Transcript of Proceedings

Issued subject to correction upon revision.

THE HONOURABLE JUSTICE C HOLMES, Commissioner MR JAMES O'SULLIVAN AC, Deputy Commissioner

MR P CALLAGHAN SC, Counsel Assisting MS E WILSON SC, Counsel Assisting

IN THE MATTER OF THE COMMISSIONS OF INQUIRY ACT 1950 COMMISSIONS OF INQUIRY ORDER (No. 1) 2011 QUEENSLAND FLOODS COMMISSION OF INQUIRY

BRISBANE

..DATE 08/02/2012

..DAY 65

Queensland Floods Commission of Inquiry, GPO Box 1738, Brisbane Q 4001 Email: info@floodcommission.qld.gov.au

THE COMMISSION RESUMED AT 9.00 A.M.

DANIEL THOMAS SPILLER, CONTINUING EXAMINATION:

COMMISSIONER: Just before you start, Ms Wilson, I expect this to elicit groans, but I propose to sit until 6 today, and this 1 may not be the only day, depending on how we're going. So what I'll do at lunchtime is resume at 2.15 and then take a quarter hour break mid afternoon. So look forward to it.

MS WILSON: Mr Spiller, I'm going to now take you to the Cooper report. You're aware Brian Cooper did a report about the compliance of the Wivenhoe dam operations to the manual?--I am.

If we could go to pages 553 of annexure B, which is an email on 12 January 2011 at 9.24. Have you got the hard copy there?-- I forgot what page you said.

Page 553. It will come up on the screen too in a moment?--I've got it here now.

While we're waiting, I'll just ask some introductory questions about it. This is an email from Mr Dennien to you and Mr Burrows?-- Yes.

It's on 12 January at 9 o'clock in the morning. The e-mail says, "Guys, urgent proof. Check, please. Looks okay to me." Attached to that was a preliminary report; is that the case?-- That is the case.

And was that preliminary report the preliminary report of Brian Cooper?-- It is.

Did you do the urgent proof check?-- No.

You didn't?-- My recollection is at that time the water supply emergency was been increasingly dire. I had had teleconferences on that topic in the morning. I think Mr Dennien sent the report on about three quarters of an hour after receiving this e-mail and having got some comments from Mr Burrows to the effect that it was acceptable.

So you didn't have a look at the preliminary or draft report at all?-- No.

Did you have a look at the final report at?-- I had a look at the final report in the course of compiling the ministerial briefing note on the 16th, but no further. In large part, by the time this email had come in, the information about which that report was based had become dated.

You were involved in preparing the ministerial briefing note?-- I was.

XN: MS WILSON

40

50

20

10

What was your involvement, Mr Spiller?-- My involvement really commenced around the 15th of January. So there was a process where I stepped out of the emergency manager role for the water supply emergency. From that time, I shared some of the communications roles with Mr Dennien, including attending to street disaster meetings and a few other duties. Part of that also involved responding to media inquiries and working with our communications team. So from particularly the Friday onwards there was an increasing interest within the media about how the dam had been managed through the event, and we started preparing summary material that we could use in those responses explaining what had been done and why. That evolved then with the request from Lance McCallum, the Minister's advisor, to become a formal brief for the Minister to be considered at an emergency Cabinet meet.

Can we go to pages 637 of annexure C to your third statement, and this is an email on 16 January 2011 at 4.28?-- Yes.

This is an email from Mr Burrows and you and others attaching draft of a briefing note?-- Yes.

Did you take your time to go through this document?-- Yes, I did. There were two emails that Mr Burrows sent, one of them which he recalled. I'm not sure whether this is the latter. But certainly upon receiving the draft January report, I and other people from the water grid manager had a review of that report and made some suggestions of things that we thought could be clarified within it.

Did you recall going to the chronology of events when different strategies of Wivenhoe Dam were engaged or activated?-- I don't recall specifically reviewing it, but I'm confident I would have read through the whole document. We did provide comments throughout the document.

If perhaps we can go to page 695 of annexure C, which is page 9 of the briefing note. This we see at 1530, 9 January 2011, the Sunday. We see that - you can read that last sentence that it had progressed to W2?-- Yes.

Do you recall reading that?-- I don't recall specifically reading that, but I wouldn't expect that to be something that stood out to me, given my understanding of the strategies that had been in place during the emergency.

Perhaps if we go to the next entry at 6.30 in the morning, where it was apparent that the operational strategy had progressed to W3. If you recall, you received an email from **50** Mr Drury at around 8 o'clock----?-- Yes.

----on the 10th saying that you - you're specifically asking the question what strategy? Are you in W2 or W3? You received W2. You then had a teleconference where it was progressed on the basis - which that conference progressed on the basis it was W2. This is a piece of information that you're reading that suggests otherwise. Do you recall reading

XN: MS WILSON

WIT: SPILLER D T 60

10

1

that?-- I don't recall specifically reading that, no.

Not of any interest?-- It is of interest, but I'd go back to, as I noted yesterday, there was a delay between when the Flood Operations Centre may have been making some of these decisions and when they were communicated to us.

Of course?-- Within the time available and the information we had at hand, it wasn't so obvious as to stand out at that time as being incorrect.

But there was a meeting at 8.30 where - we've discussed that that meeting progressed on the basis that the dam was presently being operated in W2 at 8.30?-- It was.

And Mr Drury and Mr Burrows - sorry, Mr Dennien - Barry Dennien was there. Didn't this just prick some form of interest to think hang on - this was only a short time after too?-- I absolutely and knowledge the two positions are inconsistent, but I can't recall this standing out as being significant when we reviewed this document.

Do you recall at any time reading the documents that were compiled by Seqwater noting any inconsistencies? Or there was no inconsistencies that you noted?-- Sorry, in terms of this document specifically, or the technical section?

Yes, we'll start with this document?-- There were a few things that we highlighted going through the document and that we provided comments on when we went back of things that stood out that we thought could be better explained or that were inconsistent with our understanding. I think from memory there was something about volume of water that had been released under one particular operating mode, but at this stage I can't honestly say that this stood out to me as something that I commented upon at the time.

What about the March report? Did you read the March report?--I had a very cursory view of the March report. I guess I had an interest in this January report because it was part of a package of information that we were providing up to Cabinet and because it related to the communications activities that we were undertaking at the time. The March report I had only became aware of and provided a copy of when it had been released. Prior to that I had had a conversation with Mr Bob Reilly about how it spoke of our communications role in a couple of paragraphs. I relied for the accuracy of that upon Seqwater and what they were doing in the review of the office of the water supply regulator.

So your interest - one of your interests in the January report was looking at it from a communications perspective because you were communicating information and material to agencies and departments?-- Indeed.

And I'm sure that you wanted to ensure that your communication of that information was accurate?-- Indeed.

XN: MS WILSON

10

1

30

20

50

And so when reading these entries, this didn't go - when reading at 6.30 at 10 January 2011 that it was apparent that the operational strategy had progressed to W3, you didn't think perhaps that information that I was communicating was not accurate on that basis? -- No. I can only say that it may well have been an oversight on my part, but I can't recall that specifically occurring to me at the time.

Because what we're looking at here, that is, the chronology, that was an important part of your job during the flood event, wasn't it, putting out information that you had received about the operation of the dam?-- Indeed, and particularly the impacts of that operation downstream.

That was your role, to be getting that information. And you not only got that information; you gave what I've called the Spiller report. You digested it, put it in a package, and sent it out to the agencies. That was part of your role? --Indeed.

So you didn't pay any attention to this chronology here?-- I didn't say I didn't pay any attention. I certainly paid You can see through the report as a whole that we attention. have commented on parts of it. I'm simply saying that this didn't stand out to me as being an error, and it's not something that we went back to Sequater about.

It didn't stand out as an error?-- Well, it is - as I explained yesterday - inconsistent with what my understanding of the strategies in place at that time were. And reading it now, I can acknowledge that. It's not something I recall having identified at the time I reviewed the report in-----

Just so I'm clear, Mr Spiller, is your evidence that you read it, you noted there was an inconsistency, but you didn't think it was important; or you read it and you didn't note there was an inconsistency?-- The latter.

You read it and you didn't note there was an inconsistency?--Yes. Reading it now, it is obviously that there is.

Finally can we go to page 722, annexure C, 7 January 7.41 p.m. It's an email from Mr Bradley. You recall receiving this email?-- I do.

And this is in relation to the briefing note that you were preparing?-- Yes.

You can see that it says, "Barry and his team have been 50 working hard all day on this among their other issues, but have had challenges with input from Seqwater." Did you note any challenges of getting input in Seqwater? -- I had noted them, and I had discussed them with Mr Bradley as well.

What were those challenges?-- It had been at the end of a fairly long week, and perhaps understandably the staff at Sequater were not enthusiast about preparing a detailed explanation of what had happened during the event and were not

XN: MS WILSON

20

10

1

as forthcoming with information as we thought was appropriate. What I discussed with Mr Bradley, and he with I, was that there was a need for a very cogent description what of had occurred and why. It took some discussion at the 2.30 teleconference that afternoon particularly to get that information provided in a form that we thought was appropriate.

Who was at that 2.30 teleconference?-- Certainly Mr Burrows was, and he was at the Flood Operations Centre. I think Mr Malone was the engineer that was on that conference as well.

And what information were you seeking that was discussed at that 2.30 conference?-- There was prior to that 2.30 conference - we had had within the grid manager a bit of a workshop of things that we felt should be addressed within the package of material to the Minister that we sent out an agenda of items that we thought should go into there and who we'd thought should be responsible for what, and that was the basis on which that discussion occurred. That was updated following the meeting. I think Ms Smouha sent it out, from memory, at around 5 o'clock.

Thank you, Mr Spiller, I have no further questions.

MR DUNNING: We have no questions, thank you.

COMMISSIONER: Shall I assume you haven't got questions unless you tell me you have?

MR DUNNING: I'm content to deal with it in that way, Commissioner, yes.

COMMISSIONER: Mr Rangiah.

MR RANGIAH: Could Mr Spiller see the document at page 86 of 40 annexure B to his statement.

Is this an email that you wrote at 8.14 a.m. on Sunday, 9 January 2011?-- It is.

Do you see there are a numbering of dot points further down in the e-mail?-- Yes.

And the fourth of those says, "Releases are being made so as to avoid inundating the Fernvale and Mt Crosby weir bridges." 50 Does that reflect your understanding of the position at the time you wrote that e-mail?-- It does.

In other words, the objective that was sought to be achieved at that stage was to avoid inundating Fernvale and Mt Crosby weir bridges?-- Certainly at that stage it was not expected that the combined flows would inundate those bridges.

5633

XN: MR RANGIAH

10

1

And that is consistent, isn't it, with the primary objective under strategy W1?-- As I understand it, yes.

And did you arrive at your understanding of the position through the technical situation reports and discussions that you had with Mr Drury?-- I did. In this instance I can't recall specifically whether I had a discussion with Mr Drury upon receiving that technical situation report, but I did rely on the information I had been told.

Could the witness see the document at page 116. Is this an e-mail that you wrote at 11.07 p.m. on Sunday, 9 January 2011?-- Yes, it is.

Does this reveal your understanding of the objectives of releases at that time?-- Yes, it does.

Then in the fourth paragraph you said, "To date, the primary objective for this event has been managing to prevent inundation of the Mt Crosby weir and Fernvale bridges." Does that mean that until that point or about that point in time, that was the primary objective of the releases?-- That was my understanding of the primary objective at that time based on what I had been told and what I inferred from the technical situation reports.

And at that time was it now accepted that the rural bridges would be inundated?-- It was. It was from then a question of when that would occur.

COMMISSIONER: When say based on what you had been told and the technical situation reports, just to make it clear, told by whom?-- Told by Mr Drury.

MR RANGIAH: And so it was accepted that at some time after this email was written, the rural bridges would be inundated?-- It was. This email followed a teleconference at 9.30 that evening where the primary purpose of that teleconference was specifically to talk about how we managed communications around those bridges being inundated.

Yes. So in the next paragraph you said, "With the forecast volumes, this primary objective is being changed to minimise the risk of urban inundation." Do you see that?-- I do.

And is what you mean by that that after the rural bridges were inundated, the primary objective would then be changed to minimising the risk of urban inundation?-- What I have in that paragraph reflects what was in the technical situation report that I was provided. I wasn't, in writing that, looking to be specific about the time at which the change in strategy was occurring, but simply that there was a change in the purpose of those strategies.

What you've indicated there, isn't it, is that the primary objective had not yet been changed to minimising the risk of urban inundation but was being changed?-- Yes. Consistent with inundation of those bridges, I knew at least we were no

XN: MR RANGIAH

10

20

1

30

40

longer in strategy W1.

It couldn't have been that you were still in strategy W1, but after the bridges were inundated you would no longer be in strategy W1 and the strategy would change?-- It would.

Is that right? Is that what that says?-- Yes.

And the reason for that is because the upper limit of strategy W1 is 1900 CUMECS?-- Is the inundation - effectively, the inundation of those bridges.

Yes, and at 1900 CUMECS the Mt Crosby weir bridge is inundated, isn't it?-- Yes.

Did you read the March Seqwater report on the operations of Somerset Dam and Wivenhoe Dam?-- At a very high level. My recollection, I read it on a bus trip home.

Did you read the part of the report that said that the strategy had changed to W3 at 8 a.m. on 8 January 2011?-- I don't recall specifically reading that, no.

Did you only read parts of the report?-- It's a very large report.

And did you read the parts of the report about whether there had been compliance with the manual?-- I did, and particularly the executive summary and the introduction were the areas I focused.

Did you not notice the indication that strategy W3 had been entered at 8 a.m. on Saturday, 8 January?-- No.

You have an important role in the public service, don't you?-- I do.

And was it not relevant to you to understand when particular strategies had been engaged or when Seqwater claimed they had been engaged?-- Our role in terms of dam releases is fairly narrow. I think it's important, but it comes down to the communication to the public and ensuring there's consistency on how we do that communication, just as we do for other water supply issues, and to briefing up within government. Matters about making the decisions on how the dam is designed to be operated through the manual and improving that manual aren't part of my responsibilities on a day-to-day basis. There were other learnings from the flood event that were much more pertinent to the grid manager and we were much more focused on addressing at that time.

Yes, but in order to communicate information accurately, you need to receive accurate information, don't you?-- Indeed. And there had been a process established through that review, the development of that report itself and its review by the office of the water supply regulator and by this Commission of Inquiry itself to go through the details of what had occurred during the flood event and to establish the facts. In our

XN: MR RANGIAH

30

50

10

20

communications role, those transitions between the strategies, that I go to some length in my statement is to highlight, takes into account a number of different considerations, only some of which we got. So I acknowledge that we didn't have all the data to determine conclusively when the transition between strategies occurred, and that's the reason why I needed to ask on the Monday morning.

COMMISSIONER: Mr Spiller, I don't know if you can answer this, and just tell me if you can't, but why did the water grid manager think it could rely on what Mr Drury said? Why was he the choice of - why was he the person who supplied the information about strategies and so on?-- At risk of being overly trite, he's the dam operations manager, and all interactions that we had with Seqwater about the advice in October about drawing down the dam, he was the person that we spoke to initially. When we had key emails, including in relation to that topic and these technical situation reports, where we had questions, we would copy other officers from Sequater to that, including Mr Burrows and Mr Price, but the person that came back to us was Mr Drury. So we were clear from the interaction and how that happened that on these matters, he was the interface point with Seqwater.

From your perspective, at any rate - and I'm speaking of the water grid manager - he is held out by Seqwater as the person who can give you reliable information about what's happening with the dam?-- He's certainly the person from which we get information about the operation of the dam.

I'm not so interested in the fact that you get information from him; I'm more interested in why you perceived him as the person to get information from?-- He is the person that's been put forward by Sequater and consistently done so.

MR RANGIAH: Now, you and Mr Drury were at the interface of communications between Seqwater and the government----?--Yes.

----weren't you? So the accuracy of communications between 40 you and Mr Drury were important?-- Yes.

And were you not interested to find out whether the communications that you had received from Mr Drury were in fact accurate?-- Throughout this event I did have - going to the origins of our role, the grid manager became involved following the October flood event when it became obvious that there wasn't enough coordination in communications. A process with the draft communications protocol was put in place following that. We did a lot of work with Seqwater and with councils to improve that information flow. I think we had improved it significantly by late December, but consistently through the flood event and in late December we were highlighting that we thought additional information was required in what we got from Seqwater, and that's reflected-----

I'm talking about March at the time when the Seqwater report

XN: MR RANGIAH

20

1

10

50

was issued?-- But at that same-----

COMMISSIONER: I was going to suggest you put the question again. If you want to put it in the context of the March report, it might be worth reiterating what it is that you are asking.

MR RANGIAH: Were you not interested in finding out whether the communications between you and Mr Drury during the January flood events were accurate at about the time the Seqwater report was issued in March?-- Certainly I was interested, and a process had already started with a review of that draft communications protocol to improve the information that was delivered to us by Seqwater. So there was an issue in terms of the quality of information, and we were already acting on the remedy to that. The content of what's in the March report doesn't go into detail on what we were talking about as being required.

Didn't it go, though to, the accuracy of the information that you had been provided with by Mr Drury on behalf of Seqwater?-- I guess my focus was on what should be improved and how we could improve the interfaces between our organisations and externally at that stage, not on retrospectively reviewing the precise information that I was provided.

Did you read the interim report of the Flood Commission?-- I did.

And did you see that Seqwater had been - had claimed that W3 had been entered at 8 a.m. on Saturday, 8 January?-- I did.

And that was inconsistent with the information that you had been given by Mr Drury, wasn't it?-- It was.

And it was inconsistent with the position as you understood it throughout - in the course of the flood event based on technical situation reports and other communications?-- Yes.

Did you raise that inconsistency with anyone?-- The interim report itself highlights that there was ambiguity about where that transition occurred, and it highlights a remedy that needs to occur within the recommendations to address that in the future. So I was confident that we had provided all of the evidence that the group manager had on this topic to the Commission and that we were available to provide any further support. I was also aware that there was a lot of evidence taken during hearings and from other parties that I hadn't reviewed and I wasn't aware of, and I was confident that within the bounds of the ambiguity that is flagged in that report, that wasn't inconsistent with what my knowledge of the event was.

5637

20

40

Well, you could see from the report that Seqwater was claiming to have entered the W3 strategy about two days before you had been told that it was entered?-- Yes.

It was a glaring inconsistency, wasn't it?-- But sitting against I'm not in direct communication with the Flood Operation Centre and the Commission and the statements had provided a lot of detail that I - am not a party to and don't possess about what exactly was occurring during that event and I relied upon that assessment.

Right. As a senior public service didn't you have a responsibility to notify someone about this discrepancy?-- I feel that I had a responsibility to give all the evidence I had on this topic to have the Commission of Inquiry, including e-mails that went to a wide range of people and that would have been provided by a wide range of people and accept after that it had deliberated upon those issues, highlighted the ambiguity and put in place remedy, that my responsibility was to ensure that to the part - the extent that Grid Manager was involved in that remedy to act upon it.

Yes, thank you, I have nothing further, Commissioner.

COMMISSIONER: Mr Murdoch?

MR MURDOCH: None, thank you, Commissioner.

COMMISSIONER: Mr MacSporran?

MR MacSPORRAN: I've no questions, thank you, Commissioner.

COMMISSIONER: Mr Sullivan?

MR SULLIVAN: No questions, thank you, Commissioner.

COMMISSIONER: Mr Burns?

MR AMBROSE: No questions.

COMMISSIONER: You jumped the gun. Mr Burns?

MR BURNS: Thank you, Madam Commissioner.

Mr Spiller, I'm just interested in the period between the 8th and the 11th of January?-- Sure.

Just to be clear, in your role your concern was to communicate 50 with the likely effect of the releases would be----?-- Yes.

----is that right?-- Communicate what the releases would be. Other parties such as Brisbane City Council and BOM, they translate that into what that means in terms of an inundation map and which particular residences may be.

All right. The releases from the dam, the Wivenhoe?-- Yes.

XN: MR BURNS

10

20

1

30

08022012 D 65 T2 JJH QUEENSLAND FLOODS COMMISSION OF INQUIRY And your focus was on those actual releases as well as having 1 an eye to what the potential for increase in the releases might be?-- Absolutely. Have I got that right?-- It is. And then I suppose that focus combines in an overarching one, which is the likely effect on Brisbane----?-- It is. ----is that right? The urban areas? And no-one told you 10 that there had been a formal transition between W1 and W2?--That's correct. That's something you surmised from the manual or your understanding of the manual?-- It is. And the information you had to hand?-- And confirmed on the Monday morning by e-mail. Right. Just stay with me for a moment. The basis for you 20 surmising that the strategy that had been in place was W1 and at some point moved to W2 was the Mr Crosby Weir Bridge had gone under?--Yes. Is that the - is that it?-- In summary, yes. All right. Well, is there anything more?-- I'm not sure where you're leading. I think that that in itself is sufficient to show that the bridge inundated is inconsistent with W1. 30 Sure. Well, just to help you. Yesterday at 5612 you were asked some questions about this. "You need to know what those strategies, which strategies are in place in order to know where you're up to in terms of the bridges?" Answer, "No, we Question, "What is are you saying?" Answer, "We don't." don't need - to me that - but it is as simple as if Mt Crosby Weir Bridge is inundated, for example, we know that we're not operating in W1. I'm not looking to add too much more sophistication beyond that." Is that right?-- Yeah. **40** Right. Okay. So you surmise that from that fact, that is the inundation of that bridge, that the dam's being operated in W2?-- I didn't surmise anything other than we were not

W2?-- I didn't surmise anything other than we were not operating in W1 and I sought to clarify the next morning with an e-mail with Mr Drury what mode the dam was being operated in.

All right, okay, I understand that. So you surmised that the dam was no longer being operated in W1. So it's two or three 50 from that point on?-- Yes.

And then you gave evidence about conversations, and in particular a meeting at 8.30 a.m. on the 10th of January?--Yes.

Which - the note for which appears at page 207 of your statement. Do you have that there?-- Yes.

XN: MR BURNS

This is a note prepared by Mr Hutchison?-- It is.

Now, you see the heading 3.5 and 4?-- I do.

Was your understanding at that time that the objective under W3 was to keep the flows, the combined flow in the Brisbane River below 3,500 CUMECS?-- Ah-----

Sorry, under W2, I beg your pardon?-- My understanding, and I need to check again, is that it's to keep the releases below 3,500 and combined flows below 4,000----

All right----?-- ----but there had also been a discussion, which we touched on at this meeting, about Brisbane City Council's concerns about flows above three and a half thousand.

There was a real concern that in fact serious urban inundation would occur at about three and a half thousand----?-- Indeed.

----or between three and a half thousand and 4,000?-- At the very least they were looking to clarify that that's when they expected that those impacts would occur.

Right. And that was a - for obvious reasons, of serious concern to those at the meeting?-- Indeed.

And is that what's referred to as the "trigger" or the tipping point? I don't know?-- So when we speak about the trigger it was really to try and get an understanding within our minds and people such as Brisbane City Council's of how much additional rainfall, how much additional inflows would be required to go beyond that point in which we started having major urban inundation.

Right?-- It was to try and understand the sensitivity of the release strategies.

All right. Well, what did you understand then as the to point 40 at which there would be some sort of transition to W3 from W2? Was it that flows were exceeding 4,000 CUMECS?-- Would go to and exceed 4,000 CUMECS.

All right. So is that - are we talking combined flows in the river or actual releases from the dam?-- Combined flows in the river.

All right----?-- Again going to our concern primarily being what flood inundation should Mr Jensen be preparing at Brisbane City----

COURT REPORTER: I'm sorry, Mr Spiller, could you just turn our way a little?

WITNESS: Mr Colin Jensen, the CEO of Brisbane City Council, what sort of flood inundation maps should they be preparing. The type of thing that we were discussing is how many sands

XN: MR BURNS

20

10

1

30

bags should be prepared-----

MR BURNS: All right. Thank you. So up to 4,000 CUMECS combined flow in the Brisbane River you believed was W2?--Yes.

And above that was W3?-- Yes.

And that's the sole - that's the basis in fact for your understanding as to when strategies transitioned?-- It is. 10

All right. Thank you.

COMMISSIONER: Mr Ambrose, you have no questions?

MR AMBROSE: We have no questions.

COMMISSIONER: Mr O'Donnell?

MR O'DONNELL: Mr Pomerenke is taking this witness.

COMMISSIONER: Mr Pomerenke.

MR POMERENKE: Thank you, Commissioner.

Mr Spiller, you gave some evidence yesterday at transcript 5620 from about line 40 on the topic that my learned friend Mr Burns was just asking you about, and in relation to your understanding of what W2 signified on that morning you said you took it at this time to mean management to 3,500 cubic metres in accordance with what Brisbane City Council's advice had been. That was your understanding on the morning of the 10th of January. That's what you took W2 to convey on the morning, didn't you?-- I understood on that morning we were that I had been advised we were operating at W2 and that they were targeting combined flows of three and a half thousand cubic metres in the river.

I just want to look at some documents that might help you with how you came to that understanding?-- Yes.

If we can go to the technical situation report W36, which is in the appendices to your statement at page 161?-- Yes.

That's a document you receive at 8.06 a.m. from Mr Drury?-- It is.

If you go over to page 164, we see the heading "Wivenhoe Dam 50 Full Supply Level", and then three paragraphs down you see the paragraph commencing, "Objective for dam operations"?-- Yes.

And do you see the words, "At this stage releases will be kept below 3,500 CUMECS and the combined flow in the lower Brisbane will be limited to 4,000 CUMECS if possible"?-- Yes.

XN: MR POMERENKE

1

20

30

So that's what you were being told in the situation report at 8.06 a.m.?-- It is.

To assist you with what happens next, if you go to page 167, you see your e-mail to Mr Drury?-- I do.

You've looked at the situation report and you're wondering are we in strategy two or three with these flows at 3500?-- Yes.

And possibly in the lower Brisbane at 4,000. So you sent your 10 e-mail to Mr Drury and you get a response at 8.23 a.m., and we see that at page 169?-- Yes.

That's Mr Drury's response, W2. Now, is really that the point at which you draw the expense link between the flow of 3500 CUMECS and strategy W2? That's the point at which you say, "Ah-uh, I know that this flow of 3500 CUMECS out of the dam equates to strategy W2"?-- More that I had a sufficient understanding of the manual on receiving this TSR that I appreciated we could be making those sort of releases and operating in either of those two strategies and Mr Drury's e-mail confirmed to me what was occurring and how they were operating at the time.

So is the answer "yes", Mr Drury's e-mail enabled you to say this flow----?-- It's W2.

Yes, that's right?-- Yeah.

So from that point, from that day, throughout that day, your understanding was if people were talking about flows at 3500 CUMECS they were saying, in effect, to you this is strategy W2?-- And with that same terminology being used in the teleconference that occurred at 8.30, seven minutes after this message came in.

And when you say "that same terminology", you mean flows of 3500 CUMECS----?-- W2 and W3.

Well, we will come to that. Your understanding of strategy W3, you've just told Mr Burns what that understanding was. Is the basis for that understanding really that you knew that there was a threshold above W2, the next one being W3, and the next rate of release that you were conscious of, one that was very important, was 4,000 CUMECS and above?-- Yes.

And logically you deduced that the strategy after W2 is W3 and the next threshold is 4,000, so if we get to 4,000 and beyond we must be progressing to W3?-- Yes.

Now, that was your understanding on the morning of the 10th?--Yes.

And did you tell Mr Dennien what your understanding was that morning?-- We discussed that at the teleconference at 8.30. We obviously had a conversation about what was occurring.

20

1

30

Before the teleconference did you and Mr Dennien discuss the outstanding that you had arrived at as to where you were, W2 or W3?-- I suspect we did but I can't be certain.

All right. And you conveyed to him, you suspect, that 3500 meant W2 and 4,000 and above meant W3?-- No, I suspect I would simply have conveyed to him they're operating strategy W2.

All right. Now, yesterday you gave some evidence in response 10 to a question from the Commissioner about what you remember Mr Borrows or Mr Drury saying at this conference at 8.30 a.m.?-- Yes.

And that's at transcript 5619 at about line 25 and following. And the Commissioner's inquiry: "Mr Drury and Mr Borrows spoke about W2 and W3, what did they say?" Your answer was, "The combined flows from the Lockyer, from the lower Brisbane River and how that was consistent with what was permitted under the operating strategy at the time, and that their view is whilst they would aim to maintain combined flows of 3500 CUMECS that they would commit that that would be all, that they may have to use the full discretion that was available to them under the operating strategy."

COMMISSIONER: Is that----

WITNESS: I think there's a "not" that's missing.

COMMISSIONER: Yeah.

MR POMERENKE: Yes. The next question was, "And do you remember how those two strategies featured, that's W2 and W3? What was said about them in particular?" "No. I think that's the extent I can recall discussing the details of." Now, your answer to the Commissioner yesterday was correct, wasn't it, you don't remember Mr Borrows or Mr Drury mentioning W2 or W3 in that conference?-- I don't think we went into a lot more detail of what the components and the triggers for W2 and W3 were but we certainly had a lot of discussion about combined flows in the river----

Yes?-- ----and how they were operating at the dam at that time, and that's reflected in the e-mail I subsequently sent to both of them clarifying that technical situation report of what was being done.

You said there was a lot of discussion about the combined flows but you don't remember them mentioning W1 or W2; that's right, isn't it?-- Sorry, there was certainly discussion about W2 and W3-----

Right?-- ----and the implications, as is reflected in the notes from that meeting, of going into W3.

Going to the notes of the meeting, they're at page 207, you see the heading 3.5 and 4?-- Yes.

XN: MR POMERENKE

1

30

20

And you've mentioned in response to Mr Burns that there was this concern within the Brisbane City Council that flows above 3500, which is the 3.5, might cause extensive damage in Brisbane?-- Cause damage----

Yeah?-- ----be the threshold.

And the ultimate outcome here was reflected in the sixth dot point, which is need to engage BCC at the highest level when the decision is made. They were vitally interested in that and needed to be advised and involved?-- Mmm.

The only reference in this discussion under the heading 3.5 and 4 to W2 and W3 is in that sixth dot point after the words "Barry". Is "Barry" a reference to Barry Dennien?-- It is.

Do you remember what Mr Dennien said on that topic at the meeting, as you sit here now?-- The specific terms that he used I can't recall. The effect was certainly that we needed to get coordination occurring with Brisbane City Council so that we could map what the river levels were likely to be, taking in the range of considerations at that time, and Brisbane could map what the extent of urban inundation associated with that would be, and that's the process that resulted in the 12.30 teleconference, that it again confirmed that series and was culminated in the advice that Mr Dennien sent out to a range of parties at about 6 o'clock that evening.

So is the answer that you don't recall precisely what Mr Dennien said?-- I don't recall precisely what he said.

All right. But to you at this time, in effect, the label "W2" and flow rates of 3500, they were interchangeable concepts?--The label W2 and up to 4,000 CUMECS are consistent.

Yes?-- Within that range we understood that there - that Seqwater would aim to keep the combined flows to 3500----

Yes?-- ----but I'm not saying that the one equals the other. 40

Sorry?-- I'm not saying the W2 equals 3500 or that there was a definitive commitment made to keep it only at that.

No. You understood that day a reference to rate of release of 3500, potentially up to 4,000, to be a reference to W2, that was your understanding----?-- Yes.

----- Yes.

And so if somebody referred to a rate of release of that kind that would trigger in you a thought that they were talking about W2, was code for W2?-- It was consistent with my understanding of how we were operating the releases that were being made.

10

1

20

Yes. And, similarly, W3 in your mind that day, reference to flow rates of 4,000 and above was consistent with W3?--Agreed.

And a reference to those flow rates in your mind was, in effect, was code for W3?-- Agreed.

So is it possible in this note what's being reflected is the words "W2" and "W3" being used, in effect, as a code for rates of 3500 and 4,000?-- Yes, but----

Yes?-- ----with the proviso that there was discussion, those terms used within the meeting.

But you don't remember Mr Borrows saying it?-- But the officers specifically that took these notes weren't substituting subsequently those terms back into this----

No----?-- ----text.

-----but you don't remember Mr Borrows saying it, you don't remember Mr Drury saying it, and the officer----?-- I don't----

-----has only recorded Mr Dennien saying it?-- I don't recall them specifically saying it but we - certainly I think we were talking in those sort of terms, but I can't - I can't tell you what the precise words they'd used were.

All right. When you say "we were talking", this doesn't record you saying anything?-- I think it records me under "Scenarios", for example, asking a question.

I see. Sorry, I'm focusing on the 3.5 and 4 dot point?-- But even the dot point below that I'm quoted as saying something.

Under the heading "Scenario"?-- "Barry", "At three and a half," next one down, "Above three and a half".

I see. The only person recorded in this note as mentioning W2 40 or W3 is Barry; you agree with that?-- Yes.

But you don't actually recall what he said?-- I don't recall precisely what he said, no.

And what happened later in the day was the BCC did become involved directly at the teleconference at 12.30; do you agree with that?-- There was a process that started - it was agreed at this meeting and started immediately after where we distributed a copy of this technical situation report to Brisbane City Council with the intent of going through the full spectrum, getting BOM's advice about river levels and Brisbane's advice about extent of urban inundation. Now, prior to sending that technical situation report to Brisbane I sought to ensure that it was consistent with our understanding of what was being managed to at that time and sent those track change suggestions to Mr Drury and Mr Borrows for their confirmation, which they did, and made some other changes.

XN: MR POMERENKE

20

50

1

That then informed the 12.30 teleconference in the process that, to an extent, flowed from there.

Yes. Now, we have a transcript of what happened at 12.30 p.m. conference from page 216 of your appendices and following, and I take it you accept that that transcript is an accurate reflection of what was said at the meeting?-- I do.

And you can particular it from me that nowhere in this transcript is Mr Borrows recorded saying anything about strategy W2 or W3 by the labels strategy W2 or W3?-- I agree.

And, in essence, what he was doing in this meeting was giving, for the benefit of Brisbane City Council the information that he'd given you in the morning and that was developing during the course of the morning?-- I agree, but not just for Brisbane, for the other two councils also.

Yes. All right. I just want to go one other thing about your understanding of the strategies on that day, the 10th of January. You mention your understanding in your statement at paragraph 16, concerns the transition from strategy W1 to strategy W2 as it relates to objectives?-- Yes.

And 17, strategy W2 as it relates to----?-- Yes.

----objectives? Paragraph 20, strategy W3, primary consideration, to protect urban areas from inundation?-- Yes.

And paragraph 22, W4, primary consideration to protect the structural safety of the dam. That was your understanding on the day, the 10th of January 2011? Just looking at the transcript of the conference at 12.30 on that day, can you go to page 219, please? And do you see the entry "BD"? That's Barry Dennien speaking at the top of the page?-- Yeah.

And you're saying: "Peter Borrows has had his team reference the operational manual and have a look at a revised strategy which my understanding, Peter, will take it possibly above 3500 at Moggill gauge." Peter: "Do you want to give us an overview of the new revised strategy?" And then Peter Borrows gives an explanation. Do you see that?-- I do.

Is this the exchange that led you to think that strategy W3 was being engaged?-- As I say in my statement, I accepted the transition, particularly in something between W2 and W3, needs to take into account a range of factors. We only had information routinely on a couple of those. Certainly my understanding through this meeting, and as it's reflected in Mr Dennien's question to Mr Borrows, was that shortly before this teleconference occurred we'd been advised that higher releases would be required than was currently occurring----

Yes?-- ----but that Seqwater was working up a strategy that would have the details of what those releases were. Going through the teleconference there was a proposal that that be delivered I think at 3.15 or 3.30, which Mr Smith asked be brought forward to 2.30. So this is the genesis for my

XN: MR POMERENKE

20

10

1

30

40

understanding that the transition was occurring. It was confirmed in my mind when the technical situation report came in from Seqwater that afternoon.

I understand. Can we look at what Mr Borrows actually said. What he actually said was, and this in the second line: "Looking at what the revised release strategy should be, the release strategy that we have, as that when Wivenhoe hits 78 per cent above full supply level, then the operating mode shifts to - to basically making sure the dam - the dam's safety becomes the paramount sort of number and the effects to the dam's safety and people downstream becomes paramount". As you read that now, understanding that it's strategy W4, it has as its primary consideration the structural safety of the dam, do you accept that Mr Borrows was actually talking about a transition to strategy W4?-- No, that's not my - certainly what you have read out is consistent with my understanding of what the primary objective of strategy W4 is. What I interpreted that as, and what I think the technical situation reports that afternoon, and to an extent even the next morning reflect, is that it is something - the operating of the dam to try and avoid getting to the situation where they need to be in that mode.

Right. So really your focus was on the flow of 4,000 and above as being the trigger for strategy W3?-- Yes.

And it didn't occur to you that when Mr Borrows was talking about the operating mode shifting to dam safety that he was talking about strategy W4?-- No, that wasn't the sense I took out of his comments or the discussions I'd had around him. It's not the sense I got later that day in looking at the technical situation report.

Thank you.

COMMISSIONER: Can I just ask you, Mr Spiller, going back, I think, Mr Rangiah's questioning, when you gave statements to the Commission in May last year, I appreciate you were really being asked about what the Water Grid Manager's emergency action plan was and how the Water Grid Manager responded to the floods and so on, and I think there was a second requirement that asked you about the proposals to lower the full supply level of the Wivenhoe----?-- Yes.

-----so you never were asked to say should we believe everything the Flood Operation Centre or - sorry, the dams operations manager told you, but did it never cross your mind that perhaps there was a discrepancy there that should be pointed out to anyone, in what you had been given to understand all the way through there?-- To be honest it never occurred to me that a discrepancy would emerge. I took what had been presented in the January report as being accurate, based on what people knew at the time, and that people would continue with their utmost diligence to present factual information.

XN: MR POMERENKE

10

1

20

30

40

You gave your statements after the flood engineers had given their evidence, I think?-- Yes.

And, to be fair to you, the e-mail that we're also interested in is annexed to one of them, I think?-- It is. But do you remember how many attachments there were?-- There were? And I appreciate also that the minutes of that teleconference were annexed-----

Mmm-hmm?-- ----that appeared in, I think, from page a thousand and something but----

Yeah. Nothing rang that any alarm bells for you, at any rate, after you heard what they'd said or at any stage of this?-- I was very aware throughout the event that we were focusing on the flows and there was only on a couple of occasions that we looked at the strategies. We only had partial information and even the information that's in the interim report about predicted levels at various points in time is more than we had available to us at the Water Grid Manager.

30

50

1

10

In terms of the evidence that was given, I was preparing water grid management statements at the time and preparing my own evidence and had got advice not to pay a lot of attention to the evidence that other people would get. I admit I didn't always follow that, but I also found some of the evidence to be long.

But the idea behind that is that you don't colour your evidence by hearing what somebody else has said; is that what you are saying?-- That's how it was presented to me.

Fair enough. Alright. Thank you. Ms Wilson?

MS WILSON: Thank you, Madam Commissioner. Can we have back up on the screen pages 206 of 208, annexure B of Mr Spiller's statement? This is the Lee Hutchison e-mail that attaches the minutes of the meeting that occurred on 10 January at 10:21. If we can go to those minutes. Mr Spiller, I am just confused and if you just help me cut through that confusion?-- Sure.

We can see who was in attendance at that meeting, that is who participated in the meeting through either physical attendance or phoning in?-- Yes.

You told me yesterday that the meeting proceeded on the basis that the dam was being operated presently at the time of this meeting at W2?-- Yes.

Is that your evidence? That it was - that's the basis that the meeting proceeded on?-- Yes.

And W2 was a term that was used at this meeting?-- Yes.

It wasn't talked about that the dam was being operated at flowrates, but it was being operated on a strategy of W2?-- I suspect during the meeting both concepts were used-----

Right?-- ----but certainly W2 and W3 were used during the discussion.

Okay. Who was telling you or advising others in the meeting that the dam was being operated at W2, using that term W2?--I suspect----

No, no, not suspect, if you just tell me?-- I can't precisely recall who said exactly what. My recollection is that Mr Dennien and I explained our understanding that we were operating in W2 and the implications associated with that, and asked questions around the trigger to go to W3 from that point.

And Mr Drury?-- The response to the extent I recall made was structured in those terms, with focus more on the release rates and particularly the 3500 CUMECS combined flows.

Okay. So if I can understand it, it is that you were discussing strategies, about what strategy you were in, W2 or W3, and that was a discussion between Mr Dennien and yourself;

XN: MS WILSON

20

40

50

10

is that the case?-- There was discussion between everyone in the group that we were presenting that as being our understanding to the group.

Who was presenting that as being your understanding to the group?-- Mr Dennien and I.

Okay.

COMMISSIONER: Sorry, what is your understanding? That you were in one of those, or that you were in W2?-- That we were in W2 and that there was a tipping point at going into W3 where combined flows could go beyond 4000 CUMECS and we have serious urban inundation issues at that point.

MS WILSON: Then the response to that was to talk about the release rates in relation to each strategy; is that the case?-- That's it.

So am I accurately and fairly putting, or getting an understanding of how that meeting progressed?-- That is how I would say.

And Mr Drury, did he participate in that meeting?-- He did.

And did he have any discussions in relation to referring to the strategy W2 or W3?-- Certainly he was involved in those discussions. I can't picture him precisely saying the words, but I expect that we did discuss them.

Thank you, Madam Commissioner.

COMMISSIONER: Do you want Mr Spiller excused?

MS WILSON: Could he be stood down for the moment?

COMMISSIONER: I am going to stand you down, Mr Spiller, till the end of these hearings. It doesn't necessarily mean you will be coming back, but just in case we need you again for 40 anything. Thank you.

WITNESS STOOD DOWN

MS WILSON: Thank you, Madam Commissioner. I call Barry Dennien.

BARRY KEVIN DENNIEN, SWORN AND EXAMINED:

MS WILSON: Is your full name Barry Kevin Dennien?-- Correct.

XN: MS WILSON

1

20

10

30

Can you tell me your role that you presently perform?-- I am the Chief Executive Officer of the South-east Queensland Water Grid Manager.

During the 2010/2011 flood event, what role were you in?-- I was the Chief Executive officer of the South-east Queensland Water Grid Manager. As well as that role I had various duties of emergency manager of our emergency management framework. I conducted that role for a period of time, and the third role I had as part of being Chief Executive Officer was to be the communications officer for the management of Wivenhoe Dam and the flood releases, the communications officer to both State agencies, The State Disaster Management Coordination Committee, and to at times being a public face to the community.

Okay. You prepared three statements for this Inquiry?-- Beg yours?

You prepared three statements for this Inquiry?-- That's correct, yes.

Your first statement was dated 5 April 2011. Madam Commissioner, that's Exhibit 417?-- Correct.

Is that your statement?-- That is my statement.

Is there anything that you wish to add or amend to that statement?-- No.

Have you had an opportunity to read that statement before coming in here?-- Yes.

You have also provided to the Commission a statement sworn on 1 February 2012. Can you have a look at this, please? Is that your statement with annexures?-- There's the attachments. There doesn't appear to be a statement in that folder.

I will have to get one. Whilst we get that to you, we can show you a further statement that you have sworn on 3 February 2012. That's your third statement?-- That's correct.

Madam Commissioner, I will tender the second statement and the third statement, but we will have to obviously get the copy of the second statement there, so perhaps in chronological order we can tender those documents, which is the statement sworn first of February 2012, if you could leave a space for that tender.

COMMISSIONER: Alright. It will become 1097.

ADMITTED AND MARKED "EXHIBIT 1097."

10

1

40

MS WILSON: Then the third statement sworn on 3 February 2012, I will tender that.

COMMISSIONER: That will become 1098.

ADMITTED AND MARKED "EXHIBIT 1098"

MS WILSON: Thank you. I will just keep on going and we will get that statement and if I have to refer to your second statement we will get that material to you?-- Thank you.

Now, you previously just told me what your role was in the position that you held during the 2011 flood event. You were away for a certain period on leave; is that the case?-- Yes, I was on leave until Sunday, 9th.

From when?-- 25 December.

So 25 December to Sunday, 9th?-- Sunday, 9th.

When did you get back and start performing your role again?--On Sunday 9th around 12 o'clock I arrived back in Brisbane. I had been away, and at that stage I started having updates from Dan Spiller. I was basically online, not in the office, but Dan Spiller was sending me through some updates and I had several conversations with Dan into the evening of Sunday.

Okay. What was the role that Dan Spiller was performing while you were away?-- Dan was the Acting Chief Executive Officer, and at that point Dan was also taking those other functions earlier. Dan was communicating through the technical situation reports to the various stakeholders outlined in the communications protocol and Dan was also acting as emergency manager for the other areas that we handle and that is management of water supply across the South-east Queensland water grid.

Okay. I will see if I can chase down the statement. I do need to take you to your second statement. Madam Commissioner, what I might do is just take Mr Dennien to parts of his second statement that we have got electronically, and then give we'll give Mr Dennien an opportunity to satisfy himself of the parts that I've taken him to-----

COMMISSIONER: Alright. We'll just get that up on the screen. 50

MS WILSON: ----are the same as the document. Have you got a copy of your statement there?-- I have.

Then we have solved that issue?-- Yes.

Is that your second statement?-- I do have - that's the first

XN: MS WILSON

10

1

20

30

of February?

That is the case?-- Yes, I have that here.

Perhaps if I can just refer to you that. Paragraph 18 of that statement sets out your understanding of the timing for transition of strategies?-- Correct.

And that is transition of strategies of the operation of the Wivenhoe Dam Manual?-- Yes.

Yes?-- Correct.

Now, we can see that in paragraph 18A it is your understanding that the transition from strategy 1, W1 to W2 occurred during the evening of Sunday, 9 January 2011?-- Correct. Can I just----

Yes?-- Just to put on the record, in paragraph 18 I also clearly identify that my understanding is at this stage purely 20 based on information that I received through technical situation reports.

Of course?-- Yes. Just to put that very clearly.

You have gone through in your statement and addressed the issues and the information that you had to come to that understanding?-- Indeed. I mean, I didn't have access to the process laid out in the manual of predicting dam levels and flows at Lowood and Moggill and predictive flows and model outruns and definitions of locally. I never had access to that so my only way I could derive a strategy was purely on information that I had been given through technical situation reports, which is a protocol we had well-established.

Okay. Also is it the case through meetings you attended?--Yes.

And teleconferences?-- Correct.

I accept that you weren't in the Flood Operations Centres, that your understanding is based on what information you were given and you have set that out clearly in your statement. Paragraph 18A is where you particularise your understanding from the transition from strategy W1 to strategy 2 where it was your understanding that that occurred during the evening of Sunday, 9 January, 2011. You state that is because when the language used in the TSRs changed from descriptions of impacts to downstream bridges. Now you just told me before you returned from leave about midday. Did you spend some time familiarising yourself with previous TSRs?-- Not at that period of time. When I came back from leave on the Sunday I was having verbal conversations primarily with Dan Spiller and it was only on the Monday that I started looking at TSRs in

detail for the information that I required to fulfil that communications role. So on the Sunday evening I was not looking at TSRs in detail, more verbal communications.

XN: MS WILSON

30

50

10

Okay. Did you participate in a teleconference at 9.30 on the 9th?-- No, I did not.

Okay. Perhaps if we can go to page 42 of annexure B to your second statement, which is an e-mail on 9 January 2011 at 9.27 p.m.?-- Will that come up on the screen?

Yes, it will come up on the screen?-- I may have it here.

Page 42, if you are looking. Now, you can see that on the screen it is an e-mail from Dan Spiller to - we can see who it is sent to, including yourself attaching a technical report or including a technical report for the teleconference at 9.30?--Correct.

Do you recall getting that email?-- No, I don't. In fact, I was pretty certain at 9.30 on the Sunday evening I wasn't online at that stage. Again, I was relying on verbal communications with Dan. I would have had that - I got that e-mail the next day.

Okay. So you really came on board on the tenth, that is when your involvement in----?-- I had been pretty well verbally briefed by Mr Spiller, but as far as - and I had been looking at important e-mails through my device, my personal device, but as far as opening up in detail looking at technical situation reports for my communications role I really only got into that on the Monday morning.

Okay. Did you attend a telephone conference at 8.30 that morning?-- I did.

On the 10th?-- Yes.

Can we go to pages 107 to 109, annexure B of Mr Dennien's second statement attaching a note of a telephone conference at 8.30 that morning. Do you see that, Mr Dennien, that's also on your screen?- Yes.

It is an email from Lee Hutchison. Who do you know Lee Hutchison to be?-- Lee is an officer with the Water Grid Manager, Risk and Emergency Management.

And it is an e-mail that includes you as a recipient; yes?--Correct.

Do you recall receiving this email?-- Yes, I do.

Okay. Can we just go down to the next page. This sets out 50 notes from a teleconference at 8.30 on 10 January in relation to dam releases and flooding?-- Correct.

Did you read this note at the time that you received the email?-- Correct.

And did that note accurately reflect what occurred at that

XN: MS WILSON

WIT: DENNIEN B K 60

30

40

20

10

meeting?-- It is, although I will admit the notations on the minutes are in abbreviated form. For example, at times there is the digit 3.5 where I believe that is to mean 3,500 CUMECS. There are abbreviations in it, but yes it reflected what was said.

Okay. We will go through this note in more detail. Now, just prior to going into meeting what was your understanding of what strategy the dam was being operated at, at that time before going into that meeting at 8.30 on 10 January?-- My understanding was that the strategy itself had - I believe was W2 based on the information I had in correspondence. Mind you, I had just got to work. The meeting was at 8.30. I started work probably half an hour before that and I had just had a chance to skim the TSR, had a quick review of the TSR. It was more the - my understanding was I think clearer after this meeting than it was before the meeting, because I had just started work, if that makes sense.

So you have got an understanding of the manual, the manual?-- 20 Layman's understanding, yes.

Layman's. You have you read it?-- Yes.

So is it the case that prior to going into this meeting that your understanding of what strategy it was in was interpreting the TSRs, with your understanding of the manual?-- My understanding of the - sorry, I just missed the-----

Was it the case that prior to going into the meeting that your 30 understanding of what strategy the dam was being operated at was by interpreting the TSRs?-- Correct, yes. Sorry.

Had anyone told you what strategy the dam was being operated in?-- No. The word strategy as defined by W levels, no. We had - most of our conversations between myself and Mr Spiller leading up to that was around dam levels, predicted dam levels, flowrates, that is the release rates, and our biggest I suppose focus at the time was really about ensuring that all parties were being communicated what those impacts of those release rates would have been. That was the focus, so the word "Ws" wasn't passing frequently between myself and Dan Spiller.

Had Mr Spiller told that you he had received an e-mail from Mr Drury stating that the dam was being operated in W2?-- I at some point received that e-mail as a cc, and my understanding is that there was discussions going on between - on the Monday morning between Mr Drury and Mr Spiller to clarify that particular point.

Just to be clear, can you - can Mr Dennien be shown page 169 Annexure B. It is an email, A23 e-mail from Mr Drury to Mr Spiller. Sorry, this should be - I apologise. This should be in Mr Spiller's statement. We have got an email here that is 10 January 2011, 8:23 a.m. from Rob Drury to Dan Spiller. We

can follow the email trail, "Rob, are you now operating under

XN: MS WILSON

10

1

40

release strategy W2 or W3?" Dan, the answer W2". Is this the email that was forwarded onto you?--Yes.

Do you recall when that e-mail was forwarded on to you?-- No, I can't, sorry. I could find out but here now I can't remember exactly when that was forwarded through.

Okay. Can you give any indication - were you aware of that e-mail before you went into that meeting at 8.30?--No. No.

Now, if we can go back to pages 107 to 109 annexure B of Mr Dennien's statement, which is the note of the telephone conference at 8.30 that morning of the tenth. So to summarise all of that, please correct me if I am wrong, is it that when you went into this teleconference it was your - what was your belief that the dam was being operated at?-- As I said, on my initial quick review of the TSR, because I had been there 30 minutes at work, I believe my initial reading W2, but I more gathered my view on that based on this meeting.

Okay?-- I think, yes.

And you have previously told me that was because of your interpretation of the TSR?--Yes.

In the attendance at this meeting - sorry. Where were you when you participated in this meeting? -- I was present in the emergency room.

Okay?-- Where we have our teleconference facilities.

Okay. Who was also present there?-- I think as per the list is accurate, Mr Barry Dennien, Dan Spiller, Scott Denner, Michael Lyons and Lee Hutchison.

Did anyone telephone in?-- Yes. My understanding SEQWater as noted there, Peter Burrows, Rob Drury. Paul Birt I can't be certain of, but Stan Stevenson I can.

Okay. This note sets out the agenda, which was to review the **40** current release strategy and you have already told me before that this document is in note form, so where it says on that first dot point 3.5 and 4, that really is 3,500 CUMECS and 4000 CUMECS?-- Correct.

Can you take me through each and every one of these dot points and tell me what was going on in this meeting with reference to these dot points to the best of your recollection?-- Okay. To start off with we will start with the heading "release strategy". I just want a point, a definition for me so that when we are communicating now it is clear, release strategy releases I see different to being the operating strategy, just my understanding, layman's understanding of the manual, and "operating strategy" will set a series of constraints for releases. A release strategy doesn't purely by definition set the operating strategy. It is more the operating strategy will set conditions for releases. I know that sounds pedantic

XN: MS WILSON

10

20

1

30

but it is important in the context of this. So the heading was "release strategies" and the reason the focus was I believe on releases is because releases had impact on river flows which a lot of this agenda talks about, and the river flows are important to us because that's about community impact and that really revolved around our communications. So the first one, the first point there, "SEQ Manual 4,000 CUMECS but aiming for 3,500 CUMECS, 4000 in the river", that 3000, 4000 in the river are key points referred to in the manual. At Moggill I take it in the river the point they were referring to was the Moggill, so that was to do with discussions around Moggill and the flowrate between three and a half thousand and four thousand, and why that was critical, that's the point referred to as the point where urban inundation occurs beyond 4000. "Will adjust timings based around what is happening downstream", not sure what that meant. I would have to - I think the timings, I am not sure the timing of communications or the timings of releases - not sure what that meant. "Release at 3500 currently at 2000 CUMECS", I think that was a statement of fact that was occurring at the time. "Going up to 2500 in the next 12 to 24 hours", I think was a statement of fact. "Objective is to be minimised - minimise urban impacts", again a statement of fact. "Barry", I have made a statement there that 3500 comfortable through Moggill points between W2 and W3 is critical. I'll define what I meant there. My understanding there is that 3500 is a point that is comfortable from the point of view of inundation in Brisbane; they were comfortable I knew that because prior to that in October when we had at. releases up to 3500 I was very certain about that number for Brisbane being a critical number because we had been through that event earlier on.

Mr Dennien, I just want to make sure that you are careful in telling me what occurred at this meeting and not just telling me what you may have thought had occurred at this meeting by looking at these notes?-- No, that's fine.

I want you to focus on this is what occurred at this meeting?-- Sure.

Okay?-- I apologise if I am not - I am trying to do that. I am recalling my thoughts as I read the documents.

Okay when it says "Barry", that's Barry Dennien?-- Correct.

That's you?-- Yes.

"3,500 CUMECS comfortable through Moggill", that is you saying that; is that the case?-- Yes. Correct.

And where did you get your knowledge that it was comfortable through Moggill, that is not urban inundation, at 3500 CUMECS?-- I was explaining that. Prior - in October we had an event of 3500. We had just been through that event and I was involved with the communications with Brisbane at the time around what impacts that actually had on the river and flood impacts downstream. So I was familiar with that 3500 being a

XN: MS WILSON

10

1

20

30

40

critical point.

The point between W2 and W3 is critical. Is that you saying that the point between W2 and W3 is critical?-- Yes.

What did you mean when you were saying the point between first of all, did you use those terms, "the point between W2 and W3 is critical"?-- I can't recall, but I wouldn't have any reason to believe I didn't use those terms.

The terms W2, was it established at that meeting that the dam was presently being operated in strategy W2?-- No.

Well, then what basis were you proceeding on?-- It was established earlier on the objective is to minimise urban impacts.

Was it discussed that the dam is being presently operated at W2?-- No, I can't recall that. The discussion was around release rate

20

10

40

Was the term "W2" used at this meeting?-- Most likely by me in that dot point. I have to reason to believe it's not accurate.

Was the term "W2" used at this meet?-- Yeah, I - as I said, I can't recall the exact yes or no. I can only recall that I read the minutes after the meeting and I didn't have an issue with them.

So are you saying that you can't recall whether "W2" was used and you're looking at this note to say that it must have been, or you're saying----?-- No, I can't recall whether it was used.

COMMISSIONER: It's a little more than that though. He's also saying he looked at the minutes immediately after, and I take it it didn't strike you----?-- Not as being unusual, and that's all I can recall.

MS WILSON: When you're talking about the point between W2 and W3 is critical, was that point discussed at the meeting?-- I would have raised the issue that W2 and W3 as defined in the manual talks about this flow rates at Moggill around 4000 CUMECS, and I just knew from the past experience how critical between 3500 and 4000 CUMECS and then above 4000 is critical to urban inundation based on the experience, as I said, we went through October through to December. So for me, that was front of mind for me. That flow rate at Moggill at that range between 3500 and 4000 was critical. That's the intent of what I said.

Before when I asked you about your understanding of what strategy the dam was being operated before the meeting, you said that you gained that understanding from TSRs. From what I recall, correct me if I am wrong, is that you believe - you thought it was W2 from the TSRs, but that was confirmed at that meeting - your understanding was confirmed at the meeting. Is that what you're----?-- In this particular meeting - if we get down a little bit later in the dot points, I can show you where I - as I said, my understanding was confirmed on that.

Can you tell me where you your understanding was confirmed?--Yeah, okay. The last dot point.

The last dot point?-- Yes.

Which is that one?-- "Peter, how much notice can we give if we're moving from 3500 to 4000 at Moggill? Key question."

Yes?-- In my mind, I felt that the - it was confirmed in dot point 3 - that the target releases at that point were 3500 and that there may have been a step change to move to 4000, and if that was to occur - again it's a sensitive point - that, to me, sort of gave me the impression that maybe we were moving beyond W2 to W3.

5659

XN: MS WILSON

1

10

30

20

40

When we look at the scenarios, we see the first dot point is W2. Were scenarios of W2 discussed?-- Not in the context of W2, as I mentioned earlier; more in the context of release rates up to 3500.

So am I to take it that when I see scenarios W2, that was a discussion about release rates?-- Up to 3500.

So the scenarios of W2 weren't discussed; rather, you are telling me that release rates----?-- The language of Ws, as 10 I've sort of mentioned, wasn't a language being used in the room. It was more around the release rates.

Mr Drury participated in this meeting?-- My understanding, Rob Drury was there, yes.

Did he have any discussion about whether the dam was being operated in W2 or W3?-- I can't recall.

Could we go to page 86 of your second statement, please. This 20 is an email from Mr Spiller to you?-- Correct.

It attaches the technical situation report W-36. Do you recall receiving this email?-- Yes. Yes.

At 9.51 a.m.?-- Mmm.

If I recall, that meeting as noted in that note finished at about 9 o'clock, so about an hour after this. Did you read this email?-- Sorry, I missed that?

Did you read this email?-- Yes, yes, I did.

Can we scroll down. We can see the third dot point there: "As specified in the approved operational procedures, the primary objective is now to minimising the risk of urban inundation (release strategy W2)." Do you see that?-- Yes.

Did that conform with your discussions that occurred at that 8.30 meeting?-- Correct.

Was there any discussion at that meeting that objectives had changed - primary objectives had changed?-- No, the discussion primarily centred on release rates and the flows at the Moggill gauge.

If you to paragraph 20B of your second statement, at 10.30 on the morning of Monday, 10 January, Mr Burrows and you briefed Minister Roberts in regard the water releases from Wivenhoe Dam and the communications being managed by the water grid manager as at that stage?-- Correct.

During that briefing did Mr Burrows or you indicate what strategy under the manual was being employed at that stage?--My indication is that there was a conversation, and I'm pretty certain Peter Burrows took the lead on the releases, but it was centred again around releases similar to the meeting we had the two hours prior. My conversation primarily centred

XN: MS WILSON

1

30

40

around the communications specifically with the councils.

But you were at that - you participated in that conference?--Correct, yes.

Was that a teleconference? -- I think it was in person.

The question that I asked was at that briefing, did Mr Burrows or you indicate what strategy under the manual was be employed?-- Yes. I can't recall Peter Burrows did or did not indicate the strategy. I do recall the conversation on the release rates and the flows at Moggill, again because the sensitivity on that when it came to community impacts, and I do recall clearly that we spoke about the communications with the councils, given what we had been through leading up to December and that we knew it was critical to manage especially the Somerset Council, downstream - the immediate councils downstream, Ipswich and Brisbane.

Was there anything said by Mr Burrows during that briefing that suggested to you that the position at Wivenhoe had changed from what it was two hours earlier when you had your teleconference with Mr - him and Drury and others?-- No, I can't recall that.

At paragraph 18C of your statement your understanding is that the transition from strategy W2 to strategy W3 occurred sometime later in the day on 10 January?-- Correct.

Language in the TSR changed, and you set that out. At 12.30 that day you participated in a conference where - you summarised that at paragraphs 20C of your statement?-- Correct.

Can you go to that, please?-- Um hmm.

Have you got that?-- Yes, I have.

You can see in that paragraph about a quarter of the way down, "At that meeting"; can you see that sentence?-- Correct. 40

"At that meeting Mr Burrows advised that the strategy would need to change to increase releases from Wivenhoe Dam"?--Um hmm.

Can you - you've read - there's a transcript that's been provided of that meeting?-- Yes.

Do you accept that that is a correct transcript of that meeting?-- Correct.

Have you had the opportunity to read at that transcript?--Correct.

Can you point to us where in the transcript that Mr Burrows advised that the strategy would need to be changed?-- Just again clarification----

XN: MS WILSON

20

10

1

30

From your understanding?-- The term "strategy" was being interchanged here between operational and release strategy. I notice Peter Burrows has used the term "release strategy" in previous meetings. So as far as when we talk about strategy, in this particular case the term "operational" and "release strategy" were being used interchangeably, but I'll take you to that point.

When you're referring to operational strategy, you're
referring to the strategies as referred to in the manual of W1 10
to W4?-- Operational strategy manual 1 to 4, correct. That's
what it calls it, operational strategies. If you go to the
second page 1 of the transcript to the second paragraph-----

Yes?-- ----I'll quote, "Currently the release strategy is to design the discharging now into Wivenhoe. Currently the release strategy is to design the releases, and we're releasing about 2000 mega/cubic metres per second out of Wivenhoe, and it is designed to have a flow rate at the Moggill gauge of about 3500 megalitres per second."

Just slow down, Mr Dennien. Everything has got to be recorded?-- Okay.

We'll just get that up on the screen so we can see it?-- I was just quoting that one.

MR BURNS: Can I ask what page that is?

MS WILSON: He referred to page 2?-- No, page 1 of the transcript, paragraph 2.

We'll get the exhibit number for you. We can find it in annexure B of Mr Spiller's statement, pages 216 to 232. Is that the document that you're referring to, Mr Dennien?-- The one on the screen now?

Yes?-- Correct.

And you were taking us to a paragraph there which was at the 40 end of page 1; is that the case?-- No - yes, go back - mid page one.

Right. Second paragraph?-- Paragraph 2, Peter Burrows, "P Bor", second paragraph.

So is that the paragraph - is that the information that you received from that meeting, that - thinking there was going to be a strategy change?-- Yes, release strategy.

Release strategy?-- Currently a release strategy. There are other paragraphs in the first two pages that talk about how the release strategy will change. It's not just that one; there are others.

If we can go to page 229 of that document. Do you see there "BD"; that's you?-- Correct.

XN: MS WILSON

1

20

30

1 You refer to the summary of actions. "The first cab is Peter Burrows is rapidly finishing off the release strategy"----?--Can we just scroll down so I can see that on the screen? Yes?-- I have a copy here I can - can I have the page scrolled down? I think if we scroll down the page, you won't see it? -- Now I have it. 10 "I'm going to have an attempt"; do you see that?-- Yes, got that. So you were summarising the actions. "The first cab is Peter Burrows is rapidly finishing off the release strategy"?--Correct. In this conference it wasn't referred to, an operational strategy of W1 to W4?-- No. It was in the context, as I said, right from the beginning of release strategy. 20 And when we say - when you say in your statement that the strategy changed from W2 to W3, is it the case that your understanding came from this meeting here - part of your understanding came from the meeting at 12.30?-- Combination of this meeting and the 8.30 meeting. And the 8.30 meeting?-- Yes. Did you ask anyone what strategy are we in - operational 30 strategy are we in?-- No. Is there any reason why?-- Yes. The focus of the role - the focus of this whole meeting - and these were very senior people at this meeting - was really to ensure that communications was clear, and our focus was communicating impacts to both State disaster management groups, the community, key stakeholders, including key government agencies, and making sure lines of communication with councils were clear. That's the whole purpose of this meeting, and our **40** focus as a result was really about flow rates in rivers, also river levels, and making sure that the context was clear. Hence in this meeting we very much cleared up what the current flow rates in the river were. We cleared up the measurement the gauging in the river. We cleared up definitions of what inundation was in the property, so there was a constant language, and we made sure all the agencies were talking at the very highest level. So our focus very much was on flow rates. It wasn't on what operational strategy was occurring 50 on the dam. Thank you. Now, are you aware that Brian Cooper prepared a report about the compliance with the manual in relation to the dam?-- Yes. If we can go to your third statement now, which is paragraph 9

of your third statement?-- Sorry, this is the second statement of the 3rd?

XN: MS WILSON

WIT: DENNIEN B K 60

No, it's the third statement sworn 3 February 2012?-- Yes, got it. Paragraph 9?

Yes?-- Yes.

This is an account of the meeting you had with the Premier and Ken Smith?-- Correct.

And you say that although you had no personal reason to suspect that dam operations were not appropriate, you discussed with them the importance of ensuring public confidence----?-- Correct.

----in the operation of the dam. Doing the best you can now, can you exhaust your memory as to what was actually discussed in that meeting? -- Sure. The first thing that was discussed, I had just - this was just at the end of the State disaster meeting, and I had just briefed everybody on the current dam levels and rates, as I usually did, based on the TSRs. The first engagement with both Ken Smith and the Premier was discussion about the dam had never been through an event this large before, and bearing in mind this was Tuesday morning. This wasn't - we hadn't got near the peak that occurred later that evening. This was in the morning. But the event was serious, and the event was getting - and the BOM just updated the State disaster, so the event was stale gaining momentum. So there was quite a discussion that the dam hadn't been through this before, and as I mentioned, the second thing I raised is I didn't have any concern or hadn't any reason to believe that the dam wasn't being operated properly.

Stop there. Did anyone raise any concerns with you that the dam hadn't been operated properly?-- No, not at all.

So why was it necessary to get a report whilst a flood event was still in progress?-- I think - I'll just clarify the rest of that meeting for the first question.

Sure?-- The third part of that is important. I did inform both Ken and the Premier that the dam itself was operated in compliance in a regulated manual, and that manual prescribed releases that were formulated based on - I didn't take them through the detail, but it was based on lake levels and predictions, et cetera, so it was a fairly formulated release The manual was a regulated instrument, and compliance rate. was important. So we had that conversation. Based on that conversation, the Premier was - I believe the Premier came first with this conversation that she felt that this was a very serious event and having some audit check, if you like, to ensure compliance with that manual was an important thing to do to make sure we maintained the confidence of the community and confidence of all those involved. We hadn't been there before, and the event was getting - as we had just been briefed by the Bureau of Meteorology, the event was getting more serious. So that was the context of the meeting. From that it was decided that we should also involve Sequater and the dam regulator. They were key parties in this. The

XN: MS WILSON

10

1

40

event was still ongoing. It was very, very important that we didn't interrupt, if you like, the process of managing the dam. So having an audit at that stage with minimal interruption was the most important thing to do. We were given the task to project manage that, but engaging and with the cooperation of both Seqwater and the dam regulator, and that's what we did.

If we can go to paragraph 22 of your third statement. On page 5 you outline the material that was provided to Mr Cooper for the purposes of his review?-- Sorry, that was page 22?

No, paragraph 22, page 5?-- Yes.

Do you recall why the situation reports, as compared with the technical situation reports, were not provided to Mr Cooper?--The technical situation reports were supplied because we had that information, and that was readily available. One of my officers project managed this task, and she had abscess to all that information readily, and it was something that we could get to Mr Cooper very quickly. The offer was also made to Mr Cooper via - with permission of the dam safety regulator and Peter Burrows - that Mr Cooper could have access to information from the flood centre, but through Mr - through the dam safety regulator. So there was one portal in and out and that it was minimal interruption.

And that was Mr Allen?-- That's Mr Allen, correct.

If we can go to paragraph 24 of your third statement, which is - turn the page, on page 6 - that you participated in an initial teleconference with Mr Cooper?-- Correct.

And Ms Smouha at 12.30?-- Um hmm.

During which a general overview of the engagement was provided?-- Correct.

What was the overview of the engagement?-- It was to review compliance to the manual - the flood operations manual.

Mr Allen also participated?-- My understanding, yes.

And an invitation was made to Mr Cooper to make any additional inquiries of Mr Allen?-- Correct, through - yeah. To be clear, that was to ensure minimal interruption to the flood centre through Mr Allen, who had a relationship with the flood centre which would enable that to occur.

Did Mr - was it at this teleconference - was it discussed what 50 material Mr Cooper would have?-- Not in detail, no. Sorry, can I go back on that? I do recall there was some discussions about some of the release data. I know Mr Allen and Mr Cooper were having that conversation. Again, I never got across the detail of that, but I do recall there was some conversation on that release data.

If we can now go to pages 317 to 319 of annexure B. You'll

XN: MS WILSON

10

1

20

30

see this is an email from you to Dan Spiller?-- Correct.

And attaching the draft report?-- And to Peter Burrows.

It was the case, wasn't it, that the engagement for Mr Cooper was to provide a draft and then a final report?-- Correct.

And can you recall the turnaround time that was provided to Mr Cooper to do this?-- I haven't got the exact to the minutes and hours, but I know it was fairly short. So I think we wanted it back the morning of the 12th, I think, was the time agreed we would have the draft in, yes.

And why was it necessary to have such a short time for Mr Cooper----?-- Because the event was moving. Put it in context again. When this was first put together, the scope, it was Tuesday morning. Tuesday morning was the time when the Bureau was taking everyone through just how rapidly the event was moving, and it was thought best to have an audit. We didn't know how long it was going to go. We didn't realise that the peak was going to occur that night. We thought this would have gone on for quite a few days to a week. But it was thought at that point in time having an audit, if you like, of compliance to the manual again would fulfil all the issues that I raised before, and having a short period on that would be better than having a long period. Bearing in mind, I think I did raise with the Premier that compliance in the manual said that there was a report to be produced, but that's something like six weeks after an event had finished, so there was a - you know, in this part of the manual. So it was a long way off to get an official report, and it was thought better to have a shorter period of time to have a report done.

You obviously read this draft report?-- I did.

And you were satisfied that it looked okay to you?-- Well, again from the context - my context, I wasn't in any position to review compliance from the point of view of not having access to model runs and all that detail I talked about and detailed earlier about what strategy was in place, I couldn't have had that information, notwithstanding it was a compliance audit to all the aspects of the manual. And again based on the information, layman's version of the manual, I went through the checklists that Mr Cooper went through. It looked like it was a comprehensive checklist without going into the detail of each of the points.

Can we just go down to that report, please. Go to page 2. You see the paragraph that starts, "Until the last day or so"?-- Correct.

This is a document that had been provided to you on the 12th; is that the case - 12 January?-- I'm just checking it back to this e-mail I have here. Yes, it appears so.

"Until the last day or so, Wivenhoe Dam has been below EL74 and accordingly would be operating under strategy W1." Do you recall reading that?-- Yes.

XN: MS WILSON

10

1

20

30

40

Now, just going through from when you participated in managing this flood event, which was on the 10th, it was your understanding that on the 10th it was operating at W2?-- Yes, it was.

No inconsistency? Or you just thought there was - any inconsistency do you see?-- No, because my, as I said, understanding, as I said earlier on, was only really gathered from information supplied to me by Seqwater in their technical situation reports or information gathered at meetings. That's how I gather an understanding when experts are involved going through manuals, going through other more richer detail. I wouldn't typically question an expert's review based on further richer information above my understanding, which is based on information that I've been given only on - in the context of written down objectives. I would not go beyond that and question that.

If I can just take you down to the next paragraph. "Over the 20 last couple of days the storage level in Wivenhoe Dam has increased to above EL74 and the storage level in Somerset Dam is EL103.3 and is rising. This situation would demand strategy W3 for Wivenhoe Dam"?-- Um hmm.

Any questions for that?-- No.

You received the final report some hours later; is that the case?-- I haven't got the exact time. I've probably got it in my book. I can check here now. But we got it----

If you go could go----?-- ----my understanding later that day.

----pages 336 to 337 of annexure B?-- Um hmm. 3.31 on the 12th.

Yes. Did you again read this report?-- Again I gave it the same review that I gave the draft, looking at the more strategic contexts, were all the elements reviewed, not looking in detail within the elements.

So anything technical really wasn't, are you saying, not part of your----?-- I just didn't have the information to comment. In other words, I wouldn't have had the level of detail on technical information to be able to override any - you know, any fundamental conclusion that an expert would come to.

You were just looking at these reports just from the perspective of a communicator?-- From my role as a communicator, but in this particular case we were a project manager to get a report done, and we just wanted to make sure it met the terms of reference and it completed that, if you like, compliance check audit of the manual. So from my perspective I looked at the manual, looked at the component parts, and Mr Cooper had gone through each of the component parts of the manual and had a review of each section.

XN: MS WILSON

1

30

40

50

And you weren't looking at content?-- Not - not the detailed content and the technical components where I had no access to the information, no.

Your - then is it fair to say that your role in this was to deliver a report?-- Project manage.

Okay.

COMMISSIONER: It didn't strike you, though, that what had been communicated to you by Seqwater didn't match?-- The well, most of the communications that we focused on, all of our media releases, my communications were really not using the "W" term, it was more around release rates, flow rates in the river, heights in the river----

I understand that?-- ----that's really the bits that we focused on.

I'm not asking you about what you communicated, I'm asking you 20 about what was communicated to you by Seqwater, which included that e-mail from Mr Drury saying----?-- Sure.

-----you're in W2 at a particular time, and I'm just asking you, it strike you that there was a mismatch in information and not necessarily the technical reasons for----?-- Yeah.

-----why somebody was in a strategy?-- I understand the question. It is a valid question. Look, if there was some difference between W2, W3, based on what I had learnt in the meetings, W2, W3 have a lot of similarities in the way they're described. There's only a few minor nuances in the difference. I probably didn't find it unusual that there was some confusion between two or three, I probably didn't find that unusual, but it really wasn't the centre of my focus. My focus was about the rates in the river and the forecasts and what flood heights we were going to have.

MS WILSON: Thanks, Madam Commissioner. If we can go now to your involvement in the preparation of the briefing note for the minister in January 2011?-- Yeah

Now, what was your role in that project?-- Yep. Context again, our role in preparing briefing notes to the minister was a typical role we'd conducted for three years as part of the water grid. It's a combination of three government-owned agencies. We act as the central agency for producing briefings to ministers. So we took up our normal function in that perspective. So by doing that we actually in this case drafted the overarching briefing note, the ministerial briefing note itself, we drafted that. We also attached to it our own individual work, which was around the pre-Christmas briefing to the minister on lowering the dam, the full supply level. We attached the Cooper report because we projected-managed that process, but the other two attachments were Seqwater attachments. One was a - I think it's been called the "January report", and the other one was a ministerial brief on the actual event. 30

40

1

Okay. Did you read the report that was produced to be provided to the minister from Seqwater?-- The - both those I read, yes, and we read it through the lens of making sure there was continuity of language and there was some - that is continuity of language in the materials that we produced, and I think secondly we also raised a series of extra information requirements that we thought the minister may require for that cabinet meeting, because again it was a major event. We had experience with what the minister required as far as information went, and we asked for a series of extra additional information. So they were the two contexts that we reviewed them.

If we can go to page 521 of annexure B of your statement. I apologise, it is the second statement of Mr Dennien. Have you got that, Mr Dennien?-- Yes, I have, I have.

And this is an e-mail from Peter Borrows - Peter Borrows----?-- To Bob Reilly?

Yes, in a ministerial brief outline----?-- 517 - 517 in the book.

Yes?-- Yes.

And is - was this at page 521? Thank you. This is an e-mail from Elaina Smouha----?-- Mmm-hmm.

-----to Peter Borrows. You are copied in on that with Dan Spiller. "Peter, as per were your conversation with Barry we have highlighted some queries with you, your attached reports". Did you have a conversation with Peter Borrows about the ministerial brief?-- Yes, yes.

What was that conversation about?-- Most - as I said before, it was really about additional information. This report was again in record time producing a ministerial. This was on Sunday and it went through till midnight Sunday night, so there was pressure on to get information gathered for that briefing, and we were asking extra additional questions and information, and I think myself and Peter had a discussion about, you know, what we could get in time, if you like.

Okay. If we can go to page 536 of this document, which is page 9 of the briefing note?-- Is that 36 or 46?

536?-- Thirty-six, thank you.

Do you recall reading this table ----?-- No.

----which says sets out in chronological order about flood - significant flood - significant events in the flood event?--Yeah. No.

Didn't read it?-- No. The - I think we marked up a version. It might be - I think I put it in on my statement. The version of what questions we had we marked up that - so it was very clear, given the speed required in the communication. We

XN: MS WILSON

10

1

20

50

actually highlighted in the report the bits that we were interested. So there will be an attachment of the Seqwater Jan report with our queries highlighted.

Okay. I can take you to a couple of them, I'm not too sure I can pick them all up----?-- Yes.

----but if we go to page 530?-- Mmm-hmm.

Now we go down. Is that the type of highlighting that you 10 say?-- Yeah.

So you are reading it to - and did you make those comments?--I didn't make that one. I've - but there was a group of us. There was probably five or six people reviewing this-----

Okay, sitting around a table----?-- ----and this is a collection of five or six views.

Was that sitting around a table going, "How does this read? How does this page read with other pages?"----?-- Oh, it was more on our own in coming back and collectively putting in. We - given the timing on this-----

Okay?-- ----this was turned around very, very quickly.

Okay. So - but then you all satisfied yourselves that these comments were appropriate?-- They were appropriate to enhance the document, correct.

Okay. So there you - there's a notation that this part was inconsistent with the statement on page 8?-- Yeah.

You agreed with that?-- Yeah, because I think in page 8 there was a discussion about some of the telemetry - I will have to go and find it but there was some issues with some of the telemetry and we just wanted to make - whether that statement correlated with the issue on the telemetry that was on page 8.

If we go to page 532, please. There seems to be some commentary here that - whether these strategies have been explained correctly?-- Yes.

Did you make those comments?-- I think a few of us came up with that. Again, that was just made based on looking at the manual and how the manual describes it and just wanting to get consistency there----

Okay?-- ----that's all.

If we can go to 534 of annexure B. And 534 of annexure C. 534. We see here someone's made comments. Do you recall seeing those comments?-- Yes, yes.

We can go down a bit more. That's looking at assumptions for model?-- Mmm-hmm.

XN: MS WILSON

30

20

50

40

Okay?-- Remember I think this work here we were intimately involved and this particular table, if I remember rightly, was - this was background----

Mmm-hmm?-- ----and this - if I remember, I'm just looking now to get - familiarise myself - yes. In conversations with Peter that day Peter talked about the event being a dual event. In other words, there was twin peaks, we've often used that term "twin peaks", and that's where the ideal about dual or triple peak came from. You know, if it was let's bring that out in the document.

Okay. Then we look at the event of decision-making, part 4.2. The group decided that it should be stated that weather forecasts were consistently less than actual?-- Yeah. Again, this was the conversation that was coming through in the previous days, that, you know, the weather forecasts were stating something but the rainfall precipitation never eventuated, so we felt that was important from a communications point of view but also briefing the minister.

Okay. And we've got here on the 6th of January it starts off, "The flood event decision-making". So - if we can keep on going, the table starts at 6 a.m. on the 7th - yeah, 7 a.m. on the 6th. If we keep on going down. You would have read all this, wouldn't you?-- Again, this is the timetable stuff. I we didn't go into any detail. We didn't mark up any changes so we didn't go into any detail reviewing that.

So, what, you just left that?-- Yes.

Why is that?-- Well, our focus at that stage was on preparing all of our - our materials and what we were preparing. There was - we looked at this from the point of view of was there inconsistencies between this and the other documents we had in our pack----

So you did look at it?-- ----and there wasn't.

Sorry. You did look at this table?-- There was a group of us 40 looking at this table----

Yeah?-- ----and I'm sure that the - and I'm talking on behalf of others, so I'll talk on behalf of myself only, probably more appropriate, but from me perspective I didn't look at this table in detail, no.

Did you read it?-- I skimmed it, yes, but, no, not in detail.

Not in detail?-- No.

Not in detail enough to look at 6.30 on the 10th of January 2011 where it says that, "rainfall continued during the night and based on rainfall on the ground it was apparent the operational strategy had progressed to W3"?-- No----

Did you pick that up?-- I didn't pick that up, no.

XN: MS WILSON

10

1

50

Did you have any input into the March report?-- No.

Did you read the March report?-- I was only informed that it was on the Web when one of my communications officers said that it's now been published. Our focus at that stage wasn't on the operations, there were, again, as I say, people more experienced and access to data produced those things, rather than us.

When did you read the March reports?-- Only recently.

And when you say "recently" when do you say that is?-- In the last week or two, two/three weeks, when it came highlighted there were some differences.

And that was only a couple of weeks ago you read the March report?-- Correct.

You weren't interested in reading the March report to see how it was set out on a communication basis?-- No. I relied more heavily on the Commission of Inquiry's interim report to see how, I suppose, the event and the operations went. So I did read the Commission of Inquiry report quite closely but I never ever read the detailed Seqwater's report in detail, no.

It wasn't - that didn't affect your job at all----?-- No.

----that you should read it?-- It's just not related to our job.

COMMISSIONER: When you read the interim report----?-- Yes.

-----any bells ring about times of strategy adoption?-- I will have to admit my - obviously I looked at the interim report from aspect that we were managing and when I appeared here last time there were aspects to do with Water Grid Manager specifically, looked at those closely. I looked at all the actions, all the recommendations closely. When it came to the sequence of events, I didn't look in detail mainly because I knew that the Commission had looked very, very closely at the strategies and the triggers and looked at - and there were people looking again, as I've been saying, at the detail, and I wasn't really in a position to - I felt to question what other experts had looked at-----

Well----?-- ----so from my perspective no.

All right.

MS WILSON: I have no further questions.

COMMISSIONER: We might take the morning break at that point, I think, and come back at 25 to.

THE COMMISSION ADJOURNED AT 11.15 A.M.

XN: MS WILSON

30

40

50

10

20

08022012 D65 T6 GFH (BNE) (QUEENSLAND FLOODS COMMISSION OF INQUIRY)

THE COMMISSION RESUMED AT 11.35 A.M.

BARRY KEVIN DENNIEN, CONTINUING:

COMMISSIONER: Yes, Mr Rangiah?

10 MR RANGIAH: Could the witness be shown page 206 of attachment B to the statement of Mr Spiller. Mr Dennien, you have already been taken to this document and you have agreed, I think - you can see it on the screen in front of you - and you have agreed that this is an e-mail sent by Lee Hutchison to you and others attaching notes that had been taken during the teleconference at 8.30 a.m. on the same day?-- Correct.

Over the page at page 207, you have already been taken to this document as well, those are the notes of the teleconference itself?-- Correct.

And then do you see where it says 3.5 and 4?-- Mmm.

The fifth dot point under that starts with the notation "Barry"?-- Correct.

And you have agreed, haven't you, that these are notes of things that you said?-- Correct.

And you did say that three and a half thousand CUMECS is comfortable through Moggill, didn't you?-- Yes, "through Moggill" meaning a flowrate in the river of 3500 CUMECS comfortable from the perspective of water remains basically within the river banks and we don't get that urban impact. Comfortable from an urban impact point of view.

Yes. I am just more interested in what was said rather than the reasoning for it, but you used the word "comfortable"?--Mmm.

And that was written down?-- Yes.

And then in the third sentence did you say that there was a need to engage the Brisbane City Council at the highest level when the decision was made?-- Correct.

And that was written down by Mr Hutchison?-- Correct.

And I suggest that you also said that the point between W2 and 50 W3 is critical because again it was written down by Mr Hutchison?-- This is the point earlier on, I made the point clearly that W2/W3 wasn't the language being used in the meeting. In fact most of the language was about release rates, but I acknowledged the fact I had agreed to these minutes. W2 and W3 was against my name, so yes I would have used those terms.

20

40

08022012 D65 T6 GFH (BNE) (QUEENSLAND FLOODS COMMISSION OF INQUIRY)

Because Mr Hutchison wouldn't have written down the phrase W2 and W3 unless you said it?

MR O'DONNELL: I object. That is asking the witness to speculate on what someone else did.

COMMISSIONER: Yes. Did Mr Hutchison have any familiarity with W2 and W3? Would he have been interpreting?-- My understanding is no.

MR RANGIAH: So does that then suggest that you used the term W2 and W3?-- Yes.

Now, the next sentence, you need to engage Brisbane City Council at highest level when decision is made. Does that then refer to a decision to change the strategy from W2 to W3?-- No, not necessarily.

Well, what other decision could it refer to?-- In context of all the other minutes above, all the other dot points including the heading of the whole group is about flowrates at Moggill; 3500 and 4000 CUMECS at Moggill. The whole discussion up to that point was really about flowrates at Moggill and as I said earlier once we hit 4000 at Moggill we start to incur problems based on all the history. So the decision is made is - the decision in my mind clearly was a decision of 4000 CUMECS or above at Moggill. That is when we need to have Brisbane City Council engaged.

The upper limit of releases under the strategy W2 is 3500 cubic metres - CUMECS, I am sorry?-- My understanding that is releases from the dam, but you can go to 4000 at Moggill in 2.

Okay?-- You are limited to 4000 in 2.

The high threat of release under strategy W3 is 4000 CUMECS, isn't it?-- On my understanding you can release up to 4000 CUMECS, correct, but the Moggill rate in W3 is it gives you a little more lenience. At the Moggill flowrate you can go above 4 if the natural flows - I can't quite remember the detail, but if the natural flow levels you are allowed to go above 4000 CUMECS.

Now, when you - during the course of this teleconference nobody disagreed with what you were saying?-- No.

You referred to the October 2010 flood and you----?--October through to December. There was an event that went for nearly two months. It was a series of events but there were quite a few releases through that two month period.

Did you say, though, in the course of your evidence that during the October 2010 flood there were releases of three and a half thousand CUMECS?-- Yes, I think I said that this morning. I have just been recalling that. I don't think we got that high. I don't think we got to three and a half thousand CUMECS. I could be wrong. I'd need to go and check that fact.

XN: MR RANGIAH

10

1

30

20

40

Is what you might have meant that there were flowrates through Moggill at three and a half thousand CUMECS during October?--Again, I would have to check that fact. All I remember is that the river levels got to the point where we were lapping outside the river banks here in Brisbane, and I know it was due to high tide, but also through flowrates as well, so I do remember how critical the community's, if you like, reaction response to getting water outside the river banks was.

What I want to ask you, though, is that when you said three and a half thousand CUMECS is comfortable through Moggill, you were talking there about the flow through Moggill; is that right?-- Correct.

And by "comfortable" what you meant was that at a flowrate of three and a half thousand CUMECS through Moggill that wouldn't cause urban impacts?-- Yes. The manual actually states that.

And your - but your view was that when the flowrate got to 4000 CUMECS, at that point there would be urban impacts?--Yes, and that was based - although the manual says it is still within not creating urban impacts, I knew from the experience as I said before between October and December that Brisbane City Council's view of four thousand CUMECS meant that there was some impacts occurring. So there was this slight discrepancy between this three and a half thousand and four thousand on the start of those urban impacts. I knew that there was a sensitive range.

Alright. Now, the water grid manager's role is to manage South-east Queensland - the South-east Queensland water grid to maintain water security and quality, isn't it?-- Correct.

And water security is affected by proper management of dams?--It is affected by the component of the management. Dams management has got various components, but the component around storage of drinking water supply, that component part, yes, it is affected by that.

Well, I'd suggest that if there were poor management of Somerset and Wivenhoe Dams as water supply dams during the flood event, that was relevant to your role?-- Correct.

And your role also included disseminating information or communicating information during the flood event?-- Correct.

You said that on 12 January you were aware that SEQWater was required to produce a report within six weeks on the management of the flood event?-- Mmm.

You'll have to actually answer?-- Yes.

And you knew that the report would deal with the management of two water supply dams under your charge, and it would deal with communications during the flood event?-- Correct.

But you didn't bother to read it?-- Well, the report was a

XN: MR RANGIAH

1

50

08022012 D65 T6 GFH (BNE) (QUEENSLAND FLOODS COMMISSION OF INQUIRY)

report on the operation of the dam above full supply level, and clearly above full supply level is the management of the dam on releases of floodwaters that are released to the environment. They're not used for drinking water purposes, so that component part we are not involved legislatively or from a regulatory point of view to review that at all. Our role in the flood event is purely the communications. We went to a lot of extent in the late part of 2010 leading up to end of December in getting the instrument for that communications right, and that instrument was the technical situation report which was the key instrument we used to pass information on.

You weren't interested in SEQWater's views and of how communications worked during the flood event?-- We were interested in the component parts with regards to the communications protocol, which lays out everyone's role in that. So there was a role in the protocol for SEQWater, you know, dealing with the BOM, dealing with the other agencies, Brisbane City Council. Yes, we were interested in those parts, and other parts of my business, the communications parts of the business, looked at those areas because we went through a review process this year to even further fine tune that communication protocol.

You are aware that the technical situation reports were largely taken from the situation reports prepared by SEQWater?-- It is only recently I have even found out that there was a situation report different to a technical situation report. I didn't realise there were two different instruments. It is only just in recent times I have read it. As far as I knew we were getting a technical situation report coming via - coming from the Flood Control Centre that was the primary instrument for us to make the communications.

Didn't you say that you were involved in a protocol of developing communications through technical situation reports?-- Yes, primarily two of my staff, my communications Director and my risk manager are the two that went through that process of meetings and getting that protocol, but I will be very clear their real focus was on the communications and the information we required, the information we required to do that communications.

Alright. Now, you said that - you described the information that was sent to Mr Cooper to prepare his report, and among the documents that were sent to him was the manual for the management of Wivenhoe and Somerset dams; is that correct?--Correct. Yes.

Which version of the manual was sent to him?-- I could check, **50** but most certainly it was version 7. I could check that now. Would you like me to check? I will do that now? Revision 7.

All right. Thank you. I have nothing further.

COMMISSIONER: Mr Murdoch?

XN: MR RANGIAH

10

1

20

30

08022012 D65 T6 GFH (BNE) (QUEENSLAND FLOODS COMMISSION OF INQUIRY)

MR MURDOCH: Mr Dennien, I just want to deal with one aspect of your evidence and that is the statement that you made certain views and opinions that you came to on Monday, 10 January 2011, had been informed by the experience in the flood event of the preceding October. I must say I understood what you said up until you answered Mr Rangiah, and I wonder if you would use the manual of operational procedures that was in place at the time to just explain to us what it was about that October/December event that gave you the level of comfort that you have said you had in January as at the 10th?-- Are you referring to the minutes of the 8.30 meeting on the 10th where I have that word "comfort"?

It was more what you said here in your explanation today about having a level of comfort because of your having been informed about the events----Okay. I've got it, yes.

-----that preceded?-- Yes. I spoke - I put that response in response to that dot point of the 8.30 meeting where I had the word "comfort".

In explaining that it was clear that the word Yes?--"comfort", for me again our focus is community impacts and communicating to the community. Three and a half thousand CUMECS at Moggill, at the gauge at Moggill, three and a half thousand CUMECS, there is a level of comfort that the water is remaining within the river banks of Brisbane through Ipswich and that there is from a community inundation component our experience showed us that we could stay within the river banks and that Brisbane could manage it through that period. Getting to four thousand was starting to be an area where Brisbane felt that they were - that it was difficult. Water was starting to leave the river banks and starting to get into parks and low-lying areas. It was difficult. And above four thousand of course we're starting to get inundation. So my definition of "comfort" was from the perspective of the community's impacts, and three and a half thousand is the flowrate - CUMECS - is the flowrate at Moggill where that starts to occur. Now, the period before October to December is when we started experiencing those river levels getting beyond the river banks, and I remember at the time talking with both SEQWater and Brisbane City Council about the issues and it was clear that this three and a half thousand flowrate was this key number.

So is it really that you were drawing on the levels which are stipulated in the manual under the criteria for W2, rather than an actual experience of a three and a half thousand CUMECS at Moggill in October?-- It was drawing on all three. The third one being my experience of talking with SEQWater and talking with Brisbane City Council. That was additional information I gathered through that period, talking with people, understanding what the flowrates would mean and what the impacts were. So it was that. It was what the manual said and it was also that third point you raised.

Nothing further, thank you.

XN: MR MURDOCH

10

1

20

30

40

COMMISSIONER: Mr MacSporran?

MR MacSPORRAN: Thank you, Commissioner. Mr Dennien, my name is MacSporran. I appear as counsel for the State. I just want to ask you something about the engagement of Mr Cooper, the independent expert. That occurred at the instigation of the Premier, did it not?-- Correct.

And during the discussions that gave rise to that decision to engage an expert, you placed it I think in the context of being a very serious event at that stage?-- Sure.

And you characterised it as a very serious event based upon your understanding of the impact that the size of the release rates would have downstream of the dam?-- Potential release rates.

Potential release rates?-- And potential resulting river levels, and the potential damage that occurs. That is, properties going under water, yes.

Yes, and that is the way you talked about the seriousness of this event?-- Correct. Community impact.

You didn't sit around discussing with the Premier, with Mr Smith and others, which particular strategy the flood engineers were in when they operated the dam?-- No.

You might have had reports that nominated W strategy numbers, but your focus as you have told us several times was on the likely impacts downstream?-- Correct.

What mattered to people living downstream of the dam?-- Yes. Remembering we had been through October to December where we had dam releases and we just knew already what the community on smaller releases what the community impacts were.

Yes. And when the Premier spoke of the desire to have an independent expert look into the operation of the dam and these proposed releases, it was not in the context of there being some identified abnormality, but in the context of making sure that what was proposed was appropriate?-- I think my words were the - I gave an opinion that I had no reason to believe it wasn't being operated properly, and I secondly said that it is operated to a manual, which is a regulatory instrument which is fairly prescriptive in certain levels and what can be released within certain levels. Dam levels and other factors take into account what gets released. It was in that context that a decision to audit - an audit of the manual was made.

Yes. The idea behind that as expressed to you was to make sure the public could be confident in what was being done was appropriate?-- Yes. I think that was my perspective, confidence, community confidence, because again the experience

XN: MR MacSPORRAN

10

1

20

40

08022012 D65 T6 GFH (BNE) (QUEENSLAND FLOODS COMMISSION OF INQUIRY)

that we had just been through. But also we knew this event had more to go. Remember this was Tuesday morning and all the information being gathered at that point was this event was going to get possibly worse not better.

And if that was the case the public needed to know that although it was a serious issue and that they were going to experience significant flooding, inundation, that they could have confidence that the dam was being operated entirely appropriately through that period?-- Correct. In fact, most of the - were managing the media and during the event up to that period and after the event most of the questions journalists raised, journalists, was was the dam being operated properly.

Yes?-- And-----

And the Premier wanted to find out whether it in fact was?--Yes, and I couldn't answer that question, for all the reasons I have been giving. I couldn't answer that question, but once we had an independent report come in, that gave us some evidence to be able to start answering those questions.

I take it at that stage you didn't know Mr Cooper, yourself?--No. I've still never met Mr Cooper other than a telephone.

And were you aware that there were four names in fact put up as independent experts who could do this work?-- My understanding is that most of the independents were put up by the dam safety regulator. He e-mailed Peter Burrows and Peter **30** concurred that they were suitable and it was a matter then of finding out the appropriate person based on availability.

But there were a number of them, four in fact I am suggesting put up, four names put up----?-- Correct.

----to choose from?-- Correct.

And Mr Cooper was ultimately the one who was given the work?--Correct.

Thank you.

COMMISSIONER: Mr Sullivan?

MR SULLIVAN: No questions, thank you, Commissioner.

COMMISSIONER: Mr Burns?

40

MR BURNS: Thank you. Mr Dennien, as I understand it you were away until noon on the ninth; is that right?-- Yes. Returned to Brisbane at noon?-- Returned to Brisbane at noon. To work about 8.00 a.m. the next morning?-- Correct.

XN: MR BURNS

10

1

Alright. I just want to ask you about the period from when you returned to Brisbane until 11 January; alright? Sunday, Monday etc?-- Sunday Monday, yes

Yes?-- Yes.

During that period you had no direct communications with the Flood Operations Centre?-- No.

All right. And you have made clear in your statement that the 10 information you received was via technical situation reports and----?-- Correct.

----and the odd situation report. In other words, you don't pretend that you received all the situation reports from the Flood Operations Centre?-- I received none.

None?-- I received to my recollection none. It was technical situation reports, and meetings I think I also put in my statement, information gathered at meetings.

Right. Well, do you have your statement there, paragraph 18?-- Yes.

Is it true as you say there that your understanding of the strategies in place, and I am talking about operating strategies as opposed to release strategies, that the operating strategies in place at the time was based on the language used in the TSRs in terms of their description of the objective?-- Yes, and information I received at various meetings.

Right?-- That's in paragraph 18.

Alright. So in terms of any move from W1 to W2 that is dealt with in subparagraph A of paragraph 18 where you discerned a change in language between considerations of bridges to considerations of urban inundation, or flooding?-- That's between the TSRs leading up to TSR 33, and then TSR 34 definitely had a change of language.

Alright. So you looked at that and from that discerned that there must be some change of objective?-- That's the only way - that's the only information I have.

Alright. Then if we go down to C, W2 to W3, again you rely on the language in the TSRs?-- Correct.

And there is the key feature there that you pick up that the possibility of exceeding four thousand CUMECS is real?-- If **50** possible.

Yes?-- That language was used.

So you noticed that and you regarded that as a trigger to go into W3? Is that how you read it?-- Yes.

Alright. And similarly the meeting which is at page 108, I

XN: MR BURNS

20

30

08022012 D65 T6 GFH (BNE) (QUEENSLAND FLOODS COMMISSION OF INQUIRY)

think you said in evidence that the language at W was not being used. This is the meeting on 10 January at 8.30, half an hour after you got to work?-- Correct. It was release rates.

Have you got a note there?-- I have got the meeting minutes here, yes.

It is release rates. There is obviously some references to W2 and W3 in the note, but apart from that it is not a meeting about the language of Ws?-- Correct.

Alright. And in fact the key considerations were release rates and impact in urban areas?-- Release rates, river heights, community impact.

Combined flow in the river?-- Combined flow in the river.

Alright. You at least at that stage are operating on the basis that W3 would click in at about 4000 CUMECS combined flow?-- My understanding is that, as I put down, at 4000 CUMECS is the maximum that can be released from the dam. It's a target for Moggill, but the W3 variation is that Moggill can go over if the natural flows exceed.

You are a lay person. You are not an engineer?-- No - well, I have got engineering qualifications, yes.

I beg your pardon?-- But I am not a hydrologist.

No. Alright. Just so I understand this, did you - the reference in the note to 4000 CUMECS - I beg your pardon. I withdraw that. The reference in the note attributed to you, "Barry at three and a half thousand CUMECS", is that a situation where you think it is still in W2? If there is three and a half thousand CUMECS, is this at Moggill, combined flow?-- That first part of that statement, "Barry at three and a half thousand, comfortable through Moggill", that discrete part was saying, for all the reasons I have given before, that a flowrate at three and a half thousand at Moggill I through my history knew that the water was going to stay within the Brisbane River banks.

Right?-- And that is what "comfortable" meant.

There was a lot of debate at this meeting as to where between three and a half thousand and four thousand CUMECS urban inundation would commence occurring in a serious way?-- That debate not so much at this meeting. That occurred more at the 12.30 meeting.

Right?-- At the 12.30 meeting we clarified three key points the current releases; at what point urban inundation occurs; the gauging heights, we confirmed that, and the definitions of inundation of property. That debate - a lot of that debate occurred at 12.30. There was less debate around the three thousand, four thousand CUMECS at this meeting.

XN: MR BURNS

30

20

50

1

Apart from that then, once you saw, as you say in your statement, in a TSR that the possibility of river flows reaching 4000 CUMECS and beyond, in your mind that meant a transition to W3?-- Beyond, yes.

Beyond. All right. In terms of the teleconference - sorry, I beg your pardon. In terms of the meeting with the Premier and Mr Smith, et cetera, there had been a great deal of debate in the media from - or since the October event about releases from the dam?-- Correct.

You were fielding inquiries from one journalists in January about these events. You said questions were being asked?--Yes. More so - less so in the early days. I'm talking, just to talk dates, I was back on the 10th. So as far as I was aware, on the 9th, on the Sunday, not much inquiry; 10th, not inquiry; but from the 11th and 12th on, yes, some inquiries.

You could anticipate given this flood event would be even bigger than had been experienced in October, that inquiries would continue?-- Of course. The whole media was saturated with flooding in Queensland.

Thank you.

MR AMBROSE: We have no questions.

COMMISSIONER: Mr O'Donnell.

MR O'DONNELL: A couple of things. You spoke about the October and December 2010 flood events. You remember there were three events, weren't there - three flood events?-- I can't recall three, four, or two. I know there were multiple.

There was one in----?-- Some of the events merged into other events.

Two in December, but close together. That sounds feasible to you?-- Sounds feasible.

And your role was in communication? -- Correct.

About what releases will be made by the Wivenhoe Dam and what will be the resultant floods in the Brisbane River and potential urban impacts?-- Right.

You recall that the releases from the dam got up to about 1600 50 CUMECS?-- Around that. I mentioned earlier I had to - I would have to go and check the exact numbers, but I wouldn't say - 1600 wouldn't be far off the mark. I would need to check that.

Do you recall that the resulting flows in the urban areas of Brisbane did cause some inundation of low-lying areas?--Correct.

XN: MR O'DONNELL

10

20

1

There was interruption to ferries - sorry, ferries operating?-- Correct.

Can you recall - what was the extent of the inundation that you can recall?-- Some road closures in some of the lower lying streets around Breakfast Creek. I understand that also some of the parks had water in them; some of the walkways went under near the South Bank cultural precinct. So those types of inundations; not property inundation.

No. People didn't have their houses with water over the floorboards, but there was nevertheless some substantial inundation of low-lying areas?-- Yes. Trafficable areas primarily.

There was quite a deal of protest about it, wasn't there, in the media?-- Depends on your balanced view. There was quite a lot of interest. More inconvenience and letting people communicate and let people know what was going on. So most of the - hence why we were so interested in making sure the communications going out were clear and as much appropriate time given and warning given as possible, because it was really about let people know, rather than what the impact was, if I'm clear there.

No doubt you did a wonderful job. But I'm talk about there were complaints in the media about people complaining of water inundation in Brisbane?-- Or more around not getting enough warning.

You recall the Lord Mayor was quite vocal about water inundation and the inconvenience and disruption it produced?--I could only comment that it was more to do with giving warning. The Lord Mayor made a lot of noise at that time about the new ALERT system that the - and it's a good system, by it's way - that the Brisbane City Council put in. It was more about alerting people and the communications systems.

All right, let's change to something else. In your evidence you've discussed the term "operating strategy" and you've discussed the term "release strategy". Can I clarify what they mean to you. Does operating strategy refer to the strategy which the flood engineers who managed the Wivenhoe Dam during the flood event use in making decisions as to what releases to make from the dam?-- That's a pretty fair description.

Your release strategy is referring to what actual releases are made from the dam and what proposal there is to increase or reduce releases and what will be the resultant flows in the Brisbane River?-- I would just add to that - that is correct. I'll just add to that, and they are constrained by a set of conditions that are laid down within each of the strategies. So within each strategy is a set of conditions, primarily a maximum release rate, but there's also a series of conditions in some of the strategies around natural stream flows that may, if you like, moderate the release rates to that maximum.

XN: MR O'DONNELL

10

20

1

30

40

That's my layman's understanding.

Right. Is it also right that your focus during the January flood event was the relief strategies?-- My focus - I don't like the word "strategy" in that case. The release rates; I like that word. Our focus was on the release rates, and the resulting river flows and river heights, and community impacts; that was our focus.

You seem to have used the expression "release strategy" as a shorthand expression for those things?-- I've used it only when answering minutes of meetings where it had been used by others. So to be clear, where it was used as far as a - the term "release strategy" was used in a minute in a meeting, that's the context I was using it in.

In terms of what releases are being made, what's the flow and what's the potential inundation?-- Yes.

And the consequences of that. And that was your focus in all of these meetings and discussions you've been giving evidence about; that's right, isn't it?-- That's what I've said constantly.

Your focus wasn't about what operating strategy were the flood engineers thinking about when they come to make decisions about releases. Your focus is on what releases in fact are being made and are to be made in the future?-- Correct.

And that was the subject of meeting, wasn't it?-- The subject of the meetings, I've said many times, was around release rates, the resulting river flows, the resulting river heights and the resulting community impacts and making sure all parties were in close contact with each other and communicating those issues, and that was the primary reason of the 12.30 a.m. meet on the Monday, the 10th.

In that 8.30 meeting where there's a note of discussion about the point between W2 and W3, is it your best recollection that the context in which - of the discussion that note reflects was you were saying that the current flows in the river are of the order of 3500 CUMECS. That's comfortable levels. We can live with that. But if the flows increase above that, we start to get to the risk be of people's homes being flooded?--Correct.

And that was the context, wasn't it?-- That was the context of that component part of that bullet point, yes.

Thank you. Was that the substance of what was said?-- Yes.

It wasn't a discussion about what's the strategy which the flood engineers are employing in their current thinking about managing the dam, was it?-- No.

That wasn't a subject that was actually raised in the meeting, was it?-- No, it was about the release requirement - release rates.

XN: MR O'DONNELL

1

10

20

30

50

The people from Seqwater who were involved in the meeting, they're on the phone, weren't they: Burrows, Drury, Bird and Stephenson. As far as you knew, none of them were flood engineers who had hands-on management in terms of decisions about the management of the dam?-- I can't answer that question. Rob Drury, I understood, was the operations manager of the dam, had been for a while. So Peter I've known for a while. I'd agree that comment maybe with Peter. But when it came to Rob Drury, I didn't know whether Peter - Rob had been in a flood operations room or not before. I would have thought - most likely thought he would have been.

You knew Peter Burrows was the CEO of Seqwater?-- Correct.

So you knew he was in a managerial position?-- Correct.

Rather than a hands-on flood engineer, didn't you? That's right, isn't it?-- Correct.

So from your point of view, he might not even know very much about different operational strategies which are used by flood engineers as far as you knew?-- As far as I knew. But the only context I'd put all this in is that what we had this meeting we put out agendas beforehand, and typically when people come to meetings, especially in situations like this, we would expect the knowledge to be there. So in the context of having a knowledge and understanding, I think there was an expectation that individuals that came in their discrete areas would have that knowledge. But when it came to their past experience, no, I can't comment on that.

But their knowledge relevant to the meeting would be knowledge of what's the current releases being made from the dam, and what releases might have to be made if this event get worse; isn't that right?-- Yes. Yes.

That's what Mr Burrows spoke about during that meeting?-- Correct.

And he told you that the current releases were of the order of 2000 CUMECS?-- Correct.

They were currently increasing them up to about just over 2500 CUMECS?-- Um hmm.

That's right, isn't it?-- I'll just check my notes. Check the minutes. Yes, in the next 12 to 24 hours.

But there was also discussion that if the rain event gets worse, they may have to increase the releases from the dam above that?-- Correct.

And there was a discussion about what will we do if the matter does get worse?-- Correct.

And your focus there was communication with others who needed to know?-- My focus having as much forecast time as possible

XN: MR O'DONNELL

WIT: DENNIEN B K 60

30

20

40

50

10

to make sure if increased rates were to occur, we could communicate to the public, and there was a series of process steps to go on before we could communicate to the public; that is, calculations of river levels through the BOM, et cetera, and making sure that was timely so that we could get timely information to the community.

So far as you know, the information that the Seqwater people communicated to you as to what currently was being released, what was intended to be released, was all accurate?-- We had no reason to believe it wasn't accurate.

There's one other thing. In one of your witness statements you do an exercise of going through the TSRs and identifying from the TSRs what was your understanding of what were the operational strategies being employed by the flood engineers managing the dam at that point in time. You are nodding. You have to say yes so it can be----?-- I'll just very clearly put this in relationship to what I said in my statement.

Yes?-- My - I was asked on my understanding of what operational strategy was in place.

Yes?-- I was very clear, and I've clearly laid it out, that my understanding can only be derived from what language was written by Seqwater in the technical situation report. So I only derive my understanding based on descriptions written by others.

Yes?-- I just want to make that clear that's how I derive my understanding.

Your personal understanding, which might be right or might be wrong?-- Correct.

When you were receiving the TSRs at the time in January 2011, your focus, though, would be on what releases are being made from the dam, what's the intention in terms of increasing or decreasing releases, and what will be the resultant flows in the river?-- Correct.

When you are receiving the TSRs at the time, you wouldn't have been reading them in order to work out what's the operational strategy the flood engineers are currently employing, would you?-- Only from the perspective that the strategies line to objectives in the manual, and the objective is a statement of impact. I'll explain. If you look at objective - it talks about reducing impact to the rural areas, reducing impact on bridges, stopping urban inundation, protecting dam safety. Those types of languages line up object - to objectivity statements, which are outcome statements, line up with the strategies. So I'm interested in the text, because the text gives you a broader view of where the next focus would be, and it's a community impact focus or a statement. So that's the only reason I would be-----

What I'm getting to is this. When you were receiving the TSRs in January 2011, you wouldn't sit at your desk and think to

XN: MR O'DONNELL

10

1

40

yourself: From this, I can deduce that the flood engineers are currently using WA or WB or WC, would you?-- No.

That would not have entered your thought processes at the time?-- It's more what bridges were out and what bridges potentially could go out.

The exercise you've undertaken in your statement of trying to work out when the flood engineers are changing from one stage to another is foreign to what you would have done with the TSRs at the time in January?-- Only foreign from the point of view that the statements that were in the TSRs - the statements I've used to put my limited understanding of the strategies - those statements we were using sometimes in press releases. So sometimes we use those statements to communicate. That's the only link.

But what I'm getting at is in January 2011, you would not have gone through an exercise of interpreting the TSRs to try and reverse engineer to work out----?-- No.

-----the operational strategy?-- From that question, no.

It would have been foreign to your - the purpose for which you read the TSRs at the time?-- No, the focus - you're right. The focus was about what releases and what potential releases were to occur. We just purely to used the statements in their own strategy to help us in our communications.

Thank you.

MS WILSON: Thank you, Madam Commissioner. There was an email that I should have shown Mr Dennien in my initial questioning. I seek leave to be able to show him now.

MS WILSON: Mr Dennien, can I show you this email. It is an email that's attached to your first statement of 5 April, which is Exhibit 417. It's annexure E, volume 4, at page 1622. You can see down there that the email trail starts at 12 January 2011 at 9.12 in the morning. There is an email from Brian Cooper to you giving your initial findings?--Um hmm.

And then we see that there is an email from Elaine Smouha at the top at 9.44 asking you are you satisfied with this preliminary advice and noting the follow conclusion?-- Yes.

What role did you have in being satisfied with his advice or not?-- As I said earlier, our role was really to project manage a compliance audit, and I was looking at aspects of making sure Brian had covered the aspects, if you like, like, the manual's - various aspects in the manual making sure that as a piece of work he had covered that scope. It wasn't so much the detail of the technical detail in behind whether it was complying or not. It was more about covering off the overall outcomes of the audit.

XN: MS WILSON

10

1

40

1 It was a question of whether you wanted to organise a teleconference with Brian Cooper? -- Elaine suggested that to me. Did you----?-- No. After receiving his preliminary advice of Mr Cooper, did you speak to him again before you received the final advice? -- No. 10 Thank you. Madam Commissioner, at the beginning of this evidence Mr Dennien did not have his statement. If I could show him this document, please. That's the statement to the second statement. It was - you had your statement there, but it was not in the document that we tendered?-- Yes. 20 Is that a copy of your statement - of the second statement?--That is a copy of the statement, yes. I've been referring you to various parts of your second statement, and is that the statement that I've been referring you to?-- Yes. Madam Commissioner, that would form part of the tender. Ι have no further questions. 30 COMMISSIONER: Did anyone have any questions arising out of the email that was just shown? MR O'DONNELL: No, thank you. MR AMBROSE: No, your Honour. COMMISSIONER: Thank you. MS WILSON: May Mr Dennien be stood down. 40 WITNESS STANDS DOWN Madam Commissioner, just before we go to the MR O'DONNELL: next witness, could I urge you to reconsider the extended 50 sitting hours? COMMISSIONER: Why is that? MR O'DONNELL: We're already sitting six and a half hours a

day. Those of us in the trenches have to prepare for the next day. We often get a lot of material from those assisting the Commission, and we have to master it for the next day. Sometimes we get it in the evening, sometimes in the morning

XN: MS WILSON

when we arrive at Court.

We are struggling to cope with properly preparing for each next day as it is. If we now move to seven and three quarters hours, we think it will remove any prospect of fairly doing justice to our clients. We also have to take instructions sometimes from a client, speak to witnesses.

We have 20 witnesses still to get through, the majority of which are from Seqwater. We doubt we can get through the remaining 20 witnesses in any event in the next two and a half days.

COMMISSIONER: You do have a junior.

MR O'DONNELL: I certainly do, but I think a lot of us in the Commission hearing are struggle with this. Would it be better to sit an extra day, rather than try and cram an extra hour and a quarter out of each day?

COMMISSIONER: We'll sit until 6 tonight and I'll review what you have said, Mr O'Donnell.

MR BURNS: Could I say that I'm in the same position, and having come into the matter only last week, it makes the task doubly difficult in my case. I would ask you to take that into consideration as well.

COMMISSIONER: Thank you. Do I take it - does anyone have any different to say, or are you all-----

MR AMBROSE: I've got something different to say in this sense, that unlike our learned friend, Mr O'Donnell, looking at the witnesses that are due to be called, from our point of view it's difficult to see how that evidence wouldn't be finished by Thursday using ordinary hours, which means we have all day Friday with no witnesses unless there were some witnesses that the Commission has that are going to be called that we haven't been told about.

COMMISSIONER: That does sound like a different view. It's always difficult, as you know, until one gets to a witness to know how long people are going to be. It seems to me a lot of those witnesses are actually very short witnesses. It's hard to credit that anybody would want them for more than a few minutes, but I can't guarantee that, hence the perhaps excessive caution. But I think we'll sit until 6 tonight and just see how we get on. Thank you.

MS WILSON: I call Brian Cooper.

MR AMBROSE: Just before our learned friend commences, from the point of view of many of the counsel, we've taken a view in the interests of expediency that we will, with your leave, change the order of cross-examination of the witnesses, so that Mr O'Donnell might take the lead. If there's anything we feel that hasn't been covered, then we might choose to follow. So that Mr O'Donnell would follow Mr Rangiah and Mr Murdoch.

40

30

1

20

COMMISSIONER: Yes, that's fine.

MR SULLIVAN: Could I just say we'd adopt that as well. We've been here since doing that. You will note we haven't asked some questions of some witnesses. We've taken on board what you have said previously that you don't want every counsel simply repeating the same line of questioning. So we would urge that as well. COMMISSIONER: All right. Everybody else happy with that?

commissioner. All light. Everybody else happy with

MR MacSPORRAN: Yes.

COMMISSIONER: All right, thanks.

BRIAN WILLIAM COOPER, ON AFFIRMATION, EXAMINED:

20

10

1

MS WILSON: Your full name is Brian William Cooper?-- It is.

You're a qualified engineer?-- Yes.

And you have a speciality of a dams engineer?-- Yes.

On 12 January you provided a report to the Southeast Queensland water grid manager about the operation of Wivenhoe **30** Dam?-- Yes.

Can I show you this dob document. It's Exhibit 414. That is your report that you provided on 12 January?-- It is.

That report attaches a copy of your CV?-- That's right.

Which sets out your qualifications and experience?-- Yes.

Now can I just ask you some questions about your appointment 40 to undertake this review. You were approached on 11 January last year by the Southeast Queensland water grid manager?-- By Mr Dennien.

To undertake some work for them?-- Yes.

Can you tell us when you were first contacted by him?-- It would have been the morning of that day.

The morning of the 11th; is that the case?-- Yes. And he rang 50 me up and asked - I think I had something else on at the time, and he said he had someone else that he could ask. But in the end, I was able to clear the other matter, so I rang him back and said that I was okay to ahead and forwarded my CV. Then I was asked if I would be prepared to be in a teleconference that afternoon, I think it was probably 12.30, 1 o'clock, and that teleconference duly happened.

Can I ask you to have a look at this email, and if I could take you to Exhibit 1098, which is the third statement of Mr Dennien, at page 125, which is an email on 11 January. This is an email that you received?-- That's right.

From Elaine Smouha?-- Yes.

It's a draft agreement, sets it out. Now, you had had conversations with Barry Dennien before you received this email?-- Yes.

And the conversations were effectively: Can you do it? Can you not to do it? Is that the case?-- Yes.

Was there any else that was discussed?-- It was expressed that I was to talk about compliance with the flood manual, not to talk at all or not give an opinion about what I thought the flood manual meant to say or didn't mean to say. It was purely an audit on compliance.

We'll get to the materials that you had. What we can see here is what they called deliverables and milestones. So it was provision of a written preliminary advice by 9 a.m. the next morning?-- Yes.

And a formal written advice by 4 p.m. the next day?-- That's right.

Can I ask you this: at the time at 4.08, what materials did you have to start that advice?-- I was supplied on the afternoon of the 11th with some 40-odd TSRs.

Was that before or after you got this email here? All I want to know is had you already started your work?-- That email is dated 4 p.m. I would have already started work.

Already started?-- Yes. Probably by about - I think some of the TSRs were sent through about 2 p.m. I think the last lot that were sent through were at about 3.20 p.m.

This email in particular that I've taken you to attaches a terms of reference, and if we can go to that, which is over the page at 156. We can go down to the bottom of that page, we see the purpose. The purpose is set out of what is being sought from you?-- Yes.

And that is to obtain independent assurance over the operation of Wivenhoe Dam?-- That's right.

Including controlled releases as against the flood mitigation 50 manual?-- Yes.

It sets out the period commencing on or about 13 December 2010 to date?-- That's correct.

Then the scope of works is contained across the page. As we can see there, you've raised the point that it excluded a review of the sufficiency of the accuracy of the manual, but

XN: MS WILSON

WIT: COOPER B W 60

20

40

10

was it the case that you were just focused on A and B?--That's right.

Okay. And then we can see that the context which your advice was to be given, that is in terms of the flood mitigation manual's requirements?-- Yes.

See that? And the facts and matters and the circumstances of a flood event?-- Correct.

So if we can look at those two matters. The flood mitigation manual's requirements, you were provided with a manual?-- I was supplied with three volumes.

Yes?-- Volume two being the one that had the flowchart explaining the various operating rules.

Okay. Were you provided hard copies of that or----?-- No, just e-mailed.

Electronically?-- Yes.

Okay. I'll come to that in one moment. The facts, matters and circumstances of the flood event, where did you get that information from?-- They came out of the technical situation reports.

Okay?-- The TSRs.

So just in terms of the information that you were provided to be able to ascertain, you're really doing a comparison, aren't you? What is contained as the facts and events and does that - against the manual?-- Yes.

And the facts and matters - facts, matters and circumstances, you got that from the TSRs that you were provided?-- Yes.

Now, if we can - you participated in a telephone conference with Mr Dennien, Ms Elaina Smouha and Peter Allen about 12.30 on the 11th of January?-- That's correct.

Mr Dennien, Miss Smouha, Mr Allen, was anyone else participating that telephone conference?-- No, I don't 40 recall.

And the purpose----?-- I did have a subsequent telephone call with Mr Allen, from my memory.

You had a subsequent telephone call with Mr Allen?-- Yes.

And what - well, let's go chronologically. In terms of the telephone conference at 11 - at 12.30 on the 11th, what was discussed then?-- Generally the scope of work that I was to undertake and the background information that I was to be given.

Now, if I can show you a copy of a statement of Mr Peter Allen dated the 3rd of February 2012. And would you prefer a hard copy, Mr Cooper? Mr Cooper, would you prefer a hard copy or you can see it on the screen?-- No, I can read it there.

XN: MS WILSON

10

1

20

Can we go to paragraph 7 of that document? You can read paragraph seven for me?-- Yes.

Do you recall that meeting occurring?-- That would have been the phone call that I referred to.

That was the phone call, was it?-- Yes.

Mr Allen recalls that he took this opportunity to show you the Flood Operation Centre. Were you ever shown the Flood Operation Centre?-- No, I was in Sydney at the time.

Okay. You had a phone call with Mr Allen after the 12.30 conference that we just talked about, you said?-- Yes.

What was the contents of that conversation?-- It was more or less along the lines that he's talking about in paragraph 7, that I think he was just confused about where the meeting actually took place. It was actually a phone conversation rather than a direct----

Madam Commissioner, I will take the opportunity now to tender Mr Peter Allen's statement that I've just shown Mr Cooper.

COMMISSIONER: Will be Exhibit 1099.

ADMITTED AND MARKED "EXHIBIT 1099"

MS WILSON: We've already discussed the documents that were provided to you before you provided your preliminary report. Now, you were given a copy of the flood manual. May Mr Cooper be shown Exhibit 1098, page 30? We can see an e-mail here from Elaina Smouha to you on the - January the 11th at 12.24?-- Yes.

And attached is part one of Seqwater's Flood Mitigation map - 40 Manual?-- Yes.

Can we just go through - just go to the next page, please and this is the manual that you received that you were going to make your assessment against - if we can just go down?--Volume one of it.

Revision 7, November 2009. Is that the document that you worked off?-- Yes. I can check that if you like. I've got my own hard copy.

All right, could you check that, please?-- They appear to be the same.

And, as we could see in that e-mail, it looked like a very large file and had to be broken up in----?-- Yes.

XN: MS WILSON

50

1

-----into other - and you received it in - via other e-mails----?-- Three parts.

-----the rest of it. Now, you received the manual and we talked about also the TSRs. Where were you receiving the TSRs from?-- Again by e-mail.

And who was sending those to you? -- Elizabeth Smouha.

Okay?-- Elaina, sorry.

And did anyone explain to you what the technical situation reports were, that is the TSRs?-- That was probably in my conversation with Peter Allen.

And which conversation ----?-- On the phone.

-----was that, Mr Cooper?-- That was the one following the it was either at the teleconference with Mr Dennien or it might have been in the subsequent phone conversation, I can't remember.

And what was your understanding of what the TSRs were?-- The TSRs were a distillation, if you like, of logs that were kept of the - or running sheets of the events that were occurring, and they talked about such matters as releases, gate openings, releases downstream in the Brisbane River itself, storage levels and so on.

That's----?-- Advice from the Bureau of Meteorology.

And just in terms of what Mr Peter Allen told you about the TSRs what - did he give you any explanation of what they are and how they're used?-- Yes.

And can you just tell me that? I just need to be clear?--Okay, well, he effectively told me what I just said in my description of what----

Okay?-- ----my interpretation of the TSRs were.

Did Mr Allen give you any explanation about how the manual operated?-- Yes, he explained the - and again I can't remember whether that was explained in the teleconference with Mr Dennien or the subsequent phone conversation, I've got a feeling it might have been in the original teleconference, but certainly the various operating scenarios were explained.

And was that before you had your manual? Just a heads or----?-- Would have been a heads up, yes.

And did he take you through each of the W1s to W4 strategies?-- In a very general sense, not in any great detail.

And if I can just ask you this, Mr Cooper, was your mind focused on looking at - you then got the manual, and you looked at the W1 to W4 strategies?-- Yes.

XN: MS WILSON

10

1

20

40

And was your mind focused on seeing if the information that's contained in the TSRs complied with the manual, that is the W1 to W4?-- That's correct. Though, I must admit I wasn't so much concerned with the actual W rating, if you like, I was more concerned with the actual releases as such and what they were meaning to do----

Okay?-- ----rather than worrying about the labels.

So you were looking at release rates----?-- Yes.

----- Yes.

-----that was contained in the TSRs rather than the strategies as particularised in the manual?-- That's correct.

And when you had the discussion with Mr Allen about the manual and his explanation, can you tell us, in as much detail as you can, what Mr Allen described to you about the manual?-- He went through the priority of the flood operation, in other words the safety of the dam, leading down to - through minimisation of urban flooding, through to maintaining access to rural areas downstream of the dam----

Okay?-- ----down to maintaining full supply level, and that everything was arranged to achieve those aims.

And did Mr Cooper in this discussion take you through in descending order for what you now know as W4 to W1? That is, protection of the dam, integrity and structure, down to protection of rural areas?-- Yes, that's my memory.

And in doing that did he describe in those these are the different strategies that dam operators operate under, W4, W3, W2, W1, and going through just giving you an understanding?-- That's correct.

Is that the case?-- Yes.

Now, you provided a preliminary report?-- Yes.

If we can look at Exhibit 417 at page 1613? It's a - if we can go down just a bit. We see the e-mail at 9.12, that - on the 12th of January, that's when you provided your initial findings?-- That's correct.

Was there any - what was the distinction between your initial findings and the final report that was due later that afternoon?-- I think the extensiveness of the final report was greater than the initial report.

COMMISSIONER: What was the point in doing it this way?--From my point of view or from my client's point of view?

Well, what was communicated to you about why you would do it like this?-- I think urgency. You know, it was certainly expressed to me that this was all very urgent and they needed to get an answer as soon as possible and it was hoped that,

XN: MS WILSON

30

20

50

10

you know, even getting an initial feeling through a preliminary report would be helpful from that point of view.

MS WILSON: And was it expressed why it was urgent?-- It was expressed to me at that meeting, I'm pretty sure, that there had been a meeting between Barry Dennien and others with the Premier that morning and that - so that I was given background for the - for my engagement, what was leading to it, and there was this flood going on. In fact, I'd been - I was working from home that day and I'd been listening to ABC radio and they were giving it quite extensive coverage in the morning and so I knew that this was a pretty serious matter, so when the invitation was given to me to - to submit a proposal for being engaged it came as no great surprise, really, that there was a - this amount of urgency attached to it

Was there ever any concern expressed to you that the manual wasn't complied with?-- No. No.

If we can go to your second page of your preliminary report, and the second last paragraph, where we see - can you see where it starts, "Over the last couple of days"?-- Yes.

"the Wivenhoe Dam has increased to above EL 74 and the storage level in Somerset Dam is at EL 103 and is rising". You've expressed an opinion that situation would demand strategy W3 for Wivenhoe Dam. Where did you come up - how did you come to that conclusion?-- Just from my interpretation of the flood manual and the situation with the storage level.

Right. So looking at - were you focusing on the level of the dam and comparing that to the manual?-- And also the fact - well, the opinion raised in the - or the statement raised in the TSRs at the time that discharges around that location, the mid Brisbane River, were likely to be around the 4,000 CUMEC mark.

Right. If I could just pause for one moment, Mr Cooper. Have you got that manual in front of you, that you were provided?--The version I have is only a part photocopy of selected pages, 40 I don't have an entire manual, although do have it on - I can refer to it, I've got it in my iPad.

Perhaps if - let's - have you got - on the document that you worked off have you got the strategies and when they would be triggered?-- Yes.

Have you got that material?-- Yes.

And I think - have you got then page 26?-- Yes.

Do you see there at the bottom of that page, "If the level reaches EL 68.5 AHD in Wivenhoe Dam switch to strategy W2 or W3 is appropriate"?-- Yes.

Where do you get from your materials that you had that over the last couple of days the storage level in Wivenhoe Dam had increased to above 74 - EL 74 which would demand strategy W3

XN: MS WILSON

10

1

30

20

for Wivenhoe Dam?-- It would have been in one of the technical situation reports.

Okay?-- But I see - now I'm not sure. I can't remember whether that was something I wrote at the time that may have been changed by the time I got to the final report.

Well, we'll take you to the final report as well?-- Okay.

I'm just also interested in that last sentence, that you were informed - see the last sentence of the report, that you were informed by the Queensland Dam Safety Regulator Peter Allen that the various requirements of the flood mitigation manual relating to requirements for flood operations personnel, flood preparedness and flood training had been adhered to, when did Mr Peter Allen inform you of that?-- That would have been in that second phone conversation.

Sorry, what was that?-- In the second phone conversation I mentioned.

And can you recall how many telephone conversations that you had with Mr Allen?-- I'm pretty sure it was just the one subsequent to the teleconference.

What about between the preliminary advice and the final advice?-- There may have - I can't recall. There may have been because I know he did send, as I said, both - the majority of the technical situation reports were sent by Elaina Smouha, but I'm pretty sure there were some last minute technical situation reports that were sent by Peter Allen. I've got a sheet here I can refer to. Yes, there were some seven reports that were sent to me by Peter Allen on the 12th of the 1st that were missing from the original group and we may have had a conversation talking about - a subsequent phone conversation talking about those additional TSRs, I don't recall.

Between your preliminary advice and final advice you were provided - you received further information, did you?-- Yes. 40

And was that an e-mail with a link to Seqwater's website?--No, I think it was just a direct e-mail with the TSRs as attachments.

Okay. Did you have all of the TSRs when you did your preliminary advice?-- No.

Which ones did you have?-- I had - running from - 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 28 to 32, 34, 38 and 39, they were **50** all the TSRs that were sent to me on the 11th, in the afternoon of that day----

Yes?-- ----and then 41 to 48 were sent on the 12th.

Ah----?-- Sorry, there was also - 13, 17 to 26, 33, 35, 36 and 37 were sent by Elaina Smouha on the afternoon of the 11th as well.

XN: MS WILSON

WIT: COOPER B W 60

20

10

Did you receive a document titled "Seqwater Dam Operations January 2011" containing information in respect of flood peaks, volumes and hydrographs?-- Yes.

Okay?-- That was a - like a PowerPoint type presentation. I can't remember the type of file it was but it was a graphic-type file.

And when did you receive that advice - that information?-- I don't have a record of that, I'm sorry.

But obviously was it between the preliminary and the final or before the preliminary?-- I could check but I don't have those records with me and I'd only be guessing, sorry.

Did you have - did you receive and e-mail attaching a link to the Bureau of Meteorology's website?-- I don't recall that.

Did you receive a copy of the draft protocol for the communication of flooding information----?-- Yes.

----for the Brisbane River catchment? And did that assist you in preparing your advice?-- Yes.

How did that assist you?-- Just in trying to understand what was behind the format of the TSRs.

Right?-- And what sort of information was meant to be included in those TSRs.

And we can see that you pick that up as well in your report----?-- Yes.

-----thought that there could be better information?-- Yes.

Further information, I should say----?-- Yes.

-----contained in those TSRs. Were you made aware that there were other reports that were - that there were other situation reports coming from the Flood Operation Centre?-- Yes. As I 40 said, what I referred to before as "logs"----

Right?-- ----or running sheets, and they in fact were - Peter Allen said I could get those if I needed them----

Yes?-- ----but at the time I had - you know, I was running on an extremely tight time frame to get the preliminary report and then subsequently the final report so I just had information overload at the time, I must admit, so - but I felt that there was enough information in the TSRs to make my - make my report.

Okay. Can we go to the - can I show you this e-mail from Peter Allen to you. It's dated 12th of January 2011, and it's found in PHA-63 of Mr Peter Allen's statement. If we can just stay there. From - this is from Peter Allen, 12th of January, 10.57, and he's just provided you a couple of comments, after a very quick read of your report. We see there what he - he

XN: MS WILSON

1

10

20

30

puts - he puts in his e-mail?-- That's right. I'd sent as a matter of courtesy - I can't remember whether I sent it through as a matter of courtesy or whether I'd been asked by Mr Dennien to CC a copy of my report to - preliminary report, that is, to Peter Allen, so he'd obviously read that and made those comments.

You didn't have any other further telephone conversation at this time with Peter Allen, you were just doing it by e-mail; is that the case?-- Not that I can recall, no. I'm pretty sure I didn't.

Were you - did you - did you know where Peter Allen was getting this information from?-- I presumed that he was getting it from the logs as well as the logs being distilled into the TSRs.

So is it the case that you - you can't tell me where----?--No.

----Peter Allen was getting this information from?-- No.

In terms of the - this preliminary advice - advice that Okay. you gave until your final advice we can see there's some feedback here from Peter Allen. Was there any other feedback from any other person?-- I don't recall getting any feedback from my primary client, which was Mr Dennien.

Sorry, what was that?-- I don't recall getting - well, my primary client was Mr Dennien and I don't recall getting any particular feedback from him.

Okay. Now if we can go to your final report, which is Exhibit 414. We can see that in that second paragraph just up from the bottom of that that the Queensland Director - sorry, on the first page. The Queensland Director of Dam Safety informed you that the flood operation logs contain much more detailed information. You've already----?-- Yes.

----stated that, that that was a discussion with Peter Allen, **40** he said, look, there is further information available; is that the case?-- That's correct.

But you said that there just wasn't enough time for you to consider that?-- That's right.

Now, if I can take you to the second page, and can you see, "Until the last day or so, Wivenhoe Dam," can you see the paragraph that starts there?-- Yes.

"Until the last day or so, Wivenhoe Dam has been below 74 and accordingly would be operating on strategy one". And then the next sentence reads, "For a few days at the end of December and for the last day or so before yesterday's big rise strategy W2 would be in place"?-- Yeah, I'm just wondering if that - that was a mistake on my part, that it should have read 68.5.

XN: MS WILSON

10

20

1

30

Where's that, Mr Cooper?-- That's where it says, "Until the last day or so, Wivenhoe Dam has been below EL 74". I'm just wondering if that should have been 68.5. It may have been an unfortunate typo, I'm not sure----

Okay?-- ----nobody's picked up.

"For a few days at the end of December and for the last day or so before yesterday's rise strategy W2 would be in place"?--That's correct.

If we go back to that e-mail from Peter Allen, which was on the 12th of January at 10.57, it appears that what's there is consistent with that e-mail from Peter Allen?-- Yes.

Is that where you got that information from that's contained in your report?-- Well, the - I would have got a certain amount the information from the TSRs themselves.

Right?-- Because I went through all the TSRs, I summarised them, as best I could, into a Excel spreadsheet, pulling out what I saw as pertinent information from the various TSRs, and - so I could get a timeline on the whole thing as well, so that it was able to tell me where - what the releases were at, say, Moggill or Lowood, what the storage was, what the rain was doing and so on, and that's what led to my assessment of whether there had been compliance or whether I felt there was compliance or not.

Okay. So when you're looking at the TSRs you were focusing on 30 the release rates and the flow rates?-- Yes. But----

COMMISSIONER: Is that a convenient time - sorry, I didn't mean to cut you off?-- I was going to say, statements like when the storage, I think, on the 8th was at 68.45 and it was stated the storage was going up, and then a day later or so it was going down again and that - that affected them to say that they thought that they could maintain the releases at mid Brisbane River at three and a half thousand CUMECS or so a while longer, that influenced the way I interpreted compliance **40** or not with the flood manual.

MS WILSON: Yes, Madam Commissioner, that would be a convenient time

COMMISSIONER: All right, but there's one thing before we do. Mr O'Donnell, the Commission received a letter from your instructing solicitors this morning. Do your instructing solicitors stand by the assertions in it?

MR O'DONNELL: Sorry, what letter?

COMMISSIONER: You're not aware of it?

MR O'DONNELL: No

COMMISSIONER: I'll have it furnished to you over the lunch

XN: MS WILSON

WIT: COOPER B W 60

- -

20

10

1

08022012 D 65 T8 JJH QUEENSLAND FLOODS COMMISSION OF INQUIRY 1 break-----MR O'DONNELL: Oh, I can ask them----COMMISSIONER: ----or you can get it from your solicitors. MR O'DONNELL: If you could tell me what it's about. COMMISSIONER: It concerns Mr Dagan. 10 MR O'DONNELL: Daqan? COMMISSIONER: Yes. And it's a matter I'm certainly very interested in. MR O'DONNELL: All right. COMMISSIONER: Mr Rangiah, are you aware of it? MR RANGIAH: I'm not aware of the letter, no. 20 COMMISSIONER: Well, you had better make some inquiries of your instructing solicitors, too, over the lunch break. MR O'DONNELL: Sorry, I must say, I think I was given it when I arrived at Court but I haven't had a chance to read it because of other things happening. COMMISSIONER: All right. 30 MR O'DONNELL: I will look at it over lunch COMMISSIONER: I will talk to you about it at 2.15, thank you.

THE COMMISSION ADJOURNED AT 1.00 P.M. TILL 2.15 P.M.

THE COMMISSION RESUMED AT 2.15 P.M.

COMMISSIONER: Mr O'Donnell, apropos of your question before lunchtime about sitting till six, I have had some enquiries made over the break to find out what the availability of the Court and the reporters is for Saturday if we needed to go there. The Court is available. I haven't had an answer yet on the reporters, but depending on that we may just be able to keep Saturday as a backup. If Mr Ambrose's sunnier view prevails, then we may not need it at all. If we need to finish some evidence we can probably do it Saturday, but I will let you know. If that were to occur I would still maintain the break between the close of evidence and the delivery of submissions because I think that's needed. So that might end up meaning not sitting on Monday instead.

MR O'DONNELL: Thank you.

COMMISSIONER: But anyway, as I say, I will let you know when I know about the reporters. The other business of the letter, what I asked you before lunch was are the assertions in it maintained?

MR O'DONNELL: They are.

COMMISSIONER: What I think I will do then is to ask you to provide affidavits from Mr Thorogood and Mr Dagan. When do you think you could do that by?

MR O'DONNELL: I will check. Mr Ilott thinks this afternoon.

COMMISSIONER: It's not that urgent.

MR O'DONNELL: That sounds awfully quick to me.

COMMISSIONER: Shall we say by 10.00 a.m. tomorrow, if that is going to work?

MR O'DONNELL: Yes.

COMMISSIONER: Mr Rangiah, I haven't really inquired of your position. I would invite affidavits from Mr Koutsoukis and anybody else who knows anything about what happened yesterday, or didn't happen.

MR RANGIAH: I can tell you what my instructions are, Commissioner. I am happy to do that.

COMMISSIONER: Alright.

MR RANGIAH: My clear instructions are that no employee or principal of Maurice Blackburn attended Somerset Dam yesterday or spoke to Mr Thorogood. However, Maurice Blackburn did engage a private investigator to locate and interview Mr Dagan. His name is Bob Munt. I am instructed that Mr Munt did go to Somerset Dam and did speak to Mr Thorogood, and that

60

10

1

20

50

Mr Thorogood then contacted Mr Dagan. I am also instructed that Mr Munt did not say or represent in any way that he was from or associated with the Commission, and that Mr Munt clearly said that he was an investigator from Maurice Blackburn. I am instructed that Mr Munt recorded his discussions with both Mr Thorogood and Mr Dagan.

COMMISSIONER: You mean taped or made a note of?

MR RANGIAH: Taped, and my instructing solicitors as I understand it are making copies at the moment and it might just assist to resolve the whole matter if those are provided to the Commission and to SEQWater or SEQWater's lawyers.

COMMISSIONER: I would invite affidavits from you too, but it is an invitation. It is not a direction, so I will leave that with you, but certainly when I decide what the next course of action is it would help if I have sworn evidence. But on the other hand your side are the ones against whom the allegation is made and I certainly wouldn't require it if you decided it better not to provide them.

MR RANGIAH: Thank you.

COMMISSIONER: We will leave it at that. Thank you. Ms Wilson?

BRIAN WILLIAM COOPER, CONTINUING:

MS WILSON: Thank you, Madam Commissioner. Mr Cooper, if we can go to your final report, which is Exhibit 414 and if we can go to the second page of that report. Just before the break we were discussing the paragraph of your final report that refers to strategy W2?-- Yes.

You can see that there?-- Yes.

Now, if we can go to your preliminary report. Have you got a copy of that in front of you?-- Yes.

That's the preliminary report. There is no reference to W2 in your preliminary report, it appears?-- Yes.

There is a reference to W3?-- Yes.

Can you give us some indication about or tell us why the 50 change - why the change occurred?-- W3 as I read the manual is the scenario with W2 being a transitional scenario between W1 and W3. Now, as to - I would have to look at - it would be easier if I looked at a hard copy of the final report, so I can look at both versions.

Okay. Take your time?-- Well, that whole paragraph is different to the one in the preliminary report anyway.

XN: MS WILSON

30

20

10

Yes?-- And I would think that on reflection after writing obviously the preliminary report was written with - my memory is that that had been written after just reading the various technical situation reports. It wasn't until the morning that I had actually started putting together the Excel spreadsheet that I spoke of that gave me a better sense of the timeline of events, and that allowed me to make a better - or to phrase what I thought was what had happened in a better manner. So I guess one is a more mature reflection on interpretation of the evidence presented to me than the other.

Okay. It appears also that you were provided some information from - in an e-mail from Peter Allen?-- Yes, they are those additional TSRs that I mentioned.

Yes. We can go to that which is at Peter Allen's statement dated 7 February 2012, attachment PHA63, where he provided a couple of comments after a very quick read of his report, and there he refers to "for the last day or so before yesterday's big rise it would have been in W2"?-- Yes.

Did you rely on this email in drafting your final report about what strategy was in play?-- I would have gone back and reread the TSRs.

Sorry, you would have gone back and read the-----?-- I would have gone back and reread the relevant TSRs.

The TSRs, yes?-- And assessed whether I had erred in my - or 30 they could be given a different interpretation, if you like, and that would have led to the rephrasing that occurred in the final report.

I asked also some questions in your evidence before lunch about whether you visited the Flood Operations Centre with Mr Allen?-- That's right.

At that time of the evidence we were discussing the time around when you were engaged. Have you ever been to the Flood 40 Operations Centre?-- No.

Thank you, Mr Cooper. I have no further questions. Madam Commissioner, I should tender because I have taken Mr Cooper to it, Peter Allen's statement dated 7 February this year.

COMMISSIONER: The last exhibit was a statement of Peter Allen. Is this the same one?

MS WILSON: It is an additional one.

COMMISSIONER: It is an additional one? Exhibit 1100.

ADMITTED AND MARKED "EXHIBIT 1100"

1

20

MS WILSON: Thank you, Mr Cooper?-- Thank you. COMMISSIONER: Mr Rangiah? MR RANGIAH: I have no questions, Commissioner. COMMISSIONER: Mr Murdoch?

MR MURDOCH: Mr Cooper, I have some questions for you in relation to your final report. That is the report dated 12 January 2011 and it is Exhibit 414. The introductory part of the report in the second dot point sets out that the letter report provides advice on the prudence and appropriateness of the decisions and actions taken etc etc. You traverse in some detail the actions taken in relation to the operation of Wivenhoe Dam. What I am interested in are the decisions that you considered for the purpose of your report. Do you understand that?-- Keep going.

And in the report, for example, at near the foot of page 2 you deal squarely with what you refer to as the decision to implement strategy W4?-- Alright.

Put that one aside. There is a decision that you have dealt with. There are, however, three other strategies in relation to Wivenhoe Dam?-- Yes.

And in relation to strategy W1 you are aware that there are capital A through to and including capital E?-- Yes.

So in your report do you deal anywhere with decisions to implement any of the other Wivenhoe Dam flood mitigation strategies or sub strategies? -- As I said at the beginning of my evidence, my report didn't so much concentrate on the Ws, if you like, or the labels. I have been talking more about the rates of flow in the mid Brisbane River, the releases from the dam, the condition of the storage, condition of rainfall and so on. As I said, when W1 was operating at - or was at 68.45 I think it was which was on the Saturday, I think, the storage was going up, but then not long after the storage started to go down again. So - and reading the technical situation reports there is a fairly consistent comment in a number of those reports by the operators saying that they were attempting to keep the discharge at the W2 level, or what I interpreted to be the W2 level because it wasn't always described as such. It was often said that they were trying to keep the discharge below 4000 CUMECS around Lowood or Moggill, so by that I interpreted they were talking about the W2 condition.

COMMISSIONER: Mr Cooper, can I ask you: A couple of times you have referred to 68.45. Are you confident about that figure?-- Well, that's the figure that was mentioned in the TSR.

XN: MR MURDOCH

20

10

1

30

40

Are you sure it wasn't 68.65?-- I can refer to the - fairly quickly, if you like.

All right. Just check it for me, would you?-- It is in that TSR31 and it says at "0600 Saturday Wivenhoe Dam was at 68.45 AHD".

Alright. But that is before any change of - well, anyway?--Yes.

That's early in the piece?-- That's right.

Did you understand it to stay at that or did you understand that it went over 68.5?-- I understood that it went over 68.45, and then on the 9th it was at 68.58 but the comment was that the storage was falling slowly.

All right. Okay. So you have got it on the 9th at 68.58?--Yes.

Thank you.

MR MURDOCH: Mr Cooper, in any event so far as decisions to implement designated strategies are concerned, the only one that you explicitly consider in your report is the decision to implement strategy W4?-- Yes, that's correct.

In relation to implementation of any of the other stipulated strategies you have not considered decisions of that kind?--Well, that's not completely correct. I was concerned about W1 because obviously maintaining access downstream of a dam during a flood is important from a point of view of emergency evacuations, if that is required, so that keeping bridges open I see it as an important part of the whole process. Certainly I suppose in some ways that is my bias as being a dams engineer and a dam safety engineer in particular, is maintaining the safety of the dam because of what can happen if a dam were to fail. Then that should be of prime concern and that is - I agreed with the way the manual was written even though I wasn't asked to comment on that, but that was a very important part of the whole thrust of the flood operation manual to ensure the integrity of the dam. So I guess that is why I did mention W4 specifically, but as I saw it the changeover from W2 to W3 was a fairly nebulous thing. Ιt wasn't - the way I read the flood manual it wasn't clear-cut when you moved from one to the other, and ${\tt I}$ saw that what the operators were doing to try and keep it at W2 was probably a good thing.

Are you referring to the part of the manual and I am talking 50 about revision 7 at page 26, if you have it there?-- What page was that?

Page 26, right at the foot of the page?-- Yes.

In black type?-- Yes.

"Switch to strategy W2 or W3 as appropriate"?-- Yes.

XN: MR MURDOCH

20

40

30

10

Would it not be the case that the operators would have needed to make a decision as to which of W2 or W3 was appropriate?--Well, the flowchart does say there is a difference between the two, but as to the ability to estimate what the flood would be at the mid Brisbane River at the time would be a very difficult thing. You are trying to make a decision on a single number of discharges that is going to be fairly difficult to estimate what it is. So the actual transition from W2 to W3 I would think would be very difficult to determine.

Do we take it from that that you didn't have regard to any decision in relation to choice between W2 and W3?-- I saw W3 as being the, if you like, the ultimate part of that, those two scenarios that you're moving from W2 to W3. When you actually did change from one to the other, when you did ramp up the discharges from Wivenhoe, there was a certain amount of discretion. I am not talking about discretion as described in volume 1 of the Flood Manual where there has to be certain permissions sought from various Chief Executives and so on. It was certainly pointed out in my original discussion with Mr Dennien and Mr Allen that there were these discretionary capabilities, and I guess you can say that - there are two types as I saw it. There is discretionary power where you actually depart from the manual, but there is also a certain discretion in how you interpret what the actual discharge at a point in the river might be and whether the storage is going up or it is going down, whether the river is going up or down, what the discharge in the lower subcatchments are, they all contribute to that decision-making process. So it is - I don't see that what is necessarily contained, and again this is going outside of the scope of my brief for this report that I was asked to give, but as far as the efficacy of the Flood Manual was concerned I saw that it was fairly grey in this area as to when you moved from one to the other, from W2 to W3.

Well, so far as you are providing advice in relation to prudence and appropriateness of the decisions, the only decision that we can identify, you would agree, is the decision in relation to implementation of strategy 4. That's the only one you have dealt with in your report, sir?-- That is the only one I have mentioned specifically, yes.

And could I take you to the second page of your final report, and there is that large paragraph commencing with the words "Until the last day or so"?-- Yes.

Now, your report is dated 12 January, which of course was the **50** Wednesday, was it not?-- Yes.

I get the impression you may have written your report on the Tuesday, the 11th; is that correct?-- I would have written the preliminary report on the Tuesday afternoon or late Tuesday, and obviously it formed the bulk of what became the final report.

XN: MR MURDOCH

1

20

10

30

I just want to get a definite starting point, you see, for the expression "last day or so". Do we count that back from Tuesday the 11th, or from Wednesday the 12th?-- I guess it is like that number EL74 that I mentioned before lunch that certainly was in our - that should have been 68.5, and I would suggest that what I meant to say was that until the last days or so, meaning that it went back to the extent of the TSRs that had been given to me, the technical situation reports.

Mr Cooper, do you have any idea at all as to when the move to strategy W2 occurred?-- The interpretation that I had coming off the technical situation reports was that I think TSRs 35 and 36 are still saying that the operators were still aiming to keep W2 in operation. So the impression that I got was that they started ramping up the W3 on the Tuesday, on the 11th.

Sorry?-- On the 11th.

But what I am interested in is when do you say they moved to strategy 2?-- Well, that would have been on the 9th, because the storage then was at 68.58.

And you have got them moving then to W3 on the, is it the 10th or the 11th?-- My interpretation was on the - either late on the 10th or early on the 11th.

I see. And you don't appear to make any mention of W3 in your final report, which suggests that you didn't recognise that the dam had been operated on W3?-- Other than the comment that they were ramping up the releases from the dam, and from that I interpreted them to mean that they were indeed going up to W3, but I couldn't see anything in the TSRs that specifically said that they were operating in scenario W3.

As a professional in this field does it appear to you that they were ever on W3, or did they go straight from 2 to 4? What is your assessment?-- The impression I had was that they did go from W2 to W3. That on the 11th, as I said, that they had ramped up the discharges and they were operating in W3 at that point.

And you acknowledged earlier that you had had great difficulty in establishing a timeline. It is fair to say that is your evidence?-- Yes.

And as part of your difficulty in establishing a timeline you really weren't able to pinpoint when the moves, if there were moves between the various sub categories of W1, occurred?-- That's right.

Nor were you able to with any precision identify when it went to W2?-- That's correct.

You put it within a day or two?-- Yes.

And as to going to W3, again you are not sure when that happened?-- To the hour, no.

XN: MR MURDOCH

20

40

50

10

Well, even to a reasonable bracket of time?-- As I said there were statements there like "We were aiming to keep at W2", and that went on for a couple of the TSRs, so I had to infer from that that they were operating at that time at W2. Now, that was in - they did ramp from about 1300 or 1350 CUMECS on the Sunday, up to 2600 CUMECS at - in the morning of the 12th, on the Tuesday, so I interpreted that to mean that they were in fact operating at W3 at that point in time, on the Tuesday morning.

That's the Tuesday?-- Mmm.

Tuesday?-- Yes. Tuesday morning, but when the actual transition went, it might have occurred sooner than that because obviously the discharge increase was on a continuum.

Are you able to say whether those - or the Flood Control Centre appears to have been taken into account forecast rainfall?-- They were certainly in contact with the Bureau of Meteorology. The TSRs reported on that, they had been talking to the Bureau. It didn't really say what sort of information they were getting from the Bureau - or not that I recall, anyway.

Do we take it from that that when you reviewed the operational procedures in terms of the manual that you did not take into account forecast rainfall?-- No. I would have considered what the TSR said about rainfall. It made statements like "rainfall increasing" or "rainfall increasing heavily, expect storage to rise", statements like that, because that seemed to be one of the cruxes of the Flood Operations Manual is that it is on predicted storage levels rather than actual storage levels.

50

1

10

20

822012 T()10/(BNE) BLP (QUEENSLAND FLOODS COMMISSION OF INQUIRY)

In the paragraph on page 2 that I have asked you about, you've expressed your opinions on the basis of things that: in the first line, "would be operating"; then in the fourth line "would be in place". You've reconstructed, have you, from the available data, what strategies you believe were in place at any one time?-- That's what I attempted to do with preparing this spreadsheet showing the timeline and showing what the storage was doing, what releases they were making out of both gates and valves and so on, and what Somerset Dam upstream was doing too. So that was my attempt at reverse engineering, if you like, the operating strategies.

So you first had to work out what they did; then you had to determine whether what they did was appropriate?-- Yes.

Would it not have been professionally appropriate for you to have been told this is how they moved through the strategies under the manual, and these were the times at which they made the movements; were their decisions and actions appropriate?--That would be one way of doing it. But at the time, obviously I was - myself was under a fair bit of pressure to get this done, and obviously if I had had a lot more time I would have gone back through all the running sheets or logs. I would have had the opportunity to talk to the actual operators and got a lot more detailing. But obviously that wasn't possible in the circumstances I was at the time.

Mr Cooper, that can't be right, can it? Surely it was simply a matter of your sending an email, "Please tell me the times and dates at which each of the strategies under the manual was put into effect"?-- The impression that I had - or my interpretation of my scope of work was to make my report on the basis of the evidence that was being presented to me; in other words, the technical situation reports and looking at that against the flood manual. So whether I went back to ask the source or not, that was - yes, I could have done that. But at the time, I was trying to work through on the basis of the information that I - written information that I had in front of me.

Again bringing you back to that same paragraph, in the fifth line you've said - I won't read the whole sentence, but "within the upper limit of nondamaging floods at Lowood (3500 CUMECS)". What do you mean by "nondamaging floods at Lowood"?-- The interpretation that I had of the flood manual was that that was the limit. If we had discharges greater than that amount, then you would only get urban damage due to flooding further downstream in Brisbane itself.

Nothing further, your Honour.

MR O'DONNELL: I think I understood you before to say that your focus in preparing your report was on what decisions had been made about the releases from the dam; is that right?-- 10

1

20

30

40

822012 T()10/(BNE) BLP (QUEENSLAND FLOODS COMMISSION OF INQUIRY)

1

60

Yes.

And you were testing decisions about releases by reference to the information available from the flood engineers at the time they were making their decisions? -- Yes. And your overall view was that their decisions were appropriate by reference to information available to them at the time?-- Yes. 10 In layman's terms, your view was they had performed - they had done a good job?-- Yes. That remains your view?-- Yes. You were asked some questions about transition of W stages. Is it fair to say that wasn't a particular focus for you when preparing your report? -- That's correct. What you were being asked to do now is really interpret the 20 technical situation reports to infer when changes of strategy might have been made by the flood engineers?-- Yes. An unreliable exercise, wouldn't you say?-- Yes. But you're giving your understanding as best you can?-- That's correct. Although it may or may not be accurate?-- Yes. 30 Thank you, Commissioner. MR MacSPORRAN: I have nothing, thank you. MR SULLIVAN: I have nothing further. MR BURNS: Nothing, thank you. MS WILSON: I have no further questions. May Mr Cooper be excused. 40 COMMISSIONER: Thanks, Mr Cooper, you're excused. WITNESS EXCUSED 50 MS WILSON: I calling Professor Apelt. I have an application to seek leave to appear on MR DIEHM: behalf of Professor Apelt. COMMISSIONER: Who is instructing you? MR DIEHM: Thomsons Lawyers.

XN: MR O'DONNELL 5712 WIT: COOPER B W

822012 T()10/(BNE) BLP (QUEENSLAND FLOODS COMMISSION OF INQUIRY)	
COMMISSIONER: Thanks, Mr Diehm. Leave is granted.	1
COLIN JAMES APELT, ON AFFIRMATION, EXAMINED:	
MS WILSON: Can you tell the Commission your full name, please? Colin James Apelt.	10
And on 9 March 2011 you provided a report to Seqwater about the operation of Wivenhoe Dam? That's correct, yes.	
And that report is Exhibit 410. Can the Professor see that report, please. Is that your report, Professor? Yes, that is my report.	
You produced your report following an approach made to you by Seqwater in January of that year 2011 to be involved in an independent review of Seqwater's operation of Wivenhoe Dam? That's correct, yes.	20
And the review - the independent review was to be of the January flood event? That's correct, yes.	
Can we just do some preliminary matters. Can you recall who approached you? The first contact was from the CEO of Seqwater, Mr Burrows.	30
Can you recall when that was? Yes, I had a contact from his secretary on 19 January, and I agreed to go down to meet him the next day, the 20th, to find out what it was that he wanted to speak to me about.	50
Then you did meet him on the 20th? I did, yes.	
And can you tell us about the meeting on the 20th of January? I had only a partial recollection of that discussion, but he had a draft scope of work that he asked me to consider taking on, and I agreed to consider this and to get in touch with him later as to whether I was willing to do that.	40
And what was the draft scope of work? Well, it involved review of a whole range of things, including the operation of the dam and aspects of other work of Seqwater.	
We've got your final report, which focused on two questions? That's correct.	50
At this initial stage was your draft scope of work much larger? Oh, yes. This was talking about what they might ask me to do, yes.	
And eventually it got focused down to two questions, Professor; can you just answer the two questions? For that review report, yes.	
XN: MS WILSON 5713 WIT: APELT C J	60

For the review that you produced?-- Yes.

In March----?-- That's correct.

-----2011. Was it raised why he wanted a review?-- At that time, the main concern that I recall was that the - Seqwater is required to produce a report within six weeks to go to certainly to the dam safety engineer and perhaps one other recipient, and my understanding at that stage was essentially it was that report and that purpose that they were wanting me to review. Somewhere about that time, or between then and when I started to do anything, the Commission had been established, and so clearly the review was to address the concerns of the Commission as well as that regulatory requirement.

If I can show you an email that you sent Mr Burrows on 21 January 2011. It's at 4.47 p.m. This is an email that you sent, Professor?-- Yes, that's correct.

If I can take you to the second paragraph?-- Yes.

You are seeking clarification about an issue?-- That's correct.

Can you enlarge on what that clarification is - was about?--Well, it was simply - there was a series of dot points in the scope of - draft scope of works, and one of them was analysis undertaken supporting the decision, which was in the context relating to the management of the dams. And I simply didn't understand what was meant by that, so I sought clarification.

Madam Commissioner, I will tender that email.

COMMISSIONER: Exhibit 1101.

ADMITTED AND MARKED "EXHIBIT 1011

MS WILSON: If I can now show you the email that you received from Mr Burrows in response to your email at 4.58, Friday, 21 January?-- Yes.

Is that an email that you received?-- It is, yes.

And that is in response to you requesting some clarification 50 about decisions?-- About that particular phrase that I had said I didn't understand, yes.

And we can see what this email sets out?-- Yes.

The second paragraph, "There will be the report on the event." That is - is that what's called the March report by Seqwater?-- Yes. Early March, 2 March, yes.

XN: MS WILSON

10

1

20

"As is required under the manual and which the decisions and decision making process will be addressed. Your brief will include reviewing the report". That is the report of Seqwater?-- Yes.

Is that the case?-- Yes.

"And the supporting information, including around these decisions"?-- Yes.

Madam Commissioner, I tender that email.

COMMISSIONER: Exhibit 1102.

ADMITTED AND MARKED "EXHIBIT 1102"

MS WILSON: On 3 February last year you visited the offices of Seqwater for a meeting?-- That's correct.

And if I can take you to - can I ask you to look at Exhibit 1084. You'll see that there is a meeting agenda there, Professor?-- Is that the front page you're referring to?

Yes. Do you see it says, "Discussion around technical report format"?-- Yes.

This is for the meeting that was on 3 February 2011, which opened at 10.30 and closed at 4.30. We can see who attended that meeting. Does that conform with your recollection of the attendees?-- Well, I know there were a number of people there. Some I had met; some I couldn't have identified at all. So I can't - only some of those I knew and could say yes, I - they are the person whose names are there.

It's like often when you to any meeting, that you just get a whole lot of names going around a table, and it's often quite difficult to remember what name is associated with which person at the end?-- Well, again my recollection is less than perfect, but I doubt that there was even that process.

Okay?-- I may have arrived a little bit late, and it was very late in the proceedings. For example, I had the lady Foxover pointed out to me. I had some - I think I might have had an email from her or something, so I was interested to identify her, but----

Do you recall from your independent recollection whether John Tibaldi was there? Do you know John, Mr Tibaldi?-- I think I met him there.

Okay?-- I think I met him there. I'm not certain that it was that occasion, but I met him on one occasion at a meeting at Seqwater, so it was probably then.

XN: MS WILSON

20

10

1

30

50

Mr Malone?-- I really don't recall whether I, you know, consciously was aware of his presence at that meeting.

Mr Drury?-- Yes. Yes, I knew him well enough in a sense to realise he was there, yes.

To be able to recognise that he was there?-- That I recognised that he was there, yes.

Can you assist me in any way to tell me what this meeting was about?-- Well, it was to talk about, as indicated there, the format and timelines, and I was asked to come along really to be an observer so I could be brought up to speed in that it was expected - I don't think I had actually had a formal agreement at that stage - that I would be doing an independent review of the report, and taking account of the timelines and all of that, and my other commitments, they thought it would be helpful for me to hear this preliminary discussion. But it was made clear, both by the person who sent out to me - Brooke Foxover, and also to myself, that my role was simply observer.

Role as an observer in that meeting?-- Purely observer, yes.

You referred to timelines. What are you referring to? Timelines in relation to?-- The production of various drafts and ultimate completion of the report.

And was your involvement figured into those timelines then?--No, not that I'm aware of.

When you say you were an observer, you didn't contribute to that meeting; you were there just to listen?-- No. I might have asked a question for clarification, but I certainly didn't contribute to the discussion or anything like that.

And the purpose of you being an observer was?-- As I said, to help me get up to speed on a job that had to be done rather rapidly. And, as was mentioned in that email from Mr Burrows, I had already been approached by the then Lord Mayor about work to do for the city council, and these were two activities running pretty well in parallel and both under pressure.

Now if I can take you to Exhibit 1083, which is an email from you to John Tibaldi?-- Yes.

That you'll come into SunWater on Monday, the 7th. Did you attend any meeting on the 7th that you recall?-- What that was - if you'll allow me to just give you the background?

Certainly?-- I had - I certainly had expressed a desire to see the Flood Operations Centre and to get an understanding of how they worked during the flood. There were things that were unclear to me about how they communicated with the dam. In fact, I had the wrong understanding of that. And I also wanted to see where they were working from and to get an understanding of their processes, their communication, including contact with the Bureau of Meteorology. So that

XN: MS WILSON

10

1

50

822012 T()10/(BNE) BLP (QUEENSLAND FLOODS COMMISSION OF INQUIRY)

was - it was probably a mutually agreed thing that it would be a good idea for me to come in, and I had contacted John Tibaldi to suggest this time. So that's what that's about.

And you did go into the Flood Operations Centre?-- I did.

And that assisted?-- Oh, it did, yes. For example, I had imagined that the Flood Operations Centre was up near Wivenhoe. And I also - I wanted to know how they communicated with the dam controllers, and so all of that became clear.

Can you just remind me, when did that occur?-- That was on the 7th.

So that's what that email is referring to, to go there?-- Yes.

Can I take you to an email at 5.16 on the 7th. It's from a Brooke Foxover?-- Yes.

Monday, 7 February 2011 at 5.16?-- Yes.

It's to you?-- Yes.

It refers to a "proposed meeting establishment of roles (Wednesday, 9 February, 2.30)". It appears at this point in time that you have given your okay that you will be assisting Seqwater?-- Yes. As is indicated there, I work - I'm retired. When I'm asked to do these jobs, I'm asked to do them as an individual, but I always seek to do them through UniQuest. So basically what's going on there is I've advised UniQuest; UniQuest have indicated their willingness to act in this way. So the actual documentation was still taking place, but the verbal agreement was in place.

So you had accepted your agreement to do it, but there was some contractual work that had to be done?-- Contractual documentation to be completed, yes.

I understand. Now, it's that first sentence, confirms your availability to assist Seqwater with the report and submissions for the Commission of Inquiry"?-- Yes.

I'm just wondering, were you engaged to do two pieces of work: that is, to assist Seqwater with the report; and also a submission for the Commission of Inquiry?-- No. No, that's certainly - the wording there is certainly - could be understood that way. It was always clear in my mind that I was being asked to review the report and not be part of the actual production of the report. I mean, it would be quite ridiculous for me to help construct it and then review it.

I just wanted to clarify that.

Madam Commissioner, I tender that email.

COMMISSIONER: That will be Exhibit 1103.

XN: MS WILSON

1

10

20

30

40

ADMITTED AND MARKED "EXHIBIT 1103"

MS WILSON: And you referred to there about the contract documentation work, that was - had to be - UniQuest had to be a part of that?-- UniQuest actually had the contract with Seqwater, and I was contracted - and their contract was really to provide the professional advice with me as their subcontractor to do that. And so my own contract is with UniQuest.

If I could just take you quickly through that documentation. Can I show you this document, please. This is the instructions for professional services?-- Yes.

Is that your signature on the back?-- Pardon?

If you look over the second page?-- Yes.

That's you? That is you. And in the first paragraph it refers to a Commission of Inquiry?-- Yes.

And if we can go to the fourth paragraph, the scope of your services, "... we will provide you are set out in the consultant's brief at annexure C"?-- Yes.

If we can go to, Professor, the last page, which refers to Part C. That sets out the scope of your services?-- Yes.

And that's a review in relation to the recent flood events, in particular, the January 2011 flood event?-- Yes.

And it sets out what you must review - the scope is, what to review?-- Yes.

And that you are to provide a report to Seqwater which describes the findings of the review?-- Yes.

And provide a written statement or other oral evidence for the purpose of any Commission of Inquiry?-- Yes.

Madam Commissioner I'll just tender all of those----?--Excuse me, just before we leave that-----

Yes----?-- It's stated very clearly at the beginning that I'm required to undertake any or all parts as confirmed by writing. So my understanding was I didn't do anything until I had a written instruction.

Yes, and we'll come to that?-- Good. Okay.

Madam Commissioner, I tender those documents.

COMMISSIONER: Exhibit 1104.

XN: MS WILSON

1

20

40

ADMITTED AND MARKED "EXHIBIT 1104"

MS WILSON: Now can I ask you to look at Exhibit 1085, please, which is a document relating to a technical review meeting on 8 February. Do you see that, Professor?-- Yes, 8 February. I see that, yes.

Do you recall attending a meeting?-- I attended two meetings at Seqwater, so that would have been the second, I think, yes.

Did you attend----?-- I'm not sure of the date, but that would have been the second.

Can you give me any assistance about what this meeting was about?-- It was really similar to the first one, basically. Well, from my point of view, an update on where they were in relation to the report.

Okay?-- Again my role was purely observer, and I didn't contribute to anything.

You again were there just as an observer?-- Purely as an observer, yes.

At any of those meetings so far that we've gone through were strategies discussed and when they were engaged?-- No, no, there was - I don't have a full recollection of what happened at the meetings, but there was very little, actually. There was some descriptions of some of the event, but there was nothing that I recall about the way in which the event was being managed.

Professor, can I take you to Exhibit 1086. If you could go to the next page, please. This is a phone hookup with expert consultants to establish roles on 9 February?-- Yes.

Do you recall participating in this?-- Well, I had forgotten 40 until I saw this reference in earlier days' transcripts, and I checked my diary and I just had a note to teleconference with Sequater at 3.30, so----

Apart from that note in your diary, you have no recollection?-- No. No.

By looking at this document here, does that give you any further assistance in jogging your memory about what occurred?-- The mention of Greg Roads would suggest to me 50 there was some - I really don't remember, to be quite honest. He was one of the other independent reviewers, but I would be surmising. I don't really remember.

You can't assist me with this meeting at all?-- No, I'm afraid not. My memory is completely blank.

Can I then ask you to look at Exhibit 1039. This is an email

XN: MS WILSON

10

20

from you to John Tibaldi on 19 February 2011 at 5 to 9 p.m.?--Yes.

So what was the stage of your review at this point in time?--I had been given a draft of most of the report, but not all of it. Some of the - some sections were missing and some appendices were missing, but----

Yes?-- And that was given to me to be able to get me at least to complete as much as possible before the final published report came out, which was going to be very close to the time when they needed my report. I'm sorry, I lost the point of your question, I beg your pardon.

20

1

10

40

I just wanted to know where you were up to in relation to your----?-- Okay. Right. So I had completed my detailed review of that draft. I had been asked to give feedback as soon as possible about my assessment of the question of was there compliance with the manual, and so that was essentially what I was communicating there, with that - you know, as I said, there some minor typos and clarification that I wanted to discuss with John. And there's also that - at that stage I was trying to decide whether there was an exercise of discretion on that date at that time and I wanted to talk with John Tibaldi about that to get better understanding of what's going on.

Okay. And at this point in time to do this task that you've done you would have had a copy of the manual?-- Yes, yes, I-----

Yes?-- ----had a copy of the manual from very early in that piece - stage, yes.

And you were provided some documentation by Seqwater?-- For this - that review. That was that draft report that I mentioned-----

Right?-- ----yes.

And if we can now go to Exhibit 1043. Before we do that it would be a convenient time to show you the draft report that you were provided? I will get you that - get that to you?--Yes. Yes, that's - that is the draft that I was provided.

Okay?-- I recognise it.

Why is that, Professor?-- Well, I've got my - I've got notes in it. I've also put these - these tags to locate various appendices in it----

Okay?-- ----so that was my doing.

When you were going through this task did you pay any attention to the appendices?-- I referred to them. There were some, you know, regularly in - at every stage, for example the model results I was referring to continually. There was some others that I referred to from time to time but that - that was my main - I must have a look at the - what's in those - in that one, that's - model results, that's one very much I was watching very closely and continually.

The model results?-- Yes. That's just labelled as appendix B there. I think that's - I was looking at the situation reports not - not every one but just checking against them - against the actual report by----

Okay. Why was it important or necessary to look at the situation reports? What does that piece of information give you?-- The - in the actual, you know, the report - the body of the report, you know, there's a running description of what they're doing----

XN: MS WILSON

20

10

1

30

Yes?-- ----and what's happening at various stages and I just wanted to crosscheck with the other sources of information to, you know - effectively to satisfy myself that this was the correct description.

Okay. Now, is that the only draft report that you were provided?-- The - there was a - I was given not long before the final published report came out a complete draft report, which I looked at very briefly, and it was not noticeably different from this one.

So the work that you did in the review that you did was that really based on that document I've got before you?-- No, I mean, that's where a lot of the, shall we say the leg work, was done----

The leg work, yes?-- ----but when I got the final published report I went through that very carefully, looking for any change in this - in the published report from the draft that would have changed my assessment and also to see what they'd done - like with - as I read through the draft, being an academic, when I saw a spelling or number missing----

You picked that up?-- ----I made a note and I told them but I said, "I'm not going to tell you what to do, this is your problem," and so I was interested to see whether they had fixed them up.

Oh, okay?-- So basically ultimately my report was based on the final published report----

But----?-- Sorry, my review was based on that.

But a lot of your thinking was done on that report, is that a fair----?-- Oh, yes, the contents are essentially the same, I'd satisfied myself on that.

Madam Commissioner, I'll tender that draft report.

COMMISSIONER: Exhibit 1105.

ADMITTED AND MARKED "EXHIBIT 1105"

MS WILSON: Now, that's the original, Professor?-- Yes, yeah, that's - well, that's the one that I handed over to the courier so I presume that's the one I had, yes 50

Would you like to satisfy that that's the one you worked on?--Well, I've already seen my handwriting----

Your notes?-- ----on it, so, yes, I was being a bit, shall we say----

Okay?-- ----careful.

XN: MS WILSON

10

20

1

30

Now, can I show you Exhibit 1042.

MR O'DONNELL: Commissioner, could I see that last exhibit, please?

COMMISSIONER: Yes.

MS WILSON: If we can just go down a bit. Do you see it's an e-mail from John Tibaldi to Colin Apelt, that's you?-- Yes.

And John Tibaldi is asking you to consider that the manual "describes reasonable discretion as," and sets that out?--Yes.

And you talked about before that you were looking at this issue of discretion?-- That's correct.

And did you satisfy yourself of that?-- The - that was quite a - that was quite a different point and the - I had by that time satisfied myself that where I had thought there was an exercise of discretion requiring, you know, use of the processes under 2.8 but I was mistaken and the - people do make mistakes and I had - but my concern about that particular point was where during the drain-down phase they - the statement was that the gate settings were lower than - I can't remember the - perhaps I should get the - the part of the report----

Can we assist you, Professor, to give you any document?-- If we could see the report, you know, the final report where they have the log of the----

Certainly?-- ----of the activities. I think it's chapter 2 and towards the end of - episode 17 is when it was.

Okay. I believe that's Exhibit 24----?-- Right.

-----and we will get it on the screen and which document which page do you wish to see, Professor?-- Well I can't tell you the - like, they nominate the pages within each section but it's within chapter 2, I'm pretty sure, and it's interval or - they break it down into periods and it's period 17----

Yes?-- ----of that-----

Period 17?-- Period 17, yes.

We'll find that for you. I believe it's page 26 of the Flood Event Summary, chapter 2?-- That's correct, yes, I - the thing that I was looking at there was - they're in the second paragraph - second column, second dot point, in the second sentence, "At the same time a decision is made to close down the gates as quickly as possible. This" - "to reduce urban flood impacts. This decision," and so on and so forth, "was made in an attempt to minimise urban damage," and the gate operator - the gate closure was faster than normal but then I went to the manual and they must have done the same thing because on page 32 I found the statement corresponding to gate

XN: MS WILSON

10

1

20

30

40

- gate closing operations at the bottom of page 32, the last paragraph, "Rapid closure of radial gates is permissible, however when there's a requirement to preserve storage and reduce downstream flooding," so clearly the manual provided that opportunity and I had missed that, to be perfectly honest. At that stage of reviewing the report I'd been focusing very much on the episodes during W4 and when we got down to the drawdown phase I was not consulting the manual as closely as I had before so that was an oversight on my part.

And that was something you chased down? That was something that you worked your way through?-- I chased down, yes. Yeah.

Now, on the 7th of March you got an e-mail from Jim Pruss which set out the questions that he wished for you to answer?-- Yes.

Can I show you this e-mail, please. Now, this sets out the two questions that you ultimately answered?-- That's correct.

Up to that point in time were you working on the basis of these two questions or were you working still on a larger scope?-- I was - well, those questions, while they're very terse - while those questions are very specific and terse, to be able to answer them one has to really do a complete review of the operations with respect to compliance with the manual, so I took that more as a request in terms of my report or an instruction in terms of my report, don't spend a lot of time don't - you know, "Don't talk about anything else, this is all we want you to answer"----

Mmm?-- ----but to answer that I had to have done a full-----

To answer that you had to do----?-- Do a full review, yes.

Now, this e-mail is dated the 7th of March. Were you aware that Seqwater released its final report on the 2nd of March?-- That's correct, yes.

And you were provided with that - a copy of the final report?-- Yes, I received that - I don't have an exact recollection of when it came. It was about the 4th of - you know, it was after it came out, obviously. It was about the 4th of March and I really just had to concentrate on doing what I described before to actually check through and make sure that my preliminary judgment was not changed by the final report.

Were any differences between the final report and the draft report that you had, was there any differences brought to your attention? Were there any differences that were brought to your attention?-- No, no, not - not at all, no.

Madam Commissioner, I tender the e-mail of the 7th of March.

COMMISSIONER: Exhibit 1106.

XN: MS WILSON

10

1

30

20

40

ADMITTED AND MARKED "EXHIBIT 1106"

MS WILSON: Now, on - I can show you this e-mail from yourself to Jim Pruss on the 8th of March and you were just about to complete your report?-- Yes.

If you can have a look at this e-mail, please?-- Could we scroll that up? I see the----

Yes. That's not the e-mail that I'm referring to. This is an e-mail on Tuesday, the 8th of March 2011, 8.12 p.m. Have you got that copy - have you just been given a hard copy?-- Oh, yes. I have that, yes.

Okay. And, as I said before, this is from yourself to Jim Pruss. It appears that you are just about to complete your report?-- Yes.

And again you put - you discussed the play, the interplay of UniQuest, that it had to go through UniQuest before----?--That's correct, yes.

-----it could formally get it to Seqwater?-- That's correct. As you would noticed the report is a report from UniQuest, which really is my report without change but within the context of their normal format, et cetera.

Okay. Now, if we can just scroll down on this e-mail trail. Before you sent your e-mail Jim Pruss sent an e-mail to you----?-- Yes.

----stating that they've got a board meeting tomorrow and was hoping that you might be able to table your advice at the meeting?-- Yes.

And were you able to do that, give him a copy?-- Well, what I did was - my response was what we just looked at. Because I was not sure if UniQuest could actually turn it round so quickly----

Yes?-- ----I sent to Jim Pruss a text of what would be in the report without all the - you know, the UniQuest surrounds, and, as it said, the - "I'll send you the text of my report as advice which will be replaced without change of substance by the formal UniQuest document". I did that merely as a courtesy so he'd have that if the other one didn't come before the board meeting. I believe that the formal one was received in time.

Madam Commissioner, I tender that e-mail, that e-mail trail, and for completeness sake I'll just show you this e-mail that you sent to Jim Pruss on the 9th of March.

COMMISSIONER: 1107.

10

1

20

30

40

08022012 D 65 T11 JJH QUEENSLAND FLOODS COMMISSION OF INQUIRY 1 ADMITTED AND MARKED "EXHIBIT 1107" MS WILSON: And that sets out what you just discussed? -- This is my e-mail to Jim Pruss-----Yes, it's an e-mail from yourself to----?-- On the 9th, yes. ----Jim Pruss on the 9th of March at 12.30 a.m.?-- Yeah, 10 well, that's really doing what I said I was going to do on that previous-----Yes. So, Madam Commissioner, I tender that. COMMISSIONER: Exhibit 1108. ADMITTED AND MARKED "EXHIBIT 1108" 20 COMMISSIONER: So you gave your report on the 9th of March, and we've got that as Exhibit 400 and ----?-- I it was - I almost certainly - well, I think I sent it to UniQuest on the 8th for them to get it to Sequater, if possible, by the 9th. Okay----?-- So it would have been dated the date that UniQuest actually processed it, which I think is the 9th. Is 30 that correct? That is the case, yes?-- Yes, yeah. And that's Exhibit 410. And have you got a copy of your report in front of you, Professor? -- Well, I have it up here on the screen, yes. Okay. And you set out in your report the two questions that Mr Pruss forwarded to you?-- That's correct. **40** Essentially you were asked whether Wivenhoe and Somerset Dams were operated in compliance with the manual?-- That's correct. And your review was based on the information that was contained in Seqwater's report?-- That is correct, yes. And at the bottom of page 2, which refers to the review process, that the January - it talks about the January 2000 -50 flood event - flood report dated the 2nd of March?-- That's correct, that's the final report, yes.

"has been reviewed and particular attention has been given at this time to the executive summary and to the following chapters"?-- That's correct, yes.

And you set that out?-- Yes. I set that out just to make clear that in the time available - you know, there's a huge amount of data in the appendices and I didn't want to convey any misunderstanding that I'd been able to check the accuracy of all of those entries.

Did you review other parts of the report - that are contained in the report that are not stated as in that review process?--Oh, yes, yes. I reviewed the whole report document, which has other sections, but those ones that I identified are the ones which really are most specific to the question of compliance, they describe what's going on. The others, which I certainly read, were for background information, which is important.

Now, your task required you to look at the information that was provided and the information as contained in the report and look at the manual?-- That's correct, yes.

Now, could - in relation to the manual, which is Exhibit 21----?-- Mmm.

-----the manual requires that during a flood event Wivenhoe Dam is operated in accordance with one of four specified strategies?-- Yes.

And that's W1 to W4. Each strategy has a different primary consideration?-- Yes.

So did you approach this as your task to determine whether the January flood event the dam was operating in accordance with those strategies, that is W1 to W4?-- Well, much more broadly than that because, like, there's a whole - the strategies I - you know, those statements of the strategies, which you've listed----

Yes?-- ----I see them as summaries of the whole of the section 8, which is about the management of the dams, and they - under each of those strategies they summarise the conditions under which certain actions will be taken, and I see, you know, when it's labelled "W1", "W2", or whatever, I see that as purely a label, kind of a chapter heading, and, so, yes, I was looking to see that they were doing the correct thing by the manual when the conditions - correct relative to the conditions that existed at the time.

So if we can go to page 13 of the Flood Event Summary. Page 24 - Exhibit 24 - which is Exhibit 24. We see there that on the third dot point it was transitioned from strategy W1E to W3?-- Yes, I see that.

And that was completed on the 8th of January?-- Yes.

At 8 a.m.?-- Yes.

So was that the information that you accepted in doing your analysis, that W3 was triggered on 8 a.m. on the 8th of January?-- Well, not just from that statement----

XN: MS WILSON

10

1

30

20

50

Engaged, sorry, engaged?-- Not just from that statement, there's a - in other sections of the report there's a whole tables of information about lake levels and so on, and times, and so when I was looking at that I would consult the - all of that information to decide for myself were the conditions as summarised there, and so it's - as indicated there, it's a question of the lake - the dam level, and also the matter of having to go to W3 because W2 was not available, so I satisfied myself that in the document there was information that detailed - that supported it.

When a strategy is engaged there are primary considerations?--Yes.

And that is the primary - that is the primary consideration that the dam operator must have----?-- Yes.

----when engaging in that strategy?-- Yes.

And part of your task was to determine, was it, that whether the right strategy was being used at the right time?-- Yes.

Now, in preparing your report did you accept that the engineers moved to strategy W3 at 8 a.m. on the 8th of January?-- Yes, I had no reason to question that----

And is that----?-- ----from the information I had, mmm.

And is that because that is what is in - that is what is at page 13 of section 2?-- No, no, it's - as I said, I consulted - in other parts of the report there's - for example, I think it might be section 9, there's a list of dam levels, inflows, the projected dam levels from the modelling and so forth, so I - I consulted all of that, including going back to the model results, before I was satisfied that that was a correct state - that it was appropriate for them to do that.

So you were looking at release rates to see if those release rates were appropriate at that time?-- No, in that - well, release rates are - release rates don't define the strategy except in terms of the maximum that you can use.

Yes?-- Within those earlier strategies the release rate can be anywhere between zero and that maximum. So if they say the release rate is such and such, it doesn't necessarily convey that strategy X, Y, Z is being used, what one has to do is to look at all of the conditions and say is the release rate appropriate for the conditions which come under strategy whatever it is, and all of the other circumstances that you are required to look at, and so, for example, in strategy W2 there's a requirement to look at peak flows at Lowood and at Moggill and the evidence that is in the document is that the release rate that already - at the dam was already above the naturally-occurring peak so they no longer had access to W2. W2 is not the easiest one to understand, I must say.

What about W3?-- Well, W3 is fairly straightforward in the sense that once - once W2 is not available W3 is defined by

XN: MS WILSON

10

1

30

20

40

the - you know, the same conditions in terms of dam level but then it's wholly a matter of looking at urban protection, and the maximum release rate has increased a little bit to 4,000, if my memory is correct - or three and a half thousand-----

Now, can I show you this situation report, which is at 553 on the 8th of January. This is Exhibit 1047. Now, you were provided situation reports in your appendices?-- Yes.

And you said that you had some reference to those situation----?-- Yes, yes.

-----Yes.

This particular situation report is not in the appendices?--I see, okay. So this is new-----

If you could go to "Forecast Scenario" on page 2. Can you just read that? "Forecast Scenario", can you read the paragraph underneath that?-- That's the last section of the----

"Assessments have been undertaken"?-- Yes, I see that, yes. Yes, I've read that.

Now, can you tell me what that means to you?-- Well, my first problem is that they - this is talking about W2-----

Yes?-- ----and already they're in W3 so - according to that report.

Yes?-- The dam level is already above so that - such that it must be one of - W2 or W3. There's no - there is no reference that I can see to the naturally-occurring peaks at Moggill and - sorry, Lowood and Moggill that would determine whether it should be W2 or W3 so there's something missing from that.

If you had seen this would it have caused you to ask questions?-- Yes.

And to try to provide further - get further information?--Oh, yes, yes. I mean, it's---- 40

50

10

1

30

08022012 T12 GFH QUEENSLAND FLOODS COMMISSION OF INQUIRY

Now, you said that you did a lot of your leg work in relation to the draft report that you got. Did you notice any inconsistencies between the draft report and the final report?-- No. There had been various typos and some of the things that I found difficult to follow had been modified. Some hadn't, and when I looked at them again I realised that I understood what had originally been intended. There was no substantial change. The only one of any real, shall we say significance, was the dealing with describing what they did in period 17 to make it clearer why they were doing that matter of closing down the gates, and as I said I had already satisfied myself on that.

Did you do a comparison between the appendices?-- Only a quick one. Not a close comparison, no.

Did you notice any discrepancies?-- No. No.

Can we take you to your draft report and to the appendices that are contained there, and can I take you to Appendix N at page 3 of 30?-- Which Appendix? N?

M. Now, you have got a note there, Professor. What does that say?-- Yes. That was something that I had picked up and conveyed back to John Tibaldi.

Okay. So "dates missing before 10 January"?-- Yes.

Can we go to page 3?-- Of that Appendix?

Yes. Now, you will see there "9 January"?-- Yes, in my writing.

That is your writing?-- Yes. The one on - the handwriting, is that what you are referring to? Yes.

Sorry, what was that, Professor?-- The handwriting you are referring to?

Yes. That is your handwriting?-- Yes, that's my handwriting.

Okay. We see there the appendices NPD model dated at 3 o'clock; model run. There is a model run done at 3 o'clock?-- This is at - what time is that?

Three o'clock on the Sunday?-- Three o'clock on the 8th, is it?

No, on Sunday the 9th, Professor?-- Oh, 3 p.m. NPD model 50 updated. I see, yes.

The next entry, what is that next entry?-- SDWD model updated.

Yes, at four o'clock; is that the case?-- Yes, I see that.

Okay. And you have obviously had cause to look at this page

XN: MS WILSON

1

10

20

30

because you have got your handwriting on that?-- Yes.

And you said before that you looked at these appendices to help you with your analysis?-- Yes.

Can we look at Exhibit 24 Appendix M? Can you see there, Professor, this is on the 9th of January; do you see that? I will just go back up the page so you can satisfy yourself?--This is on the screen now?

Can you satisfy yourself. There you go?-- Okay. 9 January, yes.

Yes. If we can go there to 3 o'clock; do you see that?--Yes.

That was in your draft that you got?-- Yes.

Do you see the next entry?-- I see that, yes. I see that is 20 additional.

Did you pick that up in your review?-- No, I didn't.

Can you read that for me, please?-- "DD engineer conference, attended by all DD engineers, engineer called by telephone. At this stage operating at top end of W1 and bottom of W2".

You can read the rest?-- Yes. Okay. I didn't - the - I got that as I said around about the, final report about the fourth **30** or thereabouts, and I was mainly concerned with making sure that the report body didn't cause me to make any change. I quickly looked at these others, but I didn't pick up that difference, no.

Just prima facie if you had seen that, Professor, would that have caused you to ask some questions?-- Yes.

Further questions?-- Yes. Yes. Yes.

Why is that, Professor?-- Well, because at that stage the report has said that they are in W3 and all the conditions as described were appropriate for W3, so I would want to know what they were really talking about there.

When a dam engineer is operating the dam under a strategy, the state of mind is important because that looks at the primary considerations?-- Yes.

Anyway, you didn't have any - you didn't consider - you didn't 50 consider that entry in writing your report?-- I missed that. I simply didn't pick that up.

And if you did you may have put more qualifications on your report, or asked more questions?-- Asked more questions, yes. Yes.

Did anybody from SEQWater ever explain to you the methodology

XN: MS WILSON

10

08022012 T12 GFH QUEENSLAND FLOODS COMMISSION OF INQUIRY

by which the report on the second of March, or even the draft

reports, were prepared?-- No. No.

Now, is it the case that you cannot say that there was compliance with the manual unless the SEQWater report is an accurate record of what the engineers were considering at the time?-- Are you talking about the body of the report?

Yes?-- I am not quite sure what you mean by considering. What I was concerned about was what are the conditions? What are they doing? Are these consistent for those conditions? Whether that is W1, W2, W3, whatever, that then is as I said part of a label. It is the substance of what they are doing that I was concerned with.

But look at the 3.30 entry. Why then would that make you ask questions?-- Well, because the conditions according to the applied summary were those that put you into W3, for the reasons that W2 and W3 are very similar except that with W2 you are to avoid - reduce your - or keep your releases so that you do not exceed the naturally occurring peaks at those locations, and according to the information that I had seen the releases were already exceeding those peaks when it got to the point where either W2 or W3 was to be moved to.

Can I ask you to just listen to this assumption and comment on this assumption. Just assume that the report is not based on the flood engineers' recollection of their choices as to strategy, but is based on a reconstruction of the events having regard to when the lake reached certain levels. Would that in any way change your opinion expressed in your report?-- Sorry? Could you just state that again?

That the report is not based on the flood engineers' recollection of their choices as to strategy, but is based on a reconstruction of the events having regard to when the lake reached certain levels?-- When you say "the events", their actions?

Well, looking at that flood event, you know when it goes through?-- Yes, that whole process.

8 a.m. on the 8th?-- Yes.

W3?-- Well, that's really the way I was reading it in the sense that what they were doing for the conditions that existed at the time, rather than what label they might be using for the strategy.

COMMISSIONER: So you don't think it is necessary to consciously decide what strategy you were in, or what is it that you are saying?-- I don't think it is necessary for you to advert explicitly to the fact that "This is W3". It is essential that you are conscious of the fact that the dam has passed a certain threshhold. For that condition we must do certain things. So it is essential that they have a clear understanding of what is required for them to do. Whether

XN: MS WILSON

20

10

1

30

40

they think, "This is W3", or whatever, is not for me the essence.

All right.

MS WILSON: Can I ask you to look at Exhibit 1045. It is an e-mail from John Tibaldi to you and it is about a meeting with you, that he would like to meet with you in the city on Monday, 14 March. It is "as discussed", so there must have -10 was there a conversation? Do you recall getting this e-mail?-- I certainly recall that email, and you see he said, "We will be discussing it". I was going to say I didn't recall prior discussions. We probably had some prior discussion, but that was to talk about asking me to review the North Pine Dam-----

Okay?-- ----operations, so that was a completely new exercise.

A new piece of work?-- Yes. Yes, and - yes.

"And the review work that SEQWater would like you to undertake relating to a number of flood reports". What was that about?-- I am not quite sure, to be quite honest because I was only asked to review the report of the operation of the North Pine Dam.

Thank you, Professor. I have no further questions.

COMMISSIONER: Mr Murdoch?

MR MURDOCH: No questions.

COMMISSIONER: Mr Rangiah is here. He is just not at the Bar table. Did you have questions, Mr Rangiah?

MR RANGIAH: No, I didn't. I am sorry I wasn't at the Bar table.

COMMISSIONER: That's alright. Mr Murdoch, you have no questions?

MR MURDOCH: No, thank you.

COMMISSIONER: Mr O'Donnell?

MR O'DONNELL: Could I just explore a little that last answer 50 you gave to the Commissioner?-- Yes.

Are you referring there to the situation where water reaches the 68.5?-- Yes.

As I understood the thrust of your answer, it was once the water reaches that level the engineers have to give consideration - sorry, obviously have to have regard to all

XN: MR O'DONNELL

WIT: APELT C J 60

20

40

08022012 T12 GFH QUEENSLAND FLOODS COMMISSION OF INQUIRY

the objective information such as lake levels, inflows, rain forecasts, outflows?-- Yes.

Their primary task is to give effect to the major consideration which applies when the water gets to 68.5, and that is protecting against urban inundation?-- No, at that stage - once you get to 68.5 there are two - you have got this question, "Do we go to W2 or W3?"

Yes?-- And W2 still maintains concern for minimising rural 10 disturbance.

As a secondary consideration?-- Yes.

In the situation that applied on the Saturday the 8th when the water reaches 68.5, your assessment in your report was that strategy W2 was simply not available?-- Yes.

Because the releases then from Wivenhoe exceeded the naturally occurring peaks at Lowood and Moggill?-- That's correct. 20 That's the information in the report that I have based that judgment on, yes.

So in that particular situation there was no choice for the flood engineers, "Do I use W2 or W3?"?-- No.

The choice was made for them by the prevailing circumstances?-- That is my understanding, yes.

And that was your opinion when you prepared your report?-- 30 Yes.

So your opinion was the manual required them to use W3 from the time the lake level crossed 68.5?-- For the conditions they were dealing with, yes.

Yes. And as I understood your answer to the Commissioner, the primary exercise as you saw it was for them to make decisions by reference to releases having regard to, what, the primary consideration applicable under W3?-- Yes, but I mean I didn't **40** elaborate to the Commissioner, but all of the subsidiary considerations must be taken into account, and it is quite clear from my reading of that that they were very concerned about trying not to cut out those last two bridges.

Yes?-- As long as they could they were holding back from doing that.

So your view is that the correct task for a flood engineer is "My primary consideration is to avoid urban inundation. So 50 long as I can satisfy that primary consideration I should also give consideration to lower level effectives"?-- Yes.

I.e. keeping as many bridges open as possible?-- Yes, yes.

And is it your view that from Saturday the 8th onwards, and for all of Saturday, Sunday and Monday the engineers, the flood engineers discharged that responsibility?-- Yes. I

XN: MR O'DONNELL

08022012 T12 GFH QUEENSLAND FLOODS COMMISSION OF INQUIRY

think they were somewhere down - I think it was on the Friday - on the Sunday they recognised that they were going to have to increase the release rates, which meant that they just

recognised that the urban protection was the only consideration that was available to them because of the forecast inflows and the dam rising. When I was reading through that in the first time I was puzzled about how long it took them to really increase the flows, and then when I read more closely I realised that they couldn't act until those bridges were closed properly by the police or whatever authority, and so there was a period of some hours while after the decision was made and they issued the instructions or requests or whatever the word is, before they could actually do anything. In the report, and I have made the point that this should be in the manual, that protection of human life is the number one priority and it is always implied in that. So, I mean, that as a dam engineer confronting the prospect of cutting a bridge with increased flow, the priority would be to make sure that that is closed before the water goes over it. So it is really - I mean, that is the greatest hazard in flooding, as we know.

And you saw they did that?-- Yes. Yes.

And once the bridges were closed?-- They began to increase the flowrate, yes.

You regard that as correct conduct on their part?-- It was correct at the time. If they had - yes, I think they really had little other option, and what was going on through Saturday and much of - sorry, Saturday and much of Sunday was that they were - the releases were virtually constant and the dam level was virtually constant, and at some stage it is actually declining a little bit, so it was just hovering a bit above the 68.5 for quite an extended period, and thinking you know, not knowing what was to happen ahead, knowing what had happened in previous floods, I would have felt it looks like this thing is under control. We'll probably be able to start closing down in the foreseeable future, but then they got these forecasts and indication of substantial inflows and they had to completely change that.

Yes. Can we step back a little bit more broadly. I am interested in those three days, the Saturday, Sunday and Monday?-- Yes.

Eight, nine and 10?-- Yes.

From 8 a.m. on Saturday morning when the water level crosses 50 68.5, now in your assessment you had looked, had you, at what were the decisions made by the flood engineers having regard to releases from the dam over those three days?-- Yes.

You did look at that?-- Yes. Yes.

You had to test those decisions by reference to what was information available to them when they took each of those

XN: MR O'DONNELL

10

1

20

40

decisions?-- Yes.

And on the basis that they are operating, as the report said, under W3?-- Yes.

And was it - is it your opinion that the decisions they made as regards the releases were appropriate by reference to the information available to them at the time of those days on the basis that they were operating the dam under W3?-- Yes. Yes.

And that remains your opinion?-- Yes.

Is it also your opinion that the decisions they made as regards releases were appropriate by reference to the information available to them at the time, giving primary consideration to protecting urban areas against the risk of inundation?-- Yes.

And that remains your opinion?-- Yes.

COMMISSIONER: Professor Apelt, in forming that opinion did you take into account the explanations they gave about the reasons for doing things?-- I certainly took account of the their explanations about the W2 not being available, and checked that to satisfy myself, and also then particularly in terms of delaying the increasing of the release rate, I looked carefully at their description and reasons for that, and was certainly that - prior in my first read of that part I was asking myself "Why don't they get on with it?", but then when I read into the problem or the issue of getting the bridges closed and the time it took, I realised why they had really no real option other than to get that done before they could increase the flowrates.

All right. What about the forecast rainfall over the period early Sunday and the rest of Sunday? Did you take into account what they said about that?-- Well, I certainly was looked at the model runs with and without forecast rainfall. So in that sense I looked at the rainfall forecasts, and none of the results at that period caused me concern about what they were doing.

You see, that seems to be the more subjective area, the what do you do about forecast rainfalls?-- Yes.

And how to approach them?-- Yes.

Thank you.

MR O'DONNELL: But I take it the key information by reference to which you tested their decisions on releases was the objectively verifiable information such as lake levels, inflows, rates of release, downstream flows, records of rain that had fallen on the ground in the catchment, forecasts. All of that information, I take it, was the key information?--And model results, yes.

XN: MR O'DONNELL

10

1

20

30

40

08022012 T12 GFH QUEENSLAND FLOODS COMMISSION OF INQUIRY

Yes?-- Yes. Yes, I mean, they are all - my assessment is based on that, and one has to work on the assumption that that is correct.

Your opinion is that rates of release they decided upon from

time to time over the three days were appropriate, given that objectively verifiable information?-- Yes. Yes.

And on the basis of giving primary consideration to minimising 10 the risk of urban inundation?-- Well, see, having the flows below the ultimate three and a half thousand to four thousand CUMECS, they were achieving the protection of the urban area, in fact overprotecting in the light of what happened later, but if there was - if this was the flood event they were dealing with and it looked as though everything was settling down, then what they were doing was the best possible thing because they were avoiding any real problem down in the urban areas and keeping the bridges open.

For as long as they could?-- Yes. Yes.

Now, can I take you to something you were shown before, that situation report----?-- Yes.

----on the Sunday afternoon. Do you still have that?-- The one at 5.33 p.m.?

Now, can I just show you?-- Is this the one at time 5.33 - 5.53 p.m., I beg your pardon?

We will leave that one. I also want to show you one of the model runs that is in the flood report. It is in Appendix 2. Do you have Appendix 2?-- Yes. Perhaps if we could have it up - is it possible to get it up?

If you don't - I have a spare copy of the particular model I can hand to you. This is page 224?-- Right.

Just take a moment to look at that model, please?-- That's 40 the one of the flow versus date and time? Is that the one we are looking at?

Yes, the inflow?-- Yes. Yes. Okay.

Now, do you see the blue line represents the inflows into Wivenhoe?-- Yes.

And this is produced at about 3 p.m. on Saturday the 8th?--Yes.

50

A couple of hours before that situation report?-- Right.

Now, do you see there are, I think, three peaks in the inflows?-- Yes.

There is one peak it looks like on about the 7th, would you say, 7 January?-- Yes. Somewhere during the 7th, yes. About

XN: MR O'DONNELL

20

08022012 T12 GFH QUEENSLAND FLOODS COMMISSION OF INQUIRY 1 midday on the 7th, roughly. At 2000 CUMECS?-- Yes. A second peak of about just over 1600 CUMECS?-- Yes. Looks like, would you say, the 8th?-- If it is on the 8th, it's probably around about-----Midday?-- Well, a little bit before that I would think, yes. 10 And the model is predicting a third peak later in the week, would you say, about the 11th? -- Yes, towards the end of the 11th, yes. Right. If we identify on this where we are at 3 p.m. on the 8th when the model was prepared?-- 3 p.m. on the 8th, that roughly looks about - the prediction's like about a thousand roughly. 20 Sorry?-- If you are asking me to look at about 3 p.m. on the 8th----Yes?------it looks to me as though if one scaled this off you would be getting about 1200 cubic metres a second. Yes?-- I am looking at this without the benefit of a scale. All right. 1200 looks pretty good to me too, but you are the expert?-- I am just eyeballing this, I am afraid. 30 So on that basis then the current rate of inflow into the dam is falling?-- Yes. And it is falling quite rapidly?-- According to that prediction, yes. But this is really contemplating that there will be a lot more rainfall probably around about Tuesday----?-- Yes. **40** ----in the dam catchment, which will increase the inflows into the dam on the Tuesday leading to a peak probably Tuesday evening----?-- Mmm. ----or thereabouts. In other words, four days hence?-- Yes. Now, can I ask you to assume the person who proposed the model is the same person who writes the situation report?-- The same person who writes the situation report? 50 Yes?-- Yes. And can we look then at the situation report in light of the model. Can I point out under the heading "Wivenhoe full supply level 67"?-- Mmm. You see it says at 1800 hours Wivenhoe was at 68.65?-- Yes. XN: MR O'DONNELL 5738 WIT: APELT C J 60 08022012 T12 GFH QUEENSLAND FLOODS COMMISSION OF INQUIRY

Rising slowly?-- Mmm.

Releasing about 1250 CUMECS?-- Yes.

It goes on to say "river levels upstream of Wivenhoe had peaked and are now receding"?-- Yes.

Which tends to match the picture in the model, doesn't it?--That's correct, yes.

If the river levels upstream are now receding you would expect the inflows to Wivenhoe would fall?-- That's correct, yes.

Also if you are releasing 1250 CUMECS and the inflows are falling, you would expect the dam to fall?-- That's correct.

At the moment it is about 150 mm above 68.5?-- Mmm.

So it doesn't need to fall very much and you are back in W1 20 territory?-- That's correct.

Now, looking at the situation report, if you look down to the heading "Forecast scenario" you were taken to?-- Yes.

40

1

10

See it says "based upon mid range rainfall forecasts"?-- Sorry, where is that?

Further down the page?-- Under "forecast scenario"? I see the head being yes.

In bold type, "Based upon mid range rainfall forecasts"?--Yes, I see that.

Would you interpret that as meaning about three to four days' hence?-- Well, certainly in the order of a couple of days.

And you see the discussion below that bold type the heading is talking about the situation based upon that mid range forecast?-- Yes.

And it's contemplating that - the likelihood of significant inflows in the next few days and that that will require the application of W2?-- Yes.

You see in the next paragraph it says, "Projections based upon the forecast rainfall suggest flows of up to 1200 CUMECS will emanate from the Bremer River catchment"?-- Yes.

In other words, there would be substantially greater flows in the downstream tributaries than there were on Saturday, the 8th?-- Yes.

Meaning that under this model, if the rain comes as per the model, when you get to your peak inflows at Wivenhoe on Tuesday, W2 might be available to you because then the downstream flows would be much higher than they were on Saturday?-- That's true. I mean, it's conceivable that you would - W2 would be available if conditions continued as - in the way that they, shall we say, forecast or thought might happen.

Can you see reading that situation report, together with the model, what the author of the report might be talking about is 40 not an imminent transition to W2, but rather something that might happen in three or four days' time?-- Yeah, it's conceivable, yes. Yes, I mean, it would have been helpful if they had put some timeline on it.

Yes. And to transition to W2 in circumstances which would - which in the model might be available in three or four days' time?-- Yes.

But which are not available at the time the author is writing 50 it?-- Yes.

That is, on the 8th?-- Yes.

If the event panned out as per the model, you would expect that what might occur is the lake level drops below 68.5 on that Saturday night or early Sunday morning?-- Yes.

XN: MR O'DONNELL

20

That looks like it, doesn't it?-- Yes.

You're then back in W1?-- Yes.

But if the rain comes on Tuesday, you might then be facing a situation where you transition from W1 to a higher strategy?--Yes.

But this time with W2 available to you?-- Yes.

And you might wish, in managing the dam on the Tuesday or Wednesday, to structure your release from Wivenhoe so that you what they call piggyback on the peaks at Lowood and Moggill?--Yes.

That is, you wait for the peak at Lowood or Moggill to pass. You time your release from Wivenhoe so you are marrying up with that peak?-- Yes.

So as to minimise downstream disruption?-- Yes.

That would seem an appropriate scenario?-- Yes, I find that conceivable, yes. You can certainly - I can see that as a possible interpretation. It would have helped if they had written it a bit more clearly.

Yes, no doubt. But if you had had that interpretation, would you still need to ask further questions?-- Knowing that they were talking about a prospect later on, that somewhere down the track, according to this model prediction, we envisage the possibility of going to strategy W2, it wouldn't have caused many problems, provided all of the information stacked up. The problem comes where it seems - anywhere it seems to be saying on Saturday, when clearly strategy 3 - W3 applies in terms of the lake level and the downstream conditions. For any statement about it being W2, there is a conflict in my mind. But in terms of what might be possible in future, no. And indeed, some of the wording in the report indicates that kind of thinking as to not wanting to, in effect, go into a situation where they're oscillating between different stages unnecessarily.

If the author of this note is referring to a possible transition to W2----?-- Yes.

----in a situation where, if the rain comes in three days' time, the flows out of the Bremer will be much higher?-- Yes.

That's quite a different situation from the one that was facing the dam operators on Saturday, the 8th?-- Yes.

Where the flows out of Bremer and Lockyer were much lower than Wivenhoe, and therefore W2 was simply not available to them?--Yes. Yes.

Do you agree with that?-- I see your point, yes. Yes.

Thank you, Commissioner.

XN: MR O'DONNELL

10

20

30

40

1 COMMISSIONER: Thank you. Mr MacSporran. MR MacSPORRAN: I have nothing, thank you, Commissioner. COMMISSIONER: Mr Sullivan? Mr Diehm, I'll come to you last since you're representing Mr Apelt. 10 MR SULLIVAN: Could the Professor be shown the log for 9 January, the 3.30 entry, please. Excuse me, Commissioner, while that's happening, MR AMBROSE: could I see the draft report as well again, please? MR SULLIVAN: Professor, I think - do you have that on the screen in front of you there?-- I have on the screen - yes, I don't have the date. 9 January, okay. 20 Do you see the entry there at 3.30?-- Okay, this is what I was looking at before. Yes?-- Yes. And your attention was drawn to the reference there to operating at the top of W1?-- Yes. And the bottom of W2?-- Yes. 30 You gave some evidence before in discussing the notions of W3, and you spoke about the primary consideration at the top, urban inundation; do you recall that?-- Yes. And I apprehended that you made a point in saying that it's not just that consideration? -- That's correct. But there are lower level considerations?-- Yes. Yes, the manual is very clear that they must all be taken into account **40** when available. And in fact, the section of the manual which deals with W3 makes that very point, doesn't it? -- Yes. That those lower level considerations need to be taken into account?-- That's correct. I'll just check it for myself. Yes, it's very clear. 50 That's at page 28 of the operations manual?-- Yes. And just wait for that to come up on screen. In the heading "Conditions", you see in the third dot point, "The primary consideration is protecting urban areas from inundation"?--Yes. Then the fourth dot point is, "Lower level objectives are still considered when making decisions on water releases"?--

XN: MR SULLIVAN

Yes.

And those lower level considerations you understood included rural and the bridges - the two bridges were remaining open?--Yes, particularly the bridges, yes. And rural considerations, my understanding, included matters of communication. In other words, not just whether water goes over a property, but people being able to move around. And as I think Mr Cooper said also, the question of evacuation and things like that.

Yes. And looking at the conditions at page 28 in W3?-- Yes.

The dam level ambit in which it operates is not insignificant: 68.5 to 74 metres AHD?-- When you say the level, or the range?

The range?-- Okay, yes. There's quite a big range.

And it's your recollection from - you went, I take it, to the source data when you were doing your review about the levels of the dams?-- When you say the source data, I'm not quite clear what you mean by that.

When you were reviewing the report, you didn't just rely upon what was in section 2 in relation to----?-- No.

-----the lake levels. You checked the actual information as to the lake levels?-- In the other sections of the report, yes. Yes.

Because you wanted to satisfy yourself that the lake was at 30 particular heights?-- Yes. And on all of the other aspects of the conditions, yes.

Yes. But in relation to lake heights, that's one of the things you recall you checked?-- Certainly.

To make sure that you were happy?-- Yes.

One of the reasons was because strategies 2 and 3 required the lake to be above 68.5?-- Correct. 40

So on the Saturday, the lake exceeded 68.5?-- Yes.

At or about 8 o'clock on the morning?-- Yes.

And remained it rose slightly during the day?-- Yes.

And do you recall that the - did you check the rain which actually came in during that period?-- I was looking at the at the model runs, not specifically at the actual rainfall. **50** Well, when I was reading the log I was reading the rainfall summaries that were there, yes.

Can I put it this way: at or about 8 o'clock, the dam was releasing somewhere just over 900 cubic metres per second?-- I would have to consult the documents to agree to that.

Certainly. Could I take you in the dam report to - I might be

XN: MR SULLIVAN

20

able to show you the operational - could I take the witness to the operational document, the spreadsheet. 1054. I don't think - this may not be document you have, Professor?-- No, I'm sure I don't.

Please tell me if you're able to - are you able to adequately see that on the screen?-- Yes. Sufficiently. I'll get up close. We're looking at Sunday, the 2nd, at this stage?

Saturday, the 8th?-- We need to move down.

And at the top - can I say the blue column at the top, that's Somerset. And we're interested in Wivenhoe, which has the yellow heading at the top?-- Wivenhoe is the right hand part of it, yes, okay.

That's correct?-- Yes.

So if I take you down to 8 January at 8 o'clock and ask you to move across, and you can take it from me that the record----?-- Yes.

-----under - there are two columns: calculated lake level and recorded gauge boards?-- Yes.

You see a figure of 68.52?-- Yes. I was just wanting to check that discharge. You mentioned 900. It's 940 there.

Having refreshed your memory, does that accord generally with what your recollection of discharge was?-- Well, the only recollection I have of the discharge is what's in that report. And sure, it was - it was moving up to, you know, approaching 1,000 and moving beyond that during Saturday.

Perhaps could I show the Professor in the report at page -Chapter 9, page 170. This may be a better way to do it?-- I think that might be Somerset. I think you'll have to go back. That comes after Wivenhoe.

Could I take you to page 156, please. Probably the bottom of 40 155. You'll see "8 o'clock"?-- Yes, on the 8th, yes, I see that.

You see the total outflow in the third column to the - on the right-hand side, 927?-- Right across. Yes, okay. 927 there.

You see it ramped up after that stage to approximately 1,242?-- We haven't got that up yet, but that certainly accords with my recollection. Maybe if we could just scroll down a bit.

And with that ramping up, do you recall that the data recorded that the lake level eventually started to recede, drop?--Well, it was going up slowly during that time, but then there was a period when it just - if you're looking at from 1500 hours to 1600 hours, it just drops from 68.63 to 68.6 - sorry, I had a bad moment there. No, it's increasing very slowly there, but then it stays constant for quite a period.

XN: MR SULLIVAN

10

20

1

30

And then it starts to decline somewhat?-- Well, we'd need to scroll down a little bit to see that. Yes, there's a period when it drops below 68.65, yes.

So taking into account - having looked at that data and what the lake was doing in terms of the releases which were being made?-- Yes.

The fact that it was just over 68.5?-- Yes.

And having gone to the section of the operations manual which we talked about where it identified in a W3 situation your primary objective, but you have to take into account the lower level objectives, it's true to say that in W2, W2 has similar lower level objectives to W3?-- Correct.

The difference, it would seem, between W2 and W3, is that W2 is aimed at that situation where effectively the flood is below the dam coming out of the Bremer and the Lockyer?-- That 20 could be the case, yes.

So looking - if one goes to - I think you've got it open in front of you?-- I've got the manual open, yes.

If one goes to page 27?-- Yes.

There's a box at the bottom of that page, which is the target maximum flow in the river?-- Yes.

That's the one which designates the lesser of the natural peak flow or and 3,500?-- Yes, yes.

The idea being that if the peak flow, for instance, is at 1200 - or the predicted peak flow is 1200 and the actual flow is 1000, say, you taper your release from the dam not to exceed the 1200?-- Yeah, you target your release to achieve that, but it doesn't translate simply to saying this is the peak; that's the release from Wivenhoe. You have to----

It's more complex than that?-- Yeah, that's right. You have to work out how a release from Wivenhoe combines with whatever is in the river.

Not to exceed the----?-- Then the total - the net effect - total effect of that is not to affect the naturally occurring peak.

But even in 2 - on W2 on that page, when we look at the considerations, again the third dot point we have the same 50 primary consideration?-- Sorry, we're in the top box there, are we?

Yes?-- The----

Primary consideration is protecting urban areas from inundation?-- Yes.

XN: MR SULLIVAN

1

But the fourth dot point, as with W3, is the same?-- Yes.

Its lower level objectives are still considered?-- Yes.

So if we go back, please, to the log at 3.30, looking - this is again the entry on 9 January at 3.30. It's correct to say that you can't be in W1 and W2 at the same time, can you?--No, no.

And that's obvious, isn't it?-- Well, let me just refresh my memory of W1. No, W1 you're talking about lake levels less than 68.5. Once you hit 68.5, you're in either W2 or W3.

Can I put it this way: given the circumstances which existed through Saturday and early Sunday, the objective in a W3 situation - whilst there was a primary objective, the lower level objectives which had to be taken into account were able to dominate, weren't they?-- Well, this is where one has to just - I have to blank off what I know about the future.

Yes?-- And my thinking at that stage looking at what's there is all right, we're in W3. We're minimising urban disruption. It's the priority. It looks as though we'll probably come out of that sometime in the not-too-distant future. We can we'll still be achieving that primary objective overachieving it by keeping the releases down so that those two bridges remain open.

Yes?-- So it's - you know, it's - it would have looked like a win win situation to me at that time.

So it was appropriate at that time to be taking into account those lower level objectives in the circumstances which existed?-- Yes. As I said, not knowing what's going to come and hit you, yes, yes. In the light of what's been happening on dam levels, actual inflows, forecast inflows, you know, it's not unreasonable to think this is going to start petering out as the floods in the months before Christmas had.

With that understanding, now looking at that entry, would you agree that that reference there to at this stage operating at the top end of W1 and bottom end of W2 may well be a reference to the fact that at that stage those letter level objectives are able to be maintained?-- Honestly, I can't put that interpretation into it, but it may have been in the heads of people who wrote it. But on the words, I just find that I can't correlate that with the data from other sources.

Well, the top end objective for W1 is to keep open certain bridges?-- Oh, you're talking about objectives now. Let me have a look at those again. Yes, all right. Progressively as you go through the A, B, C, D, and E, you effectively let go of certain bridges because the flow takes them out, yes.

And when - in the circumstances which had been existing on Saturday and Sunday that we've looked at, operating - assuming operating in W2 or W3 - it was appropriate to be taking into account as the lower level objectives the same type of thing,

XN: MR SULLIVAN

20

10

1

40

that is, maintaining the bridges?-- Yes. Well, those last two bridges that were open, yes.

And what I'm suggesting is whilst awkwardly phrased, that may be what that is referring to?-- It could be. I mean, I can't put myself in the mind of the people who wrote it, I'm sorry.

Quite so. No further questions.

COMMISSIONER: Mr Burns.

MR BURNS: Nothing, thank you.

COMMISSIONER: Mr Ambrose.

MR AMBROSE: Just on that same point, if you could have a look at that entry again at 3.30 in Exhibit 24. You've told us that it's not your way of thinking to think in terms of the W strategies as labels; rather that you look at what the effect of the operation is?-- Sorry, I said my thinking of the Wls, et cetera, are as labels or chapter headings. What matters to me is the substance in terms of - okay?

So if we're talking about the substance?-- Yes.

It's clear that you can't be in W1 and W2 simultaneously?--That's true, yes.

So at 3.30 on Sunday, as a matter of fact all the bridges below Mt Crosby weir bridge and Fernvale bridge are not trafficable?-- That's my recollection.

And if you go to W1E in the manual, you can be confirmed in that view, I suggest to you?-- Yes. No consideration to Kholo.

Kholo is gone?-- Yeah. Maintain Mt Crosby weir bridge and Fernvale. Yes, Fernvale is the one that you can keep open longest.

That's right. So as at 3.30 Sunday, you in fact have still got Mt Crosby weir bridge and Fernvale bridge open, as is suggested by the very final W1 strategy?-- Yes. Yes.

And similarly, at 3.30 on Sunday at the time of this conference what one is doing if one is operating the releases is in fact maintaining the situation where you are minimising **5** disruption to the rural areas?-- From that aspect of those bridges, yes.

So you are in fact doing that which the very bottom end of W2 encourages you to do?-- When you say the bottom end of W2, I'm not quite sure what's meant by that.

If you have a range within W2 of minimising disruption to the

XN: MR AMBROSE

WIT: APELT C J 60

10

1

20

40

rural areas going up to protection of the urban?-- Okay. Yes, I'm with you.

As a matter of operational fact, at 3.30 on Sunday, the 9th, if you've still got those two bridges open, you are minimising the impact to downstream rural life?-- Yes. "Minimising" for me has a very particular meaning, which is a bit different from the way you are using it. But you are achieving, as far as you can, disruption of rural life.

That's right. Because you would be able to protect the communities that rely upon the trafficable nature of the Mt Crosby weir bridge and the Fernvale bridge, even though everything else, every other bridge and crossing, is under?--Yes.

So to that extent you've reached a point where you have minimised, as best you can, the disruption to rural life?--I'm having a bit of trouble with "minimising". But if you think - okay, if you go beyond that you've lost that, okay. But it's - as I said, I've got trouble with the word "minimising", but you've achieved an important part of the objective of minimising - of avoiding disruption of rural life.

Operating that way is still operate within W3?-- Within W3, yes. Yes, I mean, as has been repeated many times, all of the objectives are to be taken into account, and if you can achieve all of them within a particular strategy, you get 10 out of 10.

Thank you. And that's what you give the flood engineers in this event?-- Well, no. I said - my report was that - what was done was complied with the manual. That's a different - I wasn't asked to report on whether they had done the best possible job.

Thank you.

50

5748

10

1

20

COMMISSIONER: Ms Wilson.

MS WILSON: Thank you, Madam Commissioner.

Professor, when does the dam operator know what strategy he or she, as one day may be, when does the dam operator know what strategy he is in?

COMMISSIONER: It will be an engineer rather than an operator----

MS WILSON: An engineer. The dam engineer ----?-- Engineer

Flood engineer?-- Well, they - I would expect that - there primary information is those - those specifications in terms of the dam level, et cetera

Mmm?-- Once they have moved into a situation where that defines the strategy, either consciously or subconsciously they would be aware that that's where they're operating. Now, they may not, you know, enunciate to themselves or anybody else, "Hey, we're in W3," I don't see that as necessary provided they recognise the conditions now that call for the actions that are detailed under W3, for example.

But you would accept, though, at the time, for example, say, 8 a.m. on the 8th, the flood engineer would have to accept that he was in W3?-- Yes. Yes. I mean, if someone was just - if I was a flood engineer and somebody said, "Where are you at?" and you're at 68.55, I'd say, "Oh, well, that really is W3." In other words, I may not have consciously formulated that view or that - that thing but if I was asked that would be immediately their response, yes.

So is what you're saying, if someone asked the flood engineer on the 8th after 8 a.m., "What strategy are you in?" an automatic reaction would be, "W3"?-- Well, I'd expect that unless they were confused. You know, and, I mean----

But the manual doesn't allow confusion. The manual states that you should be in W3?-- Oh, yes, yeah, but they----

MR AMBROSE: Let him finish the question - let him finish the answer, please.

MS WILSON: I will let him answer. Professor?-- The manual states, yeah, it's not that they are - in the situation I'm, you know, allowing to be possible is that they are doing what's required in W3 but in, you know, kind of the fog of war they say, "Oh, it's W2," or whatever, you know, so - and so we say, "Hey, you can't be" - I'm really constructing a hypothetical situation.

Yes?-- But they're working under pressure and the important thing is did they do what was required for the conditions that applied at the time.

XN: MS WILSON

10

1

20



40

I'm just asking you to look at the manual?-- Yes.

At after 8 a.m. on the 8th----?-- Yes.

-----the flood engineer would have to know that he is - was in W3?-- Well, you know, as I've got - the idea of W3 being, you know, this is a - kind of a line in the sand or the - as I said, my - my view is that's a sub - summary of what's in W3. So they certainly would have to know all of that. Now, if they think this is W3 or not, that's not particularly relevant to me provided they're doing what is required for those conditions.

It's not the case, is it, that you don't know what strategy you are in at the time but after the flood event then you look back at the data and then you work out at that point in time we must have been in a certain strategy?-- It's possible, that's possible. I - you know, I can't really put myself in the minds of the engineers in the situation to be-----

COMMISSIONER: Professor Apelt, I'm just grappling with this, how do you know what conditions you have to meet unless you know what strategy you are in?-- From the actual objective information. The levels above 68.5, now, the - they could be - a person could be operating on those sets of conditions and requirements without the strategy name being mentioned.

But you have to know, don't you, that there is a strategy, that's it's called "W3", that these are the objectives under it in order to know what objectives you've got to meet?--Well, you have to know the conditions you're in and they are labelled strategy W something or other----

Yes?-- ----for convenience but what's important to know is the conditions you're in and the requirements that those conditions require you to follow.

Well, how is it that you're going to know what the conditions are that are necessary - how are you going to know what you have to do under W3 unless you know you're in W3, that's my question?-- By knowing the conditions that are required.

But you won't know the conditions - you won't know the importance of the conditions or the significance of the conditions or what it means what you have to do unless you appreciate that this is strategy W3 that you need to apply, surely?-- The - well, yes, in the global sense, yes. I mean, the person who - who is coming - people who are doing this would be familiar with this manual----

Mmm?-- ----and they would be well aware that, you know, under various conditions certain things have to be done. What label they give to it at that - in their head is not tremendously important from the point of view of what they do, it is obviously important from the point of the description of what they ought to - you know, the kind of labelling of the strategy that they're in.

XN: MS WILSON

20

50

30

10

08022012 D 65 T14 JJH QUEENSLAND FLOODS COMMISSION OF INQUIRY 1 MS WILSON: Professor, can I show you an exhibit, which is Exhibit 11. It's SR12 of Exhibit 11. And if we can go to page 8 of that. Has it been flagged open for you, Professor?-- Pardon? Page-----The second flag. Do you see there "The event decisionmaking"?-- "Event decisionmaking," yes. Yes. And then we go - do you see that, at 7 a.m., there's a date of - columns----?-- Yes, yes. 10 -----flood event milestones?-- Yes. If we can go to the second page. If you could read down from 3.30 to - on the Sunday to the - 6.30, the second entry on the Monday?-- Yes, I see that. Now, assume that this - just assume that what I've just shown you has been written by people who understood the manual?--Mmm. 20 Does that cause you any concern in relation to the data that you saw? COMMISSIONER: Well-----WITNESS: Either the data is wrong or that statement is in error. MS WILSON: I'll leave it at that. Thank you. I've got no 30 further questions. COMMISSIONER: Sorry, did you want Professor Apelt excused? MS WILSON: I do. Please, Professor - could Professor Apelt be excused? COMMISSIONER: Yes. You're excused, thanks, Professor Apelt. **40** WITNESS EXCUSED COMMISSIONER: Now, we can have Saturday if we need it so we can stop at 5. Have you got another witness that you want to start? MS WILSON: I've got a few outside. We could call Greg Roads. 50 COMMISSIONER: Mr Diehm, I never asked you whether you had any questions. I assume you would have spoken up. Commissioner, I would have spoken up, thank you. MR DIEHM: COMMISSIONER: Good, thank you.

XN: MS WILSON

08022012 D 65 T14 JJH QUEENSLAND FLOODS COMMISSION OF INQUIRY	
GREGORY KENNETH ROADS, SWORN AND EXAMINED:	1
MS WILSON: Can you tell the Commission your full name, please? Gregory Kenneth Roads	
You're a director of and principal engineer at WRM Water & Environment? Yes.	10
On the 9th of March 2011 you provided a report to Seqwater about the operation of Wivenhoe Dam? Yes.	10
Madam Commissioner, can Mr Roads see this document? It is Exhibit 413. Have you got the report there with you as well, Mr Roads? Yes, that looks like it.	
Now, is that the report that you provided to Seqwater? Yes.	
You - can I show you this document? It's your curriculum vitae. And it sets out your experience and qualifications? That's me, yes.	20
Madam Commissioner, I tender that document.	
COMMISSIONER: Exhibit 1109.	
ADMITTED AND MARKED "EXHIBIT 1109"	30
ADMITTED AND MARKED "EXHIBIT 1109" MS WILSON: You became involved in Seqwater's review process on or about the 9th of February 2011; is that the case? I can't remember exact date but it's around about that. It was early February, yes	30
MS WILSON: You became involved in Seqwater's review process on or about the 9th of February 2011; is that the case? I can't remember exact date but it's around about that. It was	30
MS WILSON: You became involved in Seqwater's review process on or about the 9th of February 2011; is that the case? I can't remember exact date but it's around about that. It was early February, yes On the day that you did become involved did you participate in	
MS WILSON: You became involved in Seqwater's review process on or about the 9th of February 2011; is that the case? I can't remember exact date but it's around about that. It was early February, yes On the day that you did become involved did you participate in a telephone conference? Yes, I did. Who was that teleconference with? The names that come to mind were - were John Tibaldi, there was a person from SKM, there was - I don't know who else from - from Segwater was on there. I think Colin Apelt was on there. I don't - it was	
MS WILSON: You became involved in Seqwater's review process on or about the 9th of February 2011; is that the case? I can't remember exact date but it's around about that. It was early February, yes On the day that you did become involved did you participate in a telephone conference? Yes, I did. Who was that teleconference with? The names that come to mind were - were John Tibaldi, there was a person from SKM, there was - I don't know who else from - from Seqwater was on there. I think Colin Apelt was on there. I don't - it was over the phone so it was pretty hard to	
MS WILSON: You became involved in Seqwater's review process on or about the 9th of February 2011; is that the case? I can't remember exact date but it's around about that. It was early February, yes On the day that you did become involved did you participate in a telephone conference? Yes, I did. Who was that teleconference with? The names that come to mind were - were John Tibaldi, there was a person from SKM, there was - I don't know who else from - from Seqwater was on there. I think Colin Apelt was on there. I don't - it was over the phone so it was pretty hard to Did you make a note of that conference? Yes, I did. And did you make that note contains - was it made	40

We can - you've given the job name sec - "SEQ Water Meeting"?-- I did, yes.

And the subject is the "Phone hookup"?-- Yes.

Now, we've got some names here. John Tibaldi, which you've got a line under as the primary contact?-- Yes.

Can you tell me about that?-- I was advised that the person who I was to talk to, to ask any questions was to be John Tibaldi.

Was he participating in that conference?-- Yes. As far as I can remember, yes.

There's also another name, Jim Pruss, and he was would not in attendance, according to your note?-- Yes.

So was the only the conversation with John Tibaldi and someone, I think you said, from SKM?-- I think there were quite a few in the room----

Okay?-- ----but I didn't catch everybody's name so I didn't write them all down. I knew there was somebody from SKM. I'm sure there were others from Seqwater but I couldn't tell you who.

We see that a regulatory report was being written with decision process. Can you tell me about that?-- I guess I was just trying to take notes as the person was talking, and honestly I can't tell you who was talking at the time. He was just going through how the report was going to be constructed, talking about the significance of the event, how big it was, how many pages. There simply wasn't enough time - just as it says, I suppose, there wasn't enough time to read the entire document to get the review done so they were going to parcel it out to - to me do certain sections and other people do other sections.

Okay. Well, let's just take it one by one. A thousand pages 40 "ap", is that approximately?-- Approximately.

So there was a thousand pages. Is this what someone is telling you?-- Yes, and I'm just writing it down.

And 300 pages of text?-- That's - yes.

"No time to read"?-- "read all".

"read all". Who said that there's no time to read all?-- As 50 I said I can't remember who exactly was talking, it could have been John. He just said that - the person on the phone said there was no time to read the entire thousand pages of document and go through everybody - go through everything for the review, there was just too much information to digest in that short space of time.

And "Colin, Phil, GR"?-- They're the - "GR", that's me.

XN: MS WILSON

1

10

08022012 D 65 T14 JJH QUEENSLAND FLOODS COMMISSION OF INQUIRY 1 That's you. "Colin, Phil," yourself, "are independent review decision"?-- Yes. You're going to be doing an independent review?-- An independent review. Of the decisions, yeah. And the next line says, "and how it complied with the manual"?-- Yes. So can you tell us about that, what that's about?-- Well, at 10 that stage I didn't know anything because I hadn't had any didn't have any documents but they would provide me the documents of what they did and how they operated the dam and I was to check it up - check - check how they operated the dam against the manual. What's the next line, Mr Roads?-- It says, "Time" - yeah----"40 pages" - "40"?-- "manual read 40 pages of decisionmaking in progress," so there were 40 pages, just writing it down, I 20 suppose. And you had to process----?-- Go through those 40 pages, effectively. And then it also says, "against manual"?-- Yes. What was that?-- To go through those 40 pages and check that they were - that they complied with the manual, I guess. It's hard to remember, was a year----30 And then you've got a dash, "one week's work"?-- That's that's how long he thought it would take. Is that what you're saying, that it's one week's work or is that----?-- That's what they thought, it would probably take a week. Okay. Now, "SKM review," what's that"----?-- "water level and rainfall data". So they were given the - given charge **40** with determining how big the event was in terms of severity. So to go through that that's - that's a fairly big task in itself so they were given that charge and not me. Okay. "Timing," the next line?-- So as far as I was aware, from what it says, the report will be available on the next Friday, the coming Friday, and will be coming as a hard copy document rather than a----Okay so----?-- ----digital document. 50 So it means that you are not getting it by e-mail or----?--Yes---------by electronic version?-- ----that's right. Then does that give you your timeline that you should be working for, does it, the ----?-- That's right, 25th. XN: MS WILSON 5754 WIT: ROADS G K 60

Friday the 25th. There's a line there that starts, "Legal," what's that about? I have no idea really. "Legal material hard copy only". I guess it means that they only wanted to deal in hard copies rather than digital copies at that point in time.	1
And, "questions answered by phone," is that? Yes.	
any questions that you've got? If you had any questions the best thing would be to answer by phone - just phone rather than	10
And who were you to phone? Mr Tibaldi.	
And then we've got, "sections 6, 7 and 8 is to be reviewed by SKM"? Yes.	
And that you're to "assume data provided is correct"? Correct.	20
What does that mean, in the material that you're provided just assume the data is correct? That's right.	20
Can you tell me about the next line? I can't read your writing? The main" - the main sections that I was to review was sections 9 and 10 of the report. Now, keep in mind I hadn't seen the report at this stage so	
Okay. And the final report 21st of February? Yeah, draft by the 18th, yeah.	30
So is that your final report or the final report that you will be provided? I'm only guessing at this point in time. I'm assuming that it is their final report is due by the 21st of February and another draft may be ready on the 18th.	
Okay. And the final line is, "A brief letter"? "brief letter," that's what they were after, "a brief letter report," and probably two weeks after that.	40
Okay. So reading those two lines together is two weeks - is it the case, two weeks after the 21st you're to provide a brief letter of a report? Yes. That's pretty much my recollection of that.	40
Okay. Madam Commissioner, I tender that document.	
COMMISSIONER: This will be Exhibit 1110 and I think we will end for the day there. Mr Roads, we'll get you back at 9 o'clock tomorrow. Adjourn until 9 a.m., please.	50
ADMITTED AND MARKED "EXHIBIT 1110"	

MR O'DONNELL: Sorry, Commissioner, before you rise, there was something I needed to raise. My solicitors have listened to the electronic recording produced by Maurice Blackburn. Based upon that I'm instructed to withdraw the allegations we made in that letter.

COMMISSIONER: All right. Mr Rangiah, do you have a transcript of it?

MR RANGIAH: I think one is being prepared but I did indicate 10 that I would hand a tape-recording of the interview to the Commission and I'll do that now.

COMMISSIONER: All right. A transcript would be helpful, just so that - given that this was put to me so that I can satisfy myself that everything is fine, but it sounds as if there's nothing in it and Mr O'Donnell has indicated that.

MR RANGIAH: Yes.

COMMISSIONER: I will receive the recording. I don't know, does it need to be made an exhibit, what do you think?

MR RANGIAH: Well, I wouldn't have thought so. I don't think that it is necessary to tender it but I did propose to give it to the Commission, not only because of the allegation that was made but also because, as I understand it, the Commission is now seeking a statement from Mr Dagan and this may be relevant.

COMMISSIONER: All right. Well, if you would just give it to one of my staff, and if you can have a transcript available, it will just allow me to look at it and draw my own conclusions but I doubt, as Mr O'Donnell says, that there was nothing in it.

MR RANGIAH: Thank you.

COMMISSIONER: Adjourn till 9 o'clock, please.

THE COMMISSION ADJOURNED AT 5.04 P.M. TILL 9.00 A.M. THE FOLLOWING DAY

50

20

1

30