47:1, 53:30 fine [8] - 3:44, 4:5, 20:27, 22:2, 26:18, 32:41, 42:19, 60:9 finish [1] - 5:34 finished [3] - 3:32, 5:28, 57:5 finishes [1] - 58:5 Fiona [3] - 56:16, 56:20 Fiona [1] - 56:16 Fiona's [1] - 56:19 first [20] - 3:17, 4:21, 7:21, 7:22, 7:23, 8:40, 8:46, 9:10, 9:12, 9:24, 14:1, 15:14, 16:5, 37:28, 37:45, 40:25, 47:17, 54:47, 56:26, 58:3 five [1] - 46:39 fix [4] - 15:31, 36:33, 57:33, 58:7 flicking [1] - 14:13 flipping [1] - 22:44 Flood [13] - 5:45, 7:22, 10:28, 14:19, 18:32, 18:34, 20:30, 21:33, 21:40, 22:24, 27:10, 32:6, 43:6 FLOOD [2] - 40:14, 47:43 flood [64] - 3:17, 5:43, 7:19, 7:33, 7:44, 8:12, 8:33, 8:37, 8:41, 9:1, 9:10, 16:20, 16:21, 18:18, 18:23, 20:14, 20:18, 20:45, 20:47, 21:32, 22:2, 22:38, 23:20, 26:8, 26:12, 26:44,	27:18, 29:14, 29:16, 30:19, 30:32, 31:3, 31:10, 31:32, 32:6, 33:23, 36:6, 36:12, 36:23, 36:30, 36:36, 36:37, 36:44, 38:9, 38:19, 39:21, 39:28, 39:32, 40:2, 40:3, 40:11, 48:9, 52:43, 54:12, 54:18, 55:3, 57:47, 59:10, 59:11, 59:19, 59:20, 60:30 floods [2] - 20:13, 20:19 Floods [2] - 6:5, 27:2 FLOODS [1] - 1:10 flows [1] - 6:18 FOC [1] - 41:33 focus [1] - 10:31 focusing [1] - 36:15 folder [10] - 30:47, 31:2, 31:3, 38:9, 38:13, 38:15, 39:39, 39:42, 39:46, 45:17 folders [1] - 39:12 follow [1] - 24:24 FOR [1] - 2:17 forecasting [1] - 21:46 forgot [1] - 13:27 form [1] - 2:29 formal [8] - 2:21, 2:31, 3:36, 5:27, 7:15, 7:17, 12:21, 12:23 formally [1] - 2:13 format [1] - 21:10 formatted [5] - 20:35, 20:41, 34:13, 35:40, 59:29 formatting [7] - 8:44, 9:1, 10:9, 20:36, 34:15, 46:1, 60:26 forward [1] - 25:16 forwarded [1] - 25:13 Foster [3] - 25:46, 56:42 FOSTER [1] - 26:3 four [4] - 7:43, 22:10, 28:30, 46:17 fourth [3] - 28:42, 28:43, 55:22 free [1] - 7:4 freezing [1] - 3:47 frequently [1] - 54:34 Friday [3] - 41:33, 47:16, 47:18 FROM [4] - 26:1, 51:7, 58:30, 58:39 front [6] - 13:12, 15:7, 19:9, 19:11, 39:4, 51:21	Full [1] - 54:16 full [2] - 6:18, 39:12 function [1] - 41:5 functions [1] - 45:41 fuse [2] - 18:4, 18:10
G				
gather [1] - 35:22 general [1] - 10:24 George [1] - 1:22 given [12] - 3:20, 16:16, 17:31, 20:39, 21:9, 31:25, 37:13, 51:27, 51:37, 52:24, 52:41, 53:15 grab [2] - 3:42, 4:24 grammar [2] - 10:5, 45:47 grandmaster [1] - 29:42 graph [3] - 6:18, 7:39, 10:40 graphs [2] - 28:9, 28:14 Greg [1] - 28:40 Griffith [1] - 5:38 group [1] - 6:44 guess [2] - 9:6, 18:7 guessing [2] - 18:5, 20:44 guys [2] - 10:10, 20:35				
H				
half [1] - 15:2 HAND [1] - 40:14 hand [4] - 32:18, 40:11, 40:23, 58:1 handled [1] - 4:23 handwritten [2] - 53:36, 53:40 hard [3] - 3:31, 23:42, 24:24 Hardman [1] - 52:5 hate [1] - 36:32 Hayes [2] - 1:30, 2:10 HAYES [17] - 2:10, 3:28, 3:39, 12:40, 12:44, 40:21, 42:25, 42:30, 42:35, 42:39, 42:43, 42:47, 47:24, 49:36, 49:40, 57:11, 61:3 head [2] - 21:19, 28:42 headed [2] - 12:19, 48:37 header [1] - 27:41 header/footer [1] - 20:37 heading [14] - 14:14,				

14:18, 16:5, 18:21, 19:35, 21:32, 30:23, 30:24, 33:9, 35:40, 40:24, 54:12, 54:15, 57:32 headings [8] - 12:16, 14:2, 15:41, 20:36, 30:22, 33:28, 34:14, 40:24 heads [1] - 26:8 heads-up [1] - 26:8 heap [2] - 52:29, 53:43 hearing [1] - 2:31 held [1] - 48:22 help [6] - 8:44, 9:1, 9:23, 23:3, 27:28, 32:39 helped [2] - 8:43, 33:18 helping [1] - 45:47 hid [2] - 42:10 hidden [6] - 40:45, 41:26, 41:31, 41:39, 41:47, 42:7 hide [1] - 41:5 hiding [2] - 41:25, 60:31 high [1] - 39:5 hire [1] - 32:17 historical [1] - 6:29 hmm [30] - 4:11, 12:35, 13:14, 15:16, 15:20, 15:24, 15:47, 16:3, 24:21, 25:37, 29:25, 30:33, 31:47, 32:11, 32:37, 34:8, 36:47, 41:6, 41:37, 43:21, 44:8, 44:39, 47:6, 51:18, 51:24, 51:28, 55:39, 58:45, 59:23, 60:3 home [2] - 12:7, 52:45 hour [2] - 10:17, 10:18 hours [3] - 12:4, 15:22, 56:27 huge [2] - 6:44, 38:29 hundred [8] - 10:45, 13:41, 16:18, 16:27, 20:23, 21:42, 35:32, 51:46 hundreds [2] - 7:40, 33:30 hydrograph [2] - 6:19, 10:41 hydrographs [3] - 7:32, 7:37, 34:31 hydrologist [2] - 6:17, 7:28 hydrologists [2] - 5:1, 6:9	I idea [10] - 12:7, 13:26, 20:2, 21:33, 25:17, 26:9, 30:30, 33:25, 55:30 Ill [1] - 5:29 Ilott [1] - 51:44 imagine [2] - 33:31, 45:26 important [3] - 3:3, 17:15, 58:47 impression [4] - 34:12, 34:18, 34:19, 56:34 IN [1] - 40:14 inbox [2] - 17:23, 33:37 Inbox [1] - 33:34 inch [1] - 38:40 inches [1] - 38:41 incident [2] - 4:17, 4:20 include [4] - 10:36, 38:30, 48:9, 53:3 included [5] - 6:29, 36:12, 37:15, 50:9, 53:16 including [1] - 34:24 incorporated [1] - 24:45 indented [2] - 54:22, 55:47 independently [1] - 34:25 indepth [1] - 46:1 indicate [2] - 48:21, 50:36 indicated [1] - 10:32 indicating [4] - 20:43, 38:43, 39:7, 43:28 info [1] - 18:11 Information [1] - 16:6 information [20] - 10:26, 16:13, 21:1, 21:3, 21:24, 37:40, 38:20, 40:38, 41:35, 43:32, 44:43, 45:19, 45:33, 47:22, 47:40, 48:21, 49:24, 59:21, 60:24 input [2] - 9:41, 48:35 INQUIRY [1] - 1:10 Inquiry [2] - 2:2, 2:3 insert [1] - 45:32 inspection [3] - 16:11, 16:12, 21:2 inspections [2] - 6:39, 23:35 instead [1] - 36:21	instructions [1] - 44:29 interaction [4] - 3:21, 7:20, 7:43, 23:28 interested [1] - 45:12 internet [1] - 2:33 interrogation [1] - 3:47 interstate [3] - 28:43, 32:19, 48:14 interview [2] - 1:36, 3:37 INTERVIEW [1] - 61:11 interviewed [1] - 4:1 INTERVIEWEE [6] - 12:46, 15:11, 47:26, 47:30, 60:46, 61:7 Introduction [2] - 21:1, 21:22 involved [4] - 13:27, 20:18, 23:41, 45:44 involvement [5] - 9:11, 20:45, 25:40, 45:46, 59:19 issue [1] - 42:45 issued [4] - 2:13, 23:12, 44:43, 47:41 issues [3] - 29:43, 46:25, 56:1 IT [1] - 17:18 it'll [3] - 28:45, 29:2, 41:42 items [1] - 48:16 itself [7] - 11:31, 14:1, 18:9, 21:26, 29:36, 33:26, 36:45	John [42] - 4:45, 5:6, 7:13, 7:21, 8:4, 8:44, 9:21, 9:36, 9:43, 12:1, 18:5, 18:11, 18:13, 18:35, 18:38, 19:1, 21:29, 21:41, 22:4, 22:32, 22:35, 26:34, 27:33, 28:6, 29:46, 29:47, 30:10, 30:16, 30:29, 30:35, 31:26, 33:18, 34:12, 35:28, 37:31, 44:26, 46:18, 48:8, 50:34, 52:37, 57:40 John's [1] - 30:3 joint [1] - 19:29 JTIBALDI@ SEQWATER.COM [1] - 58:40 jtibaldi@seqwater. com.au [1] - 58:36 Julian [7] - 1:27, 2:3, 4:10, 25:31, 40:39, 41:19, 47:8 jumping [1] - 45:2	57:23 latest [2] - 16:12, 30:46 latter [1] - 15:2 lawyers [2] - 51:38, 52:1 learning [1] - 55:33 learnings [1] - 4:24 learnt [1] - 7:45 least [2] - 27:44, 40:25 leave [1] - 27:45 led [1] - 3:13 LEFT [1] - 40:14 left [5] - 9:42, 11:27, 25:1, 40:11, 40:23 left-hand [2] - 40:11, 40:23 LEFT-HAND [1] - 40:14 Legal [1] - 52:14 legal" [1] - 51:37 lengthy [1] - 33:22 Level [1] - 54:16 level [1] - 1:22 Lever [1] - 39:12 Life [1] - 14:18 lighter [1] - 59:29 likely [1] - 55:21 line [5] - 33:10, 36:39, 41:46, 47:17, 47:26 lines [1] - 42:2 list [8] - 6:21, 12:21, 12:26, 14:2, 14:6, 24:4, 51:22, 52:15 listed [3] - 6:24, 22:10, 45:7 listening [2] - 20:3, 46:28 living [1] - 46:3 located [2] - 4:26, 5:40 log [19] - 8:33, 8:37, 8:41, 9:1, 36:6, 36:23, 36:30, 36:37, 36:45, 39:21, 39:29, 39:33, 40:11, 58:1, 58:3, 59:11, 59:19, 59:20, 60:30 LOG [2] - 40:14, 47:43 Log [1] - 43:7 Log_Chloe [1] - 40:12 LOG_CHLOE [1] - 40:15 look [14] - 6:28, 12:37, 13:7, 13:11, 13:47, 31:22, 35:37, 37:22, 41:2, 43:10, 44:17, 48:41, 51:42, 52:25 looked [2] - 41:44, 44:12
K Karalee [1] - 5:42 katherine [1] - 61:1 Katherine [3] - 1:30, 2:10, 40:19 keep [6] - 8:28, 12:40, 17:6, 17:15, 37:3, 53:46 keeping [1] - 8:37 kept [1] - 28:10 Kerri [3] - 1:26, 2:2, 4:10 kind [3] - 12:22, 26:28, 53:46 knowledge [9] - 15:38, 20:16, 20:46, 21:45, 33:46, 40:5, 46:14, 46:27, 57:1 known [1] - 2:8 knows [1] - 21:29				
L ladies [1] - 2:26 language [2] - 10:5, 46:5 large [4] - 27:14, 38:31, 43:39, 53:9 largest [1] - 53:19 last [8] - 4:30, 4:34, 4:40, 5:10, 5:41, 6:3, 48:27, 51:34 late [6] - 9:21, 25:4, 52:28, 52:45, 52:46,				
J jackets [1] - 3:41 January [22] - 3:23, 8:9, 8:36, 9:5, 9:10, 9:16, 14:18, 15:1, 19:47, 20:8, 20:30, 22:24, 24:32, 25:45, 26:19, 26:24, 26:33, 33:45, 41:34, 44:18, 47:17, 47:18 jigsaw [1] - 7:8 Jim [4] - 4:38, 9:35, 9:42, 49:20 job [10] - 4:16, 4:26, 4:40, 5:14, 5:41, 6:13, 6:47, 7:5, 49:18, 56:19 jog [1] - 58:9 jogging [1] - 59:6 jogs [1] - 47:3 JOHN [2] - 26:2, 51:7				

<p>looking ^[1] - 16:18</p> <p>looks ^[10] - 12:33, 14:17, 14:45, 15:1, 16:10, 20:42, 21:22, 23:11, 50:14, 57:47</p> <p>lose ^[1] - 60:26</p> <p>loud ^[1] - 8:26</p>	<p>29:37, 34:3, 37:6, 42:26, 43:17, 52:20, 54:24, 55:6, 57:12</p> <p>meaningful ^[1] - 3:4</p> <p>means ^[1] - 2:20</p> <p>meant ^[1] - 20:2</p> <p>meeting ^[39] - 9:28, 9:31, 9:40, 9:41, 9:42, 10:15, 10:21, 10:24, 11:1, 11:13, 11:14, 11:18, 11:27, 11:30, 11:33, 11:35, 13:38, 26:19, 48:26, 48:29, 48:39, 48:41, 49:1, 49:27, 49:45, 50:13, 50:35, 51:5, 51:12, 51:20, 53:29, 53:32, 53:37, 54:25, 54:40, 54:45, 55:41, 56:10, 57:16</p> <p>Meeting ^[1] - 48:38</p> <p>MEETING ^[3] - 49:34, 50:31, 51:9</p> <p>meetings ^[4] - 24:46, 48:22, 48:25, 50:4</p> <p>Mellifont ^[2] - 1:26, 2:2</p> <p>MELLIFONT ^[83] - 2:1, 2:12, 2:20, 2:37, 2:43, 3:3, 3:10, 3:19, 3:30, 3:36, 3:41, 3:46, 4:3, 9:9, 11:30, 11:35, 12:37, 13:2, 15:9, 15:13, 17:37, 17:44, 18:17, 20:22, 23:31, 24:7, 25:30, 25:35, 25:44, 26:5, 32:9, 32:25, 32:30, 34:37, 34:41, 38:6, 40:10, 40:17, 40:23, 41:19, 41:42, 42:9, 42:14, 42:18, 42:28, 42:32, 42:37, 42:41, 42:45, 43:1, 44:3, 44:24, 45:2, 45:10, 45:23, 46:34, 46:38, 46:43, 47:8, 47:21, 47:28, 47:34, 47:46, 49:31, 49:38, 49:42, 50:27, 50:33, 51:3, 51:11, 57:14, 57:22, 57:30, 58:27, 58:34, 58:43, 60:15, 60:29, 60:40, 60:44, 61:1, 61:5, 61:9</p> <p>memory ^[2] - 10:10, 47:4</p> <p>met ^[3] - 7:21, 7:24, 7:27</p> <p>Michael ^[1] - 51:44</p>	<p>might ^[11] - 2:29, 6:34, 9:5, 15:40, 19:13, 25:30, 29:41, 41:39, 46:39, 48:41, 51:12</p> <p>might've ^[1] - 54:36</p> <p>MIKE ^[1] - 26:3</p> <p>Mike ^[1] - 56:42</p> <p>mind ^[2] - 50:25, 59:6</p> <p>mine ^[3] - 12:40, 49:25, 60:42</p> <p>Minister ^[12] - 9:23, 10:3, 10:27, 11:42, 11:46, 12:17, 12:22, 25:11, 25:14, 25:16, 25:20, 26:20</p> <p>Minister's ^[1] - 24:44</p> <p>ministerial ^[5] - 15:3, 15:13, 24:31, 25:21, 25:25</p> <p>minute ^[2] - 28:46, 46:39</p> <p>MINUTES ^[1] - 51:8</p> <p>minutes ^[13] - 45:37, 48:24, 48:34, 48:40, 49:5, 49:8, 49:38, 50:27, 51:5, 51:12, 51:26, 52:20, 57:11</p> <p>Minutes ^[1] - 51:43</p> <p>missed ^[3] - 34:26, 35:37, 40:27</p> <p>missing ^[3] - 33:44, 33:46, 44:14</p> <p>mistake ^[1] - 15:31</p> <p>mistakes ^[4] - 36:31, 36:32, 36:33, 59:27</p> <p>Mitigation ^[3] - 18:32, 18:34, 21:33</p> <p>mitigation ^[3] - 16:20, 21:32, 22:2</p> <p>Mmm-hmm ^[27] - 4:11, 12:35, 13:14, 15:24, 15:47, 24:21, 25:37, 29:25, 30:33, 31:47, 32:11, 32:37, 34:8, 36:47, 41:6, 41:37, 43:21, 44:8, 44:39, 47:6, 51:18, 51:24, 51:28, 55:39, 58:45, 59:23, 60:3</p> <p>mmm-hmm ^[3] - 15:16, 15:20, 16:3</p> <p>modelling ^[2] - 28:8, 28:14</p> <p>modified ^[1] - 40:7</p> <p>modify ^[1] - 37:19</p> <p>moment ^[4] - 4:17, 4:29, 13:42, 21:6</p> <p>Monday ^[1] - 57:31</p> <p>morning ^[1] - 13:38</p> <p>most ^[4] - 7:16, 11:4,</p>	<p>16:38, 41:1</p> <p>mostly ^[3] - 21:46, 30:16, 46:18</p> <p>mouth ^[1] - 18:44</p> <p>move ^[6] - 25:30, 34:37, 34:41, 43:3, 48:6, 57:22</p> <p>moved ^[4] - 53:43, 59:43, 60:5, 60:17</p> <p>moving ^[6] - 11:35, 16:20, 18:32, 24:19, 43:21, 54:47</p> <p>muddled ^[1] - 50:24</p> <p>multiple ^[2] - 29:31, 53:14</p> <p>Murdoch ^[3] - 56:16, 56:20</p> <p>must ^[2] - 23:10, 56:17</p>	<p>36:14, 37:15, 41:13, 41:22, 41:24, 41:35, 41:40, 41:45, 43:21, 43:28, 43:32, 59:22</p> <p>note ^[4] - 15:3, 15:14, 24:41, 44:42</p> <p>notes ^[14] - 48:34, 49:7, 49:8, 49:12, 49:16, 49:22, 50:2, 50:35, 50:43, 53:36, 53:40, 53:47, 57:20</p> <p>nothing ^[6] - 33:35, 33:39, 33:40, 34:25, 59:31, 60:13</p> <p>notice ^[2] - 2:13, 2:22</p> <p>NOTICE ^[1] - 2:17</p> <p>notion ^[1] - 27:9</p> <p>number ^[10] - 18:32, 19:35, 20:22, 22:2, 22:24, 31:4, 35:19, 36:18, 41:4, 52:14</p> <p>numbered ^[1] - 52:19</p> <p>numbering ^[1] - 41:2</p> <p>numbers ^[2] - 36:27, 44:32</p>
M				
<p>Maher ^[1] - 18:9</p> <p>mail ^[1] - 23:42</p> <p>mailbox ^[6] - 33:2, 33:5, 33:19, 33:23, 33:26, 33:33</p> <p>main ^[4] - 8:6, 9:37, 27:38, 33:36</p> <p>major ^[1] - 59:28</p> <p>Malone ^[7] - 7:27, 16:23, 16:29, 20:44, 28:15, 34:30, 57:43</p> <p>manage ^[1] - 4:23</p> <p>management ^[1] - 4:17</p> <p>Manual ^[5] - 18:32, 18:34, 18:47, 19:36, 22:2</p> <p>manual ^[6] - 19:41, 46:25, 55:14, 55:30, 56:5, 56:11</p> <p>March ^[27] - 3:13, 3:14, 3:23, 25:36, 26:20, 28:18, 29:20, 29:27, 32:25, 32:32, 32:33, 32:35, 32:39, 33:44, 33:47, 35:14, 36:7, 43:5, 45:6, 45:13, 47:1, 57:24, 57:32, 58:17, 58:34</p> <p>MARCH ^[1] - 47:44</p> <p>Marchi ^[3] - 1:36, 2:7, 4:3</p> <p>MARCHI ^[10] - 2:7, 2:18, 2:35, 2:41, 3:1, 3:8, 3:17, 3:34, 3:44, 4:1</p> <p>Margaret ^[4] - 9:22, 9:32, 31:37, 52:46</p> <p>marked ^[1] - 40:11</p> <p>MARKED ^[1] - 40:14</p> <p>Market ^[1] - 4:27</p> <p>match ^[1] - 37:44</p> <p>matched ^[1] - 39:22</p> <p>material ^[3] - 3:20, 29:3, 48:7</p> <p>materials ^[1] - 6:43</p> <p>matters ^[1] - 54:18</p> <p>McCredie ^[1] - 51:44</p> <p>mean ^[14] - 9:47, 10:8, 13:46, 18:13, 19:43,</p>				
N				
<p>name ^[8] - 2:1, 13:28, 36:19, 36:20, 36:21, 37:2, 48:27, 51:34</p> <p>name's ^[1] - 56:23</p> <p>names ^[7] - 2:5, 28:35, 32:4, 36:16, 36:27, 44:31, 59:21</p> <p>NAS ^[1] - 32:2</p> <p>navigator ^[1] - 6:33</p> <p>nearly ^[2] - 5:28, 31:40</p> <p>necessarily ^[1] - 54:44</p> <p>necessary ^[1] - 56:6</p> <p>need ^[16] - 2:24, 2:26, 6:21, 7:33, 12:40, 14:44, 21:18, 23:13, 30:39, 31:36, 40:18, 40:38, 52:44, 54:42, 55:1, 55:8</p> <p>needed ^[3] - 8:44, 9:1, 33:28</p> <p>negative ^[1] - 56:14</p> <p>never ^[9] - 20:14, 20:15, 20:20, 23:20, 34:20, 36:33, 56:13, 56:14, 59:15</p> <p>new ^[2] - 4:30, 54:33</p> <p>next ^[7] - 9:22, 18:21, 24:19, 40:29, 55:6, 55:13, 57:22</p> <p>night ^[3] - 9:21, 52:29, 53:2</p> <p>non ^[1] - 42:45</p> <p>non-issue ^[1] - 42:45</p> <p>normal ^[1] - 26:7</p> <p>normally ^[1] - 53:47</p> <p>North ^[14] - 36:12,</p>				
O				
<p>O1.DOC ^[2] - 58:32, 58:41</p> <p>O1.doc" ^[1] - 57:35</p> <p>obligation ^[1] - 2:37</p> <p>obvious ^[1] - 41:1</p> <p>obviously ^[7] - 2:37, 15:32, 16:2, 26:10, 26:20, 50:39, 60:26</p> <p>occasion ^[1] - 52:39</p> <p>occur ^[1] - 45:37</p> <p>occurred ^[1] - 49:28</p> <p>occurs ^[1] - 4:20</p> <p>OF ^[4] - 1:10, 2:17, 42:23, 51:8</p> <p>office ^[7] - 3:42, 5:42, 11:15, 11:37, 15:23, 16:44, 24:44</p> <p>officer ^[3] - 4:17, 4:41, 20:14</p> <p>officers ^[1] - 40:3</p> <p>offices ^[1] - 53:43</p> <p>official ^[2] - 26:35, 49:8</p> <p>offline ^[6] - 54:23, 54:24, 54:33, 54:38, 55:17, 55:38</p> <p>offline" ^[1] - 54:37</p> <p>often ^[1] - 29:37</p> <p>older ^[1] - 50:16</p> <p>once ^[5] - 33:24, 40:27, 53:47, 54:2, 59:40</p>				

one [68] - 3:30, 3:42, 8:1, 10:12, 12:13, 12:15, 14:36, 15:1, 15:2, 16:12, 18:29, 20:46, 21:47, 24:25, 25:22, 27:29, 27:44, 28:30, 29:17, 29:20, 29:21, 29:23, 29:24, 29:27, 29:29, 30:23, 32:19, 32:45, 33:29, 33:44, 35:6, 35:16, 37:15, 37:22, 37:27, 37:45, 39:25, 39:28, 39:32, 39:33, 39:35, 40:33, 41:31, 42:10, 42:14, 43:4, 44:34, 45:28, 48:26, 49:45, 50:5, 50:8, 50:9, 50:12, 50:21, 50:25, 50:40, 52:29, 53:15, 55:4, 55:6, 55:13, 58:15, 58:27, 58:34, 58:35, 58:43 ONE [2] - 49:33, 50:30 one's [1] - 45:2 ONE-PAGE [2] - 49:33, 50:30 ones [5] - 27:38, 28:11, 37:46, 51:1, 52:30 ongoing [2] - 28:3, 29:33 open [1] - 2:30 operational [1] - 35:2 operations [2] - 16:21, 21:33 Operations [3] - 5:46, 7:22, 21:40 opposed [2] - 40:37, 54:36 Ops [2] - 6:5, 10:28 oral [1] - 12:22 order [4] - 27:38, 39:25, 57:44, 60:22 ordinary [1] - 53:46 orient [2] - 12:37, 51:13 original [5] - 37:4, 37:7, 37:9, 37:10, 37:19 originally [1] - 21:13 otherwise [1] - 39:35 outline [3] - 23:13, 54:18, 56:26 outside [5] - 54:25, 54:40, 54:45, 56:5, 56:11 overlap [1] - 40:27 Overview [1] - 48:39 own [2] - 17:6, 21:19	<p style="text-align: center;">P</p> PA [1] - 49:20 page [16] - 8:30, 13:12, 14:1, 14:17, 14:18, 17:44, 18:21, 22:9, 22:10, 22:44, 24:20, 40:25, 44:10, 44:17, 51:26, 58:3 PAGE [3] - 49:33, 50:30, 51:8 pages [4] - 14:22, 24:19, 24:26, 51:4 pain [1] - 53:9 paper [1] - 49:9 part [7] - 2:30, 2:31, 7:5, 14:30, 21:4, 24:24, 26:24 particular [12] - 7:34, 20:32, 22:21, 22:37, 29:41, 30:11, 30:41, 32:34, 44:4, 44:6, 52:39, 56:33 parts [2] - 14:14, 20:42 pass [2] - 11:39, 12:4 passed [1] - 10:26 past [1] - 23:28 paste [4] - 21:23, 33:7, 43:41, 60:23 pasted [2] - 33:10, 60:25 pattern [1] - 33:11 PAUL [1] - 26:2 Paul [5] - 9:36, 9:44, 9:47, 12:6, 52:5 PDF [1] - 60:19 peak [2] - 56:27 peer [3] - 38:23, 39:22, 44:34 peg [2] - 26:18, 26:27 people [17] - 9:37, 11:4, 11:6, 11:23, 15:19, 16:34, 16:44, 21:8, 31:21, 38:39, 46:5, 48:30, 48:44, 50:8, 51:27, 52:19, 53:30 per [3] - 6:43, 23:10, 53:14 percent [10] - 10:45, 13:41, 16:18, 16:27, 17:46, 20:23, 21:42, 35:32, 51:46 performing [1] - 45:41 perhaps [4] - 19:12, 20:34, 40:38, 50:1 period [4] - 3:22, 5:42, 17:2, 17:35 person [4] - 7:15,	26:28, 53:15, 59:44 personal [12] - 5:7, 17:11, 17:41, 30:6, 36:17, 36:24, 36:38, 37:33, 37:40, 43:27, 58:22, 59:21 persons [1] - 46:44 PETER [1] - 26:1 Peter [15] - 4:38, 9:35, 11:3, 13:13, 13:16, 13:18, 13:21, 13:22, 13:24, 13:45, 19:7, 19:12, 19:23, 19:32, 25:45 phone [3] - 9:21, 36:27, 59:21 physical [1] - 6:2 physically [2] - 4:26, 5:40 picked [1] - 15:30 piece [1] - 29:33 pieces [6] - 10:12, 16:33, 17:26, 20:39, 21:7, 21:29 piecing [1] - 12:9 Pine [14] - 36:13, 36:14, 37:15, 41:13, 41:22, 41:24, 41:35, 41:40, 41:45, 43:21, 43:28, 43:32, 59:22 place [3] - 6:35, 32:45, 39:38 plant [1] - 4:21 plotting [1] - 7:37 plug [1] - 18:4 plugs [1] - 18:10 plus [1] - 14:23 pm [1] - 44:19 point [14] - 7:4, 9:26, 42:32, 54:17, 54:22, 55:1, 55:13, 55:21, 55:22, 55:23, 55:24, 55:47, 56:31, 60:37 points [1] - 54:7 pop [2] - 10:12, 27:29 popped [5] - 31:28, 43:15, 43:17, 43:25, 44:13 popping [2] - 47:4, 50:6 position [5] - 4:30, 4:31, 4:33, 5:21, 36:21 positions [1] - 53:43 post [1] - 48:14 posted [1] - 48:16 posting [1] - 48:15 pre [1] - 18:17 pre-emptive [1] - 18:17	precise [1] - 19:15 preliminary [1] - 18:23 preparation [1] - 44:24 prepare [1] - 48:23 prepared [17] - 15:19, 18:24, 23:10, 26:43, 27:2, 29:31, 34:6, 35:5, 35:6, 35:36, 37:42, 37:43, 38:18, 40:6, 44:30, 49:5, 57:24 preparing [6] - 15:45, 20:18, 23:33, 43:14, 46:16 present [4] - 1:30, 9:34, 46:44, 53:32 presentation [2] - 27:2, 45:47 presented [3] - 12:26, 12:29, 35:42 presumably [1] - 36:46 presumption [1] - 56:35 pretty [10] - 4:20, 4:45, 5:15, 6:22, 7:41, 11:3, 13:39, 16:36, 27:4, 52:30 previous [2] - 10:33, 10:38 previously [1] - 2:7 print [8] - 29:13, 30:36, 30:45, 31:5, 31:7, 31:25, 31:37, 52:32 Print [1] - 30:44 printed [9] - 31:46, 32:9, 32:27, 39:18, 39:24, 39:30, 48:8, 52:34, 52:47 printing [5] - 29:5, 29:7, 30:32, 52:29, 53:2 printout [3] - 3:31, 40:37, 47:34 Private [1] - 1:36 private [2] - 54:43, 54:44 problem [2] - 2:27, 18:3 procedures [1] - 6:35 proceedings [1] - 2:31 process [12] - 3:12, 28:3, 32:34, 32:44, 33:16, 36:10, 55:33, 57:36, 59:6, 60:17, 60:25, 60:31 produced [1] - 37:23 Professor [1] - 53:31	proper [1] - 3:26 provided [2] - 16:22, 19:23 Provided [1] - 19:7 provided [1] - 19:36 Pruss [5] - 4:38, 9:36, 9:43, 49:20, 54:23 public [2] - 27:14, 42:28 published [5] - 27:6, 27:10, 36:19, 45:6, 45:43 pull [1] - 10:11 purpose [3] - 3:11, 26:42, 49:22 put [15] - 6:33, 7:8, 18:44, 28:2, 29:3, 31:41, 32:13, 34:6, 34:32, 36:21, 44:25, 47:22, 47:47, 52:33, 56:24
				<p style="text-align: center;">Q</p> QLD [1] - 1:22 qualification [1] - 5:31 qualifications [1] - 5:27 quality [1] - 6:27 QUEENSLAND [1] - 1:10 Queensland [1] - 5:25 questions [18] - 2:23, 2:38, 3:22, 12:18, 12:19, 12:21, 12:26, 12:47, 14:3, 14:6, 17:37, 23:31, 25:31, 40:17, 44:3, 60:40, 60:44 quickly [1] - 36:33 quite [11] - 20:35, 20:42, 27:30, 33:24, 33:31, 35:19, 38:25, 48:3, 48:43, 50:15, 52:11
				<p style="text-align: center;">R</p> rainfall [1] - 41:34 read [4] - 47:37, 51:13, 58:5, 59:5 readable [2] - 59:30, 60:27 reading [2] - 55:18, 56:36 reads [2] - 47:16, 48:39 ready [1] - 11:38 really [15] - 3:3, 3:46, 5:6, 8:5, 8:24, 9:38, 16:13, 20:3, 24:16,

<p>49:2, 49:10, 49:19, 50:15, 50:16, 59:31</p> <p>reason [3] - 18:43, 19:3, 56:33</p> <p>reasonable [1] - 2:23</p> <p>recap [1] - 59:18</p> <p>receive [1] - 17:25</p> <p>received [3] - 9:21, 16:33, 33:36</p> <p>receiving [1] - 59:9</p> <p>recipient [1] - 53:14</p> <p>recollection [32] - 10:24, 10:31, 11:23, 13:34, 13:37, 15:41, 16:43, 19:18, 19:46, 22:14, 22:20, 24:27, 25:10, 35:21, 37:44, 38:28, 42:9, 45:31, 46:24, 48:25, 48:47, 52:40, 55:2, 55:26, 56:1, 56:6, 56:10, 56:27, 56:34, 57:35, 58:9, 59:9</p> <p>Recommendations [1] - 24:3</p> <p>recommendations [2] - 24:5, 24:10</p> <p>record [7] - 2:4, 3:26, 18:22, 29:23, 42:19, 49:27, 57:42</p> <p>records [1] - 50:21</p> <p>red [2] - 19:9, 19:21</p> <p>redact [1] - 59:20</p> <p>redacting [1] - 60:29</p> <p>refer [2] - 31:16, 32:5</p> <p>reference [1] - 26:18</p> <p>referring [4] - 19:9, 19:13, 39:1, 51:45</p> <p>regards [1] - 55:4</p> <p>regulator [5] - 6:41, 13:22, 23:37, 23:41, 24:1</p> <p>Regulatory [1] - 19:6</p> <p>regulatory [1] - 19:22</p> <p>reinsert [1] - 45:32</p> <p>related [2] - 28:8, 41:13</p> <p>relates [1] - 55:2</p> <p>relating [6] - 18:29, 30:11, 33:29, 41:40, 41:45, 55:31</p> <p>relationship [1] - 7:47</p> <p>releases [1] - 18:17</p> <p>releasing [2] - 42:20, 42:25</p> <p>relevant [1] - 54:18</p> <p>remember [75] - 8:43, 9:13, 9:18, 9:35, 9:38, 10:20, 10:28, 10:40, 10:43, 12:3,</p>	<p>12:30, 13:4, 13:17, 13:41, 13:42, 16:37, 17:1, 17:4, 19:42, 21:11, 21:15, 21:18, 25:4, 26:14, 26:15, 27:9, 27:15, 27:38, 28:22, 28:23, 29:5, 30:16, 30:32, 31:28, 32:4, 32:7, 34:44, 35:11, 35:14, 35:17, 36:31, 38:24, 38:25, 38:31, 38:35, 41:26, 41:28, 44:36, 48:10, 48:15, 48:16, 48:26, 48:31, 48:33, 48:44, 49:2, 49:14, 49:15, 50:5, 50:12, 50:14, 50:15, 50:24, 50:40, 52:28, 52:44, 53:5, 53:16, 55:31, 56:20, 58:10, 58:15</p> <p>remembered [3] - 13:40, 21:12, 50:16</p> <p>remembering [2] - 50:2, 59:7</p> <p>rep [1] - 44:44</p> <p>replaced [1] - 36:16</p> <p>report [84] - 3:13, 3:14, 3:17, 8:42, 8:45, 10:33, 11:40, 11:45, 13:12, 15:1, 18:24, 18:28, 20:22, 20:31, 20:47, 23:9, 23:15, 23:20, 23:43, 24:7, 24:26, 24:33, 25:23, 25:35, 25:36, 26:42, 26:44, 27:1, 27:5, 27:21, 28:3, 28:18, 29:14, 29:16, 29:28, 30:2, 30:19, 30:32, 31:3, 32:25, 32:32, 32:33, 32:36, 32:39, 33:9, 33:45, 33:47, 34:43, 34:47, 35:1, 35:10, 35:14, 36:7, 36:12, 36:14, 36:37, 38:13, 38:19, 39:42, 41:33, 41:36, 43:5, 44:42, 46:17, 47:1, 47:12, 47:17, 47:22, 47:38, 48:9, 48:23, 48:40, 51:22, 52:18, 53:30, 54:12, 54:17, 55:4, 55:22, 57:5, 57:25</p> <p>Report [1] - 54:47</p> <p>REPORT [2] - 47:44</p> <p>reported [2] - 4:22, 4:45</p> <p>reporting [1] - 7:12</p>	<p>reports [17] - 20:19, 21:23, 23:34, 32:35, 33:6, 33:44, 34:34, 34:42, 35:14, 35:23, 44:38, 45:5, 45:7, 45:13, 45:33, 47:2, 53:3</p> <p>reps [3] - 34:35, 34:39, 35:24</p> <p>required [4] - 2:13, 2:22, 2:23, 6:35</p> <p>REQUIREMENT [1] - 2:17</p> <p>requirement [3] - 2:15, 23:9, 54:17</p> <p>respect [8] - 8:40, 34:34, 35:35, 37:36, 40:26, 44:24, 52:39, 59:25</p> <p>response [3] - 3:6, 4:41, 24:16</p> <p>responsible [3] - 14:34, 15:42, 58:4</p> <p>resuming [1] - 46:44</p> <p>retain [1] - 53:40</p> <p>review [5] - 6:36, 6:41, 29:4, 49:45, 51:23</p> <p>Review [2] - 22:44, 54:15</p> <p>reviewed [2] - 6:21, 6:42</p> <p>reviewers [12] - 3:21, 28:19, 38:23, 39:19, 39:22, 44:35, 48:7, 48:22, 50:12, 53:29, 56:1, 57:1</p> <p>reviewing [4] - 22:20, 23:41, 23:44, 53:30</p> <p>reviews [1] - 6:38</p> <p>rid [4] - 36:18, 41:28, 43:26, 53:43</p> <p>right-hand [1] - 58:1</p> <p>ringing [2] - 49:47, 56:23</p> <p>rise [1] - 17:45</p> <p>Roads [2] - 28:39, 28:40</p> <p>ROB [1] - 26:2</p> <p>Rob [8] - 4:38, 7:22, 9:36, 9:42, 12:2, 20:24, 20:44, 57:43</p> <p>Roberts [3] - 4:30, 4:36, 4:38</p> <p>Robinson [2] - 1:31, 2:10</p> <p>role [17] - 4:47, 5:10, 8:37, 8:40, 9:40, 13:24, 18:3, 25:25, 27:28, 27:30, 27:32, 35:15, 43:14, 47:4,</p>	<p>48:33, 57:16, 58:17</p> <p>room [11] - 3:46, 6:4, 8:1, 8:6, 8:8, 12:1, 12:2, 20:45, 40:2, 40:3, 46:19</p> <p>roughly [1] - 14:22</p> <p>row [1] - 41:32</p> <p>Rowland [3] - 45:44, 45:47, 48:45</p> <p>Rowland's [1] - 45:46</p> <p>rows [4] - 40:44, 41:4, 41:31, 60:31</p> <p>Ruffini [3] - 7:21, 46:19, 57:43</p> <p>run [1] - 44:19</p>	<p>54:15, 54:22, 57:32, 57:33, 58:2, 59:1, 59:5</p> <p>seeing [4] - 9:22, 10:40, 13:27, 36:32</p> <p>select [2] - 41:8, 41:16</p> <p>selected [1] - 41:4</p> <p>send [1] - 17:11</p> <p>sending [5] - 13:2, 13:4, 13:13, 24:7, 50:43</p> <p>sense [18] - 3:4, 5:45, 6:12, 6:34, 6:47, 9:4, 14:30, 14:44, 26:23, 30:39, 38:12, 38:38, 51:16, 53:7, 54:35, 54:37, 55:7, 58:8</p> <p>Sent [1] - 33:34</p> <p>sent [13] - 12:5, 13:8, 13:25, 15:23, 24:32, 24:38, 28:18, 33:6, 33:36, 38:23, 44:34, 48:7, 48:12</p> <p>SENT [4] - 26:2, 51:8, 58:31, 58:40</p> <p>separate [2] - 12:1, 37:3</p> <p>SEQWATER [2] - 58:30, 58:39</p> <p>Seqwater [8] - 4:14, 9:32, 10:27, 14:18, 20:22, 20:30, 25:28, 54:35</p> <p>server [4] - 31:18, 37:10, 37:15, 39:33</p> <p>set [2] - 12:2, 30:22</p> <p>sets [1] - 41:34</p> <p>shading [1] - 59:29</p> <p>shall [1] - 4:3</p> <p>Shannon [7] - 28:27, 50:9, 50:13, 53:31, 55:13, 55:37, 56:5</p> <p>Shannon" [1] - 55:6</p> <p>share [1] - 32:2</p> <p>sheet [1] - 24:25</p> <p>SHORT [1] - 46:41</p> <p>short [2] - 46:43, 50:16</p> <p>should've [1] - 59:42</p> <p>show [23] - 3:10, 3:24, 3:30, 12:32, 28:10, 28:11, 32:33, 36:44, 40:36, 41:43, 43:5, 47:3, 47:8, 48:37, 49:44, 50:33, 56:5, 57:23, 57:25, 58:27, 58:34, 58:43</p> <p>showed [2] - 10:43, 33:24</p> <p>showing [2] - 3:23,</p>
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<p>41:17 Uni ^[1] - 5:38 unless ^[3] - 2:23, 25:30, 28:8 up ^[32] - 2:29, 4:36, 8:42, 9:27, 9:28, 9:30, 11:15, 12:2, 15:30, 17:45, 23:15, 26:8, 30:22, 32:22, 32:28, 32:30, 32:32, 36:33, 37:44, 39:22, 47:8, 47:11, 49:9, 49:13, 52:27, 52:43, 53:8, 53:36, 53:47, 54:2, 57:33, 58:7 ups ^[2] - 6:35, 34:16 Uren ^[1] - 52:8 USB ^[15] - 30:47, 31:7, 31:26, 31:28, 31:30, 32:9, 37:14, 39:19, 39:24, 48:8, 52:33, 52:36, 52:41 usual ^[2] - 11:38, 27:5</p>	<p>15:30, 16:6, 16:20, 16:22, 17:45, 18:33, 21:30, 21:32, 22:3, 36:12, 36:15, 41:35, 41:46, 54:16, 56:26, 59:28 Wivenhoe/Somerset ^[1] - 38:9 word ^[2] - 32:6, 60:30 Word ^[4] - 10:10, 12:13, 60:19, 60:22 wording ^[1] - 23:10 words ^[4] - 13:17, 13:44, 18:44, 54:24 works ^[1] - 6:30 worries ^[2] - 17:37, 48:6 would've ^[38] - 12:4, 13:40, 14:10, 16:17, 16:36, 20:43, 23:27, 27:4, 29:11, 29:20, 30:3, 30:4, 30:12, 33:27, 33:30, 35:17, 35:24, 35:25, 37:28, 38:8, 38:16, 38:29, 38:42, 39:35, 41:44, 43:15, 43:26, 43:31, 43:32, 43:38, 43:45, 44:13, 45:24, 45:25, 50:23, 60:25 write ^[4] - 8:42, 16:10, 21:2, 23:15 write-up ^[1] - 8:42 writing ^[6] - 8:27, 9:28, 9:43, 12:3, 19:9, 19:21 written ^[2] - 6:21, 10:2 wrote ^[1] - 19:22 Ws ^[1] - 20:2</p>
V	
<p>Valentine's ^[1] - 26:28 various ^[4] - 11:23, 14:35, 16:34, 21:8 VER ^[1] - 40:15 Ver" ^[1] - 40:12 version ^[20] - 23:47, 30:46, 36:44, 36:46, 39:28, 39:32, 42:18, 42:21, 44:12, 45:4, 45:6, 45:16, 47:1, 47:35, 48:9, 53:19, 57:47, 59:47, 60:1, 60:19 VERSION ^[1] - 42:23 versions ^[2] - 39:23, 45:23 versus ^[1] - 35:47 visible ^[2] - 41:12, 41:32 voucher ^[1] - 52:45</p>	
W	Y
<p>waiting ^[2] - 31:33, 31:41 water ^[1] - 4:21 Water ^[1] - 14:18 website ^[1] - 47:12 whereas ^[1] - 44:11 WHICH ^[1] - 47:44 whole ^[6] - 21:9, 25:23, 37:46, 52:29, 53:43, 55:32 witnessed ^[1] - 34:21 Wivenhoe ^[17] - 10:39,</p>	<p>year ^[7] - 4:30, 4:34, 4:40, 5:10, 5:41, 6:3, 54:7 yourself ^[4] - 12:38, 45:42, 46:9, 51:13</p>

Our ref: Doc 1844968

4 February 2012

Ms Chloe De Marchi
Seqwater
GPO Box 16146
CITY EAST QLD 4002

REQUIREMENT TO ATTEND AND GIVE INFORMATION AND ANSWER QUESTIONS

I, Justice Catherine E Holmes, Commissioner of Inquiry, pursuant to section 5 of the *Commissions of Inquiry Act 1950* (Qld), require Chloe De Marchi to attend at the following time and place to give information to the Commission and answer questions by the staff of the Commission listed below, whom I have authorised in writing to ask questions:

Date and Time to Attend: 11:00 am, Tuesday, 7 February 2012

Place to Attend: Level 30, 400 George Street, Brisbane, 4000

Commission Staff authorised to ask questions:

1. Dr Kerri Mellifont SC
2. Julian Ensbey
3. Lachlan Zangari



Commissioner
Justice C E Holmes

Lyn Moon

From: Chloe Cross
Sent: Sunday, 16 January 2011 4:22 PM
To: Peter Borrows
Cc: John Tibaldi; Rob Drury; Paul Bird; Mike Foster
Subject: Brief and Report
Attachments: Ministerial Briefing Note January 17 2011 Final Draft for distribution.doc; Jan 2011 Flood Event_Ver 1_draft for distribution.docx

Please find briefing and report attached. Adjusted for Peter Allen's comments.

Thanks,

Chloe Cross

Dam Safety & Emergency Response Support Officer
Queensland Bulk Water Supply Authority *trading as* Seqwater



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Ministerial Briefing Note

17 January 2010

Flood Event January 2011

1. BACKGROUND INFORMATION ON WIVENHOE DAM

2. WIVENHOE DAM FLOOD MITIGATION AND FLOOD OPERATIONS

- 2.1 What were the benefits provided by Wivenhoe Dam during the current event?
- 2.2 Why was Wivenhoe Dam only allowed to rise up to 191% and not 230%?
- 2.3 What is the role of the erodible fuse plug embankments?
- 2.4 Why weren't pre-emptive releases undertaken prior to the start of the flood event?
- 2.5 Is there a detailed record of the events associated with the current flood?

3. THE MANUAL OF OPERATIONAL PROCEDURES FOR FLOOD MITIGATION AT WIVENHOE DAM AND SOMERSET DAM

- 3.1 What is the Manual of Flood Mitigation and how was it developed?
- 3.2 What is contained in the Manual?

4. REGULATORY CONTEXT

5. COMPLIANCE WITH MANUAL

6. SEQUENTIAL REPORT

1 BACKGROUND INFORMATION ON WIVENHOE DAM

Wivenhoe Dam was completed in 1984 and has two main functions;

- A 1,165,000 ML storage providing an urban water supply for Brisbane;
- Flood mitigation in the Brisbane River by providing a dedicated flood storage volume of 1,450,000 ML (this flood storage was increased in 2005 to 1,966,000 ML with the dam at the point of failure).

In accordance with the Queensland Regulatory program for dam spillway upgrades, a further upgrade of Wivenhoe Dam is scheduled to occur prior to 2035.

Wivenhoe Dam is in excellent condition with four Comprehensive Dam Safety reviews undertaken in the last 14 years, the latest in 2010.

2 WIVENHOE DAM FLOOD MITIGATION AND FLOOD OPERATIONS

2.1 What were the benefits provided by Wivenhoe Dam during the current event?

The following graphs demonstrate the significant benefits of Wivenhoe Dam in mitigating the current flood event, with reductions in flood peak of up to 2.5 metres in the City area and up to 5.5 metres in the Moggill area further upstream.

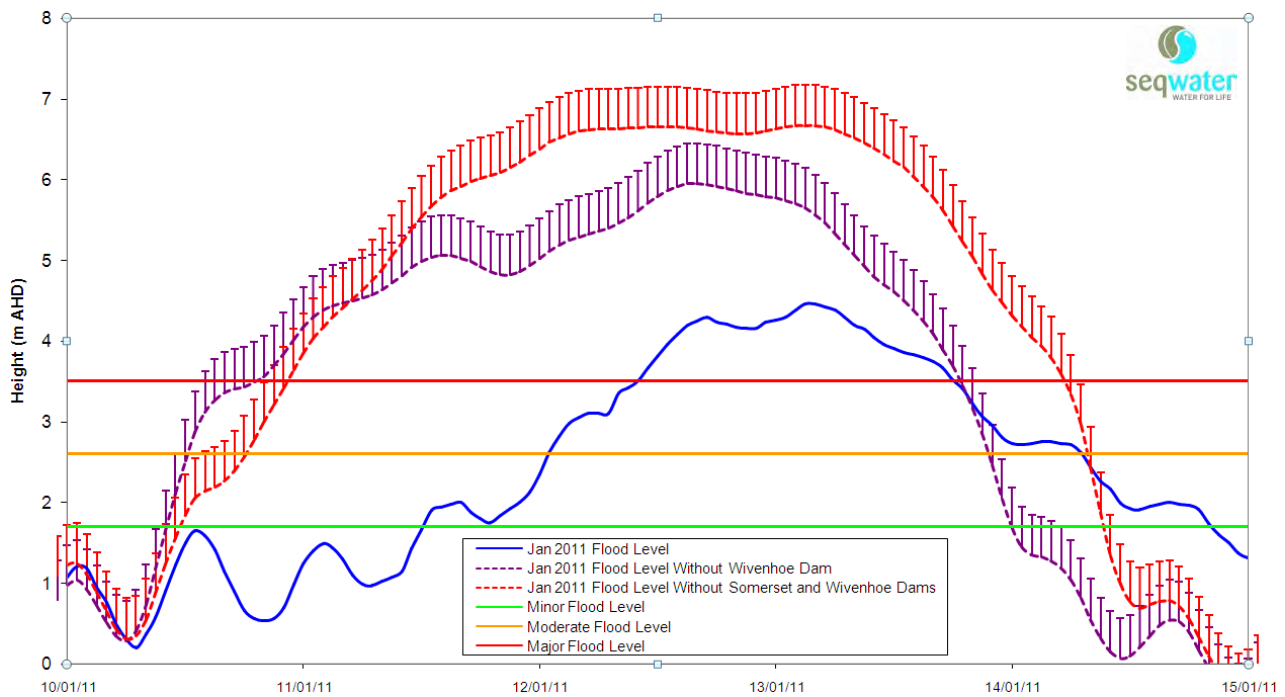
This equates to significant reduction in the potential for loss of life as well as saving in damages in the order of up to \$1.6 billion based on current damage curves. Up to 13,000 more properties would have been impacted by the event without the Dam. (Source: Flood Damage Tables provided to Seqwater by the Brisbane City Council).

The time at which flood levels remained elevated above major levels has also been reduced by up to 3 days by the dam. This has significant benefits to impact on the population of the city, property damage and the recovery operation.

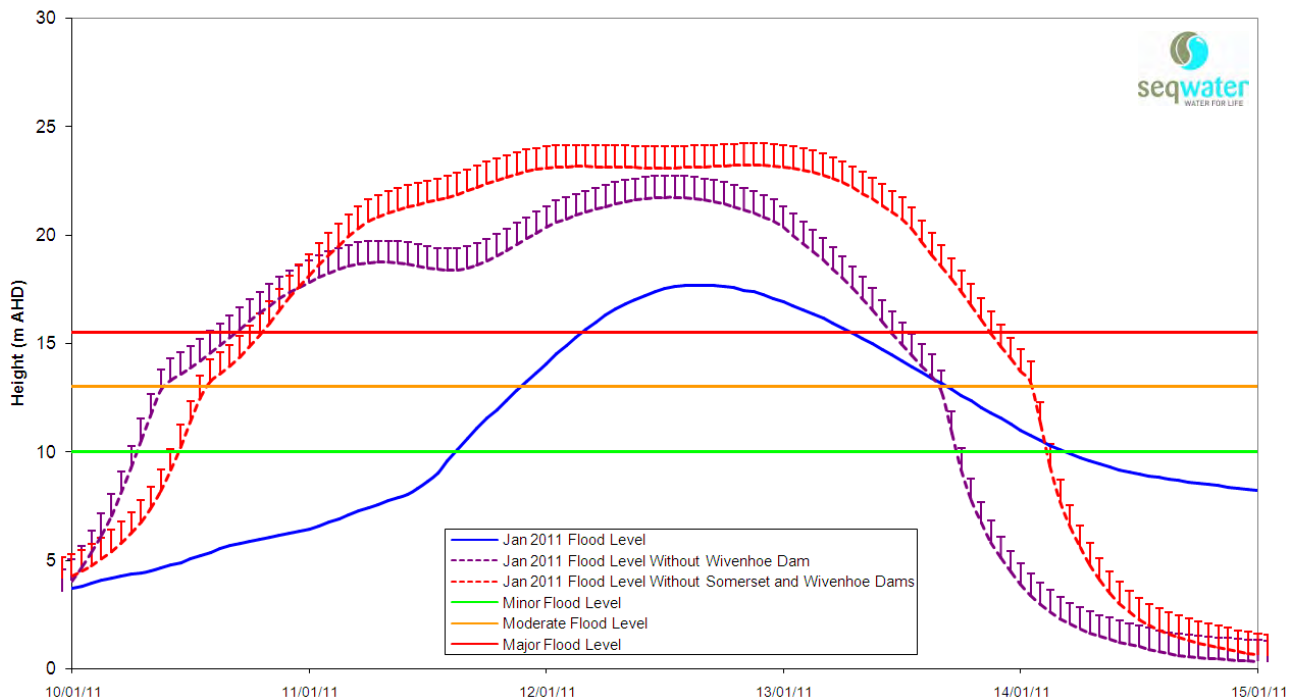
Depending on the nature of the event, the presence of Wivenhoe Dam could also potentially increase flood warning times to impacted areas. How these times may have been increased during the current event is presently difficult to quantify, but discussions will be held with BOM on this issue at a later date.

In addition, the strategy adopted to quickly close off releases once the peak in the dam had been reached and rain stopped falling certainly reduced the predicted flood peak by at least one metre in the lower Brisbane River area.

JANUARY 2011 BRISBANE FLOOD Assessment of Flood Levels at Brisbane City



JANUARY 2011 BRISBANE FLOOD Assessment of Flood Levels at Moggill



2.2 Why was Wivenhoe Dam only allowed to rise up to 191% and not 230%?

Wivenhoe Dam mitigates downstream flooding by storing incoming flood water during a rainfall event and releasing these waters at a reduced flow rate downstream to reduce flood impacts. The timing of the releases is also manipulated so that the aim is for outflows from the dams to impact on downstream areas only after the peak inflows from the downstream major tributaries have passed. However this aim cannot always be achieved in practice. This is because some large floods, such as the one currently being experienced, have the potential to overflow the dam's flood storage compartment. **Should this occur, the dam would fail and the resulting damage and loss of life would be at least 100 to 1000 times greater than that currently being experienced.**

Therefore the basis of all flood operation decision making is to ensure the dam never fails. This is the reason that the dam's flood storage compartment would never be intentionally fully filled as any additional inflows after this point would result in a dam failure. At any one time, there will always be uncertainty about what rain is going to occur. Hence, we cannot use all of the flood capacity as we would not be able to release sufficient water to cater for large inflows.

2.3 What is the role of the erodible fuse plug embankments?

Another factor that impacts on flood release decision making in large events are the levels at which the erodible fuse plugs are triggered. The fuse plugs act as a safety valve to rapidly increase dam outflows if the structural safety of the dam is in danger. Loss of one or more fuse plugs severely limits the ability of the dam to mitigate the effects of future flood events that may occur prior to the fuse plug or plugs being reinstated. Reinstatement of a fuse plug following an event would take a minimum of 4 to 6 months and would require an extended period of relatively dry weather.

2.4 Why weren't pre-emptive releases undertaken prior to the start of the flood event?

In the 25 days leading up to the current event, three flood events impacting on Wivenhoe Dam were experienced, with gate releases being made on all but five of those days. The total outflow from these events was around 700,000ML.

During these events, requests were received from Councils and residents impacted by bridge closures downstream of the dam to curtail releases as soon and as quickly as possible. Additionally the 2 January end date of the flood event prior to the current event meant that significant drain down of the dam prior to the onset of the current event that commenced on 6 January 2011, was not possible without major bridge inundation downstream of the dam and without exceeding minor flood levels in the lower Brisbane River.

Additionally, a flood event was also experienced in October 2010 that resulted in a release of 750,000ML from the dam. Accordingly drain down below the dam full supply level prior to the start of the first December event would not have been possible without significant bridge inundation and without exceeding minor flood levels (as defined by BOM and BCC) in the lower Brisbane River.

Regardless, significant drain down prior to the current event would have had little impact on the peak level in Wivenhoe Dam as shown in the table below. The reason for this is that this total event inflow volume of 2,600,000 ML is well in excess of the useable flood storage combined with the available water supply storages shown in the table.

The specific impact on the Lower Brisbane River of these reduced dam levels requires the use of a complex hydraulic model. The results of this modelling would still contain a degree of uncertainty as illustrated by the difficulties in estimating the final flood peak in Brisbane during the event. This is because the rapid closure of the gates after peak inflow was achieved resulted in significant water level reductions downstream and this is difficult to model accurately.

JANUARY 2011 FLOOD			
Starting Level		Peak Height	Capacity
%	m AHD	m AHD	%
100	67.0	74.97	191
95	66.5	74.93	191
90	65.8	74.88	190
75	64.0	74.63	187
50	60.0	74.11	180

It should be noted that the possible reductions shown above are based up a unique dual peaked flood hydrograph with a volume of about 2,600,000 ML which occurred during this event. A hydrograph with the same volume but a different distribution could result in a significantly lower reduction in peak water levels.

Flood operations at the dam are also highly dependent upon the flood inflow volume and a slight variation in the flood volume could significantly reduce the benefits associated with draining down the dam prior to a flood event.

2.5 Is there a detailed record of the events associated with the current flood?

A preliminary report has been prepared and is attached to this briefing.

3 THE MANUAL OF FLOOD MITIGATION AT WIVENHOE DAM AND SOMERSET DAM

3.1 What is the Manual of Flood Mitigation and how was it developed?

The Manual of Flood Mitigation for Wivenhoe and Somerset dams in its current form was developed in 1992 during an extensive hydrological study of the Brisbane and Pine Rivers catchments by DPI, Water Resources. The final reports were subject to extensive internal review by the Water Resources Group before being reviewed by an independent review panel comprising Professor Colin Apelt, Head of Department, Department of Civil Engineering, University of Queensland and Mr Eric Lesleighter, Principal Hydraulic Engineer and Chief Engineer Water Resources, Snowy Mountains Engineering Corporation. Subsequently, the Manual was extensively reviewed during the Brisbane Valley Flood Damages Minimisation Study in 2006, with the latest comprehensive review of the Manual undertaken in 2009. Both of these reviews have included expert review panels comprising key stakeholders, with the most recent review involving representatives from DERM, BOM, BCC and SunWater.

The Manual of Flood Mitigation is prepared by Seqwater as the owner of the dam and approved and gazetted by the Chief Executive of DERM in accordance with the Water Supply Act 2008. The manual defines flood objectives procedures; roles and responsibilities; and staffing and operational requirements for flood events impacting on Wivenhoe and Somerset dams.

3.2 What is contained in the Manual?

The primary objectives of the procedures contained in the Manual are, in order of importance:

- Ensure the structural safety of the dams;
- Provide optimum protection of urbanised areas from inundation;
- Minimise disruption to rural life in the valleys of the Brisbane and Stanley Rivers primarily, this involves minimising inundation of the seven bridges below the dam upstream of Moggill);
- Retain the storage at Full Supply Level at the conclusion of the Flood Event.

- Minimise impacts to riparian flora and fauna during the drain down phase of the Flood Event.

During an event, the operation of the dam transitions between the following four operating strategies depending of the circumstances at the time. These procedures associated with these strategies are explained in detail in the Manual.

- **Strategy W1** – Primary consideration is given to Minimising Disruption to Downstream Rural Life.
- **Strategy W2** – Transition Phase moving from Minimising Disruption to Protecting Downstream Urban Areas.
- **Strategy W3** – Primary consideration is to Protect of Urban Areas from Inundation.
- **Strategy W4** – Primary consideration is to protecting the structural safety of the Dam.

In addition to these strategies, historical records show that there is a significant probability of two or more flood producing storms occurring in the Brisbane River system within a short time of each other. Accordingly for each flood event, the aim is always to empty stored floodwaters within seven days after the flood peak has passed through the dams.

4 REGULATORY CONTEXT (Provided by Peter Allen and unedited)

These are contained in the Flood Mitigation Manual (manual) approved under sections 370 to 374 of the *Water Supply (Safety and Reliability) Act 2008*. The Chief Executive Officer (CEO) of DERM (or his delegate) approves the manual, and the approval is notified in the Queensland Government Gazette. Approval can be for a period of up to five years, after which the approval needs to be renewed. There are no decision-making criteria specified in the Act for the CEO to take into account when approving the manual.

The manual for the dams requires, amongst other matters:

1. Flood operations to be conducted in accordance with manual's provisions. (There is an approval process specified in the manual, if Seqwater considers a different flood release strategy is desirable to deal with a particular flood event. This was not used in the January 2011 flood event)
2. Flood operations to be under the control of CEO-approved engineers (who are highly qualified and experienced)
3. Annual reporting on the preparedness and status of the flood control system for flood operations, and the training of the personnel who manage the flood events.
4. Reporting on the flood operations during flood events.
5. Reviews after flood events such as the January 2011 event. For this flood event, the Queensland Government engaged Mr Brian Cooper, an independent consulting engineer, to review compliance with the manual. Mr Cooper concluded (Attachment??): "...The strategies in the Flood Mitigation Manual have been followed, allowing for the discretion given to make variations in order to maximise flood mitigation effects. The actions taken and decisions made during the Flood Event appear to have been prudent and appropriate in the context of the available knowledge available to these responsible for flood operations and the way events unfolded..." (p.3 of the final report or other appropriate reference??)

The manual is separate from a draft communication protocol (Insert name) between the Local, State and Commonwealth government agencies that are affected by the dams' flood operations. This protocol is not binding on the parties to it is not subject to regulatory approval/review.

Some DERM staff, because of their specialist skills, work in the Flood Operations Centre that Seqwater activates to manage such events. None of them are involved in any of the regulatory decisions concerning the dams or are members of the work unit (Office of the Water Supply Regulator) which undertakes the CEO's regulatory functions.

5 COMPLIANCE WITH THE MANUAL

(To be provided)

6 SEQWATER REPORT

It is recommended that the process and content for reports required for this event be:

- In the short term, utilise this report attached to this briefing note as the basis for communications and discussion.
- Prepare any Interim Reports as agreed to provide information and input as required.
- Seqwater prepare a Comprehensive Report as per the existing regulatory requirements of the Act and the gazetted manual and any requirements of the Dam Safety Regulator. This would be done within 6 weeks of the closure of the current event as per the manual. This timeframe is subject to any new mobilisation of the Flood Operations Centre. The Table of Contents would include:
 - Introduction
 - Flood Event Summary
 - Mobilisation and Staffing
 - Event Rainfall
 - Inflow and Release Details
 - Data Collection System Performance
 - Data Analysis Performance
 - Communication
 - Flood Management Strategies and Manual Compliance
 - Improvements in data collection systems, practices and processes.
 - improvements by interacting agencies
 - Review of factors impacting on the protection of urban areas
 - Recommendations & Conclusions
- The report would then be reviewed by the Dam Safety Regulator in conjunction with any peer review they require. The review should cover:
 - Were the provisions of the manual complied with?
 - What improvements to either facilities e.g. stream gauges, or work practices, are desirable to improve Seqwater's ability to predict inflows into the dams.
 - Are improvements to either Seqwater's facilities or work practices desirable to improve Seqwater's ability to manage events? For example, investigations to raise the dam to improve its flood storage capacity, If so, what are they and their implications

- Are changes to the facilities or work practices of other organisations desirable to improve Seqwater's abilities to manage these events? If so, what are they and their implications? (For example, would it be worth funding Brisbane River crossing upgrades so that floodwater could be released faster, while not adversely affecting access to properties--or maybe alternative strategies e.g. resupply operations could be put in place to achieve similar outcomes?)
 - Given the manual's order of priorities i.e. protection of the dam etc, are any changes in the flood release strategies for either dam desirable? If so, what are they, and their implications
- Based on this review, a review of the Manual of Operational Procedures for Flood Mitigation at Wivenhoe Dam and Somerset Dam would occur utilising an expert panel of review including representatives of DERM, Seqwater, BoM, affected Local Governments and other stakeholders as necessary.



JANUARY 2011 FLOOD EVENT

TABLE OF CONTENTS

1	INTRODUCTION.....	1
2	WIVENHOE DAM FLOOD MITIGATION AND FLOOD OPERATIONS	2
2.1	Flood Mitigation	2
2.2	Flood Operations	3
3	MANUAL OF FLOOD MITIGATION FOR WIVENHOE AND SOMERSET DAMS	4
4	JANUARY 2011 FLOOD EVENT.....	6
4.1	Backgr ound	6
4.2	Event Decision Making	7
4.3	Flood Mitigation Benefits of Wivenhoe Dam	10
5	EVENT REVIEW	12

1 INTRODUCTION

Wivenhoe Dam was constructed by the Queensland Government between 1977 and 1984. The dam is a 56 m AHD high and 2.3 kilometre long earth and rock embankment separated into two parts by a concrete gravity spillway. The spillway is controlled by 5 radial gates, each 12.0 metres wide by 16.0 m AHD high. Two saddle dam embankments are located on the left side of the reservoir.

The dam spillway capacity was upgraded in 2005. This was done primarily through the construction of a 164 metre wide secondary spillway through the right abutment of the existing dam. This spillway contains three erodible earth fill fuse plug embankments that are initiated at different dam levels in excess of EL 75.6.

The dam has two main functions by providing:

- A 1,165,000 ML storage at full supply level (FSL EL 67.0) providing an urban water supply for Brisbane and surrounding areas;
- Flood mitigation in the Brisbane River by providing a dedicated flood storage volume of 1,450,000 ML up to EL77 (this flood level was increased as part the 2005 upgrade to allow a water level of EL80m and a temporary flood storage volume of 1,966,000 ML with all fuse plugs initiated and the dam at the point of failure).

The dam has an EXTREME hazard classification under ANCOLD guidelines because of the significant development downstream in the Brisbane and Ipswich metropolitan areas, with the population at risk in the event of a dam failure numbering in the hundreds of thousands.

In accordance with the Queensland Regulatory program for dam spillway upgrades, a further upgrade of Wivenhoe Dam is scheduled to occur prior to 2035 to enable the dam to safely pass the Probable Maximum Flood. This work will involve the reconstruction of Saddle Dam 2 as a fuse plug spillway.

Wivenhoe Dam is in excellent condition. Comprehensive Dam Safety reviews undertaken in accordance with ANCOLD guidelines have been undertaken in 1997 (Gutteridge, Haskins & Davey Pty Ltd), 2003 (Wivenhoe Alliance), 2006 (NSW Department of Commerce), 2009 (GHD) and September 2010 (Seqwater). The reports concluded that the design of the dam is in accordance with modern day standards and that there are no significant outstanding design or construction issues that require investigation.

2 WIVENHOE DAM FLOOD MITIGATION AND FLOOD OPERATIONS

2.1 Flood Mitigation

The Brisbane River catchment covers an area of approximately 14,000 square kilometres of which about half is below Wivenhoe Dam. Maximum overall flood mitigation effect is achieved by operating Wivenhoe Dam in conjunction with Somerset Dam. Although Somerset and Wivenhoe Dam reduce flooding in Brisbane City, major flooding can still occur. The Lockyer-Laidley Valley drains into the Brisbane River through Lockyer Creek that enters the Brisbane River just downstream of Wivenhoe Dam near Lowood. Another major tributary, the Bremer River, flows into the Brisbane River at Moggill. Wivenhoe Dam has no control over inflows into the Brisbane River from both these major tributaries.

Wivenhoe Dam mitigates downstream flooding by storing incoming flood water during a rainfall event and releasing these waters at a reduced flow rate downstream to minimise flood impacts. The timing of the releases is also manipulated so that the aim is for outflows from the dams to impact on downstream areas only after the peak inflows from the downstream major tributaries have passed. However, this aim cannot always be achieved in practice. This is because some large floods, such as the one currently being experienced, have the potential to overflow the dam's flood storage compartment. **Should this occur, the dam would fail and the resulting damage and loss of life would be at least 100 to 1000 times greater than that currently being experienced.**

Therefore the basis of all flood operation decision making is to ensure the dam never fails. This is the reason that the dam's flood storage compartment would never be intentionally fully filled as additional inflows after this point would result in a dam failure. Similarly, there will be uncertainty on future rainfall that could occur which could not be releases if there was insufficient flood storage which could not be stored or released.

Another factor that impacts on flood release decision making in large events are the levels at which the erodible fuse plugs are triggered. Loss of one or more fuse plugs severely limits the ability of the dam to mitigate the effects of future flood events that may occur prior to the fuse plug or plugs being reinstated. Reinstatement of a fuse plug following an event would take a minimum of 4 to 6 months and would require an extended period of relatively dry weather.

2.2 Flood Operations

A real time flood monitoring and forecasting system has been established in the Wivenhoe and Somerset Dam catchments. This system employs radio telemetry to collect, transmit and receive rainfall and stream flow information. The system consists of around 230 field stations that automatically record rainfall and/or river heights at selected locations in the dam catchments. Most of these field stations are owned by Seqwater with the remainder belonging to other agencies.

The rainfall and river height data is transmitted to Seqwater's Flood Operations Centre in real time. Once received in the Flood Operations Centre, the data is processed using a Real Time Flood Model (RTFM) to estimate likely dam inflows and evaluate a range of possible inflow scenarios based on forecast and recorded rainfall in the dam catchments. The RTFM is a suite of hydrologic computer programs that utilise the real time data to assist in the operation of the dams during flood events.

Seqwater engineers use the RTFM for flood monitoring and forecasting during flood events to operate the dams in accordance with a Manual of Flood Mitigation (the origin of and objectives and procedures contained in the Manual of Flood Mitigation are explained in the following section of this document). Releases of water from the dams are optimised to minimise the impacts of flooding in accordance with the objectives and procedures contained in a Manual of Flood Mitigation.

The RTFM and data collection network performed well During the January 2011 event, with no failures experienced that compromised the ability of Seqwater to operate the dam.

3 MANUAL OF FLOOD MITIGATION FOR WIVENHOE AND SOMERSET DAMS

The Manual of Flood Mitigation for Wivenhoe and Somerset Dams, in its current form, was developed in 1992 during an extensive hydrological study of the Brisbane and Pine Rivers catchments by DPI, Water Resources. The final reports were subject to extensive internal review by the Water Resources Group before being reviewed by an independent review panel comprising Professor Colin Apelt, Head of Department, Department of Civil Engineering, University of Queensland and Mr Eric Lesleighter, Principal Hydraulic Engineer and Chief Engineer Water Resources, Snowy Mountains Engineering Corporation.

Subsequently, the Manual was extensively reviewed during the Brisbane Valley Flood Damages Minimisation Study in 2006, with the latest comprehensive review of the Manual undertaken in 2009. Both of these reviews have included expert review panels comprising key stakeholders, with the most recent review involving representatives from DERM, BOM, BCC and SunWater.

The Manual of Flood Mitigation is prepared by Seqwater as the owner of the dam and approved and gazetted by the Chief Executive of DERM in accordance with the Water Supply Act 2008. The manual defines flood objectives procedures; roles and responsibilities; and staffing and operational requirements for flood events impacting on Wivenhoe and Somerset dams.

The primary objectives of the procedures contained in the flood manual are, in order of importance:

- Ensure the structural safety of the dams;
- Provide optimum protection of urbanised areas from inundation;
- Minimise disruption to rural life in the valleys of the Brisbane and Stanley Rivers primarily, this involves minimising inundation of the seven bridges below the dam upstream of Moggill);
- Retain the storage at Full Supply Level at the conclusion of the Flood Event.
- Minimise impacts to riparian flora and fauna during the drain down phase of the Flood Event.

During an event, the operation of the dam transitions between the following four operating strategies depending of the circumstances at the time. These procedures associated with these strategies are explained in detail in the Manual.

- **Strategy W1** – Primary consideration is given to Minimising Disruption to Downstream Rural Life. Under this strategy, the predicted water level is below 68.50 m AHD and the maximum release is 1,900m³/s.
- **Strategy W2** – Transition Phase moving from Minimising Disruption to Protecting Downstream Urban Areas. Under this strategy, the water level is predicted to be between 68.5 and 74.0 m AHD and the maximum release is less than 3,500m³/s.
- **Strategy W3** – Primary consideration is to Protect of Urban Areas from Inundation. Under this strategy, the water level is predicted to be between 68.5 and 74.0 m AHD but the maximum release is less than 4,000m³/s.
- **Strategy W4** – Primary consideration is to protecting the structural safety of the Dam. Under this strategy, the water level is predicted to exceed 74.0 m AHD and there is no limit to the maximum release. Consideration is given to managing flood releases to avoid fuse plug initiation if at all possible as this would compromise flood mitigation capacity in the short to medium term.

In addition to these strategies, historical records show that there is a significant probability of two or more flood producing storms occurring in the Brisbane River system within a short time of each other. Accordingly for each flood event, the aim is always to empty stored floodwaters within seven days after the flood peak has passed through the dams.

4 JANUARY 2011 FLOOD EVENT

4.1 Background

In the 25 days leading up to the current event, three flood events impacting on Wivenhoe Dam were experienced, with gate releases being made on all but five of those days. The total outflow from these events was around 700,000ML. The details of these events are as follows:

EVENT	EVENT START DATE	EVENT END DATE	VOLUME RELEASED (ML)
1	13/12/2010	16/12/2010	70,000
2	17/12/2010	24/12/2010	150,000
3	26/12/2010	02/01/2010	470,000

During these events, requests were received from Councils and residents impacted by bridge closures downstream of the dam to curtail releases as soon and as quickly as possible.

Additionally the 2 January end date of the flood event prior to the current event meant that significant drain down of the dam prior to the onset of the current event that commenced on 6 January 2011, was not possible without major bridge inundation downstream of the dam and without exceeding minor flood levels in the lower Brisbane River.

Additionally, a flood event was also experienced in October 2010 that resulted in a release of 750,000ML from the dam. Accordingly drain down below the dam full supply level prior to the start of the first December event would not have been possible without significant bridge inundation and without exceeding minor flood levels (as defined by BOM and BCC) in the lower Brisbane River.

Regardless, significant drain down prior to the current event would have had little impact on the peak level in Wivenhoe Dam as shown in the table below. The reason for this is that this total event inflow volume of 2,600,000 ML is well in excess of the useable flood storage combined with the available water supply storages shown in the table.

The specific impact on the Lower Brisbane River of these reduced dam levels requires the use of a complex hydraulic model. The results of this modelling would still contain a degree of uncertainty as illustrated by the difficulties in estimating the final flood peak in Brisbane during the event. This

is because the rapid closure of the gates after peak inflow was achieved resulted in significant water level reductions downstream and this is difficult to model accurately.

JANUARY 2011 FLOOD			
Starting Level		Peak Height	Capacity
%	m AHD	m AHD	%
100	67.0	74.97	191
95	66.5	74.93	191
90	65.8	74.88	190
75	64.0	74.63	187
50	60.0	74.11	180

It should be noted that the possible reductions shown above are based upon a unique dual peaked flood hydrograph with a volume of about 2,600,000 ML which occurred during this event. A hydrograph with the same volume but a different distribution could result in a significantly lower reduction in peak water levels.

Flood operations at the dam are also highly dependent upon the flood inflow volume and a slight variation in the flood volume could significantly reduce the benefits associated with draining down the dam prior to a flood event.

4.2 Event Decision Making

The following table contains a summary of the key decision points associated with the current event. As at 16 January 2011, the event remains in progress.

DATE AND TIME	FLOOD EVENT MILESTONE
07:00 06/01/2011 (Thursday)	Rainfall is experienced in the dam catchments that will result in flood releases, however Wivenhoe releases are delayed for 24 hours to allow Lockyer Creek flood flows to pass downstream and prevent the isolation of the community dependent of Burtons Bridge. The forecast is for 150mm over the next 24 hours.
15:00 07/01/2011 (Friday)	Wivenhoe releases commence, with operational strategy W1 in use. Rainfall for the next four days is estimated to be between 140mm and 300mm, with a forecast for rain easing on Tuesday 11 January 2011. All bridges downstream of the dam with the exception of Fernvale Bridge and Mt Crosby Weir Bridge are expected to be inundated for a number of days.

06:00 09/01/2011 (Sunday)	Moderate to heavy rain periods forecast until Tuesday, but both Wivenhoe and Somerset dam levels were falling slowly, with Somerset at 1.27 m AHD above FSL and Wivenhoe 1.58 m AHD above FSL.
15:30 09/01/2011 (Sunday)	Following significant rain during the day a meeting of Duty Engineers is held. The QPF issued at 16:00 indicates 50mm to 80mm over the next 24 hours. Based on this forecast, it is anticipated that dam levels can be held to a maximum of 3.50 m AHD above FSL in Somerset and 5.5 m AHD above FSL in Wivenhoe. However, by 19:00 it was apparent that both Fernvale Bridge and Mt Crosby Weir Bridge would be inundated by the combined dam releases and Lockyer Creek flows and that the operational strategy had progressed to W2.
06:30 10/01/2011 (Monday)	Rainfall continued during the night and based on rainfall on the ground it was apparent the operational strategy had progressed to W3.
06:30 10/01/2011 (Monday)	Rainfall continued during the day but based on rainfall on the ground, operational strategy W3 remained in use. However it was apparent that any further heavy rain would result in progression of the operational strategy to W4.
08:00 11/01/2011 (Tuesday)	Rainfall continued during the night with isolated heavy falls in the Wivenhoe Dam catchment area and based on rainfall on the ground it was apparent the operational strategy would soon progress to W4 with Wivenhoe Dam exceeding 8.00 m AHD above FSL. The objective now was to limit outflows and subsequent flood damage to urban areas, while ensuring the structural safety of the dam.
11:00 11/01/2011 (Tuesday)	Rapid inflows were experienced in Wivenhoe Dam, with the dam rising almost a metre in eight hours. Releases were increased until the dam level stabilised in accordance with Strategy W4. Computer models were not reflecting actual dam inflows due to intense point rainfalls in the immediate catchment around the dam. Falls are estimated to be similar to those experienced at both Toowoomba and Upper Lockyer the previous day and are falling outside and between existing rain gauges.
21:00 11/01/2011 (Tuesday)	Wivenhoe Dam peaked. Peak release of 7450 cumecs with a level of 0.7 metres below fuse plug trigger.

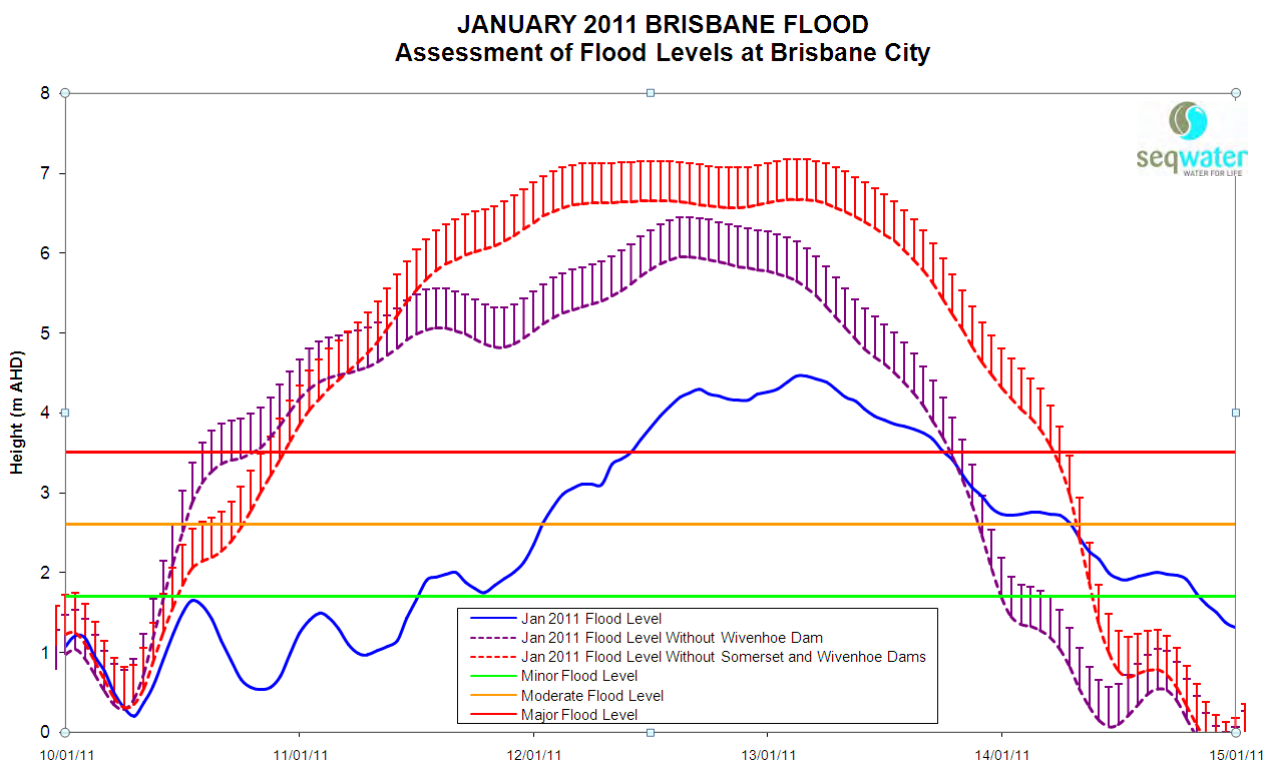
22:00 11/01/2011 (Tuesday)	Wivenhoe Dam releases were closed off as quickly as possible over the next 11 hours, while ensuring water levels in the dam did not rise further and initiate a fuse plug embankment.
08:00 12/01/2011 (Wednesday)	Minimum possible release level reached, with inflows matching outflows. Further reductions in release rate would likely cause the dam level to rise.
21:00 13/01/2011 (Thursday)	The 7 day dam drain down is commenced as Lockyer Creek and Bremer River peaks pass the Lower Brisbane area. Maximum release target is the limit of damaging floods in Brisbane being 3500 cumecs.
09:00 17/01/2011 (Monday)	Drain down continues, with released expected to cease on Wednesday 19 January 2011 unless further rainfall is experienced.

4.3 Flood Mitigation Benefits of Wivenhoe Dam

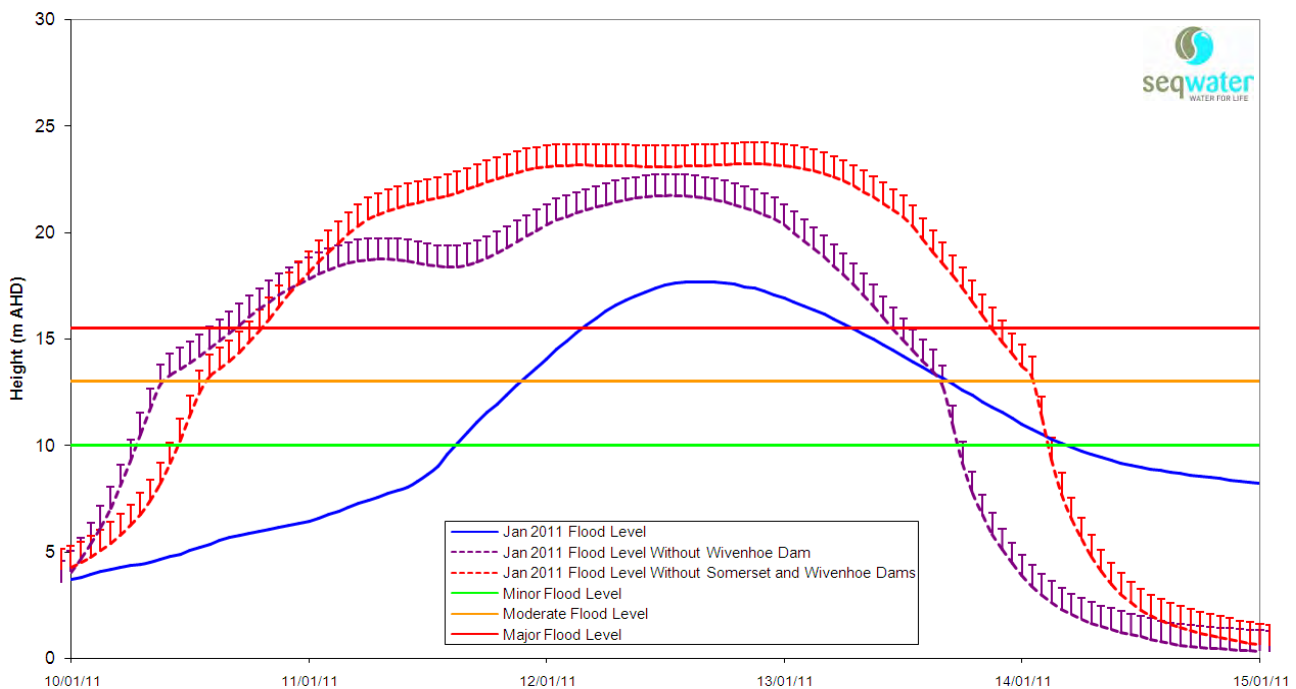
The following graphs demonstrate the significant benefits of Wivenhoe Dam in mitigating the current flood event, with reductions in flood peak of up to 2.5 metres in the City area and up to 5.5 metres in the Moggill area further upstream.

This equates to significant reduction in the potential for loss of life as well as saving in damages in the order of up to \$1.6 billion based on current damage curves. Up to 13,000 more properties would have been impacted by the event without the Dam.

The time at which flood levels remained elevated above major levels has also been reduced by up to 3 days by the dam. This has significant benefits to impact on the population of the city, property damage and the recovery operation.



JANUARY 2011 BRISBANE FLOOD Assessment of Flood Levels at Moggill



The strategy adopted to quickly close off releases once the peak in the dam had been reached and rain stopped falling certainly reduced the predicted flood peak by at least one metre in the lower Brisbane River area. This notion is supported by BOM.

5 EVENT REVIEW

Under the Manual of Operational Procedures for Flood Mitigation at Wivenhoe Dam and Somerset Dam that are approved and gazetted by the Department of Environment and Resource Management, there is a regulatory requirement that a report must be prepared as per the below wording:

“Seqwater must prepare a report after each Flood Event. The report must contain details of the procedures used, the reasons therefore and other pertinent information. Seqwater must forward the report to the Chief Executive within six weeks of the completion of the Flood Event.”

Such a report was prepared for the flood events of February and March 2010 and copies are available. A copy of the Table of Contents of that report is included as Appendix 1. For this event, the report would be a comprehensive summary of all procedures, actions, outcomes and processes during the event.

It is recommended that the process and content for reports required for this event be:

- In the short term, utilise this report attached to this briefing note as the basis for communications and discussion.
- Prepare any Interim Reports as agreed to provide information and input as required.
- Seqwater prepare a Comprehensive Report as per the existing regulatory requirements of the Act and the gazetted manual and any requirements of the Dam Safety Regulator. This would be done within 6 weeks of the closure of the current event as per the manual. This timeframe is subject to any new mobilisation of the Flood Operations Centre. The Table of Contents would include:
 - Introduction
 - Flood Event Summary
 - Mobilisation and Staffing
 - Event Rainfall
 - Inflow and Release Details
 - Data Collection System Performance
 - Data Analysis Performance
 - Communication
 - Flood Management Strategies and Manual Compliance

- Improvements in data collection systems, practices and processes.
 - improvements by interacting agencies
 - Review of factors impacting on the protection of urban areas
 - Recommendations & Conclusions
- The report would then be reviewed by the Dam Safety Regulator in conjunction with any peer review they require. The review should cover:
 - Were the provisions of the manual complied with?
 - What improvements to either facilities e.g. stream gauges, or work practices, are desirable to improve Seqwater's ability to predict inflows into the dams.
 - Are improvements to either Seqwater's facilities or work practices desirable to improve Seqwater's ability to manage events? For example, investigations to raise the dam to improve its flood storage capacity, If so, what are they and their implications.
 - Are changes to the facilities or work practices of other organisations desirable to improve Seqwater's abilities to manage these events? If so, what are they and their implications? (For example, would it be worth funding Brisbane River crossing upgrades so that floodwater could be released faster, while not adversely affecting access to properties--or maybe alternative strategies e.g. resupply operations could be put in place to achieve similar outcomes?)
 - Given the manual's order of priorities i.e. protection of the dam etc, are any changes in the flood release strategies for either dam desirable? If so, what are they, and their implications
 - Based on this review, a review of the Manual of Operational Procedures for Flood Mitigation at Wivenhoe Dam and Somerset Dam would occur utilising an expert panel of review including representatives of DERM, Seqwater, BoM, affected Local Governments and other stakeholders as necessary.

Appendix A

FINAL REPORT – FLOOD EVENTS AT WIVENHOE, SOMERSET AND NORTH PINE DAMS FOR FEBRUARY AND MARCH 2010

TABLE OF CONTENTS

1.0 INTRODUCTION	1
2.0 FLOOD EVENT SUMMARY	2
2.1 FEBRUARY 2010	2
2.2 MARCH 2010	3
3.0 MOBILISATION AND STAFFING	5
3.1 16 TH TO 18 TH FEBRUARY 2010	5
3.2 1 ST TO 4 TH MARCH	5
3.3 5 TH TO 6 TH MARCH	5
3.4 6 TH TO 7 TH MARCH	6
3.5 10 TH TO 11 TH MARCH	6
4.0 EVENT RAINFALL	7
4.1 FEBRUARY 2010	7
4.2 MARCH 2010	9
5.0 INFLOW AND RELEASE DETAILS	12
5.1 16 TH TO 18 TH FEBRUARY 2010	12
5.2 1 ST MARCH 2010	15
5.3 6 / 7 TH MARCH 2010	18
5.4 11 TH MARCH 2010	21
6.0 DATA COLLECTION SYSTEM PERFORMANCE	25
6.1 NETWORK AVAILABILITY	25
6.2 RAINFALL	25
6.3 STREAM HEIGHT	26
6.3.1 Main Stream	26
6.3.2 Back-up Stream	27
6.3.3 Headwater Sensors	27
6.3.4 Sensor Calibration	28
6.3.5 Stream Height Rating Curves	28
7.0 DATA ANALYSIS PERFORMANCE	29

7.1 RUNOFF-ROUTING MODELS	29
7.2 BASEFLOW ASSESSMENT	29
8.0 COMMUNICATIONS	31
8.1 EVENT LOG	31
8.2 DECLARATION OF EVENT MOBILISATION	31
8.3 SHIFT HANDOVER	32
9.0 FLOOD MANAGEMENT STRATEGIES	33
9.1 16TH TO 18TH FEBRUARY 2010	33
9.1.1 North Pine Dam	33
9.2 26TH FEBRUARY TO 4TH MARCH	35
9.2.1 Somerset and Wivenhoe Dam	35
9.2.2 North Pine Dam	38
9.3 4TH MARCH TO 7TH MARCH	41
9.3.1 North Pine Dam	41
9.4 10TH MARCH TO 11TH MARCH	44
9.4.1 North Pine Dam	44
10.0 RECOMMENDATIONS & CONCLUSIONS	46
10.1 DATA COLLECTION	46
10.2 DATA ANALYSIS	46
10.3 DIRECTIVES AND STATUS REPORTS	46
10.4 OPERATIONAL STRATEGIES	47

LIST OF APPENDICES

APPENDIX A – FOC Attendance Logs & Event Logs

APPENDIX B – Estimated Inflows and Release

APPENDIX C – Reservoir Headwater Levels

LIST OF TABLES

Table 2.1: Storage Status Prior to February 2010 Event	2
Table 2.2: Dam Operations in March 2010	3
Table 4.1: February 2010 Sub-Catchment Rainfalls (mm)	7
Table 4.2: March 2010 Sub-Catchment Rainfalls (mm)	9
Table 5.1: Peak Flood Level and Flows – 16 th to 18 th February 2010	12
Table 5.2: Somerset Dam – 16 th February to 20 th February 2010	14

Table 5.3: Wivenhoe Dam – 16 th February to 20 th February 2010	14
Table 5.4: North Pine Dam – 16 th February to 18 th February 2010	14
Table 5.5: Peak Flood Level and Flows – 1 st March 2010	15
Table 5.6: Somerset Dam – 24 th February to 18 th March 2010	17
Table 5.7: Wivenhoe Dam – 24 th February to 18 th March 2010	17
Table 5.8: North Pine Dam – 26 th February to 4 th March 2010	18
Table 5.9: Peak Flood Level and Flows – 6/7 th March 2010	19
Table 5.10: North Pine Dam – 4 th March to 6 th March 2010	21
Table 5.11: Peak Flood Level and Flows – 11 th March 2010	22
Table 5.12: North Pine Dam – 10 th March to 11 th March 2010	24
Table 9.1: North Pine Dam Gate Settings – 17 th to 18 th February 2010	35
Table 9.2: Somerset Dam gate Settings – 24 th February 18 th March	37
Table 9.3: North Pine Dam Gate Settings – 1 st to 4 th March 2010	39
Table 9.4: North Pine Dam Gate Settings – 5 th to 7 th March 2010	42
Table 9.5: North Pine Dam Gate Settings – 10 th to 11 th March 2010	45

DATE	TIME	ACTION	CATEGORY	INITIALS
	8:00 AM	SDWD Model Updated - SDWD-201101060800.xls	Model Run	JW
	8:00 AM	NPD model updated - NPD-201101060800.xls	Model Run	JW
	8:30 AM	MT spoke with Graham Keegan (Stand-In Central Coordinator) about readiness of staff for flood operations. Graham confirms that staff have been rostered and are ready.	Correspondence	MT
	8:50 AM	Andy Bickerton (MBRC) called to query about flows are Fernvale bridge. TM provided an update for possible gate operations.	Correspondence	MT
	9:05 AM	Glen Paterson called to inform that North Pine Dam staff have been rostered and are ready.	Correspondence	MT
	9:40 AM	Rob Drury called to inform that Tony Trace has returned to the office and is contactable. He also requested for a situation update.	Correspondence	MT
	11:00 AM	Tony Trace (Giswich City Council (GCC)) 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
	1:32 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 (GCC) Wivenhoe's gate operations will be delayed till Saturday morning. This is due to higher than expected inflows from Lockyer.	Correspondence	MT
	1:46 PM	TM left message for Chris Levin (BCC) to return his call.	Correspondence	MT
	1:47 PM	TM left message for Ken Morris (BCC) to return his call.	Correspondence	MT
	2:41 PM	Andy Bickerton (MBRC) asked for TM's mobile. He wanted to share MBRC's text message informing people living downstream from North Pine Dam.	Correspondence	MT
	2:45 PM	Ken Morris (BCC) called for situation update. TM provided an update.	Correspondence	MT
	3:00 PM	SDWD Model Updated - SDWD-201101091500.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-201101091600.xls	Model Run	JW
	4:00 PM	NPD model updated - NPD-201101091600.xls	Model Run	JW
	5:30 PM	Issued North Pine Directive #1. • Gate C : Open 1 increment at 1900 • Gate E : Open 1 increment at 1915 • Gate A : Open 1 increment at 1930 • Gate D : Open 1 increment at 1945 • Gate B : Open 1 increment at 2000	Directive	NGA
	6:57 PM	Brett Schultz (North Pine Dam) called to inform that MBRC workmen were waiting until 19:00 hrs to close Young's Crossing boom gates. This delayed dam gate opening by 15 minutes.	Correspondence	NGA
	7:45 PM	Graham Francis (Somerset Dam) called to enquire about the release strategy. RA advised the impacts of the Lockyer flow were being monitored. Communication by e-mail was O.K'ed.	Correspondence	NGA
	9:00 PM	NPD model updated - NPD-201101092100.xls	Model Run	JW
	9:00 PM	SDWD Model Updated - SDWD-201101092100.xls	Model Run	JW
	7:00 AM	TM and LVB commenced day shift.	Other	LVB
	8:00 AM	Advice from BoM indicates that SEQ can expect some high rainfall totals over the next 5 days up to Tuesday 11/1/11 with the largest falls predicted for Sunday and Monday.	Correspondence	LVB
	8:00 AM	NPD model updated - NPD-201101070800.xls	Model Run	JW
	8:21 AM	Called Tony Jacobs @ Somerset Council to inform him that the Lockyer is running - all bridges in Somerset Region will be cut off this morning. Wivenhoe gates will be opened once the Lockyer peak is through.	Correspondence	LVB
	8:40 AM	FOC called Kerry (MBRC) to inform them that North Pine will be operate for the next few days - probably till Tuesday.	Correspondence	LVB
	8:44 AM	Called Chris Lavin (BCC) to inform that Wivenhoe gates will be opened again this afternoon and releases might peak at 1500m3/s. This might continue until the end of next week.	Correspondence	LVB
	8:47 AM	Called Tony Trace (GCC) 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
	3:02 PM	Don Carroll (BCC) called FOC with concerns that dam release will add another 200mm on top of abnormal high tide. TM spoke to Jimmy Stewart (BoM) who advised that the effect could be around 50mm - if that can be measured.	Correspondence	LVB
	6:00 PM	SDWD Model Updated - SDWD-201101071800.xls	Model Run	JW
	7:55 AM	Agg Dagan from Somerset Dam rang enquiring on Somerset's strategy. RA advised possibly opening a gate later today.	Correspondence	AN
	8:10 AM	RA advised Matthew O'Reilly (Wivenhoe Dam) on directive #4 and discussed strategy.	Correspondence	AN
	8:20 AM	RA rang Brett Schultz (North Pine Dam) and advised on strategy.	Correspondence	AN
	9:00 AM	SDWD Model Updated - SDWD-201101080900.xls	Model Run	JW
	9:00 AM	Agg Dagan (Somerset Dam) rang to advise he is going into Kilooy to see the treatment plant and will be off-site for a couple of hours.	Correspondence	AN
	10:00 AM	NPD model updated - NPD-201101081000.xls	Model Run	JW
	10:50 AM	Rob Drury rang. RA advised current status and strategy.	Correspondence	AN
	11:30 AM	Ken Morris (BCC) rang asking about combined flows down the Brisbane River (Wivenhoe, 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-Forecast/2hr.xls	Model Run	JW
	6:50 AM	Rob Drury rang. JT advised Rob on current release strategy based on recent heavy overnight rainfall.	Correspondence	NGA
	7:00 AM	SDWD Model Updated - SDWD-201101090700.xls	Model Run	JW
	8:40 AM	TM called BoM regarding advice received that widespread rain was expected to continue in the catchment 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
	12:00 PM	SDWD Model Updated - SDWD-201101091200.xls	Model Run	JW
	12:00 PM	RA scheduled meeting of Duty Engineers this afternoon to discuss current situation and forward release strategies.	Correspondence	NGA
	2:00 PM	SDWD Model Updated - SDWD-201101091400.xls	Model Run	JW
	2:00 PM	NPD model updated - NPD-201101091400.xls	Model Run	JW
	2:30 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 100.64 and rising fast.	Correspondence	NGA
	2:42 PM	FOC called Brett Schultz (North Pine Dam) advising of impending gate openings due to recent heavy rainfall and subsequent projected inflows.	Correspondence	NGA
	3:00 PM	NPD model updated - NPD-201101091500.xls	Model Run	JW
	4:00 PM	SDWD Model Updated - SDWD-201101091500.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 (GCC) 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/C-Ord) regarding the potential for Fernvale Bridge and Mount Crosby Bridge to be closed, possibly from Tuesday. This may impact on staffing issues for both Wivenhoe and Somerset Dams during this flood event. Request for Graham to contact the FOC ASAP.	Correspondence	NGA
	5:25 PM	Don Carroll (BCC) returned call to TM. TM advised potential for releasing up to 2,500 cumecs by Tuesday. With further heavy rainfall, as forecast, the flow in the Lower Brisbane could increase to 3,000 cumecs with potential for closure of Fernvale Bridge and Mount Crosby Bridge by Thursday (possibly Wednesday). Releases from Wivenhoe are dependant on flows from Lockyer Ck and inflow into Wivenhoe. FOC will continue to update BCC.	Correspondence	NGA
	5:32 PM	Brett Schultz (NPD) phoned the FOC with a manual reading of EL 20.660 at Lake Kurwongbah. Brett noted that should NPD gates be closed in the near future, the Lake Kurwongbah tailwater would impact on Youngs Crossing.	Correspondence	NGA
	5:40 PM	Rob Drury phoned TM for an update on the current situation.	Correspondence	NGA
	5:45 PM	Graham Keegan returned call and NA advised that TM had requested Graham to factor into his staffing roster of Wivenhoe and Somerset Dams the potential for the Fernvale bridge and the Mount Crosby Bridge to be closed from mid-week sometime, depending on the likelihood of further heavy rainfall.	Correspondence	NGA
	5:58 PM	TM called Jeff Perkins (BoM) to discuss Wivenhoe Dam's release strategy i.e. Major bridge open strategy Vs increased inflow into Wivenhoe resulting from current heavy rainfall. Situation will become clearer in 24 hours time.	Correspondence	NGA
	6:00 PM	SDWD Model Updated - SDWD-201101091800.xls	Model Run	JW
	6:00 PM	NPD model updated - NPD-201101091800.xls	Model Run	JW

DATE	TIME	ACTION	CATEGORY	INITIALS
Monday, 10 January 2011	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 Dan 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
	8:00 PM	SDWD Model Updated - SDWD-201101092000withnorain.xls	Model Run	JW
	8:05 PM	RA called Shane Watson (North Pine Dam) to confirm fast directive is completed. All gates at increment 2.	Correspondence	BS
	8:30 PM	Darryl Hickey (ICC) returned call and spoke to JR. He was informed of current situation and the likelihood of high releases tomorrow causing flood damage.	Correspondence	BS
	8:50 PM	RA called Ken Morris (BCC) to request copy of flood damages curve from 2007 study. Ken will send a copy tomorrow.	Correspondence	RA
	8:55 PM	Ken Morris called back and spoke with JR. Confirmed BCC mobilisation triggers need to be in place. Status report is in preparation and will be emailed out shortly.	Correspondence	BS
	9:10 PM	Rob Drury called and spoke with RA. Rob confirmed that releases will need to be ramped up from current 1400 cumecs to 2500 cumecs which will cause flooding in low lying areas of Brisbane. Brisbane flood information centre has not yet been mobilised. Somerset RC has no DTMR A/H contacts and will be contacting them in the morning. Rob will locate DTMR contacts. Confirmed volumes getting close to 1974 levels. Confirmed situation report has gone out.	Correspondence	BS
	9:15 PM	Geoff Perkins (BoM) called and spoke with TM. They discussed on rainfall expectations and flood warning requirements for Brisbane. Bremer/Vanill 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 Tilmarsh and Darren Valley (operators living in Fernvale) will be mobilised to the dam by police prior to closure.	Correspondence	BS
	11:30 PM	JR called Tony Jacobs (SRC) and left message advising of situation.	Correspondence	BS
	11:35 PM	RA called Ron Hemley (DTMR) and left message regarding current road closure situation.	Correspondence	BS
	11:35 PM	JR called Andy Bickerton (SRC) and left message for call to be returned re Fernvale Bridge situation.	Correspondence	BS
	11:38 PM	JR called Robert Bain (CEO SRC) and left message regarding Fernvale Bridge situation and requested call be returned ASAP.	Correspondence	BS
	11:40 PM	Andy Bickerton (SRC) called back and spoke with JR. JR confirmed the high flow levels and anticipated further level rises will 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
	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-201101100100withnorain.xls	Model Run	JW
	1:00 AM	RA called Ray Ballinger (Somerset Dam) regarding purported dam stability issues (via Tony Trace - two reports received). Ray confirmed that inspection had revealed no issues.	Correspondence	BS
	3:00 AM	SDWD Model Updated - SDWD-201101100300withnorain.xls	Model Run	JW
	3:00 AM	NPD model updated - NPD-201101100300.xls	Model Run	JW
	4:10 AM	JR discussed Wivenhoe status and release strategy with Doug Grigg.	Correspondence	BS
	5:00 AM	SDWD Model Updated - SDWD-201101100500withnorain.xls	Model Run	JW
	5:00 AM	Graham Francis called and discussed Somerset situation with RA.	Correspondence	BS
	5:00 AM	NPD model updated - NPD-201101100500.xls	Model Run	JW
	5:05 AM	Rob Drury called and received situation update from JR.	Correspondence	BS
	5:20 AM	RA called BoM regarding next forecast update - due at 9:00 am.	Correspondence	BS
	6:00 AM	Send out situation report for this morning.	Correspondence	LVB
	7:40 AM	Talked to BoM - we are in general agreement about current flows in the Brisbane River.	Correspondence	LVB
	8:30 AM	FOC left a message for Ken Morris (BCC) to call back.	Correspondence	LVB
	8:38 AM	Talked to Peter 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 \$7mbl. If the rainfall in the Bremer and Lockyer increases substantially - it is likely the flows from these catchments can peak at 1000m3/s (on top of Wivenhoe 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 Shettland (EMQ) and Supt 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 Bremer 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
	1:00 PM	SDWD Model Updated - SDWD-201101101300withnorain.xls	Model Run	JW
	12:02 PM	Spoke with Peter Burrows (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
	12:38 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
	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 4600m3/s	Correspondence	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	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
	6:06 PM	Get weather update from BoM - the forecast now is - still more of the same of what we had today.	Other	LVB
	6:45 PM	Brett Schultz (North Pine Dam) raised concerns with school groups using Lake Kurungbah for rowing exercise while water is running over the spillway at 500mm. He was referred to Rangers.	Correspondence	LVB
	7:30 PM	Agg Dagan (Somerset) called to inform that Somerset hydro is inundated with water. Agg believes he has located source of leak, has tightened seals to prevent further leakage. Agg also noted that there is oil in the water.	Correspondence	JW
	8:00 PM	SDWD Model Updated - SDWD-201101102000withnorain.xls, SDWD-201101102000-Lockyer.xls, SDWD-201101102000-TMInflows.xls	Model Run	JW
	20:00 PM	Peter Baddley (BoM) called to advise of situation regarding flows in Lockyer. Estimated very heavy localised rainfall (eg. 600mm in few hours) on Toowoomba escarpment to cause observed flood flooding. Will monitor via Glenore Grove gauging station.	Correspondence	JW

DATE	TIME	ACTION	CATEGORY	INITIALS
Tuesday, 11 January 2011	20:45 PM	Brett Myatt (Seqwater Mt Crosby WTP) called to get situation update. Advised that at 20m there will be issues at Mt Crosby WTP. FOC to advise Brett if likely to reach that level.	Correspondence	JW
	21:00 PM	Spoke to Peter Allan regarding strategies for reducing Wivenhoe release to mitigate latest event in Lockyer. Peter endorsed variation to manual to operate at minimum gate settings to create gap to allow peak of flash flood to pass. Also endorsed concept allowing Wivenhoe HW to rise above 74 mAHD briefly.	Correspondence	JW
	21:30 PM	Provided Boyd Wilson (ICC) with situation update.	Correspondence	JW
	20:20 PM	Spoke to Peter Baddley (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
	12:00 AM	SDWD Model Updated - SDWD-201101110000withnora.xls	Model Run	JW
	12:00 AM	NPD model updated - NPD-201101110000.xls	Model Run	JW
	12:15 AM	Spoke to Ken Morris (BCC) to update on current release strategy.	Correspondence	JW
	1:30 AM	Spoke to Tony Trace (SRC). Somerset Regional Council offices were flooded and email addresses are no longer working. Tony can be emailed on [redacted]	Correspondence	JW
	2:15 AM	James Charalambous (BOC) 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-201101110300withnora.xls	Model Run	JW
	3:15 AM	James Charalambous (BOC) has provided inundation forecast for Brisbane city to assist with devising strategy to manage Wivenhoe releases	Correspondence	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
	7:00 AM	SDWD Model Updated - SDWD-201101110700withnora.xls	Model Run	JW
	7:00 AM	NPD model updated - NPD-201101110700.xls	Model Run	JW
	7:20 AM	TM called Peter Burrows 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 Mathew 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 3700m3/s.	Correspondence	DP
	7:59 AM	JT called Peter Burrows (Seqwater) and advised that releases from Wivenhoe will reach 3700m3/s at a minimum, and BoM has been informed. Likely to affect Mogill 24 hours later. Phone call terminated due to bad connection.	Correspondence	DP
	8:01 AM	Peter Burrows 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 Mathew (Wivenhoe Dam) that Wivenhoe Directive was coming through in a matter of minutes.	Correspondence	DP
	8:10 AM	JT called Peter Allen to advise of current Wivenhoe situation - Will exceed EL74m. Ramping up gate opening to a minimum of 3700 and gate operations will progress.	Correspondence	DP
	8:11 AM	TM called BCC flood information centre (Duty Officer - James). Wivenhoe releases will reach 3700m3/s at a minimum and higher flows are possible.	Correspondence	DP
	8:15 AM	JT called Rob Drury to advise of the situation that Wivenhoe will increase to 3700m3/s as a minimum.	Correspondence	DP
	8:16 AM	TM called SRC and left a message.	Correspondence	DP
	8:20 AM	JT called Mathew (Wivenhoe Dam) and advised more gate opening directives are coming.	Correspondence	DP
	8:21 AM	TM called Tony Trace (ICC) to advise of situation and that Wivenhoe releases to be at a minimum of 3700m3/s	Correspondence	DP
	8:23 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 Burrows (SEQWater) called TM mobile requesting 'worst case' scenario	Correspondence	DP
	8:50 AM	Doug from Wivenhoe called informing that Wivenhoe has lost power, high voltage fuse blown. Hydro outlet is shut off.	Correspondence	DP
	9:09 AM	JT called SEQWater maintenance (Jo Misner) advised that Wivenhoe has lost power, possibly blown high voltage fuses. JO to resolve issue.	Correspondence	DP
	9:12 AM	Brett called. NPD at 40,140 m HAD all gates at 6, currently heading to setting 7.	Correspondence	DP
	9:13 AM	Energex called. All incoming power has been lost at Wivenhoe.	Correspondence	DP
	9:16 AM	JT called Tony Marini 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. Gary 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-201101111100withnora.xls	Model Run	JW
	11:01 AM	Message received by JT. Kilcoy police rang Somerset. JT advised general status information to be provided by dam operators, predictions to go through FOC.	Correspondence	DP
	11:02 AM	Peter 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
	11:06 AM	FAX not working at Wivenhoe	Other	DP
	11:07 AM	Jimmy Stewart (BoM) called. Inflow into NPD of 1500cumecs. Advised Wivenhoe strategy to be revised.	Correspondence	DP
	11:17 AM	Barton called TM - on the way to talk to Grid Manager. TM advised current strategy is 3 hourly.	Correspondence	DP
	11:19 AM	JT called Ed Hamold. 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 Baddley. 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 Flannor Davidson. Left message: North Pine Dam outflow likely to exceed 2000cumecs.	Correspondence	DP
	11:59 AM	JT called Tony Marini. Left message, outflow from North Pine Dam will exceed 2000cumecs.	Correspondence	DP
	12:04 PM	Brett (North Pine Dam) called to report lake level at EL 40.883 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
	12:17 PM	Tony Marini 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/if 1 in 50 year event occurs.	Correspondence	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 6000cumecs.	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
	1:56 PM	Rob Drury requesting status update.	Correspondence	DP
	2:00 PM	SDWD Model Updated - SDWD-201101111400withnora.xls	Model Run	JW
	2:24 PM	Cherlyn Wivenhoe SEQWater called to pass on message. Phil Wilson (Old 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
	3:49 PM	Peter Baddley & Jimmy Stewart had a conference with JT, JR, TM and RA about current release strategy and possible maximum release scenario of 10000m3/s. This would be of a similar magnitude to the 1893 event (~8.36m in Brisbane Port Office)	Correspondence	DP
	3:54 PM	Stan Stevenson (Seqwater) called and talked to JT regarding current inflow strategy.	Correspondence	DP
	3:58 PM	Called Brett Schultz (Wivenhoe Dam) to check if all is ok, levels are slowly reducing.	Correspondence	DP
	4:29 PM	Lowood police rang to request water level of Wivenhoe and discuss the current release strategy with respect to the fuse plug (conversed with John West).	Correspondence	DP
	4:33 PM	Phone call with TM and Peter Burrows. Discussed that even though the magnitude flood in Brisbane is similar to 1974 flood event, the no-dam flood would be significantly larger without Wivenhoe.	Correspondence	DP
	4:41 PM	Peter Allen phone call. PA requested more technical information in the status reports released by Duty Engineers. PA will send through an example of the technical data requested in the report.	Correspondence	DP
	4:46 PM	Dave Roberts called to request update in inflow/outflow of Wivenhoe Dam.	Correspondence	DP

DATE	TIME	ACTION	CATEGORY	INITIALS
	5:00 PM	SDWD Model Updated - SDWD-201101111700withnorain.xls	Model Run	JW
	5:12 PM	JT called Brett Schultz (North Pine Dam) regarding gate operating strategy. JT advised to keep gates at current setting until water is clear of the controls. Gate closing strategy then to follow Flood Manual.	Correspondence	DP
	5:22 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-201101111800withnorain.xls	Model Run	JW
	6:04 PM	Glen Patterson called to advise he is unable to reach Lake MacDonal to take readings.	Correspondence	DP
	6:07 PM	Recap of current release strategy amongst Duty Engineers. Current Wivenhoe scenario: 74.9 m - all gates at 12m. Won't go to 13m settings until level reaches 75.0 m AHD.	Correspondence	DP
	6:35 PM	Agg (Somerset Dam) called to confirm all is good.	Correspondence	DP
	6:36 PM	Bill Stevens called to inform team he is cut off due to flood waters and unable to come in.	Correspondence	DP
	6:41 PM	Tarong Energy confirmed releases from Spillway Creek have stopped.	Correspondence	DP
	6:56 PM	Dan 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	Doug Grigg (Wivenhoe Dam) called to report that Wivenhoe Level 74.97m AHD is holding.	Correspondence	AN
	7:30 PM	Brett Schultz (North Pine Dam) rang to say he is behind in gate settings.	Correspondence	AN
	7:25 PM	JR called Brett Schultz (North Pine Dam) to advise that a directive will be sent to move all gates down to 11m.	Correspondence	AN
	7:45 PM	Brett Schultz (North Pine Dam) called FOC. JT clarified directive 19 to drop gates from 16 to 11 in one go, at 15 minutes intervals.	Correspondence	AN
	8:00 PM	Peter Baddiley rang. Unofficially TM advised that things have stabilised. Also advised predicted peaks at various sites.	Correspondence	AN
	8:25 PM	Joe Melsner rang to advise that the high voltage feeder to Wivenhoe will not be restored for the duration of this event. JT advised that Wivenhoe is operating successfully on the generator, and they have a fair bit of diesel. There are still 2 other backups to operate the gates.	Correspondence	AN
	8:25 PM	Chris Hughes at Colliers Building Services rang back. Rob Ayre asked about power supply to 179 Turbot Street. Chris said to email our power requirements.	Correspondence	AN
	8:30 PM	Doug Grigg (Wivenhoe Dam) called to advise that Wivenhoe's level is 5mm down.	Correspondence	AN
	8:30 PM	RA called Colliers Building Services and left a message to call back regarding loss of power to the 179 Turbot Street.	Correspondence	AN
	8:30 PM	RA rang John Thornton (SunWater) to advise that power will be shutting down in the CBD tomorrow morning.	Correspondence	AN
	8:35 PM	RA rang John Thornton to advise the power situation.	Correspondence	AN
	8:35 PM	Peter Burrows (Seqwater) called FOC to speak with all duty engineers on the operating strategies for Wivenhoe releases.	Correspondence	AN
	8:40 PM	MT called FOC to ensure we received the Energex message regarding power shutdown to the CBD.	Correspondence	AN
	8:45 PM	Warren Shallcross rang. Rob Ayre advised that Energex will be cutting power to the CBD in this morning. Warren will call Mike Winter and the security guys for Mineral House.	Correspondence	AN
	8:50 PM	Brett Schultz (North Pine Dam) called to report NPD Level at EL 40.07m AHD. Gates are all at 11 increments.	Correspondence	AN
	8:55 PM	Peter Burrows (Seqwater) rang asking about possibly reducing releases. TM advised that we are seriously considering it, but this would have little effect on the levels in Brisbane River. Peter would like technical reports every hour throughout the night.	Correspondence	AN
	9:00 PM	RA emailed Chris Hughes with our building power requirements.	Correspondence	AN
	9:05 PM	TM rang Chris Lahey (BoM) to advise that power to the CBD may be cut and send him actual end releases report.	Correspondence	AN
	9:10 PM	John Thornton called RA. John advised he spoke to Chris Hughes and is setting an Energex contact.	Correspondence	AN
	9:20 PM	Warren Shallcross rang. Mike Winter told him we may not be able to have air conditioning.	Correspondence	AN
	9:25 PM	RA called John Thornton. Chris Hughes got back to him and has Haywoods Electrical lined up for tomorrow morning.	Correspondence	AN
	9:30 PM	Mal Lane (North Pine Dam) called. They are still behind in gate closures.	Correspondence	AN
	9:35 PM	JT rang to discuss the latest directive to raise Wivenhoe Dam. JT suggested not raising.	Correspondence	AN
	9:40 PM	JW called Doug Grigg (Wivenhoe Dam) to obtain a current level. EL 74.97 Gates have been raised to 11.5m.	Correspondence	AN
	10:00 PM	SDWD Model Updated - SDWD-201101112200withnorain.xls	Model Run	JW
	10:00 PM	John Thornton rang to advise the phone number for Steve from Energex.	Correspondence	AN
	10:00 PM	John Thornton rang requesting RA mobile number to pass on onto Energex.	Correspondence	AN
	10:30 PM	John Thornton rang to say Geoff White has pleaded our case with the CEO of Energex and it is likely 179 Turbot Street will not lose power.	Correspondence	AN
	10:35 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.94m AHD @ 10:30hrs.	Correspondence	AN
	11:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level at 74.92m AHD @ 11:00hrs.	Correspondence	AN
	11:10 PM	Rob Drury rang to request discharge from Wivenhoe when the gates are lowered to 10m. Advised 6100m3/sec.	Correspondence	AN
Wednesday, 12 January 2011	11:30 PM	JW called Doug Grigg (Wivenhoe Dam) to obtain a current level. EL 74.97 Gates have been raised to 11.5m.	Correspondence	AN
	12:30 AM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.88m AHD @ 12:30hrs.	Correspondence	AN
	1:00 AM	John Thornton (SunWater) called to provide Energex contact details. Steve, phone number [REDACTED] Steve indicated that he didn't believe 179 Turbot St would be disconnected from power grid in the morning.	Correspondence	JW
	1:15 AM	RA rang Doug Grigg (Wivenhoe Dam) advising next directive. We want to get releases down as quick as possible while still lowering lake levels. Advised that we may possibly have a communications problem in the morning if power to 179 Turbot Street is cut.	Correspondence	AN
	2:10 AM	James Charalambous (BOC) rang enquiring about a release strategy. Advised one will be issued at about 3:00am. Talked about the activities of the last 24 hours.	Correspondence	AN
	3:10 AM	JR rang Mal Lane (NPD) and advised no changes to gate settings planned for the next hour or so.	Correspondence	AN
	3:30 AM	Brett Myatt (Seqwater Mt Crosby WTP) called enquiring about levels at Mt Crosby.	Correspondence	AN
	3:50 AM	RA called Chris Lahey (BoM) advising him that because inflows are not as much as earlier anticipated, the releases from Wivenhoe are less than previously suggested.	Correspondence	AN
	4:05 AM	Ian Douglas, OIC of Lowood Police, rang enquiring about the Wivenhoe fuse plug. JW advised that there is no danger of the fuse plug failing, and that current releases from Wivenhoe Dam are about 4,900 cumecs.	Correspondence	AN
	4:40 AM	Brett Myatt (Seqwater Mt Crosby WTP) rang to check that his emails with the Mt Crosby levels were being received. They are.	Correspondence	AN
	5:15 AM	Rob Drury rang enquiring current storage levels and releases. JR advised.	Correspondence	AN
	5:30 AM	Rob Drury rang enquiring estimated time for closing North Pine Dam. RA advised possible today, but it has not yet been decided. Also advised the inflows into North Pine Dam were equivalent to a 1:10,000 event.	Correspondence	AN
	5:30 AM	JR called Wivenhoe Dam for the current level. Dropped 2 cm in 30 minutes.	Correspondence	AN
	5:50 AM	TM called Jim Stewart (BoM) advising him that we have significantly scaled back releases from Wivenhoe Dam, and will probably continue to scale back more. Agreed that Savages Crossing has peaked.	Correspondence	AN
	6:00 AM	SDWD Model Updated - SDWD-201101112050withnorain.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 (BOC) 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	Unlaid with Bureau regarding expected peak in lower Brisbane.	Correspondence	JW
	7:50 AM	John Thornton (SunWater) called to confirm that 179 Turbot St had power.	Correspondence	JW
	8:20 AM	Rob Drury rang enquiring current storage levels and releases. JT advised.	Correspondence	KH
	9:20 AM	Brett Schultz (North Pine Dam) rang wanting to speak to JT.	Correspondence	KH
	9:50 AM	Ken from Lowood Police rang enquiring current storage releases from Wivenhoe Dam. JT advised.	Correspondence	KH
	10:20 AM	Agg (Somerset Dam) called querying whether FOC have received fax and email regarding storage level. He was checking the walls before and will be at his desk for the next 30 minutes. Adam is there with him.	Correspondence	KH
	10:50 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 Envtromon. He asked if TM can check the system.	Correspondence	KH
	11:50 AM	Peter Burrows (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 Tessa, Jim Stevenson from BoM visited FOC to liaise with the Duty Engineers.	Correspondence	NGA
	1:10 PM	Berton 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: 74.79m 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 Inigators) at Fernvale have concerns that a flood peak might be coming down the Lockyer within the next couple of hours. Rob Ayre assured Graham that the flood heights have reduced by up to 3 metres and any increase would be less than 1 metre.	Correspondence	NGA
	2:25 PM	Mathew (Wivenhoe Dam) called to report lake level: 74.81m 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
	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 13/12/2011.	Correspondence	NGA

DATE	TIME	ACTION	CATEGORY	INITIALS
	4:00 PM	SDWD Model Updated - SDWD-201101121600.xls	Model Run	JW
	4:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.80m 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
	5:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.80m AHD @ 18:00hrs.	Correspondence	NGA
	7:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.82 @ 19:00hrs.	Correspondence	MT
	7:45 PM	RA & JR advised Chris Laney (BoM) that FOC will be sending updated projected releases from Wivenhoe Dam. This has been prepared with the aim of limiting flows at 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 74.82m AHD @ 21:00hrs. They will now report levels every 2 hours.	Correspondence	RA
	8:15 PM	Doug Grigg (Wivenhoe Dam) called to inform that Energex restored power at Wivenhoe Dam at 21:15 hours.	Correspondence	MT
	9:50 PM	Brett Myatt (Mt Crosby WTP) provided an update on Kholo & Mt Crosby: Kholo 19:15hrs 20.6m Mt Crosby 21:00 23.5m	Correspondence	MT
		He asked for a situation update. RA shared Wivenhoe Dam's release strategy.		
Thursday, 13 January 2011	10:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.81m AHD @ 22:00hrs. Will now report levels every 2 hours.	Correspondence	MT
	12:00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.79m AHD @ 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 74.765m AHD @ 2:00hrs.	Correspondence	MT
	4:00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.74m AHD @ 4:00hrs. Will now report levels every 2 hours.	Correspondence	MT
	6:00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.71m AHD @ 6:00hrs. Will now report levels every 2 hours.	Correspondence	MT
	6:43 AM	Peter Baddley (BoM) called to inform that BoM has lost their telephone system. He provided 2 contact numbers: [REDACTED] & [REDACTED] Thornton St 4.45m, Telemeter 4.20m	Correspondence	MT
	7:30 AM	Agg Dagan has been advising Kilooy Police of the FOC strategy for lower Somerset during the next 24 hours of opening sluice later today	Correspondence	RA
	7:50 AM	Peter Baddley (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
	1:00 PM	Tony Jacobs rang to enquire about Kilooy 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 Kilooy would be accessible. John Tibaldi advised Rob that it would be by 6am tomorrow morning (14/1).	Correspondence	JW
	1:40 PM	Brett Myatt called for update on Mt Crosby. Terry Malone informed him that level would be maintained at 17.5 metres for next 7 days.	Correspondence	JW
	2:15 PM	Phone call from Steve Roso, MBRC. Advice as follows: * damage to Gympie Rd abutments * No evacuations * No suburban flooding * Not aware of any over floor flooding. Pine Shire has 0.75m freeboard.	Correspondence	JW
	2:30 PM	Wivenhoe directive #36 issued • Open Gate 1 from 3.5 metres to 4.0 metres at 1500. • Open Gate 5 from 3.5 metres to 4.0 metres at 1600. • Open Gate 1 from 4.0 metres to 4.5 metres at 1700. • Open Gate 5 from 4.0 metres to 4.5 metres at 1800.	Correspondence	JW
	3:50 PM	Brett Schultz called to confirm if FOC received Dam Observation report for North Pine Dam. Approx 6 of 40 uplift pressure gauges have abnormal readings.	Correspondence	JW
	4:45 PM	Judy (MBRC) was advised that NPD gates will be closed at 0500 Friday	Correspondence	TM
	7:37 PM	John Thornton of SunWater called to confirm building services were working and all in order.	Correspondence	DP
	7:51 PM	Rob called Mal Lane (North Pine Dam) to discuss the current drainage strategy to close all gates by 5am tomorrow. Water level in North Pine Dam will be frequently monitored against the predictive model results, and gate opening will be adjusted accordingly if required.	Correspondence	DP
Friday, 14 January 2011	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
	12:46 AM	David Preston of Ipswich District (Fernvale) Police rang to enquire into the integrity of Somerset Dam, based on information received by the police. Rob Ayre indicated that surveillance procedures are in place to monitor the integrity of the Dam, and that RA will confirm with the operators.	Correspondence	DP
	12:47 AM	Rob Ayre called Ray Ballinger at Somerset to enquire to the integrity of Somerset Dam. Operator indicated all was good and no anomalies have been detected.	Correspondence	DP
	12:49 AM	RA called David Preston back on 3817 1436 to confirm that Somerset was recently inspected and all was ok.	Correspondence	DP
	5:13 AM	Fax received from North Pine Dam confirming closure of all gates.	Correspondence	DP
	5:15 AM	Rob Ayre called MBRC to advise that North Pine Dam has closed the final gate at 5am.	Correspondence	DP
	5:16 AM	Malcom from North Pine Dam called to confirm that all gates are closed, and Young's Crossing should be passable within 2 hours. Lake Kurwongbah level is 20.43 m.	Correspondence	DP
	5:28 AM	Rob Drury called to obtain a situation report. Rob Ayre provided the key information.	Correspondence	DP
	5:37 AM	James C from BCC called requesting information for Wivenhoe Dam and checking sit-rep data. Enquired about flows throughout the event. TM advised that not currently in a position to discuss these.	Correspondence	DP
	7:40 AM	Rob Drury rang FOC to enquire about river levels at Lovood. Pumps required to be installed to supply Lovood 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 commo 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 Bridger (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 hoers 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	Alf Cameron from DERM phoned TM. Re: Gauging exercise at Jindalee:- Soundek M9 from boat (6 passes) Jindalee gauging result:- 4,300m³/sec at 6:45 metres AHD at 12:00 hrs	Correspondence	NGA
	12:37 PM	Peter 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

DATE	TIME	ACTION	CATEGORY	INITIALS
	3:30 PM	Matthew O'Reilly rang from Wivenhoe Dam with concerns about some 'swirling' apparent in the downstream tailwater opposite 'The Common'. Matthew thought there could be some erosion occurring under the flow. Matthew forwarded a marked photo of the phenomenon to TM. The consensus reached was that the phenomenon was the result of an 'hydraulic jump'. The matter would be referred to John Tibaldi for further investigation.	Correspondence	NGA
	3:55 PM	TM rang John Tibaldi to discuss the 'swirling' phenomenon identified by Matthew O'Reilly. Effect is at D/S end of plunge pool and is almost certainly a 'hydraulic jump'. JT advised the issue was not of concern unless the phenomenon moves toward the flip bucket.	Correspondence	NGA
	4:05 PM	TM phoned Matthew O'Reilly at Wivenhoe Dam to pass on advice that John Tibaldi had no concerns about the 'hydraulic jump' phenomenon identified by him earlier today.	Correspondence	NGA
	4:50 PM	Brett Myatt phoned the FOC. TM advised Brett that the current release strategy from Wivenhoe Dam (and therefore flows past the Mount Crosby WTPs) would be maintained until at least Monday (17th).	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&M Conroy Bridge on the Wivenhoe Somerset Rd would be clear by tomorrow (Sat) morning.	Correspondence	NGA
	7:00 PM	FOC change over.	Other	KH
	8:40 AM	Rob Drury rang. Terry advised strategy to possibly go below FSL at Wivenhoe by Thursday.	Correspondence	AN
	8:42 AM	Peter Burrows rang to advise that the media come into the FOC today to take photos.	Correspondence	AN
	11:30 AM	Rob Drury rang to request a summary of the Operations Manual for Wivenhoe. Terry to provide after checking with all duty engineers.	Correspondence	AN
	12:12 PM	Rob Drury rang to advise of a phone hook-up with the Minister and Peter Burrows at 2:00pm, and requested that RA be in at the 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 Burrows, John Bradley and Bob Reilly to discuss a report for the minister by COB Sunday.	Correspondence	AN
	5:00 PM	Rob Drury arrived to help write report for minister briefing.	Correspondence	AN
	7:30 PM	Doug from Wivenhoe called to discuss strategy for the next 12 hours.	Correspondence	DP
	4:12 AM	Called Doug at Wivenhoe to confirm directive received via email. Directive being actioned ASAP.	Correspondence	DP
	7:10 AM	Anthony Dagan (Somerset Dam) emailed floodcentre indicating he believed floodcentre phones were out. Tried to contact Ag by office and mobile phones with no success (Telstra message bank on office phone and Ag's message on mobile). Floodcentre phones were checked - working OK. Problem is with Somerset phones. Believe fax also not receiving. Ag emailed to confirm they have local calls but no STD. Continued checking mobile - no response.	Correspondence	BS
	8:20 AM	Called Matt at Wivenhoe to confirm directive 45 received. Confirmed not received - busy status on fax confirmation. Confirmed directive received via email.	Correspondence	BS
	9:40 AM	Retried all phones at Somerset - no response. Ag emailed to confirm that all phones are down at Wivenhoe. Email is still working and he will be checking emails every hour on the hour.	Correspondence	BS
	10:20 AM	Email confirmation received that Somerset Directive #12 implementation has been completed.	Correspondence	BS
	11:30 AM	FOC contacted by police (Robbie Goodger - phoned) notifying that the Wivenhoe viewing area has been damaged. Rob Ayre unable to contact Wivenhoe staff (Matt) - message left. Then contacted Doug Grigg, who confirmed that the area is damaged and has been locked off and 2 security guards are on site. It won't be opened until the water level falls and a full inspection of the structure has been completed. Rob Ayre confirmed this with police, who reported that there was damage to safety rails and water supply to toilets. Matt also responded to Rob's call and confirmed the details.	Correspondence	BS
	12:30 PM	Phone call from Matt (Wivenhoe) - neither fax nor email received. Verbal instruction given to implement gate operation as per Directive #46 and email resent.	Correspondence	BS
	12:40 PM	Ian Holland (contract programmer) called to advise that the back-up Linux box 'Namah' at Mineral House is showing file system corruption errors, so the FCC is effectively without backup. The hydraulic model in the RTFN is missing because two Fortran programs 'Modcom 2' and 'Model' have not been ported to the Linux box.	Correspondence	BS
	12:55 PM	Rob Ayre advised Warren Shallcross about the situation at Mineral House, and he will visit the backup operations centre ASAP.	Correspondence	BS
	1:10 PM	Ag (Somerset) called to report that the phones are now working.	Correspondence	BS
	2:40 PM	Terry Malone spoke to Rob Ayre. Grid manager wants a summary of flood volumes and peak discharges.	Correspondence	BS
	3:00 PM	Warren Shallcross called - confirmed with Rob Ayre that the computer system at Mineral House has been rebooted and is functional.	Correspondence	BS
	3:10 PM	Rob Drury rang to confirm current discharges. Confirmed 600 cumecs for Somerset and 3500 cumecs for Wivenhoe (approx).	Correspondence	BS
	4:00 PM	Directive #47 implemented - Gate 2 opened to 7.0 m.	Correspondence	BS
	6:52 PM	Rob Ayre spoke with Doug Grigg (Wivenhoe Dam) about Directive #48 Wivenhoe strategy. Doug confirmed receipt of Directive.	Correspondence	MT
	7:00 PM	FOC change over.	Other	MT
	10:00 PM	Doug Grigg (Wivenhoe Dam) called to inform 3 floor panels missing from bulks.	Correspondence	MT
Monday, 17 January 2011	7:15 AM	Rob Drury called to get Sit Rep. Advised that Somerset should remain mobilised until further notice.	Correspondence	LVB
	7:35 AM	Agg Duggan called - discussed strategy i.e. operate cone valves only from now on.	Correspondence	LVB
	9:15 AM	Brett Myatt from Mt Crosby called to find out about strategy for Wivenhoe shut down. Informed him that we will start closing down mid afternoon and aiming to have it closed by Wednesday.	Correspondence	LVB
	9:35 AM	Rob Drury called to enquire when closing down will start and reminded us to inform Councils.	Correspondence	LVB
	10:00 AM	Advise Peter Allen about inconsistency between readings 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 Traca ICC was contacted (left message) advising gate close will commence this afternoon.	Correspondence	LVB
	11:15 PM	Called Brett Myatt to inform him that flow in Lockyer is 75m3/s and falling.	Correspondence	LVB
	11:15 PM	Talked to Ken Morris BCC. Advised him about gate closure. He mentioned that BCC will not provide any info on flood recurrence until they discussed with FOC.	Correspondence	LVB
	11:20 AM	Rob Drury called - Council wants to know draw down rates, so they can determine the effects on Coronation Dr. JR informed RD that Ken did not raise this when they spoke 10 mins before.	Correspondence	LVB
	11:20 AM	Peter Burrows called saying he will email a revised copy of Michael O'Brain'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
Tuesday, 18 January 2011	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 Bradley from BOM called to confirm that he received the info on the discrepancy in the auto level recorder.	Correspondence	LVB
	4:15 PM	Jim from BOM - they have not received manual observations for days.	Correspondence	LVB
	12:30 AM	Peter Burrows 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 fax 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
	1:00 AM	TM message sent to Peter Burrows 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
	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
	8:25 AM	Matthew O'Reilly (Wivenhoe) called to acknowledge Directive 55.	Correspondence	KP

DATE	TIME	ACTION	CATEGORY	INITIALS
	10:10 AM	Rob Townsley (SEQWater at Mt Crosby Phone) has requested some forward projections for flows at Mt Crosby Weir for the next 48 hours. They are looking at sludge dilution.	Correspondence	KP
	10:15 AM	Rob Ayre called Rob Townsley back to provide the following info re projected flows at Mt Crosby Weir: 18/1/2011 10:00 - 2300 cumecs 19/1/2011 10:00 - 1130 cumecs 20/1/2011 10:00 - 360 cumecs	Correspondence	KP
	10:19 AM	Mark Gibson from BCC Flood Information Centre called to advise that Campbell Newman wants an indication of what the flood would have been without dams and asked if the figure of 13000 cumecs provided to Ken Morris earlier could be released to the public.	Correspondence	KP
	10:24 AM	Rob Ayre spoke to Rob Drury to ask SEQWater's policy re release of information above. Rob Drury to confirm with his comms people.	Correspondence	KP
	10:30 AM	Paul Bird (SEQWater comms officer) called to advise that the minister's office has recommended that no info regarding releases from WD be released to anybody. Paul Bird will now communicate this response to the BCC Flood Info Centre and specifically Mark Gibson.	Correspondence	KP
	10:38 AM	Tony Jacobs (Somerset RC) requested info re when Burtons Bridge is expected to be free from inundation. Under our current shutdown sequence, Rob Ayre advised that we expect Burtons to be free around midnight on Wed evening. Tony also advised that the bridge on New England Creek will become flood free at around the same time. Tony indicated that at 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
	12:26 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
	4:05 PM	Rob Ayre called Mal Lane to alert him to the possibility of operating North Pine Dam with incoming storms.	Correspondence	KP
	4:30 PM	Rob Drury rang noting the current storms and requested that Rob Ayre call Tony Martini (Moreton RC) to advise of the possibility of operating North Pine Dam.	Correspondence	KP
	4:34 PM	Email from Peter Borrows containing Bob Reilly's approval to vary the flood release regime to enable a constant flow for the Lowood WTP offake.	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
	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 Ahlitt 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 Crane (Seqwater) regarding JT's inability to access Citrix. Outage (?). Message left.	Correspondence	NGA
	7:15 PM	JT phoned Rob Drury regarding Citrix comms outage. Message left requesting RD to intervene to have the problem fixed.	Correspondence	NGA
	7:20 PM	Lief from IT (Seqwater) rang and 'reset' Citrix for JT.	Correspondence	NGA
	7:30 PM	JT phoned Malcolm Lane at NPD to confirm gate opening arrangements for 20:30 if Youngs Crossing Road has been closed to traffic by Council at that time.	Correspondence	NGA
	7:40 PM	Rob Drury rang the FOC to enquire if the Citrix issue was sorted. Citrix connection now functioning. JT expressed concern about the current release strategy for Wivenhoe Dam. If the current release rate is maintained (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
	8:35 PM	JT contacted Doug G. at Wivenhoe. Gate closing directive pending.	Correspondence	NGA
	8:55 PM	Malcolm Lane phoned the FOC. MBRC have only just closed off Youngs Crossing Road. By the time the siren is sounded, the gate openings in Directive 31 scheduled to commence at 20:30 will be delayed by 45 minutes.	Correspondence	NGA
	9:00 PM	Charlie, the Duty Officer at MBRC, rang JT to advise that Youngs Crossing Road was now closed. JT advised Charlie that it was intended to maintain releases from NPD through until 5:00am Wednesday 19/1. With this operating strategy, Youngs 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
Wednesday 19/01/2011	9:15 PM	Rob Drury phoned JT to discuss the Wivenhoe release strategy and its potential to effect bank slumping at Coronation Drive. The changed situation at Lowood means that the reduction in Brisbane River levels will now be far more even. RD advised that Coronation Drive is no longer a concern.	Correspondence	NGA
	9:30 PM	Neville Abitt phoned BCC and made 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
	9:38 PM	Neville Abitt contacted Doug G. at Wivenhoe Dam by 2-way radio to confirm his receipt of e-mail containing Directive #59. Doug also confirmed that the Wivenhoe fax machine is still inoperative. All written comms to be by e-mail.	Correspondence	NGA
	9:50 PM	JT phoned Rob Drury. Wivenhoe release strategy discussed regarding Lowood WTP temporary offtake level, concerns about Coronation Drive bank slumping and lake level at cessation of releases if 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
	3:30 AM	JT phoned the Mount Crosby WTP to obtain an update on the status of the Mount Crosby Weir Bridge. It is currently clear of water and came out of inundation approx 14:00 yesterday (18/1). The bridge has reportedly suffered some damage. Details unknown.	Correspondence	NGA
	4:38 AM	JT advised Doug G. at Wivenhoe Dam that the strategy for further gate closures after 0500 was dependant on the outcome of a discussion with Peter Borrows anticipated within the hour. Doug advised that the Fernvale Bridge was clear of floodwater but that it had powerlines down on/around it.	Correspondence	NGA
	5:05 AM	Doug G. from Wivenhoe Dam phoned the FOC to report that some erosion has occurred in the vicinity of the plunge pool downstream of the flip bucket. This has become evident now that the gate releases have been reduced. Some large boulders (~10t) are evident piled up against the bench D/S of the flip bucket. JT will need to inspect the damage ASAP.	Correspondence	NGA
	5:10 AM	JT phoned Peter Borrows to obtain a Govt. view on how long to maintain releases and to where the lake level should be held following closure of all gates. Timing of the gate closure might be dependant on the erosion issue.	Correspondence	NGA
	5:15 AM	JT phoned TM to arrange for TM to relieve JT ASAP in the FOC as he is required to inspect the reported damage at Wivenhoe Dam.	Correspondence	NGA
	5:20 AM	JT phoned Barton Maher (Seqwater) to arrange a joint inspection of the erosion damage at Wivenhoe Dam as reported by Doug G. the dam operator.	Correspondence	NGA
	5:25 AM	Rob Drury phoned JT to obtain an update. JT advised RD that damage has been reported to the area D/S of the flip bucket at Wivenhoe. An inspection ASAP is warranted.	Correspondence	NGA
	5:30 AM	JT phoned Peter Allan (Dam Regulator) to advise that damage had been reported at Wivenhoe Dam by the operator. Initial information indicates that large boulders are piled up in the plunge pool D/S of the flip bucket. The source of these boulders is unknown as releases are still continuing from the gates. JT has arranged to inspect the site with Barton Maher in a few hours and an invitation was extended to PA as an interested party to attend the inspection. JT will provide updates as they come to hand.	Correspondence	NGA
	5:35 AM	Doug G. phoned JT on his mobile phone with an update report.	Correspondence	NGA
	8:08 AM	JT phoned TM. Things seem to be O.K. but we will continue to close all gates by this afternoon.	Correspondence	KH
	8:20 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
	3:21 PM	Kerry (MBRC) phoned wanting AJ Wylie Bridge to be closed at 9:00 PM rather than 7:00 PM, and stating that she will update 24 hour call centre number. She will send email to confirm all this.	Correspondence	KH
	4:00 PM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments.	Other	KH
	7:30 PM	Toni Martini from MBRC called to say that the alternate route @ Petri is open (sooner than the 9 PM forecast)	Correspondence	LVB
	9:10 PM	Called Murray Dunstan to inform him that NPD will be mobilised.	Correspondence	LVB
	9:10 PM	Called Brett Schultz NPD to mobilise. The WL is approaching trigger level for gate opening.	Correspondence	LVB
	9:20 PM	Called MBRC call centre to inform them that NPD will be operated. They called back and advised that they can close Young's crossing by 11 PM. They will confirm once road is closed.	Correspondence	LVB
	9:38 PM	Brett Schultz called to confirm they are ready The gauge reading was 39.54 @ 9:30PM	Correspondence	LVB
	2:15 AM	Toni Martini from MBRC called regarding release at NPD. He was advised that the gates will be open open for a while yet	Correspondence	LVB
	6:50 AM	Maria from MBRC called to find out when the gates on NPD will be shut. They were advised that the gates will only be closed in time for the afternoon peak.	Correspondence	LVB
	7:20 AM	Rob Ayre called Tony Jacobs at SRC to advise of flow in Lockyer Creek. Tony concerned about Burtons Bridge but RA indicated that we will endeavour to keep flows below 400 m3/s.	Correspondence	RA
	7:25 AM	RA called Tony Trace at Ipswich CC and advised of renewed flows in Lockyer Creek and Middle Brisbane R.	Correspondence	RA
	7:40 AM	RA called Chris Lavin at BCC and advised of increased flows in Lockyer Creek and Middle Brisbane. Advised that Savages Crossing and will be Colleges Crossing are inundated. Estimated travel time 30 to 36 hours.	Correspondence	RA
	7:55 AM	RA called NOD and spoke to Doug. Discussed proposed strategy to drain until around 2:00 PM with current gate settings. Requested hourly readings so as to monitor model performance.	Correspondence	RA
	8:00 AM	Mal Lane from NPD called to discuss proposed operations. RA indicated that we will continue as is until 10:00am QPF comes in and then decide from there as to strategy.	Correspondence	RA
	8:40 AM	Rob Drury called enquiring about the timeliness of the notice we gave to MBRC. Rob advised him accordingly.	Correspondence	KH
	8:45 AM	John West called (re Lowood pump station) enquiring time to peak (height and discharge). FOC response was about 9 hours with height of about 3.7 m corresponding to 300 cumecs.	Correspondence	KH
	8:50 AM	John West called (re Lowood pump station) enquiring current height and discharge. Together we estimated that it was about 150 cumecs (50 from Lockyer Creek and 100 from Wivenhoe Dam) corresponding to about 2.4 m.	Correspondence	KH
	9:45 AM	Rob Drury advised Wivenhoe will not be drained to 66.5 m AHD, but will be maintained at or just below FSL.	Correspondence	KH
	10:21 AM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments.	Other	KH
	10:30 AM	Rob Drury called enquiring whether closing all releases in Wivenhoe Dam will cause level to exceed gate trigger in the next three days. RA advised that with rain on the ground he expects it not to, however forecast as per QPF is 15-25 mm, so we may need to review that decision tomorrow.	Correspondence	KH
	11:12 AM	Toni Martini (MBRC) called. RA advised all gates will be closed at 2:00 PM.	Correspondence	KH
	11:14 AM	RA phoned Murray Dunstan. They decided to close NPD by 2pm to allow MBRC to open Young's Crossing for afternoon peak.	Correspondence	KH
	11:15 AM	John West called enquiring peak height and discharge at Lowood with Wiv Dam gates closed. We decided to just minus 100 cumecs from previous estimation. He also wants FOC to email him the Lowood rating curve.	Correspondence	KH
	11:33 AM	RA called Mal (re Directive 35)	Correspondence	KH
	11:36 AM	RA called TM. TM will monitor situation overnight and RA will become Duty Eng again tomorrow.	Correspondence	KH
	11:44 AM	Paul Bird (SEQWater) called to confirm whether we have closed all gates at Wivenhoe Dam. KH said yes.	Correspondence	KH

DATE	TIME	ACTION	CATEGORY
	8:00 AM	SDWD Model Updated - SDWD-201101060800.xls	Model Run
	8:00 AM	NPD model updated - NPD-201101060800.xls	Model Run
	8:30 AM	MT spoke with Graham Keegan (Stand-in Central Coordinator) about readiness of staff for flood operations. Graham confirms that staff have been rostered and are ready.	Correspondence
	8:50 AM	Andy Bickerton (MBRC) called to query about flows are Fernvale bridge. TM provided an update for possible gate operations.	Correspondence
	9:05 AM	Glen Paterson called to inform that North Pine Dam staff have been rostered and are ready.	Correspondence
	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
	11:00 AM	Tony Trace (Ipswich City Council (ICC)) called for a situation update. TM shared the release strategy for tonight.	Correspondence
	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
	12:00 PM	SDWD Model Updated - SDWD-201101061200.xls	Model Run
	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
	12:43 PM	Andy Bickerton (MBRC) called. TM advised that water will be over Savages Crossing until end of the week.	Correspondence
	12:46 PM	TM advised Ken Marsh (BCC) Wivenhoe Dam will commence gate operations later today.	Correspondence
	1:32 PM	TM left message for Tony Jacobs (SRC) to return his call.	Correspondence
	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
	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
	1:46 PM	TM left message for Chris Levin (BCC) to return his call.	Correspondence
	1:47 PM	TM left message for Ken Morris (BCC) to return his call.	Correspondence
	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
	2:45 PM	Ken Morris (BCC) called for situation update. TM provided an update.	Correspondence
	3:00 PM	SDWD Model Updated - SDWD-201101061500.xls	Model Run
	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
	3:19 PM	Kerry (MBRC) called. TM advised her North Pine Dam will commence gates operations from 19:00 hrs.	Correspondence
	4:00 PM	SDWD Model Updated - SDWD-201101061600.xls	Model Run
	4:00 PM	NPD model updated - NPD-201101061600.xls	Model Run
	5:30 PM	Issued North Pine Directive #1. • Gate C : Open 1 increment at 1900 • Gate E : Open 1 increment at 1915 • Gate A : Open 1 increment at 1930 • Gate D : Open 1 increment at 1945 • Gate B : Open 1 increment at 2000	Directive
	6:57 PM	Brett Schultz (North Pine Dam) called to inform that MBRC workmen were waiting until 19:00 hrs to close Young's Crossing boom gates. This delayed dam gate opening by 15 minutes.	Correspondence
	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
	9:00 PM	NPD model updated - NPD-201101062100.xls	Model Run
	9:00 PM	SDWD Model Updated - SDWD-201101062100.xls	Model Run
	7:00 AM	TM and LVB commenced day shift.	Other
	8:00 AM	Advice from BoM indicates that SEQ can expect some high rainfall totals over the next 5 days up to Tuesday 11/11/11 with the largest falls predicted for Sunday and Monday.	Correspondence
	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
	8:40 AM	FOC called Kerry (MBRC) to inform them that North Pine will be operate for the next few days - probably till Tuesday.	Correspondence
	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
	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
	10:12 AM	Called Robert Glen (BCC) to provide situation report.	Correspondence
	12:00 PM	NPD model updated - NPD-201101071200.xls	Model Run
	12:00 PM	SDWD Model Updated - SDWD-201101071200.xls	Model Run
	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
	6:00 PM	SDWD Model Updated - SDWD-201101071800.xls	Model Run
	7:55 AM	Agg Dagan from Somerset Dam rang enquiring on Somerset's strategy. RA advised possibly opening a gate later today.	Correspondence
	8:10 AM	RA advised Matthew O'Reilly (Wivenhoe Dam) on directive #4 and discussed strategy.	Correspondence
	8:20 AM	RA rang Brett Schultz (North Pine Dam) and advised on strategy.	Correspondence
	9:00 AM	SDWD Model Updated - SDWD-201101080900.xls	Model Run
	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
	10:00 AM	NPD model updated - NPD-201101081000.xls	Model Run
	10:50 AM	Rob Drury rang. RA advised current status and strategy.	Correspondence
	11:30 AM	Ken Morris (BCC) rang asking about combined flows down the Brisbane River (Wivenhoe, Warrill Creek and Bremer River). AN advised that at this stage flows would not exceed 1500m3/sec.	Correspondence
	3:00 PM	NPD model updated - NPD-201101081500.xls	Model Run
	3:00 PM	SDWD Model Updated - SDWD-201101081500.xls, SDWD-201101081500-Forecast72hr.xls	Model Run
	6:50 AM	Rob Drury rang. JT advised Rob on current release strategy based on recent heavy overnight rainfall.	Correspondence
	7:00 AM	SDWD Model Updated - SDWD-201101090700.xls	Model Run
	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
	9:00 AM	SDWD Model Updated - SDWD-201101090900.xls	Model Run
	9:00 AM	NPD model updated - NPD-201101090900.xls	Model Run
	12:00 PM	SDWD Model Updated - SDWD-201101091200.xls	Model Run
	12:00 PM	RA scheduled meeting of Duty Engineers this afternoon to discuss current situation and forward release strategies.	Correspondence
	2:00 PM	SDWD Model Updated - SDWD-201101091400.xls	Model Run
	2:00 PM	NPD model updated - NPD-201101091400.xls	Model Run
	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
	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
	3:00 PM	NPD model updated - NPD-201101091500.xls	Model Run
	4:00 PM	SDWD Model Updated - SDWD-201101091600.xls	Model Run
	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
	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
	4:25 PM	TM called Chris Lavin (BCC). A message was left to phone FOC.	Correspondence
	4:26 PM	TM called Ken Morris (BCC). A message was left to phone FOC.	Correspondence
	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
	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

DATE	TIME	ACTION	CATEGORY
Monday, 10 January 2011	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
	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
	5:40 PM	Rob Drury phoned TM for an update on the current situation.	Correspondence
	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
	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
	6:00 PM	SDWD Model Updated - SDWD-201101091800.xls	Model Run
	6:00 PM	NPD model updated - NPD-201101091800.xls	Model Run
	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
	7:00 PM	SDWD Model Updated - SDWD-201101091900.xls, SDWD-201101091900norain.xls, SDWD-201101091900withrain.xls	Model Run
	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
	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
	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
	7:20 PM	TM called Don Carroll (BCC) advising him of potential for high releases sooner than previously expected.	Correspondence
	7:25 PM	Mal Lane (North Pine Dam) called to advise dam level is at 39.82mAH, 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
	8:00 PM	SDWD Model Updated - SDWD-201101092000withnorain.xls	Model Run
	8:05 PM	RA called Shane Watson (North Pine Dam) to confirm last directive is completed. All gates at increment 2.	Correspondence
	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
	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
	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
	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
	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
	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
	10:00 PM	SDWD Model Updated - SDWD-201101092200withnorain.xls, SDWD-201101092200-Forecast24hr.xls	Model Run
	10:00 PM	NPD model updated - NPD-201101092200.xls	Model Run
	10:00 PM	JR called Wivenhoe operator (Doug Grigg) and confirmed current flooding expectations based on rainfall predictions and expected impacts.	Correspondence
	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
	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
	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
	10:30 PM	JR called Wivenhoe Dam operator (Doug Grigg) requesting for a visual inspection of Fernvale Bridge.	Correspondence
	10:40 PM	Doug Grigg (Wivenhoe Dam) called discussed Fernvale Bridge situation with JR. Water was lapping the bridge girders.	Correspondence
	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
	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
	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
	11:25 PM	RA spoke with Doug Grigg (Wivenhoe Dam). Water is up to the centreline of the Chine Gully approach to Fernvale Bridge. Esk police are on site and are considering placing road closure signs in Fernvale. Rob Titmarsh and Darren Valley (operators living in Fernvale) will be mobilised to the dam by police prior to closure.	Correspondence
	11:30 PM	JR called Tony Jacobs (SRC) and left message advising of situation.	Correspondence
	11:35 PM	RA called Ron Hemley (DTMR) and left message regarding current road closure situation.	Correspondence
	11:35 PM	JR called Andy Bickerton (SRC) and left message for call to be returned re Fernvale Bridge situation.	Correspondence
	11:38 PM	JR called Robert Bain (CEO SRC) and left message regarding Fernvale Bridge situation and requested call be returned ASAP.	Correspondence
	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
	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
	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
	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
	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
	1:00 AM	SDWD Model Updated - SDWD-201101100100withnorain.xls	Model Run
	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
	3:00 AM	SDWD Model Updated - SDWD-201101100300withnorain.xls	Model Run
	3:00 AM	NPD model updated - NPD-201101100300.xls	Model Run
	4:10 AM	JR discussed Wivenhoe status and release strategy with Doug Grigg.	Correspondence
	5:00 AM	SDWD Model Updated - SDWD-201101100500withnorain.xls	Model Run
	5:00 AM	Graham Francis called and discussed Somerset situation with RA.	Correspondence
	5:00 AM	NPD model updated - NPD-201101100500.xls	Model Run
	5:05 AM	Rob Drury called and received situation update from JR.	Correspondence
	5:20 AM	RA called BoM regarding next forecast update - due at 9:00 am.	Correspondence
	6:00 AM	Send out situation report for this morning.	Correspondence
	7:40 AM	Talked to BoM - we are in general agreement about current flows in the Brisbane River.	Correspondence
	8:30 AM	FOC left a message for Ken Morris (BCC) to call back.	Correspondence
	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
	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 \$7mil). If the rainfall in the Bremmer and Lockyer increases substantially - it is likely the flows from these catchments can peak at 1000m ³ /s (on top of Wivenhoe release)	Correspondence
	10:08 AM	Received PPF - 100mm in Brisbane and 150mm North Pine catchment	Other
	10:15 AM	Received phone call from Mike Shetland (EMQ) and Supt Alistair Dawson - Disaster Coordinator for this District - gave them the same information as what we gave Ken Morris before.	Correspondence
	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
	11:14 AM	Tony Trace (ICC) called to clarify our strategy. Gave him the same info as above.	Correspondence

DATE	TIME	ACTION	CATEGORY
Tuesday, 11 January 2011	1:00 PM	SDWD Model Updated - SDWD-201101101300withnorain.xls	Model Run
	12:02 PM	Spoke with Peter Borrows (Seqwater) to answer elaborate on Situation Report and inform him of large rainfalls currently occurring in the Wivenhoe catchment.	Correspondence
	12:33 PM	Called BCC twice. No answer, so left messages.	Correspondence
	12:36 PM	Talked to Tony Trace (ICC) informed him that we are moving strategy from urban damage control to dam safety priority	Correspondence
	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
	2:00 PM	Send out third situation report for today.	Correspondence
	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
	3:00 PM	Called Disaster Coordinator, Ian Stewart @ [REDACTED] No answer.	Correspondence
	4:00 PM	NPD model updated - NPD-201101101600.xls	Model Run
	3:15 PM	Had conference call with BoM. They agree with FCC on model discharge results. However, BoM included 6hrs of additional rain which takes the discharge to 4600m3/s	Correspondence
	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
	5:00 PM	SDWD Model Updated - SDWD-201101101700withnorain.xls, SDWD-201101101700with50mmrain.xls	Model Run
	5:09 PM	Agg (Somerset Dam) phoned and reported water from Wivenhoe in getting into the hydro	Correspondence
	6:06 PM	Get weather update from BoM - the forecast now is - still more of the same of what we had today.	Other
	6:45 PM	Brett Schultz (North Pine Dam) raised concerns with school groups using Lake Kurwongbah for rowing exercise while water is running over the spillway at 500mm. He was referred to Rangers.	Correspondence
	7:30 PM	Agg Dagan (Somerset) called to inform that Somerset hydro is inundated with water. Agg believes he has located source of leak, has tightened seals to prevent further leakage. Agg also noted that there is oil in the water.	Correspondence
	8:00 PM	SDWD Model Updated - SDWD-201101102000withnorain.xls, SDWD-201101102000-Lockyer.xls, SDWD-201101102000-TMinflows.xls	Model Run
	20:00 PM	Peter Baddiley (BoM) called to advise of situation regarding flows in Lockyer. Estimated very heavy localised rainfall (eg. 600mm in few hours) on Toowoomba escarpment to cause observed flood flooding. Will monitor via Glenore Grove gauging station.	Correspondence
	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
	21:00 PM	Spoke to Peter Allan regarding strategies for reducing Wivenhoe release to mitigate latest event in Lockyer. Peter endorsed variation to manual to operate at minimum gate settings to create gap to allow peak of flash flood to pass. Also endorsed concept allowing Wivenhoe HW to rise above 74 mAHd briefly.	Correspondence
	21:30 PM	Provided Boyd Wilson (ICC) with situation update.	Correspondence
	20:20 PM	Spoke to Peter Baddiley (BoM) regarding reducing Wivenhoe release to accommodate peak of Lockyer flash flood.	Correspondence
	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
	12:00 AM	SDWD Model Updated - SDWD-201101110000withnorain.xls	Model Run
	12:00 AM	NPD model updated - NPD-201101110000.xls	Model Run
	12:15 AM	Spoke to Ken Morris (BCC) to update on current release strategy.	Correspondence
	1:30 AM	Spoke to Tony Trace (SRC). Somerset Regional Council offices were flooded and email addresses are no longer working. Tony can be emailed on [REDACTED]	Correspondence
	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
	3:00 AM	SDWD Model Updated - SDWD-201101110300withnorain.xls	Model Run
	3:15 AM	James Charalambous (BCC) has provided inundation forecast for Brisbane city to assist with devising strategy to manage Wivenhoe releases	Correspondence
	5:15 AM	Spoke to Peter Baddiley (BoM) regarding reducing Wivenhoe release to accommodate peak of Lockyer flash flood. Update: Consensus was that reducing release from Wivenhoe would no longer be feasible due to attenuation of Lockyer peak and significant additional rainfall in upper Brisbane during the night.	Correspondence
	7:00 AM	SDWD Model Updated - SDWD-201101110700withnorain.xls	Model Run
	7:00 AM	NPD model updated - NPD-201101110700.xls	Model Run
	7:20 AM	TM called Peter Borrows to appraise of latest situation of Wivenhoe and lower Brisbane	Correspondence
	7:22 AM	TM called BoM to appraise of situation. BoM unable to talk and will call back.	Correspondence
	7:35 AM	Peter Baddiley of BoM called back. Full appraisal of SEQWater strategy. Both SEQWater and BoM models results were discussed in detail, and generally agreed with each other.	Correspondence
	7:51 AM	Called Matthew O'Rielly (Wivenhoe Dam) advised that gates opening at Wivenhoe are imminent.	Correspondence
	7:56 AM	TM called BoM. Advised Jimmy Stewart and Peter Baddiley that Wivenhoe will ramp up to a minimum release of 3700m3/s.	Correspondence
	7:59 AM	JT called Peter Borrows (Seqwater) and advised that releases from Wivenhoe will reach 3700m3/s at a minimum, and BoM has been informed. Likely to affect Moggi 24 hours later. Phone call terminated due to bad connection.	Correspondence
	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
	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
	8:09 AM	Advised Matthew (Wivenhoe Dam) that Wivenhoe Directive was coming through in a matter of minutes.	Correspondence
	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
	8:11 AM	TM called BCC flood information centre (Duty Officer - James). Wivenhoe releases will reach 3700m3/s at a minimum and higher flows are possible.	Correspondence
	8:15 AM	JT called Rob Drury to advise of the situation that Wivenhoe will increase to 3700m3/s as a minimum.	Correspondence
	8:16 AM	TM called SRC and left a message.	Correspondence
	8:20 AM	JT Called Matthew (Wivenhoe Dam) and advised more gate opening directives are coming.	Correspondence
	8:21 AM	TM called Tony Trace (ICC) to advise of situation and that Wivenhoe releases to be at a minimum of 3700m3/s	Correspondence
	8:25 AM	JT called Brett Schultz (North Pine Dam). Verbal directive to open gates, faxed directive to follow before 9am.	Correspondence
	8:50 AM	Peter Borrows (SEQwater) called TM mobile requesting 'worst case' scenario	Correspondence
	8:50 AM	Doug from Wivenhoe called informing that Wivenhoe has lost power, high voltage fuse blown. Hydro outlet is shut off.	Correspondence
	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
	9:12 AM	Brett called. NPD at 40.140 m HAD all gates at 6, currently heading to setting 7.	Correspondence
	9:13 AM	Energex called. All incoming power has been lost at Wivenhoe.	Correspondence
	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
	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
	9:21 AM	Agg from Somerset called TM. Water ingress through doors at the bottom of dam	Correspondence
	9:22 AM	JT advised Brett (NPD) that Strathpine Rd is expected to be closed.	Correspondence
	9:26 AM	JT advised Brett verbally that all gates can go to 9 increments based on water level as per manual.	Correspondence
	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
	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
	10:00 AM	NPD model updated - NPD-201101111000.xls	Model Run
	10:25 AM	Brett (North Pine Dam) called to report Lake level at EL 40.490mAHd. All gates currently at setting No. 10.	Correspondence
	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
	10:45 AM	JT advised MBC (Ed Hamold) of current situation.	Correspondence
	10:54 AM	Rob Drury called. Bad line and disconnected.	Correspondence
	11:00 AM	SDWD Model Updated - SDWD-201101111100withnorain.xls	Model Run
	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
	11:02 AM	Peter Borrows (Seqwater) requested update on situation.	Correspondence
	11:04 AM	JT called Doug (operator) . Discussed that if forecast rain falls, fuse plug likely to go.	Correspondence
	11:06 AM	FAX not working at Wivenhoe!	Other
	11:07 AM	Jimmy Stewart (BoM) called. Inflow into NPD of 1500cumecs. Advised Wivenhoe strategy to be revised.	Correspondence
	11:17 AM	Barton called TM - on the way to talk to Grid Manager. TM advised current strategy is 3 hourly.	Correspondence
	11:19 AM	JT called Ed Haold. Advised North Pine still rising. Current releases to exceed 2000cumecs.	Correspondence
	11:30 AM	Brett (North Pine Dam) called to report lake level EL 40.740 mAHd. Water level rising slowly. All gates now at setting 14. Correspondence	Correspondence
	11:38 AM	TM called BoM. Unable to contact Peter Baddiley. Will call back.	Correspondence
	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
	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

DATE	TIME	ACTION	CATEGORY
Wednesday, 12 January 2011	11:56 AM	JT called Ed Hammon and left message again. Outflow will exceed 2000cumecs	Correspondence
	11:57 AM	JT called Elanor Davidson. Left message: North Pine Dam outflow likely to exceed 2000cumecs.	Correspondence
	11:59 AM	JT called Tony Martini. Left message, outflow from North Pine Dam will exceed 2000cumecs	Correspondence
	12:04 PM	Brett (North Pine Dam) called to report lake level at EL 40.883 mAHD. Gates are currently set at setting 16.	Correspondence
	12:10 PM	Kim Hang called from FOC satellite phone. Made contact with Somerset and North Pine. Connection issues with Landline to Wivenhoe.	Correspondence
	12:17 PM	Tony Martini called. TM advised discharge in excess of 1989 flood (1500cumecs). Current releases in excess of 2000cumecs.	Correspondence
	12:30 PM	Brett (North Pine Dam) called to report lake level is now at EL 40.950mAHD and rising. Gate settings at 17.	Correspondence
	12:42 PM	Mike Morrison from Redlands shire requesting information for Lesley Harrison. Was told to call Craig Duncan	Correspondence
	12:42 PM	Call from Glen Patterson. Asked what is required of the Northern dams. Was advised to monitor dams more closely when/if 1 in 50 year event occurs.	Correspondence
	1:02 PM	Brett Schultz (North Pine Dam) called to report Lake level EL 41.040 m AHD. Gate settings at setting 18.	Correspondence
	1:26 PM	Peter Burrows (Seqwater) called and requested the FOC request the BoM to consider if Wivenhoe is releasing 9000cumecs.	Correspondence
	1:44 PM	Jeff (North Pine Dam) called on Satellite phone to confirm it is operational.	Correspondence
	1:50 PM	Brett Schultz (North Pine Dam) called to report lake level at EL 41.105mAHD. Gates currently at setting 19.	Correspondence
	1:56 PM	Rob Drury requesting status update.	Correspondence
	2:00 PM	SDWD Model Updated - SDWD-201101111400withnorain.xls	Model Run
	2:24 PM	Cheryl 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
	2:37 PM	Peter Burrows (SEQWater) called to discuss current situation.	Correspondence
	2:46 PM	Brett Schultz (North Pine Dam) called to report lake level steady at 41.110 for last 30 minutes.	Correspondence
	2:53 PM	North Pine Dam is isolated as per conversation with Brett.	Correspondence
	3:00 PM	NPD model updated - NPD-201101111500.xls	Model Run
	3:06 PM	Stan Stevenson (SEQWater) called to enquire about the current release rate from Wivenhoe Dam.	Correspondence
	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
	3:49 PM	Peter Baddiley & Jimmy Stewart had a conference with JT, JR, TM and RA about current release strategy and possible maximum release scenario of 10000m3/s. This would be of a similar magnitude to the 1893 event (~8.36m in Brisbane Port Office)	Correspondence
	3:54 PM	Stan Stevenson (Seqwater) called and talked to JT regarding current inflow strategy.	Correspondence
	3:58 PM	Called Brett Schultz (Wivenhoe Dam) to check if all is ok, levels are slowly reducing.	Correspondence
	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
	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
	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
	4:46 PM	Dave Roberts called to request update in inflow/outflow of Wivenhoe Dam.	Correspondence
	5:00 PM	SDWD Model Updated - SDWD-201101111700withnorain.xls	Model Run
	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
	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
	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
	5:48 PM	Rob Drury asking Tarong Energy to hold off releasing water from Spiltyard Creek.	Correspondence
	6:00 PM	NPD model updated - NPD-201101111800.xls, NPD-201101111800 Final.xls	Model Run
	6:00 PM	SDWD Model Updated - SDWD-201101111800withnorain.xls	Model Run
	6:04 PM	Glen Patterson called to advise he is unable to reach Lake MacDonald to take readings.	Correspondence
	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
	6:35 PM	Agg (Somerset Dam) called to confirm all is good.	Correspondence
	6:36 PM	Bill Stevens called to inform team he is cut off due to flood waters and unable to come in.	Correspondence
	6:41 PM	Tarong Energy confirmed releases from Spiltyard creek have stopped.	Correspondence
	6:56 PM	Daryl Hicky informed that tailwater gauge appears to be OOA. Confirmed by TM.	Correspondence
	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
	7:10 PM	Brett Schultz at NPD rang is concerned that the level is dropping too fast.	Correspondence
	7:30 PM	Doug Grigg (Wivenhoe Dam) called to report that Wivenhoe Level 74.97mAHD is holding.	Correspondence
	7:30 PM	Brett Schultz (North Pine Dam) rang to say he is behind in gate settings.	Correspondence
	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
	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
	8:00 PM	Peter Baddiley rang. Unofficially TM advised that things have stabilised. Also advised predicted peaks at various sites.	Correspondence
	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
	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
	8:30 PM	Doug Grigg (Wivenhoe Dam) called to advise that Wivenhoe's level is 5mm down.	Correspondence
	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
	8:30 PM	RA rang John Thornton (SunWater) to advise that power will be shutting down in the CBD tomorrow morning.	Correspondence
	8:35 PM	RA rang John Thornton to advise the power situation.	Correspondence
	8:35 PM	Peter Burrows (Seqwater) called FOC to speak with all duty engineers on the operating strategies for Wivenhoe releases.	Correspondence
	8:40 PM	MT called FOC to ensure we received the Energex message regarding power shutdown to the CBD.	Correspondence
	8:45 PM	Warren Shallcross rang. Rob Ayre advised that Energex will be cutting power to the CDD in the morning. Warren will call Mike Minter and the security guys for Mineral House.	Correspondence
	8:50 PM	Brett Schultz (North Pine Dam) called to report NPD Level at EL 40.07mAHD. Gates are all at 11 increments.	Correspondence
	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
	9:00 PM	RA emailed Chris Hughes with our building power requirements.	Correspondence
	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
	9:10 PM	John Thornton called RA. John advised he spoke to Chris Hughes and is getting an Energex contact.	Correspondence
	9:20 PM	Warren Shallcross rang. Mike Minter told him we may not be able to have air conditioning.	Correspondence
	9:25 PM	RA called John Thornton. Chris Hughes got back to him and has Haywoods Electrical lined up for tomorrow morning.	Correspondence
	9:30 PM	Mal Lane (North Pine Dam) called. They are still behind in gate closures.	Correspondence
	9:35 PM	JT rang to discuss the latest directive to raise Wivenhoe Dam. JT suggested not raising.	Correspondence
	9:40 PM	JW called Doug Grigg (Wivenhoe Dam) to obtain a current level. EL 74.9? Gates have been raised to 11.5m.	Correspondence
	10:00 PM	SDWD Model Updated - SDWD-201101112200withnorain.xls	Model Run
	10:00 PM	John Thornton rang to advise the phone number for Steve from Energex.	Correspondence
	10:00 PM	John Thornton rang requesting RA mobile number to pass on onto Energex.	Correspondence
	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
	10:35 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.94mAHD @ 10:30hrs.	Correspondence
	11:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.92mAHD @ 11:00hrs.	Correspondence
	11:10 PM	Rob Drury rang to request discharge from Wivenhoe when the gates are lowered to 10m. Advised 6100m3/sec.	Correspondence
	11:30 PM	JW called Doug Grigg (Wivenhoe Dam) to obtain a current level. EL 74.9? Gates have been raised to 11.5m.	Correspondence
	12:30 AM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.88mAHD @ 12:30hrs.	Correspondence
	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
	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
	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
	3:10 AM	JR rang Mal Lane (NPD) and advised no changes to gate settings planned for the next hour or so.	Correspondence
	3:30 AM	Brett Myatt (SEQWater Mt Crosby WTP) called enquiring about levels at Mt Crosby.	Correspondence

DATE	TIME	ACTION	CATEGORY
Thursday, 13 January 2011	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
	4:05 AM	Ian Douglas, OIC of Lowood Police, rang enquiring about the Wivenhoe fuse plug. JW advised that there is no danger of the fuse plug failing, and that current releases from Wivenhoe Dam are about 4,900 cumecs.	Correspondence
	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
	5:15 AM	Rob Drury rang enquiring current storage levels and releases. JR advised.	Correspondence
	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
	5:30 AM	JR called Wivenhoe Dam for the current level. Dropped 2 cm in 30 minutes.	Correspondence
	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
	6:00 AM	SDWD Model Updated - SDWD-201101120600withnorain.xls	Model Run
	6:00 AM	North Pine Dam rang enquiring about closing down. JT advised that we have not yet decided.	Correspondence
	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
	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
	6:30 AM	JT rang Doug Grigg (Wivenhoe Dam) advising that a directive will soon follow to lower gates to 5m.	Correspondence
	6:35 AM	Paul Martin rang. JT discussed current strategy.	Correspondence
	7:00 AM	Liaised with Bureau regarding expected peak in lower Brisbane.	Correspondence
	7:50 AM	John Thornton (SunWater) called to confirm that 179 Turbot St had power.	Correspondence
	8:20 AM	Rob Drury rang enquiring current storage levels and releases. JT advised.	Correspondence
	9:20 AM	Brett Schultz (North Pine Dam) rang wanting to speak to JT.	Correspondence
	9:50 AM	Ken from Lowood Police rang enquiring current storage releases from Wivenhoe Dam. JT advised.	Correspondence
	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
	10:50 PM	Sam (SEQWater) rang wanting to thank Neville for his and John's heroic effort in clearing SEQWater basement.	Correspondence
	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
	11:50 AM	Peter Borrows (Seqwater) called to ask that all communications be forwarded to him.	Correspondence
	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
	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
	12:32 PM	Mick O'Halaran (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
	12:55 PM	Peter Baddiley, Rob Tesse, Jim Stevenson from BoM visited FOC to liaise with the Duty Engineers.	Correspondence
	1:10 PM	Barton Maher called to request electronic copy of Viv - Som Flood Ops manual to be forwarded to him.	Correspondence
	1:15 PM	Mathew (Wivenhoe Dam) called to report lake level: 74.79mAHD @13:00hrs. Note: Reading taken in surging water. Wivenhoe fax appears to have failed.	Correspondence
	2:05 PM	Brett Schultz (North Pine Dam) called to inform that North Pine level was 39.74mAHD and based on this level he is recommending at least one gate closure.	Correspondence
	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
	2:25 PM	Mathew (Wivenhoe Dam) called to report lake level: 74.81mAHD @14:00hrs. Note: Reading taken in surging water. Wivenhoe fax confirmed as failed.	Correspondence
	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
	3:05 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.81mAHD @ 15:00hrs.	Correspondence
	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 13/12011.	Correspondence
	4:00 PM	SDWD Model Updated - SDWD-201101121600.xls	Model Run
	4:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.80mAHD @16:00hrs.	Correspondence
	4:00 PM	Brett Schultz (North Pine Dam) called to report that Sideling Creek Dam is spilling at 20.560mAHD. Spillway level is 20.37mAHD.	Correspondence
	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
	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
	5:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.82mAHD @17:00hrs.	Correspondence
	6:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.80mAHD @18:00hrs.	Correspondence
	7:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level of 74.82 @19:00hrs.	Correspondence
	7:45 PM	RA & JR advised Chris Laney (BoM) that FOC will be sending updated projected releases from Wivenhoe Dam. This has been prepared with the aim of limiting flows at Moggill to 3,500 cumecs.	Correspondence
	8:00 PM	RA & JR advised David (BCC Flood Information Centre) that FOC will be sending updated projected releases from Wivenhoe Dam. This has been prepared with the aim of limiting flows at Moggill to 3,500 cumecs.	Correspondence
	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
	9:15 PM	Doug Grigg (Wivenhoe Dam) called to inform that Energex restored power at Wivenhoe Dam at 21:15 hours.	Correspondence
	9:50 PM	Brett Myatt (Mt Crosby WTP) provided an update on Kholo & Mt Crosby: Kholo 19:15hrs 20.0m Mt Crosby 21:00 23.5m	Correspondence
		He asked for a situation update. RA shared Wivenhoe Dam's release strategy.	
	10:00 PM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.81mAHD @22:00hrs. Will now report levels every 2 hours.	Correspondence
	12:00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.79mAHD @ 00:00.	Correspondence
	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
	1:05 AM	RA called BoM hotline number to check communications.	Correspondence
	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
	1:20 AM	Gareth Bossley (Queensland Police) called to inform of rumours that Wivenhoe Dam has been compromised.	Correspondence
	1:25 AM	JR called Doug Grigg (Wivenhoe Dam) to confirm Wivenhoe Dam has not been compromised.	Correspondence
	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
	2:00 AM	Doug Grigg (Wivenhoe Dam) called to report level 74.765mAHD @ 2:00hrs.	Correspondence
	4:00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.74mAHD @4:00hrs. Will now report levels every 2 hours.	Correspondence
	6:00 AM	Doug Grigg (Wivenhoe Dam) called to report lake level 74.71mAHD @6:00hrs. Will now report levels every 2 hours.	Correspondence
	6:43 AM	Peter Baddiley (BoM) called to inform that BoM has lost their telephone system. He provided 2 contact numbers: 3229-2964 & 3221-1580. Thornton St 4.45m. Telemeter 4.20m	Correspondence
	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
	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
	8:05 AM	Kerry (MBRC) wanted to know when NPD gates will be closed. Advised to be closed by 0500 Friday	Correspondence
	8:15 AM	Somerset directive #9 issued	Correspondence
	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
	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
	10:10 AM	Rob Drury called to inform that power and IT services have been restored at Seqwater.	Correspondence
	10:30 AM	Rob Drury called to request if he could be notified of any changes to releases from Wivenhoe	Correspondence
	11:00 AM	SDWD Model Updated - SDWD-201101131100.xls	Model Run
	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
	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
	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

DATE	TIME	ACTION	CATEGORY
Friday, 14 January 2011	2:15 PM	Phone call from Steve Roso, MBRC. Advice as follows: * damage to Gympie Rd abutments * No evacuations * No suburban flooding * Not aware of any over floor flooding. Pine Shire had 0.75m freeboard.	Correspondence
	2:30 PM	Wivenhoe directive #36 issued * Open Gate 1 from 3.5 metres to 4.0 metres at 1500. * Open Gate 5 from 3.5 metres to 4.0 metres at 1600. * Open Gate 1 from 4.0 metres to 4.5 metres at 1700. * Open Gate 5 from 4.0 metres to 4.5 metres at 1800.	Correspondence
	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
	4:45 PM	Judy (MBRC) was advised that NPD gates will be closed at 0500 Friday	Correspondence
	7:37 PM	John Thornton of SunWater called to confirm building services were working and all in order.	Correspondence
	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
	8:30 PM	Rob Ayre called Graham Francis to advise of directive #11.	Correspondence
	8:41 PM	Rob Ayre called Rob Drury top advise of current release rates from Wivenhoe, Somerset and North Pine Dams.	Correspondence
	12:46 AM	David Preston of Ipswich District (Fernvale) Police rang to enquire into the integrity of Somerset Dam, based on information received by the police. Rob Ayre indicated that surveillance procedures are in place to monitor the integrity of the Dam, and that RA will confirm with the operators.	Correspondence
	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
	12:49 AM	RA called David Preston back on 3817 1436 to confirm that Somerset was recently inspected and all was ok.	Correspondence
	5:13 AM	Fax received from North Pine Dam confirming closure of all gates.	Correspondence
	5:15 AM	Rob Ayre called MBRC to advise that North Pine Dam has closed the final gate at 5am.	Correspondence
	5:16 AM	Malcom from North Pine Dam called to confirm that all gates are closed, and Young's Crossing should be passable within 2 hours. Lake Kurwongbah level is 20.43 m.	Correspondence
	5:28 AM	Rob Drury called to obtain a situation report. Rob Ayre provided the key information.	Correspondence
	5:37 AM	James C from BCC called requesting information for Wivenhoe Dam and checking sit-rep data. Enquired about flows throughout the event, TM advised that not currently in a position to discuss these.	Correspondence
	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
	7:45 AM	Andrew Tesse from ICC phoned the FOC. Enquiring about renewed rises in the Brisbane / Bremer River systems. He cannot contact BOM for an update. TM advised that no significant rises were expected at Moggill. A constant flow in the river was the plan as a consequence of Wivenhoe releases.	Correspondence
	8:20 AM	Barton Maher phoned TM. Enquiry regarding the Wivenhoe Dam fuse plugs (design calcs/parameters).	Correspondence
	8:21 AM	Peter Borrows phoned the FOC. TM discussed with Peter Borrows the release strategy from Wivenhoe Dam with a view to opening the Fernvale Bridge and Mt Crosby Bridge at the earliest possible time. TM also updated PB on the projected City Gauge height over the next few days. This being ~2.5 metres due to continuous releases from Wivenhoe Dam.	Correspondence
	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
	10:10 AM	Agg Dagan rang from Somerset Dam. Checking that all comms avenues (faxes & e-mails) are functioning. All good.	Correspondence
	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
	10:40 AM	Rob Keogh (SunWater) transmitted a message via Daryl Brigden (SunWater) to Barton Maher that the right bank abutment to Mt Crosby Bridge has suffered some erosion due to the flooding and there are concerns that the abutment may be further affected by piping once the water level falls.	Correspondence
	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
	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
	12:35 PM	Ali Cameron from DERM phoned TM. Re: Gauging exercise at Jindalee.- Soundtek M9 from boat (6 passes) Jindalee gauging result:- 4,300m ³ /sec at 6:45 metres AHD at 12:00 hrs	Correspondence
	12:37 PM	Peter Borrows rang TM. Discussion about mis-informed reporting.	Correspondence
	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
	1:53 PM	Rob Drury rang TM. Routine call. Update on current status.	Correspondence
	2:45 PM	Rob Drury rang TM. Routine call. Update on current status.	Correspondence
	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
	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
	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
	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
	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
	7:00 PM	FOC change over.	Other
	8:40 AM	Rob Drury rang. Terry advised strategy to possibly go below FSL at Wivenhoe by Thursday.	Correspondence
	8:42 AM	Peter Burrows rang to advise that the media come into the FOC today to take photos.	Correspondence
	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
	12:12 PM	Rob Drury rang to advise of a phone hook-up with the Minister and Peter Burrows at 2:00pm, and requested that RA be in at the FCO at that time.	Correspondence
	12:20 PM	Peter Burrows rang to confirm a phone hook-up with the Minister and Peter Burrows at 2:00pm.	Correspondence
	12:55 PM	Terry Malone advised Rob Ayre to come into the FOC for the phone hook-up at 2:00pm.	Correspondence
	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
	1:15 PM	Rob Drury rang with some questions on the Wivenhoe Flood manual summary.	Correspondence
	1:45 PM	Rob Ayre and John Tibaldi arrived at the FOC for the 2:00pm phone hook-up.	Correspondence
	2:00 PM	Phone hook-up with TM, RA, JT with Rob Drury, Peter Allen, Peter Boroughs, Joh Bradley and Bob Reilly to discuss a report for the minister by COB Sunday.	Correspondence
	5:00 PM	Rob Drury arrived to help write report for minister briefing.	Correspondence
	7:30 PM	Doug from Wivenhoe called to discuss strategy for the next 12 hours.	Correspondence
	4:12 AM	Called Doug at Wivenhoe to confirm directive received via email. Directive being actioned ASAP.	Correspondence
	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
	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
	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
	10:20 AM	Email confirmation received that Somerset Directive #12 implementation has been completed.	Correspondence

Monday, 17 January 2011	11:30 AM	FOC contacted by police (Robbie Goodger - [REDACTED]) notifying that the Wivenhoe viewing area has been damaged. Rob Ayre unable to contact Wivenhoe staff (Matt) - message left. Then contacted Doug Grigg, who confirmed that the area is damaged and has been locked off and 2 security guards are on site. It won't be opened until the water level falls and a full inspection of the structure has been completed. Rob Ayre confirmed this with police, who reported that there was damage to safety rails and water supply to toilets. Matt also responded to Rob's call and confirmed the details.	Correspondence
	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
	12:40 PM	Ian Holland (contract programmer) called to advise that the back-up Linux box "Namah" at Mineral House is showing file system corruption errors, so the FCC is effectively without backup. The hydraulic model in the RTFN is missing because two Fortran programs "Modcom 2" and "Model" have not been ported to the Linux box.	Correspondence
	12:55 PM	Rob Ayre contacted Warren Shallcross about the situation at Mineral House, and he will visit the backup operations centre ASAP.	Correspondence
	1:10 PM	Ag (Somerset) called to report that the phones are now working.	Correspondence
	2:40 PM	Terry Malone spoke to Rob Ayre. Grid manager wants a summary of flood volumes and peak discharges.	Correspondence
	3:00 PM	Warren Shallcross called - confirmed with Rob Ayre that the computer system at Mineral House has been rebooted and is functional.	Correspondence
	3:10 PM	Rob Drury rang to confirm current discharges. Confirmed 600 cumecs for Somerset and 3500 cumecs for Wivenhoe (approx).	Correspondence
	4:00 PM	Directive #47 implemented - Gate 2 opened to 7.0 m.	Correspondence
	6:52 PM	Rob Ayre spoke with Doug Grigg (Wivenhoe Dam) about Directive #48 Wivenhoe strategy. Doug confirmed receipt of Directive.	Correspondence
	7:00 PM	FOC change over.	Other
	10:00 PM	Doug Grigg (Wivenhoe Dam) called to inform 3 floor panels missing from bulks.	Correspondence
	7:15 AM	Rob Drury called to get Sit Rep. Advised that Somerset should remain mobilised until further notice	Correspondence
	7:35 AM	Agg Duggan called - discussed strategy i.e. operate cone valves only from now on	Correspondence
	9:15 AM	Brett Myatt from Mt Crosby called to find out about strategy for Wivenhoe shut down. Informed him that we will start closing down mid afternoon and aiming to have it closed by Wednesday	Correspondence
	9:35 AM	Rob Drury called to enquire when closing down will start and reminded us to inform Councils	Correspondence
	10:00 AM	Advise Peter Allen about inconsistency between readings from BoM and actual HW gauges	Correspondence
	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
	10:20 PM	Chris Lavin BCC was contacted (left message) advising gate close will commence this afternoon.	Correspondence
	10:20 PM	Tony Trace ICC was contacted (left message) advising gate close will commence this afternoon.	Correspondence
	11:15 PM	Called Bret Myatt to inform him that flow in Lockyer is 75m3/s and falling.	Correspondence
	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
Tuesday, 18 January 2011	11:20 AM	Rob Drury called - Council wants to know draw down rates, so they can determine the effects on Coronation Dr. JR informed RD that Ken did not raise this when they spoke 10 mins before.	Correspondence
	11:20 AM	Peter Burrows called saying he will email a revised copy of Michael O'Brain's document	Correspondence
	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
	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
	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
	2:15 PM	Rob Drury called, asking for dates and times for Wivenhoe operations at the peak of the flood.	Correspondence
	3:15 PM	Peter Badley from BoM called to confirm that he received the info on the discrepancy in the auto level recorder	Correspondence
	4:15 PM	Jim from BoM - they have not received manual observations for days	Correspondence
	12:30 AM	Peter Borrows called to inform that rapidly dropping water level at Lowood was causing issues with pumping for WTP. Asked if FOC could call John Granzien and then notify him via txt of the outcome.	Correspondence
	12:35 AM	FOC contacted John Granzien in regards to pumping issues at Lowood. Terry decided to halt all gate operations until further notice in order to ensure security of water supply to Lowood.	Correspondence
	1:00 AM	Txt message sent to Peter Borrows to advise of cessation of Wivenhoe gate operations until further notice.	Correspondence
	2:00 AM	BCC advise that the recession at Coronation Drive is not an issue with regards to bank stability	Correspondence
	5:00 AM	Doug Grigg called to advise that Fernvale Bridge was emerging from river. Current release 2054 cumecs.	Correspondence
	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
	5:45 AM	Called John Granzien to advise that Wivenhoe gate operations would recommence close down sequence from 9am as per original strategy. John to advise FOC if pumping operation at Lowood would benefit from additional 3 - 6 hours delay in gate operations.	Correspondence
	7:25 AM	Doug Grigg (Wivenhoe) called to advise that Surveyor Bill Hewitt is taking a routine deformation survey	Correspondence
	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
	8:25 AM	Matthew O'Reilly (Wivenhoe) called to acknowledge Directive 55	Correspondence
	10:10 AM	Rob Townsley (SEQWater at Mt Crosby Phone [REDACTED]) has requested some forward projections for flows at Mt Crosby Weir for the next 48 hours. They are looking at sludge dilution.	Correspondence
	10:15 AM	Rob Ayre called Rob Townsley back to provide the following info re projected flows at Mt Crosby Weir: 18/1/2011 10:00 - 2300 cumecs 19/1/2011 10:00 - 1130 cumecs 20/1/2011 10:00 - 360 cumecs	Correspondence
	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
	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
	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
	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
	10:55 AM	Barton Maher (SEQWater) called to confirm that we received the hydraulic model from WRM. (affirmative)	Correspondence
	12:05 PM	Peter Borrows (SEQWater) called to advise tat he and Bob Reilly (DERM) will come come and visit the FOC at 2:30 this afternoon.	Correspondence
	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

DATE	TIME	ACTION	CATEGORY
	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
	2:00 PM	John Tibaldi called for an update of the closedown sequence	Correspondence
	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
	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
	4:05 PM	Rob Ayre called Mal Lane to alert him to the possibility of operating North Pine Dam with incoming storms.	Correspondence
	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
	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
	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
	6:25 PM	Rob Drury called to discuss situation report for North Pine.	Correspondence
	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
	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
	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
	7:05 PM	Neville Ablitt phoned Rob Drury to provide an update on the NPD mobilisation and proposed gate openings.	Correspondence
	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
	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
	7:15 PM	JT phoned Cynthia Crane (Seqwater) regarding JT's inability to access Citrix. Outage (?). Message left.	Correspondence
	7:15 PM	JT phoned Rob Drury regarding Citrix comms outage. Message left requesting RD to intervene to have the problem fixed.	Correspondence
	7:20 PM	Lief from IT (Seqwater) rang and 'reset' Citrix for JT.	Correspondence
	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
	7:40 PM	Rob Drury rang the FOC to enquire if the Citrix issue was sorted. Citrix connection now functioning. JT expressed concern about the current release strategy for Wivenhoe Dam. If the current release rate is maintained (set to accommodate Lowood temporary raw water pumps), the model indicates that the lake level could fall well below FSL (~ EL 65.00 ??).	Correspondence
	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
	7:45 PM	JT phoned Mick Drews (Seqwater) seeking info Re: Lowood. Mick referred JT to Daniel Roche.	Correspondence
	7:50 PM	JT phoned Daniel Roche. - reportedly on site at Lowood PS. No answer. Message left.	Correspondence
	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
	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
	8:00 PM	Mark Millman (Seqwater - IT) phoned JT to check status of Citrix connection. Citrix connection is functioning.	Correspondence
	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
	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
	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
	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
	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
	8:18 PM	Rob Drury rang the FOC to seek an update on operations at all 3 storages.	Correspondence
	8:25 PM	JT confirmed on-site manning arrangements at Lowood with Graham Keegan.	Correspondence
	8:30 PM	Somerset Dam operator advised FOC by fax that Regulator #12 had been closed as per verbal advice from JT.	Information
	8:35 PM	JT contacted Doug G. at Wivenhoe. Gate closing directive pending.	Correspondence
	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
	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
	9:05 PM	Note: Wivenhoe Dam fax machine is still inoperative	Correspondence
	9:08 PM	JT phoned Murray Dunstan to advise of planned gate opening of NPD this evening. Closure is	Correspondence
	9:15 PM	Rob Drury phoned JT to discuss the Wivenhoe release strategy and its potential to effect bank slumping at Coronation Drive. The changed situation at Lowood means that the reduction in Brisbane River levels will now be far more even. RD advised that Coronation Drive is no longer a concern.	Correspondence
	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
	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
	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
	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

DATE	TIME	ACTION	CATEGORY
Wednesday 19/01/2011	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
	10:02 PM	RD phoned JT. Release strategy and final lake level at gate closure at Wivenhoe discussed.	Correspondence
	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
	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
	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
	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
	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
	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
	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
	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
	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
	5:35 AM	Doug G. phoned JT on his mobile phone with an update report.	Correspondence
	8:08 AM	JT phoned TM. Things seem to be O.K. but we will continue to close all gates by this afternoon.	Correspondence
	8:20 AM	TM phoned Flood Warning Centre advising that flood operation for current event will be shut down around lunch time.	Correspondence
	9:23 AM	JT phoned TM asking whether we should run a regulator.	Correspondence
	9:51 AM	TM phoned JT regarding modelling results.	Correspondence
	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
	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
	10:43 AM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments.	Other
	11:14 AM	JR phoned TM - Still operational until tonight.	Correspondence
	11:28 AM	Rob Townsley (SEQWater at Mt Crosby) phoned FOC requesting for peak flow at Mt Crosby Weir during the latest event.	Correspondence
	11:36 AM	TM phoned JT confirming that JR and LVB will be on tonight.	Correspondence
	11:45 AM	TM phoned Rob Townsley advising that peak flow over Mt Crosby Weir was about 9150 cumecs.	Correspondence
	11:51 AM	TM phoned (left message with) MBRC regarding potential for closing operation tonight.	Correspondence
	11:52 AM	TM phoned (left message with) Murray Dunstan to call him back.	Correspondence
	11:59 AM	JT phoned TM stating that divers will investigate erosion d/s Wivenhoe Dam today.	Correspondence
	1:25 PM	Rob Townsley phoned TM discussing about the information which TM sent.	Correspondence
	1:39 PM	Matthew O'Reilly phoned TM advising Wivenhoe Dam EL is 66.89 m AHD.	Correspondence
	3:21 PM	Kerry (MBRC) phoned wanting AJ Wyllie Bridge to be closed at 9:00 PM rather than 7:00 PM, and stating that she will update 24 hour call centre number. She will send email to confirm all this.	Correspondence
	4:00 PM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments.	Other
	7:30 PM	Toni Martini from MBRC called to say that the alternate route @ Petri is open (sooner than the 9 PM forecast)	Correspondence
	9:10 PM	Called Murray Dunstan to inform him that NPD will be mobilised.	Correspondence
	9:10 PM	Called Brett Schultz NPD to mobilise. The WL is approaching trigger level for gate opening.	Correspondence
	9:20 PM	Called MBRC call centre to inform them that NPD will be operated. They called back and advised that they can close Young's crossing by 11 PM. They will confirm once road is closed.	Correspondence
	9:38 PM	Brett Schultz called to confirm they are ready The gauge reading was 39.54 @ 9:30PM	Correspondence
	2:15 AM	Toni Martini from MBRC called regarding release at NPD. He was advised that the gates will be open open for a while yet	Correspondence
	6:50 AM	Maria from MBRC called to find out when the gates on NPD will be shut. They were advised that the gates will only be closed in time for the afternoon peak.	Correspondence
	7:20 AM	Rob Ayre called Tony Jacobs at SRC to advise of flow in Lockyer Creek. Tony concerned about Burtons Bridge but RA indicated that we will endeavour to keep flows below 400 m3/s.	Correspondence
	7:25 AM	RA called Tony Trace at Ipswich CC and advised of renewed flows in Lockyer Creek and Middle Brisbane R.	Correspondence
	7:40 AM	RA called Chris Lavin at BCC and advised of increased flows in Lockyer Creek and Middel Brisbane. Advised that Savages Crossing and will be Colleges Crossing are inundated. Estimated travel time 30 to 36 hours.	Correspondence
	7:55 AM	RA called NOD and spoke to Doug. Discussed proposed strategy to drain until around 2:00 PM with current gate settings. Requested hourly readings so as to monitor model performance.	Correspondence
	8:00 AM	Mal Lane from NPD called to discuss proposed operations. RA indicated that we will continue as is until 10:00am QPF comes in and then decide from there as to strategy.	Correspondence
	8:40 AM	Rob Drury called enquiring about the timeliness of the notice we gave to MBRC. Rob advised him accordingly.	Correspondence
	8:45 AM	John West called (re Lowood pump station) enquiring time to peak (height and discharge). FOC response was about 9 hours with height of about 3.7 m corresponding to 300 cumecs.	Correspondence
	8:50 AM	John West called (re Lowood pump station) enquiring current height and discharge. Together we estimated that it was about 150 cumecs (50 from Lockyer Creek and 100 from Wivenhoe Dam) corresponding to about 2.4 m.	Correspondence
	9:45 AM	Rob Drury advised Wivenhoe will not be drained to 66.5 m AHD, but will be maintained at or just below FSL.	Correspondence
	10:21 AM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments.	Other
	10:30 AM	Rob Drury called enquiring whether closing all releases in Wivenhoe Dam will cause level to exceed gate trigger in the next three day. RA advised that with rain on the ground he expects it not to, however forecast as per QPF is 15-25 mm, so we may need to review that decision tomorrow.	Correspondence
	11:12 AM	Toni Martini (MBRC) called. RA advised all gates will be closed at 2:00 PM.	Correspondence
	11:14 AM	RA phoned Murray Dunstan. They decided to close NPD by 2pm to allow MBRC to open Young's Crossing for afternoon peak.	Correspondence
	11:15 AM	John West called enquiring peak height and discharge at Lowood with Wiv Dam gates closed. We decided to just minus 100 cumecs from previous estimation. He also wants FOC to email him the Lowood rating curve.	Correspondence
	11:33 AM	RA called Mal (re Directive 36)	Correspondence
	11:36 AM	RA called TM. TM will monitor situation overnight and RA will become Duty Eng again tomorrow.	Correspondence
	11:44 AM	Paul Bird (SEQWater) called to confirm whether we have closed all gates at Wivenhoe Dam. KH said yes.	Correspondence
	1:07 PM	Rob Drury called confirming NPD closure.	Correspondence

APPENDIX M – FLOOD EVENT LOG

Note: The names of individuals have been removed from this version of the Flood Event log.

DRAFT ONLY - THIS DOCUMENT CONTAINS NO CHECKED OR VERIFIED INFORMATION

APPENDIX M – FLOOD EVENT LOG

Date	Time	Action	Category	Title
Friday 7 January 2011	8:00 AM	SDWD Model Updated - SDWD-201101060800.xls	Model Run	Flood Officer 9
	8:00 AM	NPD model updated - NPD-201101060800.xls	Model Run	Flood Officer 9
	8:30 AM	Flood Officer 7 spoke with Dam Operator 9 (Stand-in Central Coordinator) about readiness of staff for flood operations. Graham confirms that staff have been rostered and are ready.	Correspondence	Flood Officer 7
	8:50 AM	Moreton Bay Regional Council (MBRC) called to query about flows at Fernvale bridge. Engineer 2 provided an update for possible gate operations.	Correspondence	Flood Officer 7
	9:05 AM	NPD Operator called to inform that North Pine Dam staff have been rostered and are ready.	Correspondence	Flood Officer 7
	9:40 AM	Dam Operations Manager called to inform that Ipswich City Council (ICC) has returned to the office and is contactable. He also requested for a situation update.	Correspondence	Flood Officer 7
	11:00 AM	ICC called for a situation update. Engineer 2 shared the release strategy for tonight.	Correspondence	Flood Officer 7
	11:49 AM	Engineer 2 advised MBRC Call Centre that North Pine Dam will commence gate operations tonight. He requested for MBRC to call him.	Correspondence	Flood Officer 7
	12:00 PM	SDWD Model Updated - SDWD-201101061200.xls	Model Run	Flood Officer 9
	12:04 PM	MBRC called. Engineer 2 advised her that the latest North Pine Dam gates may be opened will be 7:00pm today. FOC will advise them accordingly.	Correspondence	Flood Officer 7
	12:43 PM	MBRC called. Engineer 2 advised that water will be over Savages Crossing until end of the week.	Correspondence	Flood Officer 7
	12:46 PM	Engineer 2 advised Brisbane City Council (BCC) Wivenhoe Dam will commence gate operations later today.	Correspondence	Flood Officer 7
	1:32 PM	Engineer 2 left message for Somerset Regional Council (SRC) to return his call.	Correspondence	Flood Officer 7
	1:35 PM	Engineer 2 advised MBRC Wivenhoe gate operations will be delayed to Saturday morning. This is due to higher than expected inflows from Lockyer.	Correspondence	Flood Officer 7
	1:45 PM	Engineer 2 advised ICC Wivenhoe's gate operations will be delayed till Saturday morning. This is due to higher than expected inflows from Lockyer.	Correspondence	Flood Officer 7
	1:46 PM	Engineer 2 left message for BCC to return his call.	Correspondence	Flood Officer 7
	1:47 PM	Engineer 2 left message for BCC to return his call.	Correspondence	Flood Officer 7
	2:41 PM	MBRC asked for Engineer 2 mobile. He wanted to share MBRC's text message informing people living downstream from North Pine Dam.	Correspondence	Flood Officer 7
	2:45 PM	BCC called for situation update. Engineer 2 provided an update.	Correspondence	Flood Officer 7
	3:00 PM	SDWD Model Updated - SDWD-201101061500.xls	Model Run	Flood Officer 9

APPENDIX M – FLOOD EVENT LOG

Saturday 8 January 2011	3:11 PM	BoM called to discuss with Engineer 2 about readings from Upper Brisbane & Lockyer. BoM & Engineer 2 are in agreement on readings.	Correspondence	Flood Officer 7
	3:19 PM	MBRC called. Engineer 2 advised her North Pine Dam will commence gates operations from 19:00 hrs.	Correspondence	Flood Officer 7
	4:00 PM	SDWD Model Updated - SDWD-201101061600.xls	Model Run	Flood Officer 9
	4:00 PM	NPD model updated - NPD-201101061600.xls	Model Run	
	6:57 PM	North Pine Dam Operator 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	Flood Officer 1
	7:45 PM	Dam Operator 4 (Somerset Dam) called to enquire about the release strategy. Engineer 1 advised the impacts of the Lockyer flow were being monitored. Communication by e-mail was O.K.'ed.	Correspondence	Flood Officer 1
	9:00 PM	NPD model updated - NPD-201101062100.xls	Model Run	
	9:00 PM	SDWD Model Updated - SDWD-201101062100.xls	Model Run	Flood Officer 9
	7:00 AM	Engineer 2 and Flood Officer 8 commenced day shift.	Other	Flood Officer 8
	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	Flood Officer 8
	8:00 AM	NPD model updated - NPD-201101070800.xls	Model Run	
	8:21 AM	Called 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	Flood Officer 8
	8:40 AM	FOC called MBRC to inform them that North Pine will be operate for the next few days - probably till Tuesday.	Correspondence	Flood Officer 8
	8:44 AM	Called 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	Flood Officer 8
	8:47 AM	Called 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	Flood Officer 8
	10:12 AM	Called BCC to provide situation report.	Correspondence	Flood Officer 8
	12:00 PM	NPD model updated - NPD-201101071200.xls	Correspondence	
	12:00 PM	SDWD Model Updated - SDWD-201101071200.xls	Model Run	Flood Officer 9
	3:02 PM	BCC called FOC with concerns that dam release will add another 200mm on top of abnormal high tide. Engineer 2 spoke to BoM who advised that the effect could be around 50mm - if that can be measured.	Correspondence	Flood Officer 8
	6:00 PM	SDWD Model Updated - SDWD-201101071800.xls	Model Run	Flood Officer 9
	7:55 AM	Dam Operator 2 from Somerset Dam rang enquiring on Somerset's strategy. Engineer 1 advised possibly opening a gate later today.	Correspondence	Flood Officer 3
	8:10 AM	Engineer 1 advised Dam Operator 10 (Wivenhoe Dam) on directive #4 and discussed strategy.	Correspondence	Flood Officer 3

APPENDIX M – FLOOD EVENT LOG

	8:20 AM	Engineer 1 rang North Pine Dam Operator and advised on strategy.	Correspondence	Flood Officer 3
	9:00 AM	SDWD Model Updated - SDWD-201101080900.xls	Model Run	Flood Officer 9
	9:00 AM	Dam Operator 2 (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	Flood Officer 3
	10:00 AM	NPD model updated - NPD-201101081000.xls	Model Run	Flood Officer 9
	10:50 AM	Dam Operations Manager rang. Engineer 1 advised current status and strategy.	Correspondence	Flood Officer 3
	11:30 AM	BCC rang asking about combined flows down the Brisbane River (Wivenhoe, Warrill Creek and Bremer River). Flood Officer 3 advised that at this stage flows would not exceed 1500m3/sec.	Correspondence	Flood Officer 3
	3:00 PM	NPD model updated - NPD-201101081500.xls	Correspondence	
	3:00 PM	SDWD Model Updated - SDWD-201101081500.xls, SDWD-201101081500-Forecast72hr.xls Model	Run	Flood Officer 9
Sunday 9 January 2011	6:50 AM	Dam Operations Manager rang. Engineer 4 advised Dam Operations Manager on current release strategy based on recent heavy overnight rainfall.	Correspondence	Flood Officer 1
	7:00 AM	SDWD Model Updated - SDWD-201101090700.xls	Model Run	Flood Officer 9
	8:40 AM	Engineer 2 called BoM regarding advice received that widespread rain was expected to continue in the catchment areas over the next 24 - 48 hours.	Correspondence	Flood Officer 1
	9:00 AM	SDWD Model Updated - SDWD-201101090900.xls	Model Run	Flood Officer 9
	9:00 AM	NPD model updated - NPD-201101090900.xls	Model Run	Flood Officer 9
	12:00 PM	SDWD Model Updated - SDWD-201101091200.xls	Model Run	Flood Officer 9
	12:00 PM	Engineer 1 scheduled meeting of Duty Engineers this afternoon to discuss current situation and forward release strategies.	Correspondence	Flood Officer 1
	2:00 PM	SDWD Model Updated - SDWD-201101091400.xls	Model Run	Flood Officer 9
	2:00 PM	NPD model updated - NPD-201101091400.xls	Model Run	Flood Officer 9
	2:30 PM	Flood Officer 1 called Dam Operator 2 (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	Flood Officer 1
	2:42 PM	FOC called North Pine Dam Operator advising of impending gate openings due to recent heavy rainfall and subsequent projected inflows.	Correspondence	Flood Officer 1
	3:00 PM	NPD model updated - NPD-201101091500.xls	Model Run	Flood Officer 9
	4:00 PM	SDWD Model Updated - SDWD-201101091600.xls	Model Run	Flood Officer 9
	4:15 PM	Engineer 2 called SRC 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	Flood Officer 1

APPENDIX M – FLOOD EVENT LOG

4:20 PM	Engineer 2 phoned 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	Flood Officer 1
4:25 PM	Engineer 2 called BCC. A message was left to phone FOC.	Correspondence	Flood Officer 1
4:26 PM	Engineer 2 called BCC. A message was left to phone FOC.	Correspondence	Flood Officer 1
4:27 PM	BCC returned phone call. BCC was advised by Engineer 2 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	Flood Officer 1
5:18 PM	Flood Officer 1 left a message with Dam Operator 9 (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 Dam Operator 9 to contact the FOC ASAP.	Correspondence	Flood Officer 1
5:25 PM	BCC returned call to Engineer 2. Engineer 2 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	Flood Officer 1
5:32 PM	NPD Operator phoned the FOC with a manual reading of EL 20.660 at Lake Kurwongbah. He noted that should NPD gates be closed in the near future, the Lake Kurwongbah tailwater would impact on Youngs Crossing.	Correspondence	Flood Officer 1
5:40 PM	Dam Operations Manager phoned Engineer 2 for an update on the current situation.	Correspondence	Flood Officer 1
5:45 PM	Dam Operator 9 returned call and Flood Officer 1 advised that Engineer 2 had requested Dam Operator 9 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	Flood Officer 1
5:58 PM	Engineer 2 called 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	Flood Officer 1
6:00 PM	SDWD Model Updated - SDWD-201101091800.xls	Model Run	Flood Officer 9
6:00 PM	NPD model updated - NPD-201101091800.xls	Model Run	Flood Officer 9
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. Engineer 2 referred him to 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	Flood Officer 1
7:00 PM	SDWD Model Updated - SDWD-201101091900.xls, SDWD-201101091900norain.xls, SDWD-201101091900withrain.xls	Model Run	Flood Officer 9
7:10 PM	FOC called 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	Flood Officer 6

APPENDIX M – FLOOD EVENT LOG

7:15 PM	FOC called Seqwater CEO advising him that high rainfall is expected overnight and releases from Wivenhoe causing damaging flooding are likely to be necessary.	Correspondence	Flood Officer 6
7:15 PM	FOC called Director Dam Safety 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	Flood Officer 6
7:20 PM	Engineer 2 called BCC advising him of potential for high releases sooner than previously expected.	Correspondence	Flood Officer 6
7:25 PM	NPD Operator called to advise dam level is at 39.82mAHD, 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	Flood Officer 6
8:00 PM	SDWD Model Updated - SDWD-201101092000withnorain.xls	Model Run	Flood Officer 9
8:05 PM	Engineer 1 called NPD Operator to confirm last directive is completed. All gates at increment 2.	Correspondence	Flood Officer 6
8:30 PM	ICC returned call and spoke to Engineer 3. He was informed of current situation and the likelihood of high releases tomorrow causing flood damage.	Correspondence	Flood Officer 6
8:50 PM	Engineer 1 called BCC to request copy of flood damages curve from 2007 study. BCC will send a copy tomorrow.	Correspondence	Engineer 1
8:55 PM	BCC called back and spoke with Engineer 3. Confirmed BCC mobilisation triggers need to be in place. Status report is in preparation and will be emailed out shortly.	Correspondence	Flood Officer 6
9:10 PM	Dam Operations Manager called and spoke with Engineer 1. Dam Operations Manager 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. Dam Operations Manager will locate DTMR contacts. Confirmed volumes getting close to 1974 levels. Confirmed situation report has gone out.	Correspondence	Flood Officer 6
9:15 PM	BoM called and spoke with Engineer 2. They discussed on rainfall expectations and flood warning requirements for Brisbane. Bremer/Warrill situation being monitored. Actual and projected flows sent to BoM.	Correspondence	Flood Officer 6
9:20 PM	ICC spoke with Engineer 1. Emailing DTMR A/H contact to flood room. Kiosk caretaker at Colleges Crossing is being evacuated.	Correspondence	Flood Officer 6
10:00 PM	SDWD Model Updated - SDWD-201101092200withnorain.xls, SDWD-201101092200-Forecast24hr.xls	Model Run	Flood Officer 9
10:00 PM	NPD model updated - NPD-201101092200.xls	Model Run	Flood Officer 9
10:00 PM	Engineer 3 called Wivenhoe operator (Dam Operator 7) and confirmed current flooding expectations based on rainfall predictions and expected impacts.	Correspondence	Flood Officer 6
10:15 PM	FOC called SRC. A situation update was provided. Fernvale Bridge closure likely to be required in view of probable releases from Somerset to Wivenhoe.	Correspondence	Flood Officer 6
10:20 PM	Dam Operations Manager called and spoke with Engineer 1. 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	Flood Officer 6

APPENDIX M – FLOOD EVENT LOG

	10:30 PM	Mt Crosby WTP Manager called and spoke with Engineer 1. He was concerned the guardrails need to be taken off bridge before bridge goes over. Engineer 1 recommended getting the rails straight off in view of increasing flow expectations overnight. Flow expected to get to 2000ML by morning.	Correspondence	Flood Officer 6
	10:30 PM	Engineer 3 called Wivenhoe Dam operator (Dam Operator 7) requesting for a visual inspection of Fernvale Bridge.	Correspondence	Flood Officer 6
	10:40 PM	Dam Operator 7 (Wivenhoe Dam) called discussed Fernvale Bridge situation with Engineer 3. Water was lapping the bridge girders.	Correspondence	Flood Officer 6
	10:45 PM	Dam Operations Manager called and spoke with Engineer 1. Dam Operations Manager will be contacting Dan Spiller to confirm closure of Mt Crosby Weir Bridge. Police are on site.	Correspondence	Flood Officer 6
	11:20 PM	Engineer 3 called ICC and left message regarding rates of rise at Mt Crosby. Bridge will be inundated within the next couple of hours.	Correspondence	Flood Officer 6
	11:25 PM	Engineer 3 called 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	Flood Officer 6
	11:25 PM	Engineer 1 spoke with Dam Operator 7 (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. Dam operators living in Fernvale will be mobilised to the dam by Police prior to closure.	Correspondence	Flood Officer 6
	11:30 PM	Engineer 3 called SRC and left message advising of situation.	Correspondence	Flood Officer 6
	11:35 PM	Engineer 1 called DTMR and left message regarding current road closure situation.	Correspondence	Flood Officer 6
	11:35 PM	Engineer 3 called SRC and left message for call to be returned re Fernvale Bridge situation.	Correspondence	Flood Officer 6
	11:38 PM	Engineer 3 called SRC CEO and left message regarding Fernvale Bridge situation and requested call be returned ASAP.	Correspondence	Flood Officer 6
Monday 10 January 2011	11:40 PM	SRC called back and spoke with Engineer 3. Engineer 3 confirmed the high flow levels and anticipated further level rises will impacts road crossings. Fernvale Bridge was about to go out. Informed of the levels and inflows to Wivenhoe and Somerset and the expectation for more rain.	Correspondence	Flood Officer 6
	12:00 AM	SRC called again and spoke with Engineer 3. Engineer 3 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	Flood Officer 6
	12:15 AM	Mt Crosby WTP Manager called to confirm Mt Crosby Weir road is closed (call taken by Flood Officer 6). Confirmed that ICC has been notified and message left with DTMR.	Correspondence	Flood Officer 6
	12:45 AM	BCC called and spoke with Engineer 3. Indicated that 3500 cumecs is the damaging flow level for Brisbane urban areas. The manual documents 4000 cumecs as the damaging level. Engineer 3 undertook to take this into consideration when preparing the current situation report, and would not refer to damage levels.	Correspondence	Flood Officer 6
	12:55 AM	Engineer 3 called Dam Operations Manager to discuss BCC's view on damaging flow. Engineer 3 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	Flood Officer 6

APPENDIX M – FLOOD EVENT LOG

1:00 AM	SDWD Model Updated - SDWD-201101100100withnorain.xls	Model Run	Flood Officer 9
1:00 AM	Engineer 1 called Dam Operator 1 (Somerset Dam) regarding purported dam stability issues (via ICC - two reports received). Dam Operator 1 confirmed that inspection had revealed no issues.	Correspondence	Flood Officer 6
3:00 AM	SDWD Model Updated - SDWD-201101100300withnorain.xls	Model Run	Flood Officer 9
3:00 AM	NPD model updated - NPD-201101100300.xls	Model Run	Flood Officer 9
4:10 AM	Engineer 3 discussed Wivenhoe status and release strategy with Dam Operator 7.	Correspondence	Flood Officer 6
5:00 AM	SDWD Model Updated - SDWD-201101100500withnorain.xls	Model Run	Flood Officer 9
5:00 AM	Dam Operator 4 called and discussed Somerset situation with Engineer 1.	Correspondence	Flood Officer 6
5:00 AM	NPD model updated - NPD-201101100500.xls	Model Run	Flood Officer 9
5:05 AM	Dam Operations Manager called and received situation update from Engineer 3.	Correspondence	Flood Officer 6
5:20 AM	Engineer 1 called BoM regarding next forecast update - due at 9:00 am	Correspondence	Flood Officer 6
6:00 AM	Send out situation report for this morning.	Correspondence	Flood Officer 8
7:40 AM	Talked to BoM - we are in general agreement about current flows in the Brisbane River.	Correspondence	Flood Officer 8
8:30 AM	FOC left a message for BCC to call back.	Correspondence	Flood Officer 8
8:38 AM	Talked to 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	Flood Officer 8
9:38 AM	Conference call with 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 \$7mil). If the rainfall in the Bremmer and Lockyer increases substantially - it is likely the flows from these catchments can peak at 1000m ³ /s (on top of Wivenhoe release)	Correspondence	Flood Officer 8
10:08 AM	Received QPF - 100mm in Brisbane and 150mm North Pine catchment	Other	Flood Officer 8
10:15 AM	Received phone call from EMQ and Logan/Scenic Rim District Disaster Coordinator - gave them the same information as what we gave BCC before.	Correspondence	Flood Officer 8
10:46 AM	BoM to inform that Engineer 2 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	Flood Officer 8
11:14 AM	ICC called to clarify our strategy. Gave him the same info as above.	Correspondence	Flood Officer 8
1:00 PM	SDWD Model Updated - SDWD-201101101300withnorain.xls	Model Run	Flood Officer 9
12:02 PM	Spoke with Seqwater CEO to answer elaborate on Situation Report and inform him of large rainfalls currently occurring in the Wivenhoe catchment.	Correspondence	Flood Officer 8

APPENDIX M – FLOOD EVENT LOG

12:33 PM	Called BCC twice. No answer, left messages.	Correspondence	Flood Officer 8
12:36 PM	Spoke with ICC, informed them that we are moving strategy from urban damage control to dam safety priority	Correspondence	Flood Officer 8
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	Flood Officer 8
2:00 PM	Send out third situation report for today.	Correspondence	Flood Officer 8
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	Flood Officer 8
3:00 PM	Called Disaster Coordinator. No answer.	Correspondence	Flood Officer 8
4:00 PM	NPD model updated - NPD-201101101600.xls	Model Run	Flood Officer 9
3:15 PM	Had conference call with BoM. They agree with FCC on model discharge results. However, BoM included 6hrs of additional rain which takes the discharge to 4600m3/s	Correspondence	Flood Officer 8
4:09 PM	Engineer 2 spoke to a Police Officer about Cressbrook Dam - advising that FOC does not manage Cressbrook but gave him a contact at Toowoomba RC	Correspondence	Flood Officer 8
5:00 PM	SDWD Model Updated - SDWD-201101101700withnorain.xls, SDWD-201101101700with50mmrain.xls	Model Run	Flood Officer 9
5:09 PM	Dam Operator 2 phoned and reported water from Wivenhoe in getting into the hydro	Correspondence	Flood Officer 8
6:06 PM	Get weather update from BoM - the forecast now is - still more of the same of what we had today.	Other	Flood Officer 8
6:45 PM	North Pine Dam operator 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	Flood Officer 8
7:30 PM	Dam Operator 2 (Somerset) called to inform that Somerset hydro is inundated with water. He believes he has located source of leak, has tightened seals to prevent further leakage. He also noted that there is oil in the water.	Correspondence	Flood Officer 9
8:00 PM	SDWD Model Updated - SDWD-201101102000withnorain.xls, SDWD-201101102000-Lockyer.xls, SDWD-201101102000-TMinflows.xls	Model Run	Flood Officer 9
20:00 PM	BoM called to advise of situation regarding flows in Lockyer. Estimated very heavy localised rainfall (eg. 600mm in few hours) on Toowoomba escarpment to cause observed flood flooding. Will monitor via Glenore Grove gauging station.	Correspondence	Flood Officer 9
20:45 PM	Seqwater Mt Crosby WTP Manager called to get situation update. Advised that at 20m there will be issues at Mt Crosby WTP. FOC to advise WTP Manager if likely to reach that level.	Correspondence	Flood Officer 9
21:00 PM	Spoke to Director Dam Safety regarding strategies for reducing Wivenhoe release to mitigate latest event in Lockyer. He endorsed variation to manual to operate at minimum gate settings to create gap to allow peak of flash flood to pass. Also endorsed concept allowing Wivenhoe HW to rise above 74 mAHD briefly.	Correspondence	Flood Officer 9
21:30 PM	Provided ICC with situation update.	Correspondence	Flood Officer 9
20:20 PM	Spoke to BoM regarding reducing Wivenhoe release to accommodate peak of Lockyer flash flood.	Correspondence	Flood Officer 9

APPENDIX M – FLOOD EVENT LOG

Tuesday 11 January 2011	11:20 PM	Spoke to Dam Operations Manager to give situation update. He agreed that if possible to reduce flow from Wivenhoe to accommodate Lockyer flash flood peak.	Correspondence	Flood Officer 9
	12:00 AM	SDWD Model Updated - SDWD-201101110000withnorain.xls	Model Run	Flood Officer 9
	12:00 AM	NPD model updated - NPD-201101110000.xls	Model Run	Flood Officer 9
	12:15 AM	Spoke to BCC to update on current release strategy.	Correspondence	Flood Officer 9
	1:30 AM	Spoke to SRC. Somerset Regional Council offices were flooded and email addresses are no longer working. Tony can be emailed on an alternative email address, which has been recorded.	Correspondence	Flood Officer 9
	2:15 AM	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	Flood Officer 9
	3:00 AM	SDWD Model Updated - SDWD-201101110300withnorain.xls	Model Run	Flood Officer 9
	3:15 AM	BCC has provided inundation forecast for Brisbane city to assist with devising strategy to manage Wivenhoe releases	Correspondence	Flood Officer 9
	5:15 AM	Spoke to 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	Flood Officer 9
	7:00 AM	SDWD Model Updated - SDWD-201101110700withnorain.xls	Model Run	Flood Officer 9
	7:00 AM	NPD model updated - NPD-201101110700.xls	Model Run	Flood Officer 9
	7:20 AM	Engineer 2 called Seqwater CEO to appraise of latest situation of Wivenhoe and lower Brisbane	Correspondence	Flood Officer 4
	7:22 AM	Engineer 2 called BoM to appraise of situation. BoM unable to talk and will call back.	Correspondence	Flood Officer 4
	7:35 AM	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	Flood Officer 4
	7:51 AM	Called Dam Operator 10 (Wivenhoe Dam) advised that gates opening at Wivenhoe are imminent.	Correspondence	Flood Officer 4
	7:56 AM	Engineer 2 called BoM. Advised BoM that Wivenhoe will ramp up to a minimum release of 3700m3/s.	Correspondence	Flood Officer 4
	7:59 AM	Engineer 4 called Seqwater CEO and advised that releases from Wivenhoe will reach 3700m3/s at a minimum, and BoM has been informed. Likely to affect Moggill 24 hours later. Phone call terminated due to bad connection.	Correspondence	Flood Officer 4
	8:01 AM	Seqwater CEO returned call. Engineer 4 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	Flood Officer 4
	8:05 AM	NPD Operator informed that levels are still rising and another directive is required. Engineer 4 advised to proceed as per operations manual.	Correspondence	Flood Officer 4
	8:09 AM	Advised Dam Operator 10 (Wivenhoe Dam) that Wivenhoe Directive was coming through in a matter of minutes.	Correspondence	Flood Officer 4

APPENDIX M – FLOOD EVENT LOG

8:10 AM	Engineer 4 called Director Dam Safety to advise of current Wivenhoe situation - Will exceed EL74m. Ramping up gate opening to a minimum of 3700 and gate operations will progress.	Correspondence	Flood Officer 4
8:11 AM	Engineer 2 called BCC flood information centre (Duty Officer). Wivenhoe releases will reach 3700m3/s at a minimum and higher flows are possible.	Correspondence	Flood Officer 4
8:15 AM	Engineer 4 called Dam Operations Manager to advise of the situation that Wivenhoe will increase to 3700m3/s as a minimum.	Correspondence	Flood Officer 4
8:16 AM	Engineer 2 called SRC and left a message.	Correspondence	Flood Officer 4
8:20 AM	Engineer 4 Called Dam Operator 10 (Wivenhoe Dam) and advised more gate opening directives are coming.	Correspondence	Flood Officer 4
8:21 AM	Engineer 2 called ICC to advise of situation and that Wivenhoe releases to be at a minimum of 3700m3/s	Correspondence	Flood Officer 4
8:25 AM	Engineer 4 called North Pine Dam operator. Verbal directive to open gates, faxed directive to follow before 9am.	Correspondence	Flood Officer 4
8:50 AM	Seqwater CEO called Engineer 2 mobile requesting 'worst case' scenario	Correspondence	Flood Officer 4
8:50 AM	Dam Operator 7 from Wivenhoe called informing that Wivenhoe has lost power, high voltage fuse blown. Hydro outlet is shut off.	Correspondence	Flood Officer 4
9:09 AM	Engineer 4 called Seqwater Tactical Maintenance Planner, advised that Wivenhoe has lost power, possibly blown high voltage fuses. Maintenance Planner to resolve issue.	Correspondence	Flood Officer 4
9:12 AM	NPD Operator called, NPD at 40.140 m HAD all gates at 6, currently heading to setting 7.	Correspondence	Flood Officer 4
9:13 AM	Energex called. All incoming power has been lost at Wivenhoe.	Correspondence	Flood Officer 4
9:16 AM	Engineer 4 called MBRC and left message: very large inflows into North Pine Dam has resulted in steep gate openings. Flood downstream can be expected.	Correspondence	Flood Officer 4
9:17 AM	Engineer 4 called MBRC and informed that very large inflows into North Pine Dam have resulted in steep gate openings. Flood downstream can be expected. Strathpine Rd (Old Gympie Rd) to be flooded within next hour.	Correspondence	Flood Officer 4
9:21 AM	Dam Operator 2 from Somerset called Engineer 2. Water ingress through doors at the bottom of dam	Correspondence	Flood Officer 4
9:22 AM	Engineer 4 advised NPD Operator that Strathpine Rd is expected to be closed.	Correspondence	Flood Officer 4
9:26 AM	Engineer 4 advised NPD Operator verbally that all gates can go to 9 increments based on water level as per manual.	Correspondence	Flood Officer 4
9:40 AM	Engineer 2 called Flood Officer 7 and requested a technically knowledgeable person be dispatched to test HF radio links and satellite phone are in working condition	Correspondence	Flood Officer 4
9:51 AM	Voicemail: Tactical Maintenance Planner left message. He's contacted Energex and Energex suspect a dirty feed. Currently all helicopters are grounded. Specialist Trade Technician is lead at Mt Crosby. Energex will get as close as they can and get helicopter lift when possible.	Correspondence	Flood Officer 4
10:00 AM	NPD model updated - NPD-201101111000.xls	Model Run	Flood Officer 9

APPENDIX M – FLOOD EVENT LOG

10:25 AM	North Pine Dam Operator called to report Lake level at EL 40.490mAHD. All gates currently at setting No. 10.	Correspondence	Flood Officer 4
10:29 AM	Stan from Seqwater called Engineer 2. In conference with Principal Dams and Weirs Planning. Internal questioning of release strategy. Internal discussion regarding current approved strategy.	Correspondence	Flood Officer 4
10:45 AM	Engineer 4 advised MBRC of current situation.	Correspondence	Flood Officer 4
10:54 AM	Dam Operations Manager called. Bad line and disconnected.	Correspondence	Flood Officer 4
11:00 AM	SDWD Model Updated - SDWD-201101111100withnorain.xls	Model Run	Flood Officer 9
11:01 AM	Message received by Engineer 4. Kilcoy Police rang Somerset, Engineer 4 advised general status information to be provided by dam operators, predictions to go through FOC.	Correspondence	Flood Officer 4
11:02 AM	Seqwater CEO requested update on situation.	Correspondence	Flood Officer 4
11:04 AM	Engineer 4 called Dam Operator 7. Discussed that if forecast rain falls, fuse plug likely to go.	Correspondence	Flood Officer 4
11:06 AM	FAX not working at Wivenhoe!	Other	Flood Officer 4
11:07 AM	BoM called. Inflow into NPD of 1500cumecs. Advised Wivenhoe strategy to be revised.	Correspondence	Flood Officer 4
11:17 AM	Principal Dams and Weirs Planning called Engineer 2 - on the way to talk to Grid Manager. Engineer 2 advised current strategy is 3 hourly.	Correspondence	Flood Officer 4
11:19 AM	Engineer 4 called MBRC. Advised North Pine still rising. Current releases to exceed 2000cumecs.	Correspondence	Flood Officer 4
11:30 AM	North Pine Dam operator called to report lake level EL 40.740 mAHD. Water level rising slowly. All gates now at setting 14.	Correspondence	Flood Officer 4
11:38 AM	Engineer 2 called BoM. Unable to contact BoM. Will call back.	Correspondence	Flood Officer 4
11:38 AM	Engineer 4 called Seqwater CEO 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	Flood Officer 4
11:51 AM	Incoming Phone call from Engineer 1. Advised SS that Wivenhoe will ramp up to 4000cumecs. Also advised that staff likely to stay in offices overnight.	Correspondence	Flood Officer 4
11:56 AM	Engineer 4 called MBRC and left message again. Outflow will exceed 2000cumecs	Correspondence	Flood Officer 4
11:57 AM	Engineer 4 called MBRC. Left message: North Pine Dam outflow likely to exceed 2000cumecs.	Correspondence	Flood Officer 4
11:59 AM	Engineer 4 called MBRC. Left message, outflow from North Pine Dam will exceed 2000cumecs. Corr	Correspondence	Flood Officer 4
12:04 PM	North Pine Dam Operator called to report lake level at EL 40.883 mAHD. Gates are currently set at setting 16.	Correspondence	Flood Officer 4
12:10 PM	Flood Officer 2 called from FOC satellite phone. Made contact with Somerset and North Pine. Connection issues with Landline to Wivenhoe.	Correspondence	Flood Officer 4
12:17 PM	MBRC called. Engineer 2 advised discharge in excess of 1989 flood (1500cumecs). Current releases in excess of 2000cumecs.	Correspondence	Flood Officer 4

APPENDIX M – FLOOD EVENT LOG

12:30 PM	North Pine Dam Operator called to report lake level is now at EL 40.950mAHD and rising. Gate settings at 17.	Correspondence	Flood Officer 4
12:42 PM	Redlands Shire Council called requesting information for Lesley Harrison. Was told to call Operations Coordinator South.	Correspondence	Flood Officer 4
12:42 PM	Call from Mary Valley Lead Operator. Asked what is required of the Northern dams. Was advised to monitor dams more closely when/if 1 in 50 year event occurs.	Correspondence	Flood Officer 4
1:02 PM	North Pine Dam Operator called to report Lake level EL 41.040 m AHD. Gate settings at setting 18.	Correspondence	Flood Officer 4
1:26 PM	Seqwater CEO called and requested the FOC request the BoM to consider if Wivenhoe is releasing 9000cumecs.	Correspondence	Flood Officer 4
1:44 PM	North Pine Dam called on Satellite phone to confirm it is operational.	Correspondence	Flood Officer 4
1:50 PM	North Pine Dam Operator called to report lake level at EL 41.105mAHD. Gates currently at setting 19.	Correspondence	Flood Officer 4
1:56 PM	Dam Operations Manager requesting status update.	Correspondence	Flood Officer 4
2:00 PM	SDWD Model Updated - SDWD-201101111400withnorain.xls	Model Run	Flood Officer 9
2:24 PM	Seqwater Wivenhoe Admin Officer called to pass on message. QLD Fire Rescue called to enquire about Wivenhoe Releases. Unable to call at this stage.	Correspondence	Flood Officer 4
2:37 PM	Seqwater CEO called to discuss current situation.	Correspondence	Flood Officer 4
2:46 PM	North Pine Dam Operator called to report lake level steady at 41.110 for last 30 minutes.	Correspondence	Flood Officer 4
2:53 PM	North Pine Dam is isolated as per conversation with operator.	Correspondence	Flood Officer 4
3:00 PM	NPD model updated - NPD-201101111500.xls	Model Run	Flood Officer 9
3:06 PM	Manager WTP Operations North (Seqwater) called to enquire about the current release rate from Wivenhoe Dam.	Correspondence	Flood Officer 4
3:14 PM	Seqwater CEO called to discuss the proposed release of 10,000cumecs. Engineer 4 and Engineer 2 explained release strategy is constantly being revised.	Correspondence	Flood Officer 4
3:49 PM	BoM had a conference with Engineer 1, 2, 3 and 4 about current release strategy and possible maximum release scenario of 10000m3/s. This would be of a similar magnitude to the 1893 event (~8.36m in Brisbane Port Office)	Correspondence	Flood Officer 4
3:54 PM	Manager WTP Operations North (Seqwater) called and talked to Engineer 4 regarding current inflow strategy.	Correspondence	Flood Officer 4
3:58 PM	Called NPD Operator (at Wivenhoe Dam) to check if all is ok, levels are slowly reducing.	Correspondence	Flood Officer 4
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 Flood Officer 9).	Correspondence	Flood Officer 4
4:33 PM	Phone call with Engineer 2 and Seqwater CEO. 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	Flood Officer 4
4:41 PM	Director Dam Safety phone call. He requested more technical information in the status reports released by Duty Engineers. Director Dam Safety will send through an example of the technical data requested in the report.	Correspondence	Flood Officer 4

APPENDIX M – FLOOD EVENT LOG

4:46 PM	Principal Incident and Emergency Management (Seqwater) called to request update in inflow/outflow of Wivenhoe Dam.	Correspondence	Flood Officer 4
5:00 PM	SDWD Model Updated - SDWD-201101111700withnorain.xls	Model Run	Flood Officer 9
5:12 PM	Engineer 4 called North Pine Dam operator regarding gate operating strategy. Engineer 4 advised to keep gates at current setting until water is clear of the controls. Gate closing strategy then to follow Flood Manual.	Correspondence	Flood Officer 4
5:22 PM	BoM, Engineer 2 and Engineer 3 discussed current Wivenhoe inflows and anticipated outflows. Engineer 2 confirmed that 7500cumecs is still likely early tonight.	Correspondence	Flood Officer 4
5:27 PM	North Pine Dam operator called to report of NPD level EL 40.7 m AHD. Engineer 4 verbally advised 10 minute gate closure intervals is ok until 39.9 m AHD - then back to 15 min intervals.	Correspondence	Flood Officer 4
5:48 PM	Dam Operations Manager asking Tarong Energy to hold off releasing water from Splityard Creek.	Correspondence	Flood Officer 4
6:00 PM	NPD model updated - NPD-201101111800.xls, NPD-201101111800 Final.xls	Model Run	Flood Officer 9
6:00 PM	SDWD Model Updated - SDWD-201101111800withnorain.xls	Model Run	Flood Officer 9
6:04 PM	Mary Valley Lead Operator called to advise he is unable to reach Lake Macdonald to take readings.	Correspondence	Flood Officer 4
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	Flood Officer 4
6:35 PM	Dam Operator 2 (Somerset Dam) called to confirm all is good.	Correspondence	Flood Officer 4
6:36 PM	Bill Stevens called to inform team he is cut off due to flood waters and unable to come in.	Correspondence	Flood Officer 4
6:41 PM	Tarong Energy confirmed releases from Splityard creek have stopped.	Correspondence	Flood Officer 4
6:56 PM	Daryl Hicky informed that tailwater gauge appears to be OOA. Confirmed by Engineer 2.	Correspondence	Flood Officer 4
7:00 PM	Spoke to NPD operator 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	Flood Officer 9
7:10 PM	NPD Operator rang, is concerned that the level is dropping too fast.	Correspondence	Flood Officer 3
7:30 PM	Dam Operator 7 (Wivenhoe Dam) called to report that Wivenhoe Level 74.97mAHD is holding.	Correspondence	Flood Officer 3
7:30 PM	North Pine Dam Operator rang to say he is behind in gate settings.	Correspondence	Flood Officer 3
7:25 PM	Engineer 3 called North Pine Dam Operator to advise that a directive will be sent to move all gates down to 11m.	Correspondence	Flood Officer 3
7:45 PM	North Pine Dam Operator called FOC. Engineer 4 clarified directive 19 to drop gates from 16 to 11 in one go, at 15 minutes intervals.	Correspondence	Flood Officer 3
8:00 PM	BoM rang. Unofficially Engineer 2 advised that things have stabilised. Also advised predicted peaks at various sites.	Correspondence	Flood Officer 3

APPENDIX M – FLOOD EVENT LOG

8:25 PM	Tactical Maintenance Planner rang to advise that the high voltage feeder to Wivenhoe will not be restored for the duration of this event. Engineer 4 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	Flood Officer 3
8:25 PM	Colliers Building Services rang back. Engineer 1 asked about power supply to 179 Turbot Street. Colliers Building Services said to email our power requirements.	Correspondence	Flood Officer 3
8:30 PM	Dam Operator 7 (Wivenhoe Dam) called to advise that Wivenhoe's level is 5mm down.	Correspondence	Flood Officer 3
8:30 PM	Engineer 1 called Colliers Building Services and left a message to call back (regarding loss of power to the 179 Turbot Street)	Correspondence	Flood Officer 3
8:30 PM	Engineer 1 rang SunWater to advise that power will be shutting down in the CBD tomorrow morning.	Correspondence	Flood Officer 3
8:35 PM	Engineer 1 rang SunWater to advise the power situation.	Correspondence	Flood Officer 3
8:35 PM	Seqwater CEO called FOC to speak with all duty engineers on the operating strategies for Wivenhoe releases.	Correspondence	Flood Officer 3
8:40 PM	Flood Officer 7 called FOC to ensure we received the Energex message regarding power shutdown to the CBD.	Correspondence	Flood Officer 3
8:45 PM	SunWater rang. Engineer 1 advised that Energex will be cutting power to the CDD in the morning. SunWater will call Mike Minter and the security guys for Mineral House.	Correspondence	Flood Officer 3
8:50 PM	North Pine Dam Operator called to report NPD Level at EL 40.97m AHD. Gates are all at 11 increments.	Correspondence	Flood Officer 3
8:55 PM	Seqwater CEO rang asking about possibly reducing releases. Engineer 2 advised that we are seriously considering it, but this would have little effect on the levels in Brisbane River. CEO would like technical reports every hour throughout the night.	Correspondence	Flood Officer 3
9:00 PM	Engineer 1 emailed Colliers Building Services with our building power requirements.	Correspondence	Flood Officer 3
9:05 PM	Engineer 2 rang BoM to advise that power to the CBD may be cut and send him actual and releases report.	Correspondence	Flood Officer 3
9:10 PM	SunWater called Engineer 1. SunWater advised he spoke to Colliers Building Services and is getting an Energex contact.	Correspondence	Flood Officer 3
9:20 PM	SunWater rang. Mike Minter told them we may not be able to have air conditioning.	Correspondence	Flood Officer 3
9:25 PM	Engineer 1 called SunWater. Colliers Building Services got back to him and has Haywoods Electrical lined up for tomorrow morning.	Correspondence	Flood Officer 3
9:30 PM	North Pine Dam Operator called. They are still behind in gate closures.	Correspondence	Flood Officer 3
9:35 PM	Engineer 4 rang to discuss the latest directive to raise Wivenhoe Dam. Engineer 4 suggested not raising.	Correspondence	Flood Officer 3
9:40 PM	Flood Officer 9 called Dam Operator 7 (Wivenhoe Dam) to obtain a current level. EL 74.9? Gates have been raised to 11.5m.	Correspondence	Flood Officer 3
10:00 PM	SDWD Model Updated - SDWD-201101112200withnorain.xls	Model Run	Flood Officer 9
10:00 PM	SunWater rang to advise the phone number for Steve from Energex [REDACTED]	Correspondence	Flood Officer 3

APPENDIX M – FLOOD EVENT LOG

	10:00 PM	SunWater rang requesting Engineer 1 mobile number to pass on onto Energex.	Correspondence	Flood Officer 3
	10:30 PM	SunWater 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	Flood Officer 3
	10:35 PM	Dam Operator 7 (Wivenhoe Dam) called to report lake level of 74.94mAHD @ 10:30hrs.	Correspondence	Flood Officer 3
	11:00 PM	Dam Operator 7 (Wivenhoe Dam) called to report lake level of 74.92mAHD @ 11:00hrs.	Correspondence	Flood Officer 3
	11:10 PM	Dam Operations Manager rang to request discharge from Wivenhoe when the gates are lowered to 10m. Advised 6100m ³ /sec.	Correspondence	Flood Officer 3
Wednesday 12 January 2011	11:30 PM	Flood Officer 9 called Dam Operator 7 (Wivenhoe Dam) to obtain a current level. EL 74.9? Gates have been raised to 11.5m.	Correspondence	Flood Officer 3
	12:30 AM	Dam Operator 7 (Wivenhoe Dam) called to report lake level of 74.88mAHD @ 12:30hrs.	Correspondence	Flood Officer 3
	1:00 AM	SunWater called to provide Energex contact details. Energex indicated that they didn't believe 179 Turbot St would be disconnected from power grid in the morning.	Correspondence	Flood Officer 9
	1:15 AM	Engineer 1 rang Dam Operator 7 (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	Flood Officer 3
	2:10 AM	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	Flood Officer 3
	3:10 AM	Engineer 3 rang NPD Operator and advised no changes to gate settings planned for the next hour or so.	Correspondence	Flood Officer 3
	3:30 AM	Seqwater Mt Crosby WTP Manager called enquiring about levels at Mt Crosby.	Correspondence	Flood Officer 3
	3:50 AM	Engineer 1 called BoM advising him that because inflows are not as much as earlier anticipated, the releases from Wivenhoe are less than previously suggested.	Correspondence	Flood Officer 3
	4:05 AM	OIC of Lowood Police rang enquiring about the Wivenhoe fuse plug. Flood Officer 9 advised that there is no danger of the fuse plug failing, and that current releases from Wivenhoe Dam are about 4,900 cumecs.	Correspondence	Flood Officer 3
	4:40 AM	Seqwater Mt Crosby WTP Manager rang to check that his emails with the Mt Crosby levels were being received. They are.	Correspondence	Flood Officer 3
	5:15 AM	Dam Operations Manager rang enquiring current storage levels and releases. Engineer 3 advised.	Correspondence	Flood Officer 3
	5:30 AM	Dam Operations Manager rang enquiring estimated time for closing North Pine Dam. Engineer 1 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	Flood Officer 3
	5:30 AM	Engineer 3 called Wivenhoe Dam for the current level. Dropped 2 cm in 30 minutes.	Correspondence	Flood Officer 3
	5:50 AM	Engineer 2 called 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	Flood Officer 3

APPENDIX M – FLOOD EVENT LOG

6:00 AM	SDWD Model Updated - SDWD-201101120600withnorain.xls	Model Run	Flood Officer 9
6:00 AM	North Pine Dam rang enquiring about closing down. Engineer 4 advised that we have not yet decided.	Correspondence	Flood Officer 3
6:10 AM	Dam Operations Manager rang and suggested that the fish recovery may be a fairly big job. Engineer 4 suggested that our staff can check this morning and then decide.	Correspondence	Flood Officer 3
6:15 AM	BCC rang enquiring the level of the pump station at Mt Crosby. Engineer 4 said we can't help, but that he should contact the treatment plant Manager.	Correspondence	Flood Officer 3
6:30 AM	Engineer 4 rang Dam Operator 7 (Wivenhoe Dam) advising that a directive will soon follow to lower gates to 5m.	Correspondence	Flood Officer 3
6:35 AM	Paul Martin rang. Engineer 4 discussed current strategy.	Correspondence	Flood Officer 3
7:00 AM	Liaised with Bureau regarding expected peak in lower Brisbane.	Correspondence	Flood Officer 9
7:50 AM	SunWater called to confirm that 179 Turbot St had power.	Correspondence	Flood Officer 9
8:20 AM	Dam Operations Manager rang enquiring current storage levels and releases. Engineer 4 advised.	Correspondence	Flood Officer 2
9:20 AM	North Pine Dam Operator rang wanting to speak to Engineer 4.	Correspondence	Flood Officer 2
9:50 AM	Lowood Police rang enquiring current storage releases from Wivenhoe Dam. Engineer 4 advised.	Correspondence	Flood Officer 2
10:20 AM	Dam Operator 2 (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. Dam Operator 13 is there with him.	Correspondence	Flood Officer 2
10:50 PM	Seqwater rang wanting to thank Flood Officer 1 for his and John's heroic effort in clearing Seqwater basement.	Correspondence	Flood Officer 2
11:20 AM	Flood Officer 7 called to inform that he and Senior Hydrographer (Seqwater) are not able to access Enviromon. He asked if Engineer 2 can check the system.	Correspondence	Flood Officer 2
11:50 AM	Seqwater CEO called to ask that all communications be forwarded to him.	Correspondence	Flood Officer 9
12:20 PM	Flood Officer 1 called Dam Operator 10 (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	Flood Officer 1
12:25 PM	Flood Officer 1 called North Pine Dam advising 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	Flood Officer 1
12:32 PM	Leslie Harrison Dam Operator called Engineer 4. Due to the failure of Seqwater comms, he was seeking direction on how to submit a final report on operations at approx. 1600 today. Engineer 4 said to phone in to the FOC.	Correspondence	Flood Officer 1
12:55 PM	BoM visited FOC to liaise with the Duty Engineers.	Correspondence	Flood Officer 1
1:10 PM	Principal Dams and Weirs Planning called to request electronic copy of Wiv - Som Flood Ops manual to be forwarded to him.	Correspondence	Flood Officer 1

APPENDIX M – FLOOD EVENT LOG

1:15 PM	Dam Operator 10 (Wivenhoe Dam) called to report lake level: 74.79mAHD @13:00hrs. Note: Reading taken in surging water. Wivenhoe fax appears to have failed.	Correspondence	Flood Officer 1
2:05 PM	North Pine Dam Operator called to inform that North Pine level was 39.74mAHD and based on this level he is recommending at least one gate closure.	Correspondence	Flood Officer 1
2:10 PM	Dam Operator 9 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. Engineer 1 assured Graham that the flood heights have reduced by up to 3 metres and any increase would be less than 1 metre.	Correspondence	Flood Officer 1
2:25 PM	Dam Operator 10 (Wivenhoe Dam) called to report lake level: 74.81mAHD @14:00hrs. Note: Reading taken in surging water. Wivenhoe fax confirmed as failed.	Correspondence	Flood Officer 1
2:30 PM	North Pine Dam Operator 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	Flood Officer 1
3:05 PM	Dam Operator 7 (Wivenhoe Dam) called to report lake level of 74.81mAHD @ 15:00hrs.	Correspondence	Flood Officer 1
3:30 PM	BoM called Engineer 2 to discuss re-appraisal of the expected flood peak in Brisbane. Peak now may be 5.2 metres early on Thursday 13/12/2011.	Correspondence	Flood Officer 1
4:00 PM	SDWD Model Updated - SDWD-201101121600.xls	Model Run	Flood Officer 9
4:00 PM	Dam Operator 7 (Wivenhoe Dam) called to report lake level of 74.80mAHD @16:00hrs.	Correspondence	Flood Officer 1
4:00 PM	North Pine Dam Operator called to report that Siding Creek Dam is spilling at 20.560mAHD. Spillway level is 20.37mAHD.	Correspondence	Flood Officer 1
4:20 PM	BCC called FOC and had phone conference with Duty Engineers. He was seeking update for briefing with Lord Mayor.	Correspondence	Flood Officer 1
4:52 PM	DERM called FOC and left message for Engineer 2. They (DERM) will be gauging at Jindalee all night to catch the peak. Senior Hydrographer (Seqwater) has been contacted and will be joining the crew.	Correspondence	Flood Officer 1
5:00 PM	Dam Operator 7 (Wivenhoe Dam) called to report lake level of 74.82mAHD @17:00hrs.	Correspondence	Flood Officer 1
6:00 PM	Dam Operator 7 (Wivenhoe Dam) called to report lake level of 74.80mAHD @18:00hrs.	Correspondence	Flood Officer 1
7:00 PM	Dam Operator 7 (Wivenhoe Dam) called to report lake level of 74.82 @19:00hrs.	Correspondence	Flood Officer 7
7:45 PM	Engineer 1 & Engineer 3 advised BoM that FOC will be sending updated projected releases from Wivenhoe Dam. This has been prepared with the aim of limiting flows at Moggill to 3,500 cumecs.	Correspondence	Flood Officer 7
8:00 PM	Engineer 1 & Engineer 3 advised BCC Flood Information Centre that FOC will be sending updated projected releases from Wivenhoe Dam. This has been prepared with the aim of limiting flows at Moggill to 3,500 cumecs.	Correspondence	Flood Officer 7
8:55 PM	Dam Operator 7 (Wivenhoe Dam) called to report lake level 74.82mAHD @ 21:00hrs. They will now report levels every 2 hours.	Correspondence	Engineer 1
9:15 PM	Dam Operator 7 (Wivenhoe Dam) called to inform that Energex restored power at Wivenhoe Dam at 21:15 hours.	Correspondence	Flood Officer 7

APPENDIX M – FLOOD EVENT LOG

	9:50 PM	Mt Crosby WTP Manager provided an update on Kholo & Mt Crosby: Kholo 19:15hrs 20.0m Mt Crosby 21:00 23.5m He asked for a situation update. Engineer 1 shared Wivenhoe Dam's release strategy.	Correspondence	Flood Officer 7
	10:00 PM	Dam Operator 7 (Wivenhoe Dam) called to report lake level 74.81mAHD @22:00hrs. Will now report levels every 2 hours.	Correspondence	Flood Officer 7
Thursday 13 January 2011	12:00 AM	Dam Operator 7 (Wivenhoe Dam) called to report lake level 74.79mAHD @ 00:00.	Correspondence	Flood Officer 7
	1:00 AM	BCC called FOC to enquire if Wivenhoe Dam has been compromised. Engineer 3 assured him that that is not the case.	Correspondence	Flood Officer 7
	1:05 AM	Engineer 1 called BoM hotline number to check communications.	Correspondence	Flood Officer 7
	1:10 AM	BCC called the FOC regarding a viral text rumour that Wivenhoe Dam has failed. Engineer 3 assured him that that is not true and will speak with Dam Operations Manager about this matter.	Correspondence	Flood Officer 7
	1:20 AM	Queensland Police called to inform of rumours that Wivenhoe Dam has been compromised.	Correspondence	Flood Officer 7
	1:25 AM	Engineer 3 called Dam Operator 7 (Wivenhoe Dam) to confirm Wivenhoe Dam has not been compromised.	Correspondence	Flood Officer 7
	1:30 AM	Engineer 3 called Dam Operations Manager advising him about the rumours that Wivenhoe Dam has been compromised. Engineer 3 will send him the BCC contact details.	Correspondence	Flood Officer 7
	2:00 AM	Dam Operator 7 (Wivenhoe Dam) called to report level 74.765mAHD @ 2:00hrs.	Correspondence	Flood Officer 7
	4:00 AM	Dam Operator 7 (Wivenhoe Dam) called to report lake level 74.74mAHD @4:00hrs. Will now report levels every 2 hours.	Correspondence	Flood Officer 7
	6:00 AM	Dam Operator 7 (Wivenhoe Dam) called to report lake level 74.71mAHD @6:00hrs. Will now report levels every 2 hours.	Correspondence	Flood Officer 7
	6:43 AM	BoM called to inform that BoM has lost their telephone system. He provided 2 contact numbers: [REDACTED]	Correspondence	Flood Officer 7
	7:30 AM	Dam Operator 2 has been advising Kilcoy Police of the FOC strategy for lower Somerset during the next 24 hours of opening sluice later today	Correspondence	Engineer 1
	7:50 AM	BOM called to ask heights 3,500m3/s would be at Savages and Mt Crosby. Engineer 2 advised 34.5m AHD and 16.5m AHD respectively.	Correspondence	Engineer 2
	8:05 AM	MBRC wanted to know when NPD gates will be closed. Advised to be closed by 0500 Friday	Correspondence	Engineer 2
	8:15 AM	Somerset directive #9 issued	Correspondence	Flood Officer 9
	9:00 AM	Dam Operations Manager wants to know when gates setting are changed on Wivenhoe and Somerset. Advised that NPD will be closed at 05 Friday.	Correspondence	Engineer 1

APPENDIX M – FLOOD EVENT LOG

	9:00 AM	Dam Operator 2 advised of projected level for Somerset, 103.5 by 2000 Thursday and 102.8 early Friday morning. Will open another sluice this afternoon.	Correspondence	Engineer 2
	10:10 AM	Dam Operations Manager called to inform that power and IT services have been restored at Seqwater.	Correspondence	Flood Officer 9
	10:30 AM	Dam Operations Manager called to request if he could be notified of any changes to releases from Wivenhoe	Correspondence	Flood Officer 9
	11:00 AM	SDWD Model Updated - SDWD-201101131100.xls	Model Run	Flood Officer 9
	1:00 PM	SRC 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	Flood Officer 9
	1:15 PM	Dam Operations Manager called to advise that Police had called to ask when Kilcoy would be accessible. Engineer 4 advised Dam Operations Manager that it would be by 6am tomorrow morning (14/1).	Correspondence	Flood Officer 9
	1:40 PM	Mt Crosby WTP Manager called for update on Mt Crosby. Engineer 2 informed him that level would be maintained at 17.5 metres for next 7 days.	Correspondence	Flood Officer 9
	2:15 PM	Phone call from MBRC. Advice as follows: * damage to Gympie Rd abutments * No evacuations * No suburban flooding * Not aware of any over floor flooding. Pine Shire had 0.75m freeboard.	Correspondence	Flood Officer 9
	2:30 PM	Wivenhoe directive #36 issued • Open Gate 1 from 3.5 metres to 4.0 metres at 1500. • Open Gate 5 from 3.5 metres to 4.0 metres at 1600. • Open Gate 1 from 4.0 metres to 4.5 metres at 1700. • Open Gate 5 from 4.0 metres to 4.5 metres at 1800.	Correspondence	Flood Officer 9
	3:50 PM	NPD Operator called to confirm if FOC received Dam Observation report for North Pine Dam. Approx 6 of 40 uplift pressure gauges has abnormal readings.	Correspondence	Flood Officer 9
	4:45 PM	MBRC was advised that NPD gates will be closed at 0500 Friday	Correspondence	Engineer 2
	7:37 PM	SunWater called to confirm building services were working and all in order.	Correspondence	Flood Officer 4
	7:51 PM	Engineer 1 called North Pine Dam Operator 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	Flood Officer 4
	8:30 PM	Engineer 1 called Dam Operator 4 to advise of directive #11.	Correspondence	Flood Officer 4
	8:41 PM	Engineer 1 called Dam Operations Manager to advise of current release rates from Wivenhoe, Somerset and North Pine Dams.	Correspondence	Flood Officer 4
Friday 14 January	12:46 AM	Ipswich District (Fernvale) Police rang to enquire into the integrity of Somerset Dam, based on information received by the Police. Engineer 1 indicated that surveillance procedures are in place to monitor the integrity of the Dam, and that Engineer 1 will confirm with the operators.	Correspondence	Flood Officer 4

APPENDIX M – FLOOD EVENT LOG

2011	12:47 AM	Engineer 1 called Dam Operator 1 at Somerset to enquire to the integrity of Somerset Dam. Operator indicated all was good and no anomalies have been detected.	Correspondence	Flood Officer 4
	12:49 AM	Engineer 1 called Ipswich District Police back on 3817 1436 to confirm that Somerset was recently inspected and all was ok.	Correspondence	Flood Officer 4
	5:13 AM	Fax received from North Pine Dam confirming closure of all gates.	Correspondence	Flood Officer 4
	5:15 AM	Engineer 1 called MBRC to advise that North Pine Dam has closed the final gate at 5am.	Correspondence	Flood Officer 4
	5:16 AM	North Pine Dam Operator 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	Flood Officer 4
	5:28 AM	Dam Operations Manager called to obtain a situation report. Engineer 1 provided the key information.	Correspondence	Flood Officer 4
	5:37 AM	BCC called requesting information for Wivenhoe Dam and checking sit-rep data. Enquired about flows throughout the event, Engineer 2 advised that not currently in a position to discuss these.	Correspondence	Flood Officer 4
	7:40 AM	Dam Operations Manager rang FOC to enquire about river levels at Lowood. Pumps required to be installed to supply Lowood WTP. Engineer 2 advised RD that no significant rises were expected in the Brisbane River levels in the foreseeable future.	Correspondence	Flood Officer 1
	7:45 AM	ICC phoned the FOC. Enquiring about renewed rises in the Brisbane / Bremer River systems. He cannot contact BOM for an update. Engineer 2 advised that no significant rises were expected at Moggiill. A constant flow in the river was the plan as a consequence of Wivenhoe releases.	Correspondence	Flood Officer 1
	8:20 AM	Principal Dams and Weirs Planning phoned Engineer 2. Enquiry regarding the Wivenhoe Dam fuse plugs (design calcs/parameters).	Correspondence	Flood Officer 1
	8:21 AM	Seqwater CEO phoned the FOC. Engineer 2 discussed with CEO the release strategy from Wivenhoe Dam with a view to opening the Fernvale Bridge and Mt Crosby Bridge at the earliest possible time. Engineer 2 also updated CEO on the projected City Gauge height over the next few days. This being ~2.5 metres due to continuous releases from Wivenhoe Dam.	Correspondence	Flood Officer 1
	8:30 AM	Engineer 2 returned call back to Principal Dams and Weirs Planning. Engineer 2 extended an invitation to him and others to pay a visit to the FOC to inspect operations.	Correspondence	Flood Officer 1
	10:10 AM	Dam Operator 2 rang from Somerset Dam. Checking that all comms avenues (faxes & e-mails) are functioning. All good.	Correspondence	Flood Officer 1
	10:25 AM	BCC rang TM. Enquiring if any chance of cutting back Wivenhoe releases to lower flows than the current figure of 3,500 cumecs. Engineer 2 response was NO!	Correspondence	Flood Officer 1
	10:40 AM	SunWater transmitted a message to Principal Dams and Weirs Planning 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	Flood Officer 1

APPENDIX M – FLOOD EVENT LOG

	10:50 AM	Operations Coordinator North 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. He is organising back hoes and front end loader machinery to clear the debris between the NP dam wall and Grant Street.	Correspondence	Flood Officer 1
	12:33 PM	Flood Officer 7 phoned Engineer 2. Request from Seqwater Corp Comms about hourly updates. Particular concern about NPD which ceased flood operations at 5:00am this morning!! Engineer 3 advised that updates from the dams would continue to be channeled solely through the FOC.	Correspondence	Flood Officer 1
	12:35 PM	DERM phoned Engineer 2. Re: Gauging exercise at Jindalee:- Soundtek M9 from boat (6 passes) Jindalee gauging result:- 4,300m ³ /sec at 6:45 metres AHD at 12:00 hrs	Correspondence	Flood Officer 1
	12:37 PM	Seqwater CEP rang Engineer 2. Discussion about mis-informed reporting.	Correspondence	Flood Officer 1
	1:45 PM	Engineer 2 rang BCC seeking clarification on BCC's flood mapping. BCC advised that at 3,500 cumecs, BCC records indicate that 220 properties will have water on the property. Engineer 2 confirmed that 'water on the property' did not mean water above floor level i.e. Likely to be land inundation only.	Correspondence	Flood Officer 1
	1:53 PM	Dam Operations Manager rang Engineer 2. Routine call. Update on current status.	Correspondence	Flood Officer 1
	2:45 PM	Dam Operations Manager rang Engineer 2. Routine call. Update on current status.	Correspondence	Flood Officer 1
	3:30 PM	Dam Operator 10 rang from Wivenhoe Dam with concerns about some 'swirling' apparent in the downstream tailwater opposite 'The Common'. Dam Operator 10 thought there could be some erosion occurring under the flow. Matthew forwarded a marked photo of the phenomenon to Engineer 2. The consensus reached was that the phenomenon was the result of a 'hydraulic jump'. The matter would be referred to Engineer 4 for further investigation.	Correspondence	Flood Officer 1
	3:55 PM	Engineer 2 rang Engineer 4 to discuss the 'swirling' phenomenon identified by Dam Operator 10. Effect is at D/S end of plunge pool and is almost certainly a 'hydraulic jump'. Engineer 4 advised the issue was not of concern unless the phenomenon moves toward the flip bucket.	Correspondence	Flood Officer 1
	4:05 PM	Engineer 4 phoned Dam Operator 10 at Wivenhoe Dam to pass on advice that Engineer 4 had no concerns about the 'hydraulic jump' phenomenon identified by him earlier today.	Correspondence	Flood Officer 1
	4:50 PM	Mt Crosby WTP Manager phoned the FOC. Engineer 2 advised him 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	Flood Officer 1
	5:50 PM	Dam Operations Manager rang Engineer 4 enquiring when the bridges to the east of Lake Wivenhoe would be clear of floodwater. Engineer 4 advised all but the Sandy Ck - A&M Conroy Bridge on the Wivenhoe Somerset Rd would be clear by tomorrow (Sat) morning.	Correspondence	Flood Officer 1
	7:00 PM	FOC change over.	Other	Flood Officer 2
Saturday 15	8:40 AM	Dam Operations Manager rang. Engineer 2 advised strategy to possibly go below FSL at Wivenhoe by Thursday.	Correspondence	Flood Officer 3

APPENDIX M – FLOOD EVENT LOG

January 2011	8:42 AM	Seqwater CEO rang to advise that the media come into the FOC today to take photos.	Correspondence	Flood Officer 3
	11:30 AM	Dam Operations Manager rang to request a summary of the Operations Manual for Wivenhoe. Engineer 2 to provide after checking with all duty engineers.	Correspondence	Flood Officer 3
	12:12 PM	Dam Operations Manager rang to advise of a phone hook-up with the Minister and Seqwater CEO at 2:00pm, and requested that Engineer 1 be in at the FOC at that time.	Correspondence	Flood Officer 3
	12:20 PM	Seqwater CEO rang to confirm a phone hook-up with the Minister and CEO at 2:00pm.	Correspondence	Flood Officer 3
	12:55 PM	Engineer 2 advised Engineer 1 to come into the FOC for the phone hook-up at 2:00pm.	Correspondence	Flood Officer 3
	1:10 PM	Director Dam Safety phoned about the Wivenhoe Flood manual summary. Engineer 2 told Director Dam Safety that the summary is with the other duty engineers for checking before issuing.	Correspondence	Flood Officer 3
	1:15 PM	Dam Operations Manager rang with some questions on the Wivenhoe Flood manual summary.	Correspondence	Flood Officer 3
	1:45 PM	Engineer 1 and Engineer 4 arrived at the FOC for the 2:00pm phone hook-up.	Correspondence	Flood Officer 3
	2:00 PM	Phone hook-up with Engineer 2, Engineer 1, Engineer 4 with Dam Operations Manager, Director Dam Safety, Seqwater CEO, Joh Bradley and Bob Reilly to discuss a report for the minister by COB Sunday.	Correspondence	Flood Officer 3
	5:00 PM	Dam Operations Manager arrived to help write report for minister briefing.	Correspondence	Flood Officer 3
	7:30 PM	Dam Operator 7 from Wivenhoe called to discuss strategy for the next 12 hours.	Correspondence	Flood Officer 4
Sunday 15 January 2011	4:12 AM	Called Dam Operator 7 at Wivenhoe to confirm directive received via email. Directive being actioned ASAP.	Correspondence	Flood Officer 4
	7:10 AM	Dam Operator 2 (Somerset Dam) emailed flood centre indicating he believed flood centre phones were out. Tried to contact Ag by office and mobile phones with no success (Telstra message bank on office phone and Dam Operator 2's message on mobile). Flood centre phones were checked - working OK. Problem is with Somerset phones. Believe fax also not receiving. Dam Operator 2 emailed to confirm they have local calls but no STD. Continued checking mobile - no response.	Correspondence	Flood Officer 6
	8:20 AM	Called Dam Operator 10 at Wivenhoe to confirm directive 45 received. Confirmed not received - busy status on fax confirmation. Confirmed directive received via email.	Correspondence	Flood Officer 6
	9:40 AM	Retried all phones at Somerset - no response. Dam Operator 2 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	Flood Officer 6
	10:20 AM	Email confirmation received that Somerset Directive #12 implementation has been completed.	Correspondence	Flood Officer 6
	11:30 AM	FOC contacted by Ipswich/Somerset District Disaster Coordinator notifying that the Wivenhoe viewing area has been damaged. Engineer 1 unable to contact Wivenhoe staff (Dam Operator 10) - message left. Then contacted Dam Operator 7, 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. Engineer 1 confirmed this with Police, who reported that there was damage to safety rails and water supply to toilets. Dam Operator 10 also responded to Engineer 1's call and confirmed the details.	Correspondence	Flood Officer 6

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APPENDIX M – FLOOD EVENT LOG

	12:30 PM	Phone call from Dam Operator 10 (Wivenhoe) - neither fax nor email received. Verbal instruction given to implement gate operation as per Directive #46 and email resent.	Correspondence	Flood Officer 6
	12:40 PM	Contract programmer called to advise that the back-up Linux box "Namah" at Mineral House is showing file system corruption errors, so the FCC is effectively without backup. The hydraulic model in the RTFN is missing because two Fortran programs "Modcom 2" and "Modelf" have not been ported to the Linux box.	Correspondence	Flood Officer 6
	12:55 PM	Engineer 1 advised Warren Shallcross about the situation at Mineral House, and he will visit the backup operations centre ASAP.	Correspondence	Flood Officer 6
	1:10 PM	Dam Operator 2 (Somerset) called to report that the phones are now working.	Correspondence	Flood Officer 6
	2:40 PM	Engineer 2 spoke to Engineer 1. Grid manager wants a summary of flood volumes and peak discharges.	Correspondence	Flood Officer 6
	3:00 PM	Warren Shallcross called - confirmed with Engineer 1 that the computer system at Mineral House has been rebooted and is functional.	Correspondence	Flood Officer 6
	3:10 PM	Dam Operations Manager rang to confirm current discharges. Confirmed 600 cumecs for Somerset and 3500 cumecs for Wivenhoe (approx).	Correspondence	Flood Officer 6
	4:00 PM	Directive #47 implemented - Gate 2 opened to 7.0 m.	Correspondence	Flood Officer 6
	6:52 PM	Engineer 1 spoke with Dam Operator 7 (Wivenhoe Dam) about Directive #48 Wivenhoe strategy. Dam Operator 7 confirmed receipt of Directive.	Correspondence	Flood Officer 7
	7:00 PM	FOC change over.	Other	Flood Officer 7
	10:00 PM	Dam Operator 7 (Wivenhoe Dam) called to inform 3 floor panels missing from bulks.	Correspondence	Flood Officer 7
Monday 17 January 2011	7:15 AM	Dam Operations Manager called to get Sit Rep. Advised that Somerset should remain mobilised until further notice	Correspondence	Flood Officer 8
	7:35 AM	Dam Operator 2 called - discussed strategy i.e. operate cone valves only from now on	Correspondence	Flood Officer 8
	9:15 AM	Mt Crosby WTP Manager 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	Flood Officer 8
	9:35 AM	Dam Operations Manager called to enquire when closing down will start and reminded us to inform Councils	Correspondence	Flood Officer 8
	10:00 AM	Advise Director Dam Safety about inconsistency between readings from BoM and actual HW gauges	Correspondence	Flood Officer 8
	10:15 AM	SRC was contacted and advised gate close will commence this afternoon and Fernvale Bridge will be out of the water sometime Tuesday morning	Correspondence	Flood Officer 8
	10:20 PM	BCC was contacted (left message) advising gate close will commence this afternoon.	Correspondence	Flood Officer 8
	10:20 PM	ICC was contacted (left message) advising gate close will commence this afternoon. Corr	Correspondence	Flood Officer 8
	11:15 PM	Called Mt Crosby WTP Manager to inform him that flow in Lockyer is 75m3/s and falling.	Correspondence	Flood Officer 8
	11:15 PM	Spoke to BCC. Advised him about gate closure. He mentioned that BCC will not provide any info on flood recurrence until they discussed with FOC.	Correspondence	Flood Officer 8

APPENDIX M – FLOOD EVENT LOG

Tuesday 18 January 2011	11:20 AM	Dam Operations Manager called - Council wants to know draw down rates, so they can determine the effects on Coronation Dr. Engineer 3 informed RD that BCC did not raise this when they spoke 10 mins before.	Correspondence	Flood Officer 8
	11:20 AM	Seqwater CEO called saying he will email a revised copy of Michael O'Brain's document	Correspondence	Flood Officer 8
	12:20 PM	Engineer 3 contacted BCC to get an update on Coro Dr situation. Engineer 3 spoke to BCC. BCC 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	Flood Officer 8
	12:30 PM	Dam Operations Manager called, requesting an update on discussions with BCC. He requested that BCC confirm the discussion of 12:20 in writing.	Correspondence	Flood Officer 8
	1:01 PM	Dam Operations Manager called, saying Morton Bay wanted to know if there will be any more releases from NPD. Engineer 3 said nil planned unless we get more rain.	Correspondence	Flood Officer 8
	2:15 PM	Dam Operations Manager called, asking for dates and times for Wivenhoe operations at the peak of the flood.	Correspondence	Flood Officer 8
	3:15 PM	BoM called to confirm that he received the info on the discrepancy in the auto level recorder	Correspondence	Flood Officer 8
	4:15 PM	BoM - they have not received manual observations for days	Correspondence	Flood Officer 8
	12:30 AM	Seqwater CEO called to inform that rapidly dropping water level at Lowood was causing issues with pumping for WTP. Asked if FOC could call John Granzien and then notify him via txt of the outcome.	Correspondence	Flood Officer 9
	12:35 AM	FOC contacted John Granzien in regards to pumping issues at Lowood. Engineer 3 decided to halt all gate operations until further notice in order to ensure security of water supply to Lowood.	Correspondence	Flood Officer 9
	1:00 AM	Text message sent to Seqwater CEO to advise of cessation of Wivenhoe gate operations until further notice.	Correspondence	Flood Officer 9
	2:00 AM	BCC advise that the recession at Coronation Drive is not an issue with regards to bank stability	Correspondence	Flood Officer 9
	5:00 AM	Dam Operator 7 called to advise that Fernvale Bridge was emerging from river. Current release 2054 cumecs.	Correspondence	Flood Officer 9
	5:40 AM	Dam Operator 7 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	Flood Officer 9
	5:45 AM	Called John Granzien to advise that Wivenhoe gate operations would recommence close down sequence from 9am as per original strategy. John to advise FOC if pumping operation at Lowood would benefit from additional 3 - 6 hours delay in gate operations.	Correspondence	Flood Officer 9
	7:25 AM	Dam Operator 7 (Wivenhoe) called to advise that a Surveyor is taking a routine deformation survey	Correspondence	Flood Officer 5
	7:35 AM	BCC enquired about preliminary assessment of magnitude of flood. BCC suggested that Seqwater, BOM and BCC should arrive at a consensus regarding any assessment on the magnitude of the event. Engineer 1 agreed. BCC also enquired if we had done an assessment of the effects of the dam on peak flow. Engineer 1 indicated that our prelim figure was a 13000 cumec peak at City Gauge without the Dams.	Correspondence	Flood Officer 5

APPENDIX M – FLOOD EVENT LOG

8:25 AM	Dam Operator 10 (Wivenhoe) called to acknowledge Directive 55	Correspondence	Flood Officer 5
10:10 AM	Seqwater at Mt Crosby has requested some forward projections for flows at Mt Crosby Weir for the next 48 hours. They are looking at sludge dilution.	Correspondence	Flood Officer 5
10:15 AM	Engineer 1 called Rob Townsley back to provide the following info re projected flows at Mt Crosby Weir. 18/1/2011 10:00 - 2300 cumecs 19/1/2011 10:00 - 1130 cumecs 20/1/2011 10:00 - 360 cumecs	Correspondence	Flood Officer 5
10:19 AM	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 BCC earlier could be released to the public.	Correspondence	Flood Officer 5
10:24 AM	Engineer 1 spoke to Dam Operations Manager to ask Seqwater's policy re release of information above. Dam Operations Manager to confirm with his comms people.	Correspondence	Flood Officer 5
10:30 AM	Seqwater comms officer called to advise that the minister's office has recommended that no info regarding releases from WD be released to anybody. He will now communicate this response to the BCC Flood Info Centre and specifically Mark Gibson.	Correspondence	Flood Officer 5
10:38 AM	Somerset RC requested info re when Burtons Bridge is expected to be free from inundation. Under our current shutdown sequence, Engineer 1 advised that we expect Burtons to be free around midnight on Wed evening. SRC also advised that the bridge on New England Creek will become flood free at around the same time. SRC indicated that at 8am today the approaches to Fernvale were clear of water. However, power lines and silt need to be removed. He expects the bridge to be open this afternoon.	Correspondence	Flood Officer 5
10:55 AM	Principal Dams and Weirs Planning (Seqwater) called to confirm that we received the hydraulic model from WRM. (affirmative)	Correspondence	Flood Officer 5
12:05 PM	Seqwater CEP called to advise that he and DERM will come and visit the FOC at 2:30 this afternoon.	Correspondence	Flood Officer 5
12:26 PM	Dam Operations Manager called to confirm programmed final shutdown. Engineer 1 advised scheduled for 9am Thursday 20/1 2011. Dam Operations Manager to confirm fish recovery.	Correspondence	Flood Officer 5
1:22 PM	Confirmed with Dam Operator 10 that gate closure sequence was in accordance with directive as email received from WD re 13:00 closure was incorrect.	Correspondence	Flood Officer 5
2:00 PM	Engineer 4 called for an update of the closedown sequence	Correspondence	Flood Officer 5
2:15 AM	Engineer 1 called WRM re hydraulic model of Brisbane River...login and password not working...help not available at present	Correspondence	Flood Officer 5
2:30 PM	Seqwater CEO and 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	Flood Officer 5
4:05 PM	Engineer 1 called NPD Operator to alert him to the possibility of operating North Pine Dam with incoming storms.	Correspondence	Flood Officer 5

APPENDIX M – FLOOD EVENT LOG

4:30 PM	Dam Operations Manager rang noting the current storms and requested that Engineer 1 call MBRC to advise of the possibility of operating North Pine Dam.	Correspondence	Flood Officer 5
4:34 PM	Email from Seqwater CEO containing Bob Reilly's approval to vary the flood release regime to enable a constant flow for the Lowood WTP offtake.	Correspondence	Flood Officer 5
4:45 PM	Engineer 1 rang MBRC 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	Flood Officer 5
6:25 PM	Dam Operations Manager called to discuss situation report for North Pine.	Correspondence	Flood Officer 5
6:57 PM	Engineer 4 phoned 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	Flood Officer 1
7:02 PM	Engineer 4 phoned NPD Operator regarding mobilising for NPD gate opening this evening. Tentative plan is for commencement of gate opening at 20:30.	Correspondence	Flood Officer 1
7:05 PM	Engineer 4 phoned the Duty Officer 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	Flood Officer 1
7:05 PM	Flood Officer 1 phoned Dam Operations Manager to provide an update on the NPD mobilisation and proposed gate openings.	Correspondence	Flood Officer 1
7:07 PM	Engineer 4 phoned Operations Coordinator North 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. Engineer 4 advised MD to plan for an early morning fish recovery exercise at NPD.	Correspondence	Flood Officer 1
7:10 PM	MBRC returned phone call to Engineer 4. Engineer 4 repeated information already conveyed to MBRC Duty Officer - regarding requirement for Youngs Crossing Road to be closed to traffic to allow NPD gates to be operated by 20:30 if possible.	Correspondence	Flood Officer 1
7:15 PM	Engineer 4 phoned Seqwater regarding Engineer 4 inability to access Citrix. Outage (?). Message left.	Correspondence	Flood Officer 1
7:15 PM	Engineer 4 phoned Dam Operations Manager regarding Citrix comms outage. Message left requesting Dam Operations Manager to intervene to have the problem fixed.	Correspondence	Flood Officer 1
7:20 PM	IT (Seqwater) rang and 'reset' Citrix for Engineer 4.	Correspondence	Flood Officer 1
7:30 PM	Engineer 4 phoned NPD Operator to confirm gate opening arrangements for 20:30 if Youngs Crossing Road has been closed to traffic by Council at that time.	Correspondence	Flood Officer 1
7:40 PM	Dam Operations Manager rang the FOC to enquire if the Citrix issue was sorted. Citrix connection now functioning. Engineer 4 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	Flood Officer 1

APPENDIX M – FLOOD EVENT LOG

7:42 PM	Engineer 4 phoned Executive GM Water Delivery (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. He suggested John Smith (?).	Correspondence	Flood Officer 1
7:45 PM	Engineer 4 phoned Principal Strategic Asset Maintenance Engineer (Seqwater) seeking info Re: Lowood. Maintenance Engineer referred Engineer 4 to Strategic Asset Maintenance Engineer (Civil).	Correspondence	Flood Officer 1
7:50 PM	Engineer 4 phoned Maintenance Engineer (Civil). - Reportedly on site at Lowood PS. No answer. Message left.	Correspondence	Flood Officer 1
7:52 PM	Engineer 4 phoned Lowood WTP Operator to enquire as to current status regarding temporary pumping arrangements of raw water from the Brisbane River.	Correspondence	Flood Officer 1
7:55 PM	Dam Operator 2 (Somerset Dam operator) phoned the FOC from home seeking the Duty Engineer's intentions for operations at Somerset Dam overnight. Engineer 4 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	Flood Officer 1
8:00 PM	Seqwater IT phoned Engineer 4 to check status of Citrix connection. Citrix connection is functioning.	Correspondence	Flood Officer 1
8:05 PM	Dam Operator 2 phoned from Somerset Dam. Current lake level is EL 98.95 unchanged from lake level at 15:35 today.	Correspondence	Flood Officer 1
8:05 PM	Engineer 4 phoned Dam Operator 9 at home. Engineer 4 requested Dam Operator 9 to visit Lowood pumping intake site and report on status as unable to contact Maintenance Engineer (Civil).	Correspondence	Flood Officer 1
8:11 PM	Engineer 4 phoned Dam Operator 2 (Somerset). Dam Operator 2 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	Flood Officer 1
8:12 PM	Engineer 4 conversed with Manager Strategic Maintenance (Seqwater). He 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	Flood Officer 1
8:15 PM	Maintenance Engineer (Civil) contacted Engineer 4. 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	Flood Officer 1
8:18 PM	Dam Operations Manager rang the FOC to seek an update on operations at all 3 storages.	Correspondence	Flood Officer 1
8:25 PM	Engineer 4 confirmed on-site manning arrangements at Lowood with Dam Operator 9.	Correspondence	Flood Officer 1
8:30 PM	Somerset Dam Operator advised FOC by fax that Regulator #12 had been closed as per verbal advice from Engineer 4.	Information	Flood Officer 1
8:35 PM	Engineer 4 contacted Dam Operator 7 at Wivenhoe. Gate closing directive pending.	Correspondence	Flood Officer 1
8:55 PM	NPD Operator 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	Flood Officer 1
9:00 PM	Duty Officer at MBRC rang Engineer 4 to advise that Youngs Crossing Road was now closed. Engineer 4 advised Duty Officer 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	Flood Officer 1

APPENDIX M – FLOOD EVENT LOG

	9:05 PM	Note: Wivenhoe Dam fax machine is still inoperative	Correspondence	Flood Officer 1
	9:08 PM	Engineer 4 phoned Operations Coordinator North to advise of planned gate opening of NPD this evening.	Correspondence	Flood Officer 1
	9:15 PM	Dam Operations Manager phoned Engineer 4 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. Dam Operations Manager advised that Coronation Drive is no longer a concern.	Correspondence	Flood Officer 1
	9:30 PM	Flood Officer 1 phoned BCC and made contact with BCC's Flood Operations (Disaster Management) Centre. Engineer 4 requested confirmation that Coronation Drive would not be adversely affected by way of bank slumping if releases from Wivenhoe were terminated on Wednesday afternoon. Engineer 4 requested BCC to investigate and call back the FOC.	Correspondence	Flood Officer 1
	9:38 PM	Flood Officer 1 contacted Dam Operator 7 at Wivenhoe Dam by 2-way radio to confirm his receipt of e-mail containing Directive #59. Dam Operator 7 also confirmed that the Wivenhoe fax machine is still inoperative. All written comms to be by e-mail.	Correspondence	Flood Officer 1
	9:50 PM	Engineer 4 phoned Dam Operations Manager. 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	Flood Officer 1
	9:53 PM	BCC's Flood Operations (Disaster Management) Centre phoned Engineer 4. Wivenhoe release strategy and effect on Coronation Drive discussed. BCC have no concerns about imminent cessation of Wivenhoe releases. Engineer 4 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	Flood Officer 1
	10:00 PM	Engineer 4 phoned NPD Operator 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	Flood Officer 1
	10:02 PM	Dam Operations Manager phoned Engineer 4. Release strategy and final lake level at gate closure at Wivenhoe discussed.	Correspondence	Flood Officer 1
	10:14 PM	Dam Operator 9 phoned Engineer 4. Situation at Lowood is under control. Engineer 4 advised Dam Operator 9 that the releases at Wivenhoe are planned to cease by early afternoon tomorrow (19/1).	Correspondence	Flood Officer 1
Wednesday 19 January 2011	3:30 AM	Engineer 4 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	Flood Officer 1
	4:38 AM	Engineer 4 advised Dam Operator 7 at Wivenhoe Dam that the strategy for further gate closures after 0500 was dependant on the outcome of a discussion with Seqwater CEO anticipated within the hour. Dam Operator 7 advised that the Fernvale Bridge was clear of floodwater but that it had power lines down on /around it.	Correspondence	Flood Officer 1
	5:05 AM	Dam Operator 7 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. Engineer 4 will need to inspect the damage ASAP.	Correspondence	Flood Officer 1

APPENDIX M – FLOOD EVENT LOG

5:10 AM	Engineer 4 phoned Seqwater CEO 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	Flood Officer 1
5:15 AM	Engineer 4 phoned Engineer 2 to arrange for Engineer 2 to relieve Engineer 4 ASAP in the FOC as he is required to inspect the reported damage at Wivenhoe Dam.	Correspondence	Flood Officer 1
5:20 AM	Engineer 4 phoned Principal Dams and Weirs Planning (Seqwater) to arrange a joint inspection of the erosion damage at Wivenhoe Dam as reported by Dam Operator 7.	Correspondence	Flood Officer 1
5:25 AM	Dam Operations Manager phoned Engineer 4 to obtain an update. Engineer 4 advised Dam Operations Manager that damage has been reported to the area D/S of the flip bucket at Wivenhoe. An inspection ASAP is warranted.	Correspondence	Flood Officer 1
5:30 AM	Engineer 4 phoned Director Dam Safety 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. Engineer 4 has arranged to inspect the site with Principal Dams and Weirs Planning in a few hours and an invitation was extended to Director Dam Safety as an interested party to attend the inspection. Engineer 4 will provide updates as they come to hand.	Correspondence	Flood Officer 1
5:35 AM	Dam Operator 7 phoned Engineer 4 on his mobile phone with an update report.	Correspondence	Flood Officer 1
8:08 AM	Engineer 4 phoned Engineer 2. Things seem to be O.K. but we will continue to close all gates by this afternoon.	Correspondence	Flood Officer 2
8:20 AM	Engineer 2 phoned Flood Warning Centre advising that flood operation for current event will be shut down around lunch time.	Correspondence	Flood Officer 2
9:23 AM	Engineer 4 phoned Engineer 2 asking whether we should run a regulator.	Correspondence	Flood Officer 2
9:51 AM	Engineer 2 phoned Engineer 4 regarding modelling results.	Correspondence	Flood Officer 2
10:00 AM	Engineer 2 phoned Engineer 4 regarding modelling results. Engineer 2 wants to advise Dam Operator 7 to stop at Gate 3 at 1 metre, but they agree to close as planned and maintain operational release instead of flood release.	Correspondence	Flood Officer 2
10:15 AM	Engineer 4 has discussed the event closure with Director Dam Safety. 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	Engineer 2
10:43 AM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments.	Other	Flood Officer 2
11:14 AM	Engineer 3 phoned Engineer 2 - Still operational until tonight.	Correspondence	Flood Officer 2
11:28 AM	Seqwater at Mt Crosby phoned FOC requesting for peak flow at Mt Crosby Weir during the latest event.	Correspondence	Flood Officer 2
11:36 AM	Engineer 2 phoned Engineer 4 confirming that Engineer 3 and Flood Officer 8 will be on tonight.	Correspondence	Flood Officer 2
11:45 AM	Engineer 2 phoned Mt Crosby advising that peak flow over Mt Crosby Weir was about 9150 cumecs.	Correspondence	Flood Officer 2
11:51 AM	Engineer 2 phoned (left message with) MBRC regarding potential for closing operation tonight.	Correspondence	Flood Officer 2
11:52 AM	Engineer 2 phoned (left message with) Operations Coordinator North to call him back.	Correspondence	Flood Officer 2

APPENDIX M – FLOOD EVENT LOG

11:59 AM	Engineer 4 phoned Engineer 2 stating that divers will investigate erosion d/s Wivenhoe Dam today.	Correspondence	Flood Officer 2
1:25 PM	Mt Crosby phoned Engineer 2 discussing about the information which Engineer 2 sent.	Correspondence	Flood Officer 2
1:39 PM	Dam Operator 10 phoned Engineer 2 advising Wivenhoe Dam EL is 66.89 m AHD.	Correspondence	Flood Officer 2
3:21 PM	MBRC phoned wanting AJ Wyllie Bridge to be closed at 9:00 PM rather than 7:00 PM, and stating that she will update 24 hour call centre number. They will send email to confirm all this.	Correspondence	Flood Officer 2
4:00 PM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments.	Other	Flood Officer 2
7:30 PM	MBRC called to say that the alternate route @ Petri is open (sooner than the 9 PM forecast)	Correspondence	Flood Officer 8
9:10 PM	Called Operations Coordinator North to inform him that NPD will be mobilised.	Correspondence	Flood Officer 8
9:10 PM	Called NPD Operator to mobilise. The WL is approaching trigger level for gate opening.	Correspondence	Flood Officer 8
9:20 PM	Called MBRC call centre to inform them that NPD will be operated. They called back and advised that they can close Young's crossing by 11 PM. They will confirm once road is closed.	Correspondence	Flood Officer 8
9:38 PM	NPD Operator called to confirm they are ready The gauge reading was 39.54 @ 9:30PM	Correspondence	Flood Officer 8
2:15 AM	MBRC called regarding release at NPD. He was advised that the gates will be open for a while yet	Correspondence	Flood Officer 8
6:50 AM	MBRC called to find out when the gates on NPD will be shut. They were advised that the gates will only be closed in time for the afternoon peak.	Correspondence	Flood Officer 8
7:20 AM	Engineer 1 called SRC to advise of flow in Lockyer Creek. Tony concerned about Burtons Bridge but Engineer 1 indicated that we will endeavour to keep flows below 400 m3/s.	Correspondence	Engineer 1
7:25 AM	Engineer 1 called Ipswich CC and advised of renewed flows in Lockyer Creek and Middle Brisbane R.	Correspondence	Engineer 1
7:40 AM	Engineer 1 called BCC and advised of increased flows in Lockyer Creek and Middle Brisbane. Advised that Savages Crossing and/will be Colleges Crossing are inundated. Estimated travel time 30 to 36 hours.	Correspondence	Engineer 1
7:55 AM	Engineer 1 called NPD and spoke to Dam Operator 7. Discussed proposed strategy to drain until around 2:00 PM with current gate settings. Requested hourly readings so as to monitor model performance.	Correspondence	Engineer 1
8:00 AM	NPD Operator called to discuss proposed operations. Engineer 1 indicated that we will continue as is until 10:00am QPF comes in and then decide from there as to strategy.	Correspondence	Engineer 1
8:40 AM	Dam Operations Manager called enquiring about the timeliness of the notice we gave to MBRC. Engineer 1 advised him accordingly.	Correspondence	Flood Officer 2
8:45 AM	Flood Officer 9 called (re Lowood pump station) enquiring the time to peak (height and discharge). FOC response was about 9 hours with height of about 3.7 m corresponding to 300 cumecs.	Correspondence	Flood Officer 2
8:50 AM	Flood Officer 9 called (re Lowood pump station) enquiring current height and discharge. Together we estimated that it was about 150 cumecs (50 from Lockyer Creek and 100 from Wivenhoe Dam) corresponding to about 2.4 m.	Correspondence	Flood Officer 2

APPENDIX M – FLOOD EVENT LOG

9:45 AM	Dam Operations Manager advised Wivenhoe will not be drained to 66.5 m AHD, but will be maintained at or just below FSL.	Correspondence	Flood Officer 2
10:21 AM	Received QPF - 15mm-25mm generally, heavier falls to about 50mm in Brisbane and North Pine catchments.	Other	Flood Officer 2
10:30 AM	Dam Operations Manager called enquiring whether closing all releases in Wivenhoe Dam will cause level to exceed gate trigger in the next three day. Engineer 1 advised that with rain on the ground he expects it not to, however forecast as per QPF is 15-25 mm, so we may need to review that decision tomorrow.	Correspondence	Flood Officer 2
11:12 AM	MBRC called. Engineer 1 advised all gates will be closed at 2:00 PM.	Correspondence	Flood Officer 2
11:14 AM	Engineer 1 phoned Operations Coordinator North. They decided to close NPD by 2pm to allow MBRC to open Young's Crossing for afternoon peak.	Correspondence	Flood Officer 2
11:15 AM	Flood Officer 9 called enquiring peak height and discharge at Lowood with Wivenhoe Dam gates closed. We decided to just minus 100 cumecs from previous estimation. He also wants FOC to email him the Lowood rating curve.	Correspondence	Flood Officer 2
11:33 AM	Engineer 1 called NPD Operator (re Directive 36)	Correspondence	Flood Officer 2
11:36 AM	Engineer 1 called Engineer 2. Engineer 2 will monitor situation overnight and Engineer 1 will become Duty Engineer again tomorrow.	Correspondence	Flood Officer 2
11:44 AM	Communications Advisor, Media and Ministerial (Seqwater) called to confirm whether we have closed all gates at Wivenhoe Dam. Flood Officer 2 said yes.	Correspondence	Flood Officer 2
1:07 PM	Dam Operations Manager called confirming NPD closure.	Correspondence	Flood Officer 2
1:35 PM	Communications Advisor, Media and Ministerial (Seqwater) called about Lowood pump motor sitting on the platform and wanting to know what flow will come down from Lockyer. Engineer 1 said about 300 cumecs.	Correspondence	Flood Officer 2
1:37 PM	Engineer 2 called. Flood Officer 8 will be on tonight (Flood Officer 2 should ring him this afternoon). Mt Crosby Weir gauge is broken so Water Treatment boys will give manual readings via BoM website. City gauge is currently reading 0.3 m high.	Correspondence	Flood Officer 2
2:10 PM	Engineer 1 advised MBRC that North Pine Dam gate operations had ceased at 14:00 and that Youngs Crossing should be clear of water within the next hour to an hour and half.	Correspondence	Engineer 1
2:15 PM	Engineer 1 called NPD Operator and indicated that Engineer 2 will be on call tonight monitoring the situation. NPD Operator advised that the tree branch snagged on Gate C had swung around and was now resting on pier - therefore okay. However a 75mm branch was caught in the ropes of Gate B and may need to be removed before another operation. Operations Coordinator North has organised for the Rangers to examine tomorrow.	Correspondence	Engineer 1
2:40 PM	Dam Operator 2 called from Somerset Dam and enquired as to proposed operational release strategy. Engineer 1 advised that no releases planned for now until Wivenhoe spillway issues are resolved.	Correspondence	Engineer 1
3:20 PM	Engineer 1 called MBRC Call Centre to provide heads up on possible gate operations tonight. Indicated that with 25mm over catchment we will commence gate operations at 21:00.	Correspondence	Engineer 1

Corporate – Template Meeting Agenda / Minutes



Technical review meeting – Jan Flood event Agenda / Minutes		
Meeting Date:	8 February 2011	Opened: 1300 Closed: 1430
Attendees:	Location: Level 1 training room	
Meeting Objective:	Jim Pruss, Toni Lake, Rob Drury, Mike Foster, Fiona Murdoch, Brooke Foxover, John Tibaldi, Terry Malone, Chloe Cross, Bill McCredie (AAR), Michael Iltott (AAR), Emma Lawlor (Rowlands), Carrie Mietzel (Rowlands), John Rochester (Rowlands), Colin Alpert, Rob Ayre (Sunwater), John Rufini (DERM), Paul Hardman (Sunwater External Lawyer), Ashley Uren (Sunwater External Lawyer).	
	Overview of Technical report	

Corporate – Template Meeting Agenda / Minutes



Technical review meeting – Jan Flood event			
Agenda / Minutes			
Meeting Date:	18 February 2011	Opened: 1000 Closed: 1200	Location: Level 3 Boardroom
Attendees:	Jim Pruss, Toni Lake, Rob Drury, Mike Foster, Fiona Murdoch, Brooke Foxover, John Tibaldi, Terry Malone, Chloe Cross, Bill McCredie (AAR), Michael Iltott (AAR), Emma Lawlor (Rowlands), Carrie Mietzel (Rowlands), John Rochester (Rowlands), Brian Shannon (Expert Engagement), Rob Ayre (Sunwater), John Rufini (DERM) Paul Hardman (Sunwater External Lawyer), Ashley Uren (Sunwater External Lawyer).		
Meeting Objective:	Overview of Technical report		

From: Chloe Cross
Sent: Monday, 21 February 2011 8:26 AM
To: John Tibaldi
Subject: 18 Feb Meeting Notes.docx
Attachments: 18 Feb Meeting Notes.docx

Hi John

Please find attached the meeting notes from Friday. There is also a list at the bottom of who had copies of the report for review.

Thanks,

Chloe Cross

Dam Safety & Emergency Response Support Officer
Queensland Bulk Water Supply Authority *trading as Seqwater*



Unit 1/ 68 Junction Road, Karalee QLD 4306
PO Box 2437, North Ipswich QLD 4305
Website | www.seqwater.com.au

Flood Event Report – Meeting Friday 18 February 2011

Executive Summary:

- Tibaldi: Appendix U – includes list of Wivenhoe reports re hydrology
- Somerset – pmf = structural issues, Wivenhoe – pmf = failure
- Inc comparisons with 74
- Ayre: graph- only shows Wivenhoe inflow? Perhaps not sure light blue line?

Review of Wivenhoe Full Supply Level:

- Set by DERM legally – section outlines this
- Question why in report – requirement to outline all flood relevant matters
 - Pruss: will discuss offline

Report Conclusions:

- Tibaldi: Conclusions need correcting
- Shannon: 4th point- if discretion was used, in accordance with manual? – to discuss offline
 - Discretionary issues? Discuss with reviewers
 - Shannon: if you did step outside manual, show you did what was necessary
- Fiona: Outline Wivenhoe Dam successfully absorbed first peak, not 2nd peak 30 hours later?
- Foster: Re BOM – statement about our interaction with BOM? Actions not determined by forecasts? – Conclusion about forecasting?
 - Tibaldi: Will talk about in review - maybe worth adding to conclusion.
 - Malone: BOM not commenting on how big event was

Recommendations

- Change index to match title
- Includes only the key recommendations – not all, inc in review
- 2nd point: refer the manual review is required after every significant event (re-sets clock on when due next)
- Drury: 3rd point – participate in review including protocol? Expand, include others then protocol? Recommend it has to be reviewed
 - Foster- Protocol not signed off, issue? What went to the public and what didn't?
 - Section 11 – mention protocol hasn't been signed off – draft version
- Fiona: Brian Cooper's report supports us in complying with protocol
 - Pruss: Make reference to this in report?
- Malone/Foster: Issues with resources?
 - Tibaldi: Report addresses this
 - Shannon: Need at least 2 or more senior flood operations engineers. Manual only outlines need for "1 or more"
 - Ruffini: Need to talk to Peter Allen on where he stands with this?
- Shannon: thought about why manual wasn't upgraded between 2004-2009 when there was an upgrade of Dam?
 - Tibaldi – will need to think about this. Fair point that needs addressing. Should have been revised after Fuse Plug upgrade – needs to be talked about in more detail.
 - Foster: What process to get Fuse Plug upgrade included in manual?

Expert Review Process:

- Spent last 3 days with us – relatively happy but want more graphs
- Ayre: Modelling reasonable for purpose at hand.
 - Issues re interpretation with some of the data – design approach and what is used operationally
 - Event significance more work?
- Question on if there will be a broader review on whole document.
- Shannon: re diagrams – all been in terms of hydrographs?
 - Malone – in appendix
 - Tibaldi: in event significance add new section= Event Volumes
- Pruss: Are we at a point to start getting document out? Need broader timelines on progress.
 - Over weekend – report to be reviewed, come back on Monday to discuss comments
 - **Copies have been given to:**
 1. Mike Foster
 2. Legal
 3. Legal
 4. Jim Pruss
 5. Tony Lake
 6. Rob Drury
 7. Brian Shannon
 8. Rob Ayre
 9. Col
 10. John Ruffini
 11. Terry Malone

[REDACTED]

From: DutyEngineer [REDACTED]
Sent: Monday, 21 March 2011 7:40 AM
To: 'ccross@[REDACTED]
Subject: Can you fix this up for Engineers 1, 2 and 3 please (see attached)
Attachments: ENGINEER 4 - APPENDIX M - 01.doc

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS

Note: The names of individuals have been removed from this version of the Flood Event log. Gate Operation Directives have also been removed for clarity and a fulllisting of all Gate Operations Directives can be found in Appendix L.

DRAFT ONLY - THIS DOCUMENT CONTAINS NO CHECKED OR VERIFIED INFORMATION

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

Date	Time	Action	Comment by Engineer 4	Title
Saturday 8 January 2011	6:32 AM	Situation Report – 06:00 on Saturday 8 January 2011	The log shows that I am responsible for this entry. This is an error and should read	Engineer 4
Sunday 9 January 2011	6:15 AM	Situation Report – 06:00 Sunday 9 January 2011		Engineer 4
	6:50 AM	Dam Operations Manager rang. Engineer 4 advised Dam Operations Manager on current release strategy based on recent heavy overnight rainfall.		Flood Officer 1
	3:30 PM	Duty Engineer Conference. Attended by all Duty Engineers (Engineer 4 by Telephone). At this stage operating at top end of W1 and bottom of W2. Storing Approximately 300,000 ML at present (above Wivenhoe Dam) with an additional 500,000 ML expected to flow into the dams from rainfall on the ground. The rainfall producing system is currently in the N-E part of the catchment and expected to travel south over next 24-36 hours according to BoM forecasts. This has the potential to significantly increase flows in Lockyer Creek and the Bremer River which will potentially close Fernvale Bridge and Mt Crosby Weir Bridge and increase the risk of flooding in the Lower Brisbane will be maintained at current level of 1,400 cumecs. If required, releases from Wivenhoe Dam will be reduced to contain 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 m in Somerset and 72.5 in Wivenhoe Dam can be attained.		Engineer 1
Tuesday 11 January 2011	7:59 AM	Engineer 4 called Seqwater CEO and advised that releases from Wivenhoe will reach 3700m3/s at a minimum, and BoM has been informed. Likely to affect Moggill 24 hours later. Phone call terminated due to bad connection.		Flood Officer 4
	8:01 AM	Seqwater CEO returned call. Engineer 4 advised that model to be run for BoM first and results to be past to BoM and BCC immediately. Rain likely to continue today		Flood Officer 4
	8:05 AM	NPD Operator informed that levels are still rising and another directive is required. Engineer 4 advised to proceed as per operations manual.		Flood Officer 4

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

8:10 AM	Engineer 4 called Director Dam Safety to advise of current Wivenhoe situation - Will exceed EL74m. Ramping up gate opening to a minimum of 3,700 cumecs and gate operations will progress.		Flood Officer 4
8:15 AM	Engineer 4 called Dam Operations Manager to advise of the situation that Wivenhoe will increase to 3,700 cumecs as a minimum.		Flood Officer 4
8:20 AM	Engineer 4 Called Dam Operator 10 (Wivenhoe Dam) and advised more gate opening directives are coming.		Flood Officer 4
8:25 AM	Engineer 4 called North Pine Dam operator. Verbal directive to open gates, faxed directive to follow before 9am.		Flood Officer 4
9:09 AM	Engineer 4 called Seqwater Tactical Maintenance Planner, advised that Wivenhoe has lost power, possibly blown high voltage fuses. Maintenance Planner to resolve issue.		Flood Officer 4
9:16 AM	Engineer 4 called MBRC and left message: very large inflows into North Pine Dam has resulted in steep gate openings. Flood downstream can be expected.		Flood Officer 4
9:17 AM	Engineer 4 called MBRC and informed that very large inflows into North Pine Dam have resulted in steep gate openings. Flood downstream can be expected. Strathpine Rd (Old Gympie Rd) to be flooded within next hour.		Flood Officer 4
9:22 AM	Engineer 4 advised NPD Operator that Strathpine Rd is expected to be closed.		Flood Officer 4
9:26 AM	Engineer 4 advised NPD Operator verbally that all gates can go to 9 increments based on water level as per manual.		Flood Officer 4
10:45 AM	Engineer 4 advised MBRC of current situation.		Flood Officer 4
11:01 AM	Message received by Engineer 4. Kilcoy Police rang Somerset, Engineer 4 advised general status information to be provided by dam operators, predictions to go through FOC.		Flood Officer 4
11:04 AM	Engineer 4 called Dam Operator 7. Discussed that if forecast rain falls, fuse plug likely to go.		Flood Officer 4
11:19 AM	Engineer 4 called MBRC. Advised North Pine still rising. Current releases to exceed 2000cumecs.		Flood Officer 4

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

	11:38 AM	Engineer 4 called Seqwater CEO 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.		Flood Officer 4
	11:56 AM	Engineer 4 called MBRC and left message again. Outflow will exceed 2000cumecs		Flood Officer 4
	11:57 AM	Engineer 4 called MBRC. Left message: North Pine Dam outflow likely to exceed 2000cumecs.		Flood Officer 4
	11:59 AM	Engineer 4 called MBRC. Left message, outflow from North Pine Dam will exceed 2000cumecs.		Flood Officer 4
	3:14 PM	Seqwater CEO called to discuss the proposed release of 10,000 cumecs. Engineer 4 and Engineer 2 explained release strategy is constantly being revised.		Flood Officer 4
	3:49 PM	BoM had a conference with Engineer 1, 2, 3 and 4 about current release strategy and possible maximum release scenario of 10000m3/s. This would be of a similar magnitude to the 1893 event (~8.36m in Brisbane Port Office)		Flood Officer 4
	5:12 PM	Engineer 4 called North Pine Dam operator regarding gate operating strategy. Engineer 4 advised to keep gates at current setting until water is clear of the controls. Gate closing strategy then to follow Flood Manual.		Flood Officer 4
	5:27 PM	North Pine Dam operator called to report of NPD level EL 40.7 m AHD. Engineer 4 verbally advised 10 minute gate closure intervals is ok until 39.9 m AHD - then back to 15 min intervals.		Flood Officer 4
	7:45 PM	North Pine Dam Operator called FOC. Engineer 4 clarified directive #19 to drop gates from 16 to 11 in one go, at 15 minutes intervals.		Flood Officer 3
	8:25 PM	Tactical Maintenance Planner rang to advise that the high voltage feeder to Wivenhoe will not be restored for the duration of this event. Engineer 4 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.		Flood Officer 3
	9:35 PM	Engineer 4 rang to discuss the latest directive to raise Wivenhoe Dam. Engineer 4 suggested not raising.		Flood Officer 3
Wednesday	6:00 AM	North Pine Dam rang enquiring about closing down. Engineer 4 advised that we have not yet decided.		Flood Officer 3

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

12 January 2011	6:10 AM	Dam Operations Manager rang and suggested that the fish recovery may be a fairly big job. Engineer 4 suggested that our staff can check this morning and then decide.		Flood Officer 3
	6:15 AM	BCC rang enquiring the level of the pump station at Mt Crosby. Engineer 4 said we can't help, but that he should contact the treatment plant Manager.		Flood Officer 3
	6:30 AM	Engineer 4 rang Dam Operator 7 (Wivenhoe Dam) advising that a directive will soon follow to lower gates to 5m.		Flood Officer 3
	6:35 AM	DERM Hydrographer rang. Engineer 4 discussed current strategy.		Flood Officer 3
	8:20 AM	Dam Operations Manager rang enquiring current storage levels and releases. Engineer 4 advised.		Flood Officer 2
	9:20 AM	North Pine Dam Operator rang wanting to speak to Engineer 4.		Flood Officer 2
	9:50 AM	Lowood Police rang enquiring current storage releases from Wivenhoe Dam. Engineer 4 advised.		Flood Officer 2
	4:20 PM	BCC called FOC and had phone conference with Duty Engineers. He was seeking update for briefing with Lord Mayor.		Flood Officer 1
Thursday 13 January 2011	1:15 PM	Dam Operations Manager called to advise that Police had called to ask when Kilcoy would be accessible. Engineer 4 advised Dam Operations Manager that it would be by 6am tomorrow morning (14/1).		Flood Officer 9
Friday 14 January 2011	3:30 PM	Dam Operator 10 rang from Wivenhoe Dam with concerns about some 'swirling' apparent in the downstream tailwater opposite 'The Common'. Dam Operator 10 thought there could be some erosion occurring under the flow. Dam Operator 10 forwarded a marked photo of the phenomenon to Engineer 2. The consensus reached was that the phenomenon was the result of a 'hydraulic jump'. The matter would be referred to Engineer 4 for further investigation.		Flood Officer 1
	3:55 PM	Engineer 2 rang Engineer 4 to discuss the 'swirling' phenomenon identified by Dam Operator 10. Effect is at D/S end of plunge pool and is almost certainly a 'hydraulic jump'. Engineer 4 advised the issue was not of concern unless the phenomenon moves toward the flip bucket.		Flood Officer 1
	4:05 PM	Engineer 4 phoned Dam Operator 10 at Wivenhoe Dam to pass on advice that Engineer 4 had no concerns about the 'hydraulic jump' phenomenon identified by him earlier today.		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

	5:50 PM	Dam Operations Manager rang Engineer 4 enquiring when the bridges to the east of Lake Wivenhoe would be clear of floodwater. Engineer 4 advised all but the Sandy Ck - A&PM Conroy Bridge on the Wivenhoe Somerset Rd would be clear by tomorrow (Sat) morning.		Flood Officer 1
Saturday 15 January 2011	1:45 PM	Engineer 1 and Engineer 4 arrived at the FOC for the 2:00pm phone hook-up.		Flood Officer 3
	2:00 PM	Phone hook-up with Engineer 2, Engineer 1, Engineer 4 with Dam Operations Manager, Director Dam Safety, Seqwater CEO, DG DERM and Bob Riley to discuss a report for the Minister by COB Sunday.		Flood Officer 3
Tuesday 18 January 2011	2:00 PM	Engineer 4 called for an update of the closedown sequence		Flood Officer 5
	6:57 PM	Engineer 4 phoned MBRC. Message left regarding plans to open NPD gates this evening as the lake level is approaching trigger level with more rain / showers forecast.		Flood Officer 1
	7:02 PM	Engineer 4 phoned NPD Operator regarding mobilising for NPD gate opening this evening. Tentative plan is for commencement of gate opening at 20:30.		Flood Officer 1
	7:05 PM	Engineer 4 phoned the Duty Officer 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.		Flood Officer 1
	7:07 PM	Engineer 4 phoned Operations Coordinator North 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. Engineer 4 advised Operations Coordinator North to plan for an early morning fish recovery exercise at NPD.		Flood Officer 1
	7:10 PM	MBRC returned phone call to Engineer 4. Engineer 4 repeated information already conveyed to MBRC Duty Officer - regarding requirement for Youngs Crossing Road to be closed to traffic to allow NPD gates to be operated by 20:30 if possible.		Flood Officer 1
	7:15 PM	Engineer 4 phoned Seqwater regarding Engineer 4 inability to access Citrix. Outage (?). Message left.		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

7:15 PM	Engineer 4 phoned Dam Operations Manager regarding Citrix comms outage. Message left requesting Dam Operations Manager to intervene to have the problem fixed.		Flood Officer 1
7:20 PM	IT (Seqwater) rang and 'reset' Citrix for Engineer 4.		Flood Officer 1
7:30 PM	Engineer 4 phoned NPD Operator to confirm gate opening arrangements for 20:30 if Youngs Crossing Road has been closed to traffic by Council at that time.		Flood Officer 1
7:40 PM	Dam Operations Manager rang the FOC to enquire if the Citrix issue was sorted. Citrix connection now functioning. Engineer 4 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??).		Flood Officer 1
7:42 PM	Engineer 4 phoned Executive GM Water Delivery (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. He suggested Water Treatment Team Leader (Seqwater).		Flood Officer 1
7:45 PM	Engineer 4 phoned Principal Strategic Asset Maintenance Engineer (Seqwater) seeking info Re: Lowood. Maintenance Engineer referred Engineer 4 to Strategic Asset Maintenance Engineer (Civil).		Flood Officer 1
7:50 PM	Engineer 4 phoned Maintenance Engineer (Civil). - Reportedly on site at Lowood PS. No answer. Message left.		Flood Officer 1
7:52 PM	Engineer 4 phoned Lowood WTP Operator to enquire as to current status regarding temporary pumping arrangements of raw water from the Brisbane River.		Flood Officer 1
7:55 PM	Dam Operator 2 (Somerset Dam operator) phoned the FOC from home seeking the Duty Engineer's intentions for operations at Somerset Dam overnight. Engineer 4 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.		Flood Officer 1
8:00 PM	Seqwater IT phoned Engineer 4 to check status of Citrix connection. Citrix connection is functioning.		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

8:05 PM	Dam Operator 2 phoned from Somerset Dam. Current lake level is EL 98.95 unchanged from lake level at 15:35 today.		Flood Officer 1
8:05 PM	Engineer 4 phoned Dam Operator 9 at home. Engineer 4 requested Dam Operator 9 to visit Lowood pumping intake site and report on status as unable to contact Maintenance Engineer (Civil).		Flood Officer 1
8:11 PM	Engineer 4 phoned Dam Operator 2 (Somerset). Dam Operator 2 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.		Flood Officer 1
8:12 PM	Engineer 4 conversed with Manager Strategic Maintenance (Seqwater). He 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.		Flood Officer 1
8:15 PM	Maintenance Engineer (Civil) contacted Engineer 4. 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.		Flood Officer 1
8:18 PM	Dam Operations Manager rang the FOC to seek an update on operations at all 3 storages.		Flood Officer 1
8:25 PM	Engineer 4 confirmed on-site manning arrangements at Lowood with Dam Operator 9.		Flood Officer 1
8:30 PM	Somerset Dam Operator advised FOC by fax that Regulator #12 had been closed as per verbal advice from Engineer 4.		Flood Officer 1
8:35 PM	Engineer 4 contacted Dam Operator 7 at Wivenhoe. Gate closing directive pending.		Flood Officer 1
8:55 PM	NPD Operator 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.		Flood Officer 1
9:00 PM	Duty Officer at MBRC rang Engineer 4 to advise that Youngs Crossing Road was now closed. Engineer 4 advised Duty Officer 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.		Flood Officer 1
9:05 PM	Note: Wivenhoe Dam fax machine is still inoperative		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

	9:08 PM	Engineer 4 phoned Operations Coordinator North to advise of planned gate opening of NPD this evening.		Flood Officer 1
	9:15 PM	Dam Operations Manager phoned Engineer 4 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. Dam Operations Manager advised that Coronation Drive is no longer a concern.		Flood Officer 1
	9:30 PM	Flood Officer 1 phoned BCC and made contact with BCC's Flood Operations (Disaster Management) Centre. Engineer 4 requested confirmation that Coronation Drive would not be adversely affected by way of bank slumping if releases from Wivenhoe were terminated on Wednesday afternoon. Engineer 4 requested BCC to investigate and call back the FOC.		Flood Officer 1
	9:50 PM	Engineer 4 phoned Dam Operations Manager. 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.		Flood Officer 1
	9:53 PM	BCC's Flood Operations (Disaster Management) Centre phoned Engineer 4. Wivenhoe release strategy and effect on Coronation Drive discussed. BCC have no concerns about imminent cessation of Wivenhoe releases. Engineer 4 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.		Flood Officer 1
	10:00 PM	Engineer 4 phoned NPD Operator 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).		Flood Officer 1
	10:02 PM	Dam Operations Manager phoned Engineer 4. Release strategy and final lake level at gate closure at Wivenhoe discussed.		Flood Officer 1
	10:14 PM	Dam Operator 9 phoned Engineer 4. Situation at Lowood is under control. Engineer 4 advised Dam Operator 9 that the releases at Wivenhoe are planned to cease by early afternoon tomorrow (19/1).		Flood Officer 1
Wednesday 19 January 2011	3:30 AM	Engineer 4 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.		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

4:38 AM	Engineer 4 advised Dam Operator 7 at Wivenhoe Dam that the strategy for further gate closures after 0500 was dependant on the outcome of a discussion with Seqwater CEO anticipated within the hour. Dam Operator 7 advised that the Fernvale Bridge was clear of floodwater but that it had power lines down on /around it.		Flood Officer 1
5:05 AM	Dam Operator 7 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. Engineer 4 will need to inspect the damage ASAP.		Flood Officer 1
5:10 AM	Engineer 4 phoned Seqwater CEO 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.		Flood Officer 1
5:15 AM	Engineer 4 phoned Engineer 2 to arrange for Engineer 2 to relieve Engineer 4 ASAP in the FOC as he is required to inspect the reported damage at Wivenhoe Dam.		Flood Officer 1
5:20 AM	Engineer 4 phoned Principal Dams and Weirs Planning (Seqwater) to arrange a joint inspection of the erosion damage at Wivenhoe Dam as reported by Dam Operator 7.		Flood Officer 1
5:25 AM	Dam Operations Manager phoned Engineer 4 to obtain an update. Engineer 4 advised Dam Operations Manager that damage has been reported to the area D/S of the flip bucket at Wivenhoe. An inspection ASAP is warranted.		Flood Officer 1
5:30 AM	Engineer 4 phoned Director Dam Safety to advise that damage had been reported at Wivenhoe Dam by the recent operations. 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. Engineer 4 has arranged to inspect the site with Principal Dams and Weirs Planning in a few hours and an invitation was extended to Director Dam Safety as an interested party to attend the inspection. Engineer 4 will provide updates as they come to hand.		Flood Officer 1
5:35 AM	Dam Operator 7 phoned Engineer 4 on his mobile phone with an update report.		Flood Officer 1
8:08 AM	Engineer 4 phoned Engineer 2. Things seem to be O.K. but we will continue to close all gates by this afternoon.		Flood Officer 2

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

9:23 AM	Engineer 4 phoned Engineer 2 asking whether we should run a regulator.		Flood Officer 2
9:51 AM	Engineer 2 phoned Engineer 4 regarding modelling results.		Flood Officer 2
10:00 AM	Engineer 2 phoned Engineer 4 regarding modelling results. Engineer 2 wants to advise Dam Operator 7 to stop at Gate 3 at 1 metre, but they agree to close as planned and maintain operational release instead of flood release.		Flood Officer 2
10:15 AM	Engineer 4 has discussed the event closure with Director Dam Safety. 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).		Engineer 2
11:36 AM	Engineer 2 phoned Engineer 4 confirming that Engineer 3 and Flood Officer 8 will be on tonight.		Flood Officer 2
11:59 AM	Engineer 4 phoned Engineer 2 stating that divers will investigate erosion d/s Wivenhoe Dam today.		Flood Officer 2

[REDACTED]

From: DutyEngineer [REDACTED]
Sent: Monday, 21 March 2011 4:29 PM
To: jtibaldi@[REDACTED]
Subject: ENGINEER 4 - APPENDIX M - 01.doc

Attachments: ENGINEER 4 - APPENDIX M - 01.doc



ENGINEER 4 -
APPENDIX M - 01.d..

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS

Note: The names of individuals have been removed from this version of the Flood Event log. Gate Operation Directives have also been removed for clarity and a fulllisting of all Gate Operations Directives can be found in Appendix L.

DRAFT ONLY - THIS DOCUMENT CONTAINS NO CHECKED OR VERIFIED INFORMATION

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

Date	Time	Action	Comment by Engineer 4	Title
Saturday 8 January 2011	6:32 AM	Situation Report – 06:00 on Saturday 8 January 2011	The log shows that I am responsible for this entry. This is an error as I was not on duty at this time.	Engineer 4
Sunday 9 January 2011	6:15 AM	Situation Report – 06:00 Sunday 9 January 2011	I drafted this Situation Report	Engineer 4
	6:50 AM	Dam Operations Manager rang. Engineer 4 advised Dam Operations Manager on current release strategy based on recent heavy overnight rainfall.	I reviewed the Situation Report 06:00 Situation Report with the Dam Operations Manager.	Flood Officer 1
	3:30 PM	Duty Engineer Conference. Attended by all Duty Engineers (Engineer 4 by Telephone). At this stage operating at top end of W1 and bottom of W2. Storing Approximately 300,000 ML at present (above Wivenhoe Dam) with an additional 500,000 ML expected to flow into the dams from rainfall on the ground. The rainfall producing system is currently in the N-E part of the catchment and expected to travel south over next 24-36 hours according to BoM forecasts. This has the potential to significantly increase flows in Lockyer Creek and the Bremer River which will potentially close Fernvale Bridge and Mt Crosby Weir Bridge and increase the risk of flooding in the Lower Brisbane. will be maintained at current level of 1,400 cumecs. If required, releases from Wivenhoe Dam will be reduced to contain 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 m in Somerset and 72.5 in Wivenhoe Dam can be attained.	Discussion on possible operational strategies over coming days. Numerous scenarios were possible.	Engineer 1
Tuesday 11 January 2011	7:59 AM	Engineer 4 called Seqwater CEO and advised that releases from Wivenhoe will reach 3700m3/s at a minimum, and BoM has been informed. Likely to affect Moggill 24 hours later. Phone call terminated due to bad connection.	Advised Seqwater CEO that model results showed that the urban damage threshold at Moggill was likely to be exceeded and Wivenhoe Dam was likely to exceed EL 74.0m. Therefore Strategy W4 would be initiated.	Flood Officer 4
	8:01 AM	Seqwater CEO returned call. Engineer 4 advised that model to be run for BoM first and results to be past to BoM and BCC immediately. Rain likely to continue today	Advised Seqwater CEO that the model results showing that urban damage threshold at Moggill was likely to be exceeded would be sent to BoM and the Brisbane City Council.	Flood Officer 4
	8:05 AM	NPD Operator informed that levels are still rising and another directive is required. Engineer 4 advised to proceed as per operations manual.	Confirmed written Directive 18 and requested a verbal report on the situation at the dam. Was advised by the Dam Supervisor that infrastructure was operating properly with no issues apparent.	Flood Officer 4
	8:10 AM	Engineer 4 called Director Dam Safety to advise of current Wivenhoe situation - Will exceed EL74m. Ramping up gate opening to a minimum of 3,700 cumecs and gate operations will progress.	Advised Dam Safety Regulator that model results showed that the urban damage threshold at Moggill was likely to be exceeded and Wivenhoe Dam was likely to exceed EL 74.0m. Therefore Strategy W4 would be initiated.	Flood Officer 4

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

8:15 AM	Engineer 4 called Dam Operations Manager to advise of the situation that Wivenhoe will increase to 3,700 cumecs as a minimum.	Advised Dam Operations Manager that model results showed that the urban damage threshold at Moggill was likely to be exceeded and Wivenhoe Dam was likely to exceed EL 74.0m. Therefore Strategy W4 would be initiated.	Flood Officer 4
8:20 AM	Engineer 4 Called Dam Operator 10 (Wivenhoe Dam) and advised more gate opening directives are coming.	Advised Wivenhoe Dam Operators that model results showed that the urban damage threshold at Moggill was likely to be exceeded and Wivenhoe Dam was likely to exceed EL 74.0m. Therefore Strategy W4 would be initiated. Also requested a verbal report on the situation at the dam. Was advised by the Dam Supervisor that mains power that infrastructure was operating properly with no issues apparent.	Flood Officer 4
8:25 AM	Engineer 4 called North Pine Dam operator. Verbal directive to open gates, faxed directive to follow before 9am.	Provided verbal directive to the Dam Supervisor at North Pine Dam to open gates in accordance with the minimum gate settings contained in the "All Gates Operational" Table in Appendix C of the Manual. Was currently in the process of re-running the model, to confirm that extreme lake level rises were likely and under this scenario the best strategy was for the operators to focus on opening radial gates in accordance with minimum settings and communicate with the Flood Operations Centre by mobile telephone. If operations fell behind minimum gate settings, the Dam Operators were to contact the Flood Operations Centre immediately and the Flood Operations Centre would provide appropriate gate opening settings. The Dam Supervisor at North Pine Dam confirmed that he would proceed on this basis and that no operational issues to adversely impact on this course of action were expected.	Flood Officer 4
9:09 AM	Engineer 4 called Seqwater Tactical Maintenance Planner, advised that Wivenhoe has lost power, possibly blown high voltage fuses. Maintenance Planner to resolve issue.	Advised the appropriate Seqwater staff member responsible for restoring mains power at Wivenhoe Dam to please progress the issue. Staff member advised that he was doing everything possible to have power restored.	Flood Officer 4

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

9:12 AM	NPD Operator called, NPD at 40.140 m HAD all gates at 6, currently heading to setting 7.	Confirmed verbal directive to the Dam Supervisor at North Pine Dam to open gates in accordance with the minimum gate settings contained in the "All Gates Operational" Table in Appendix C of the Manual. verbal directive to the Dam Supervisor at North Pine Dam to open gates in accordance with the minimum gate settings contained in the "All Gates Operational" Table in Appendix C of the Manual. Confirmed that strategy was for the operators to focus on opening radial gates in accordance with minimum settings and communicate with the Flood Operations Centre by mobile telephone. If operations fell behind minimum gate settings, the Dam Operators were to contact the Flood Operations Centre immediately and the Flood Operations Centre would provide appropriate gate opening settings. The Dam Supervisor at North Pine Dam confirmed that he would proceed on this basis and that no operational issues to adversely impact on this course of action were expected.	Flood Officer 4
9:16 AM	Engineer 4 called MBRC and left message: very large inflows into North Pine Dam has resulted in steep gate openings. Flood downstream can be expected.	Based on model results and confirmed lake level rises at North Pine Dam, the Moreton Bay Regional Council was contacted to alert them to the likely need to close the northbound lane of Gympie Road and the possibility of major flooding. First Contact in the North Pine Dam Emergency Action Plan is Tony Martini. Rang mobile and left message as first contact not immediately available.	Flood Officer 4
9:17 AM	Engineer 4 called MBRC and informed that very large inflows into North Pine Dam have resulted in steep gate openings. Flood downstream can be expected. Strathpine Rd (Old Gympie Rd) to be flooded within next hour.	Because first contact from the Moreton Bay Regional Council listed in the North Pine Dam Emergency Action Plan was not immediately available, rang the second contact (Ed Hamill). Advised that based on model results and confirmed lake level rises at North Pine Dam, it was likely that the northbound lane of Gympie Road would be need to be closed and major flooding was a possibility. Suggested that the Council's Hydrologist (Steve Rosso) be alerted to the developing situation if he was not already aware.	Flood Officer 4
9:22 AM	Engineer 4 advised NPD Operator that Strathpine Rd is expected to be closed.		Flood Officer 4
9:26 AM	Engineer 4 advised NPD Operator verbally that all gates can go to 9 increments based on water level as per manual.		Flood Officer 4
10:45 AM	Engineer 4 advised MBRC of current situation.		Flood Officer 4

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

11:01 AM	Message received by Engineer 4. Kilcoy Police rang Somerset, Engineer 4 advised general status information to be provided by dam operators, predictions to go through FOC.		Flood Officer 4
11:04 AM	Engineer 4 called Dam Operator 7. Discussed that if forecast rain falls, fuse plug likely to go.		Flood Officer 4
11:19 AM	Engineer 4 called MBRC. Advised North Pine still rising. Current releases to exceed 2000cumecs.		Flood Officer 4
11:38 AM	Engineer 4 called Seqwater CEO 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.		Flood Officer 4
11:56 AM	Engineer 4 called MBRC and left message again. Outflow will exceed 2000cumecs		Flood Officer 4
11:57 AM	Engineer 4 called MBRC. Left message: North Pine Dam outflow likely to exceed 2000cumecs.		Flood Officer 4
11:59 AM	Engineer 4 called MBRC. Left message, outflow from North Pine Dam will exceed 2000cumecs.		Flood Officer 4
3:14 PM	Seqwater CEO called to discuss the proposed release of 10,000 cumecs. Engineer 4 and Engineer 2 explained release strategy is constantly being revised.		Flood Officer 4
3:49 PM	BoM had a conference with Engineer 1, 2, 3 and 4 about current release strategy and possible maximum release scenario of 10000m3/s. This would be of a similar magnitude to the 1893 event (~8.36m in Brisbane Port Office)		Flood Officer 4
5:12 PM	Engineer 4 called North Pine Dam operator regarding gate operating strategy. Engineer 4 advised to keep gates at current setting until water is clear of the controls. Gate closing strategy then to follow Flood Manual.		Flood Officer 4
5:27 PM	North Pine Dam operator called to report of NPD level EL 40.7 m AHD. Engineer 4 verbally advised 10 minute gate closure intervals is ok until 39.9 m AHD - then back to 15 min intervals.		Flood Officer 4
7:45 PM	North Pine Dam Operator called FOC. Engineer 4 clarified directive #19 to drop gates from 16 to 11 in one go, at 15 minutes intervals.		Flood Officer 3

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

	8:25 PM	Tactical Maintenance Planner rang to advise that the high voltage feeder to Wivenhoe will not be restored for the duration of this event. Engineer 4 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.		Flood Officer 3
	9:35 PM	Engineer 4 rang to discuss the latest directive to raise Wivenhoe Dam. Engineer 4 suggested not raising.		Flood Officer 3
Wednesday 12 January 2011	6:00 AM	North Pine Dam rang enquiring about closing down. Engineer 4 advised that we have not yet decided.		Flood Officer 3
	6:10 AM	Dam Operations Manager rang and suggested that the fish recovery may be a fairly big job. Engineer 4 suggested that our staff can check this morning and then decide.		Flood Officer 3
	6:15 AM	BCC rang enquiring the level of the pump station at Mt Crosby. Engineer 4 said we can't help, but that he should contact the treatment plant Manager.		Flood Officer 3
	6:30 AM	Engineer 4 rang Dam Operator 7 (Wivenhoe Dam) advising that a directive will soon follow to lower gates to 5m.		Flood Officer 3
	6:35 AM	DERM Hydrographer rang. Engineer 4 discussed current strategy.		Flood Officer 3
	8:20 AM	Dam Operations Manager rang enquiring current storage levels and releases. Engineer 4 advised.		Flood Officer 2
	9:20 AM	North Pine Dam Operator rang wanting to speak to Engineer 4.		Flood Officer 2
	9:50 AM	Lowood Police rang enquiring current storage releases from Wivenhoe Dam. Engineer 4 advised.		Flood Officer 2
	4:20 PM	BCC called FOC and had phone conference with Duty Engineers. He was seeking update for briefing with Lord Mayor.		Flood Officer 1
Thursday 13 January 2011	1:15 PM	Dam Operations Manager called to advise that Police had called to ask when Kilcoy would be accessible. Engineer 4 advised Dam Operations Manager that it would be by 6am tomorrow morning (14/1).		Flood Officer 9

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

Friday 14 January 2011	3:30 PM	Dam Operator 10 rang from Wivenhoe Dam with concerns about some 'swirling' apparent in the downstream tailwater opposite 'The Common'. Dam Operator 10 thought there could be some erosion occurring under the flow. Dam Operator 10 forwarded a marked photo of the phenomenon to Engineer 2. The consensus reached was that the phenomenon was the result of a 'hydraulic jump'. The matter would be referred to Engineer 4 for further investigation.		Flood Officer 1
	3:55 PM	Engineer 2 rang Engineer 4 to discuss the 'swirling' phenomenon identified by Dam Operator 10. Effect is at D/S end of plunge pool and is almost certainly a 'hydraulic jump'. Engineer 4 advised the issue was not of concern unless the phenomenon moves toward the flip bucket.		Flood Officer 1
	4:05 PM	Engineer 4 phoned Dam Operator 10 at Wivenhoe Dam to pass on advice that Engineer 4 had no concerns about the 'hydraulic jump' phenomenon identified by him earlier today.		Flood Officer 1
	5:50 PM	Dam Operations Manager rang Engineer 4 enquiring when the bridges to the east of Lake Wivenhoe would be clear of floodwater. Engineer 4 advised all but the Sandy Ck - A&PM Conroy Bridge on the Wivenhoe Somerset Rd would be clear by tomorrow (Sat) morning.		Flood Officer 1
Saturday 15 January 2011	1:45 PM	Engineer 1 and Engineer 4 arrived at the FOC for the 2:00pm phone hook-up.		Flood Officer 3
	2:00 PM	Phone hook-up with Engineer 2, Engineer 1, Engineer 4 with Dam Operations Manager, Director Dam Safety, Seqwater CEO, DG DERM and Bob Riley to discuss a report for the Minister by COB Sunday.		Flood Officer 3
Tuesday 18 January 2011	2:00 PM	Engineer 4 called for an update of the closedown sequence		Flood Officer 5
	6:57 PM	Engineer 4 phoned MBRC. Message left regarding plans to open NPD gates this evening as the lake level is approaching trigger level with more rain / showers forecast.		Flood Officer 1
	7:02 PM	Engineer 4 phoned NPD Operator regarding mobilising for NPD gate opening this evening. Tentative plan is for commencement of gate opening at 20:30.		Flood Officer 1
	7:05 PM	Engineer 4 phoned the Duty Officer 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.		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

7:07 PM	Engineer 4 phoned Operations Coordinator North 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. Engineer 4 advised Operations Coordinator North to plan for an early morning fish recovery exercise at NPD.		Flood Officer 1
7:10 PM	MBRC returned phone call to Engineer 4. Engineer 4 repeated information already conveyed to MBRC Duty Officer - regarding requirement for Youngs Crossing Road to be closed to traffic to allow NPD gates to be operated by 20:30 if possible.		Flood Officer 1
7:15 PM	Engineer 4 phoned Seqwater regarding Engineer 4 inability to access Citrix. Outage (?). Message left.		Flood Officer 1
7:15 PM	Engineer 4 phoned Dam Operations Manager regarding Citrix comms outage. Message left requesting Dam Operations Manager to intervene to have the problem fixed.		Flood Officer 1
7:20 PM	IT (Seqwater) rang and 'reset' Citrix for Engineer 4.		Flood Officer 1
7:30 PM	Engineer 4 phoned NPD Operator to confirm gate opening arrangements for 20:30 if Youngs Crossing Road has been closed to traffic by Council at that time.		Flood Officer 1
7:40 PM	Dam Operations Manager rang the FOC to enquire if the Citrix issue was sorted. Citrix connection now functioning. Engineer 4 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??).		Flood Officer 1
7:42 PM	Engineer 4 phoned Executive GM Water Delivery (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. He suggested Water Treatment Team Leader (Seqwater).		Flood Officer 1
7:45 PM	Engineer 4 phoned Principal Strategic Asset Maintenance Engineer (Seqwater) seeking info Re: Lowood. Maintenance Engineer referred Engineer 4 to Strategic Asset Maintenance Engineer (Civil).		Flood Officer 1
7:50 PM	Engineer 4 phoned Maintenance Engineer (Civil). - Reportedly on site at Lowood PS. No answer. Message left.		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

7:52 PM	Engineer 4 phoned Lowood WTP Operator to enquire as to current status regarding temporary pumping arrangements of raw water from the Brisbane River.		Flood Officer 1
7:55 PM	Dam Operator 2 (Somerset Dam operator) phoned the FOC from home seeking the Duty Engineer's intentions for operations at Somerset Dam overnight. Engineer 4 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.		Flood Officer 1
8:00 PM	Seqwater IT phoned Engineer 4 to check status of Citrix connection. Citrix connection is functioning.		Flood Officer 1
8:05 PM	Dam Operator 2 phoned from Somerset Dam. Current lake level is EL 98.95 unchanged from lake level at 15:35 today.		Flood Officer 1
8:05 PM	Engineer 4 phoned Dam Operator 9 at home. Engineer 4 requested Dam Operator 9 to visit Lowood pumping intake site and report on status as unable to contact Maintenance Engineer (Civil).		Flood Officer 1
8:11 PM	Engineer 4 phoned Dam Operator 2 (Somerset). Dam Operator 2 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.		Flood Officer 1
8:12 PM	Engineer 4 conversed with Manager Strategic Maintenance (Seqwater). He 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.		Flood Officer 1
8:15 PM	Maintenance Engineer (Civil) contacted Engineer 4. 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.		Flood Officer 1
8:18 PM	Dam Operations Manager rang the FOC to seek an update on operations at all 3 storages.		Flood Officer 1
8:25 PM	Engineer 4 confirmed on-site manning arrangements at Lowood with Dam Operator 9.		Flood Officer 1
8:30 PM	Somerset Dam Operator advised FOC by fax that Regulator #12 had been closed as per verbal advice from Engineer 4.		Flood Officer 1
8:35 PM	Engineer 4 contacted Dam Operator 7 at Wivenhoe. Gate closing directive pending.		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

8:55 PM	NPD Operator 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.		Flood Officer 1
9:00 PM	Duty Officer at MBRC rang Engineer 4 to advise that Youngs Crossing Road was now closed. Engineer 4 advised Duty Officer 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.		Flood Officer 1
9:05 PM	Note: Wivenhoe Dam fax machine is still inoperative		Flood Officer 1
9:08 PM	Engineer 4 phoned Operations Coordinator North to advise of planned gate opening of NPD this evening.		Flood Officer 1
9:15 PM	Dam Operations Manager phoned Engineer 4 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. Dam Operations Manager advised that Coronation Drive is no longer a concern.		Flood Officer 1
9:30 PM	Flood Officer 1 phoned BCC and made contact with BCC's Flood Operations (Disaster Management) Centre. Engineer 4 requested confirmation that Coronation Drive would not be adversely affected by way of bank slumping if releases from Wivenhoe were terminated on Wednesday afternoon. Engineer 4 requested BCC to investigate and call back the FOC.		Flood Officer 1
9:50 PM	Engineer 4 phoned Dam Operations Manager. 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.		Flood Officer 1
9:53 PM	BCC's Flood Operations (Disaster Management) Centre phoned Engineer 4. Wivenhoe release strategy and effect on Coronation Drive discussed. BCC have no concerns about imminent cessation of Wivenhoe releases. Engineer 4 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.		Flood Officer 1
10:00 PM	Engineer 4 phoned NPD Operator 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).		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

Wednesday 19 January 2011	10:02 PM	Dam Operations Manager phoned Engineer 4. Release strategy and final lake level at gate closure at Wivenhoe discussed.		Flood Officer 1
	10:14 PM	Dam Operator 9 phoned Engineer 4. Situation at Lowood is under control. Engineer 4 advised Dam Operator 9 that the releases at Wivenhoe are planned to cease by early afternoon tomorrow (19/1).		Flood Officer 1
	3:30 AM	Engineer 4 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.		Flood Officer 1
	4:38 AM	Engineer 4 advised Dam Operator 7 at Wivenhoe Dam that the strategy for further gate closures after 0500 was dependant on the outcome of a discussion with Seqwater CEO anticipated within the hour. Dam Operator 7 advised that the Fernvale Bridge was clear of floodwater but that it had power lines down on /around it.		Flood Officer 1
	5:05 AM	Dam Operator 7 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. Engineer 4 will need to inspect the damage ASAP.		Flood Officer 1
	5:10 AM	Engineer 4 phoned Seqwater CEO 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.		Flood Officer 1
	5:15 AM	Engineer 4 phoned Engineer 2 to arrange for Engineer 2 to relieve Engineer 4 ASAP in the FOC as he is required to inspect the reported damage at Wivenhoe Dam.		Flood Officer 1
	5:20 AM	Engineer 4 phoned Principal Dams and Weirs Planning (Seqwater) to arrange a joint inspection of the erosion damage at Wivenhoe Dam as reported by Dam Operator 7.		Flood Officer 1
	5:25 AM	Dam Operations Manager phoned Engineer 4 to obtain an update. Engineer 4 advised Dam Operations Manager that damage has been reported to the area D/S of the flip bucket at Wivenhoe. An inspection ASAP is warranted.		Flood Officer 1

JOHN TIBALDI – FLOOD EVENT LOG COMMENTS (continued)

5:30 AM	Engineer 4 phoned Director Dam Safety to advise that damage had been reported at Wivenhoe Dam by the recent operations. 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. Engineer 4 has arranged to inspect the site with Principal Dams and Weirs Planning in a few hours and an invitation was extended to Director Dam Safety as an interested party to attend the inspection. Engineer 4 will provide updates as they come to hand.		Flood Officer 1
5:35 AM	Dam Operator 7 phoned Engineer 4 on his mobile phone with an update report.		Flood Officer 1
8:08 AM	Engineer 4 phoned Engineer 2. Things seem to be O.K. but we will continue to close all gates by this afternoon.		Flood Officer 2
9:23 AM	Engineer 4 phoned Engineer 2 asking whether we should run a regulator.		Flood Officer 2
9:51 AM	Engineer 2 phoned Engineer 4 regarding modelling results.		Flood Officer 2
10:00 AM	Engineer 2 phoned Engineer 4 regarding modelling results. Engineer 2 wants to advise Dam Operator 7 to stop at Gate 3 at 1 metre, but they agree to close as planned and maintain operational release instead of flood release.		Flood Officer 2
10:15 AM	Engineer 4 has discussed the event closure with Director Dam Safety. 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).		Engineer 2
11:36 AM	Engineer 2 phoned Engineer 4 confirming that Engineer 3 and Flood Officer 8 will be on tonight.		Flood Officer 2
11:59 AM	Engineer 4 phoned Engineer 2 stating that divers will investigate erosion d/s Wivenhoe Dam today.		Flood Officer 2