## **QFCI**

Date:  $\frac{10|11|11}{962}$ 

TRANSCRIPT OF INTERVIEW
Monday 7 November 2011, 8.11am

Exhibit Number:

MS HEDGE: Okay, the tape is just being turned on at 8.11am on 7 November 2011. For the benefit of the tape my name is Susan Hedge. I'm a lawyer employed by the Queensland Floods Commission of Inquiry and I might ask everyone else who's in the room to identify themselves.

MR ENSBEY: Julian Ensbey, lawyer employed by the Queensland Floods Commission of Inquiry.

MR PORTER: Bernard Porter, counsel instructed by Brisbane City Council.

MR BALL: Barry Ball, um previous employee of Brisbane City Council.

MR SAMMUT: Mark Sammut, solicitor from Clayton Utz, solicitors for the Council and Barry Ball.

MR SHARRY: Scott Sharry, solicitor from Clayton Utz acting for Brisbane City Council and Barry Ball.

MS HEDGE: Now the purpose of the tape recording is to tape an interview with Barry Ball. Questions to be asked by the Commission. Um but before we start, Mr Porter has something to say.

MR PORTER: Ah look there's just one small thing, Susan. That is, that as you know Barry's not an employee of Council and he hasn't actually been involved in the Commission or its activities until he was contacted by the Commission recently, so a lot of these things happened a long time ago. He hasn't um attempted to refresh you know his memory from vast numbers of documents. Um so um he's quite happy to do his best from his recollection. If there's particular documents you want to ask him about you might have to take him to them but I see you haven't got the big chronology here so maybe that wasn't the plan um and also he's content to take questions on notice if there's something that he can't really recall but he thinks he may be able to do better with.

MS HEDGE: Yes, that's fine um the chronology, the bundle is not too far away, so if there is anything in particular that you want to see, and you think you'd like to see now, I could probably find it fairly quickly, otherwise happy to put things on notice, let you have some time to look at documents.

MR PORTER: No, we'll be guided by your questions. Obviously there was no point going through it all until he knew sort of

what you were looking at and time was a bit short in any event, so we'll see how we go.

MS HEDGE: Yes, yes, that's fine. This doesn't all have to be done today, so we might be, it might be that....

MR BALL: Can I talk to you also just based on our previous discussions so I've got a little context for it, because when we talked last we recognised that you wanted to ... you mentioned that you wanted to get into some discussion and questions around the um inquiry, but I think, and then we talked about how part of it was best practice and learning, you know this is really the intent of the Commission's how do we do things better or how we get better knowledge. So it was the intent, so that's fine, then we had a little discussion around that um so it was the intent of the questions to do with the um CMC inquiry. Is it about the learnings out of that to take into you know the Commission's considerations for improvements because they, I suppose I just need to ah that's the clarity I was just looking for so I can I suppose respond appropriately or understand the intent of the question. So that ... is that what it's about or ...

MS HEDGE: Look that's definitely the outcome um, the outcome will be positive recommendations probably in our view for all Councils around Australia, sorry around Queensland, not just for Brisbane City Council. And Brisbane City Council as I think they discussed with you last time is a well-placed example for other Councils in the sense that it's quite well resourced and well organised and so forth, and might have more experience and learning in this area than many others.

MR BALL: Yep, yep.

MS HEDGE: In our view though I should say that, in our view this isn't questions that arise from the CMC inquiry. We consider our investigation to be different from the CMC inquiry and there is some overlap, to the best of my ability I intend to avoid that overlap because you've already been questioned on that, it's in the report that I've read, so I intend to avoid that overlap. I intend to ask you questions that are outside of the CMC inquiry. Um so do say if you think that any of my questions are something that you've answered in the CMC or are in the CMC report. I have the report here, I'm happy to be guided by what has been found there, if that, so we're not reopening any of those issues.

MR BALL: Yep, yep. No, okay, that's good, thanks for that.

MS HEDGE: But there are separate issues, does that answer your question?

MR BALL: Yep, that's, well that's what we talked about ah last Friday week about, so thanks for that.

MS HEDGE: Yes, and that's the two areas and just for the benefit of Scott and Mark and Bernard who weren't here last time, um the two areas that I indicated that we were interested in Mr Ball's views and opinions and comment and memory on were, one, the history of things that had happened at BCC, and secondly, best practice ways of doing this separate to what the BCC has ever done but his views as someone who's been involved for a long time as to what the best way of doing those things were, and we talked about that last time, um so this time is more focused on the history and things you were actually involved in. So I might just work off the requirement if you don't mind.

Ah you would have seen that there was a list of reports and then a list of questions about each report and so my intention was to just start with the first one and ask you ah the questions that we have arising from that.

MR PORTER: Do you need this in front of you Barry?

MR BALL: Thanks.

MS HEDGE: So the first one is being the SKM report of June 1998 and then if you flip over to the second page there's um questions there, some of which we have quite a significant amount of information on and others that we don't, so that's no problem, so perhaps we could start with your role and your involvement in 1996 at the Brisbane City Council when that report was first commissioned.

MR BALL: Well I think it's all history and I think in the CMC and other documents but ah that was initiated through the previous city design process so I had no involvement in um in getting um the process nor the decision on the consultant to undertake that um that um study. So I suppose I go back to my earlier clarification command, I'm not sure what value that question is in the context of best practice, I'm still struggling. That's why I needed to, because you sent me this and I still couldn't understand. If you're going to ... if you're going to go through that practice then we'll be here for a long while and I'm not sure what the value-add to that. Do you want my comments about whether there was a better way of putting that in place rather than my role in it. I'm just, that's the difficulty I've got, you keep talking about my role or my...rather than looking to do I have some views about whether some of the process that was used around this could be improved?

MS HEDGE: Hmm, well it sort of has to be a one too. I don't think that I'm, we can, without knowing exactly what happened and who made certain decisions and their qualifications and their positions to make those decisions, it's difficult to say whether...to ask for your comment.

MR BALL: Don't you have that already then, because from memory that's already.... CMC have actually gone through how that whole process happened.

MS HEDGE: Well from the CMC report there is information about the fact that it was commissioned by the BCC. So the question I'm asking you is your role as in your position description, I'm sorry I probably didn't describe that very well, were you the manager of the water resources branch, I think then called waterways, at that time?

MR PORTER: Well wait, just one second, we're talking about 1996 aren't we, when it was commissioned?

MS HEDGE: Yes.

MR BALL: And the CMC from memory clearly says is that it was commissioned by city design under a previous government arrangement and I had no role in that so I suppose I'm just...

MS HEDGE: Okay, that's fine, that's all I'm asking did you have a role in that, if the answer is no, that's fine.

MR BALL: Okay.

MS HEDGE: I'm sorry, I don't mean to cut you off, I ...

MR BALL: It's just that that's already...I thought that's already embedded in numerous documents, so I'm not sure...

MS HEDGE: Well please bear with me for a few preliminary questions and hopefully as we get into the substance of it...

MR BALL: Okay, okay, okay, okay, yep.

MS HEDGE: So can I take it from your answer then that you weren't involved in determining the scope of work that was given to SKM?

MR BALL: No, I played no role in that. Purely a process through a different part of the organisation than when I was in it at that time.

MR PORTER: Susan, um feel free to tell me if you want me to not to intervene. The only thing I was going to mention though is that, are you familiar with that, I'm sure you are with

that part of Blakely statement where he sets out and I think others have before about how prior to 1998 or 1999 or something they have this situation where it was sort of vertically integrated, both policy, technical and that sort of thing so that there was the old...what was it called? Um Council work, no Council works, works department and I think the evidence is that they commissioned it and that um there wasn't this separation of technical work and policy until this, you know until 1999, 88/99, 98/99.

MS HEDGE: Yes I am, I am aware.

MR PORTER: Oh okay sorry, I'll just (inaudible) here.

MS HEDGE: No no, please do intervene if you think that you can add to um, that's fine.

MR PORTER: Well perhaps I can assist then that when water resources and city design were created, waterways, sorry waterways, they always change their names, to sort of separate policy and technical work, were you appointed as in effect the manager of waterways when it was created and do you remember about the time it happened?

MR BALL: Correct. Was that August 1998? Was that when the ...it's in the material.

MR PORTER: It's in the material, yeah.

MR BALL: I think it was the restructure of organisation happened in late 98 so it was the in the second part of the year and that's when the whole organisation went through a restructure into a purchase of policy organisation into a service provider organisation. And that's when um the waterways section branch was created and the city design group um was created within a broader city business um division, so that...

MR PORTER: And did you...and as my understanding what happened then is that effectively policy issues for flood management amongst other things went into waterways, technical work stayed with city design.

MR BALL: Correct.

MR PORTER: And prior to that had you had any involvement with flood policy or flood technical issues for Council?

MR BALL: No, well, um in works department I played a broader strategic planning role, not in, so that was budget and broad policy, but not in the processes around um any flood study, it was purely a matter for that um part of the organisation.

MR PORTER: Is that of any assistance?

MS HEDGE: I think it is, so would it be right to say then that you're not aware of any of the processes surrounding the SKM study because the draft came in in June 1998 and that was before you became manager of the waterways branch.

MR BALL: Yeah, the first...the first time I was aware of it was when um when Ken sent me a note um..

MS HEDGE: Sorry can you just ...

MR BALL: Ken Morris.

MS HEDGE: Yes.

MR BALL: Ken Morris sent me a note requesting the um that the information given to the public and to um solicitors and developers at our plant custodian area, um because that was another area I had accountability for under another branch, um I had two branches, I was accountable for waterways and infrastructure and management, and he requested approval to update that information based on the 1998 report and that's when the process effectively started, I then before, because it was such a significant change to current requirements or information, that's when I um asked Ken to come and talk us through the drivers and the issues and the basis for that report so that sort of started the process. That was the first time I was sort of directly involved.

MS HEDGE: Okay. And so if the Commission were...wish to talk to someone who was involved in drafting the instructions and the scope of work and the brief, about that study, are you able to identify that person?

MR BALL: No because I wasn't part of that process.

MS HEDGE: Okay. Well on that basis why don't we start after that report and leading into the first city design report for the June 1999 draft report?

MR BALL: Sure.

MS HEDGE: So were you involved in writing the instructions or scope of work that went to city design?

MR BALL: For?

MS HEDGE: For their June 1999 report?

MR BALL: So which one are we talking about the 'D' on the list here are we? You've jumped 'C'.

MS HEDGE: 'C' actually but given that you've pointed that one out, why don't we go back to 'B'. Look I understand from the report that you engaged Professor Mein to do that review so when I ask about the actual engagement, but in terms of the instructions given to Professor Mein, my question is not so much what were they because I can see that from the documents, my question is how did you determine what they were to be, and who was involved in that.

MR BALL: Well I suppose I need to clarify before then. So as I said um, when Ken Morris asked me to approve that change in the information and we then had a meeting with a range of officers to better understand the drivers and the background to what was coming out of that um study, I um suggested that maybe there was a level of conservatism in some of those assumptions made and broadly aware that there were other methodologies available and so I suggested that they needed to have a look at that and from memory I thought there was a further review of that um June...whether the June 1998 is that one or whether there was a small revision of that because I'm fairly certain after the meeting I had with Ken and others, that he did go back and do a ... or Sinclair Knight went back and did a revision but um still felt that wasn't appropriate so that's when I asked Russell Mein who I knew through the catchment hydrology group to then do that um review for me. So, so at the end of that review that was the, and then we obviously met with city design and we sat down and worked through Russell's recommendations and that was the basis for the um June 1998 updated um study was that it was Russell's recommendations.

MS HEDGE: Do you mean June 1999?

MR BALL: Oh June 1999 sorry. Sorry, yeah June 1999.

MS HEDGE: Sorry just for the benefit of the tape.

MR BALL: Sorry, yeah.

MR PORTER: Can I just clarify one thing from that Susan? Um you said you were broadly aware of further methodologies when you referred to the catchment hydrology thing, can you just explain what that was and what your involvement was?

MR BALL: So um the CRC for catchment hydrology, CRC's are Cooperative Research Centres, so the Federal Government um funds um strategic research programs, about four or five a year around a raft of different areas, everything from medicine, engineering, nature, water and a whole raft of

different areas. One of them was the catchment hydrology so that was a cooperative between the Federal Government and um universities such as Monash and University of Queensland, various water utilities such as Northern Water, Brisbane City Council was a partner, as was the Department of Natural Resources and Water and Mines in Queensland and others in New South Wales and Victoria, so it was a broad-based um set of stakeholders. I was the BCC member on the Board for that CRC, and Russell Mein was the CEO for a period of time and then...CSIRO was also a partner and Russell was the CEO for a period of time. He'd...he'd retired before I engaged him to undertake this work, that's why I knew, or two things I knew of his expertise in this area and also I knew through being on that CRC because it looks at new methodologies and tools and solutions to more effectively produce better results for catchment hydrology outcomes etc. So um, yes, so that was the background.

MS HEDGE: I understand. It suffices in some ways for us that you had concerns, the rightness or wrongness of them is just not so much my concern today as much as the process. So you had concerns about the SKM work and you chose to engage someone. My question is who else was involved in the decision to get (inaudible) review, or was that a decision of yourself alone?

MR BALL: It was certainly my...my...this is recollection, I would have talked it through I believe with a couple of the officers in the branch, certainly would have talked it through with Ken because Ken Morris would have been aware of Russell, so it would have been a discussion about um getting Russell on board, but it would have been my final decision to engage Russell to do the work.

MS HEDGE: Okay and so there was no-one above, as in elected representatives, the CMC committee who was involved in that decision, that was a decision at (inaudible) level?

MR BALL: I don't...I don't know. I probably would have um flagged it with Michael Kerry the divisional manager, he's my um my um my risk my manager, so I suspect I would have flagged it with him but I can't be certain about that.

MS HEDGE: Okay. Please correct me if this question has a wrong premise to it, but was there money/funding set aside by the Council for the whole flood study which didn't require you to consistently apply for money just for that review for example, or were you applying on a project by project?

MR BALL: The money...the money sat in um city design and then into new city business area so I wasn't um involved in the funding of that.

MS HEDGE: Okay. So then if we can go back to the instructions given to Professor Mein, were you the author of those instructions?

MR BALL: Gavin Blakely would have put a draft together and then I would have had a look at those and we would have tweaked them accordingly and that would have been the basis of the…of the terms of reference for that.

MS HEDGE: Okay and at that stage yourself and Mr Blakely were both in the policy section, the waterways section?

MR BALL: The waterways branch yes.

MS HEDGE: Yes and so were city design involved in drafting those instructions?

MR BALL: Gavin...I don't know. Gavin I expect would have spoken to Ken about it.

MS HEDGE: Okay. Those two sections there's a fair bit of interaction between them, they're not separated by a hard line?

MR BALL: Absolutely, daily. No, their roles are separated but their method of operation is very strong interaction.

MS HEDGE: Okay.

MR PORTER: Susan um can I just clarify one thing that might end up leading you a bit astray? Um doing it as gently as I can. Barry, do you recall if Gavin was in-charge of running this operation, the flood study process with you the whole time, or was there anyone involved beforehand?

MR BALL: No Gavin was um...Gavin was the head of that....of the um of the section. The branch had a structure of myself being the branch manager and...and...well four sections: um one around water health, one around um the engineering um hydraulics, um another around the um planning for waterways - land planning, and another is being the business support group. So Gavin headed up the um interviewing.

MS HEDGE: Okay and then suffice to say you received a peer review back...

MR BALL: Yes.

MS HEDGE: ...and who was involved in deciding what was to be done next? Sorry, I don't want to know what actually happened. I'm trying not to....

MR BALL: No, no that's alright, no, no. So obviously um Russell presented that um, it would have been offices out of the stormwater section um with Gavin and um Peter Barnes and um maybe (inaudible) and then Ken Morris. I'm not sure whether Ken had other officers from city design there, but it would have been a discussion much like this to go through the recommendations um from Russell. He would have presented it and um had some discussion around those. The outcome of that was then to um for Ken to then um review the earlier design and (inaudible) with those recommendations.

MS HEDGE: Hmmm hmmm. And that's when it went back into city design...

MR BALL: Yes as (inaudible).

MS HEDGE: ....which led eventually to the June 1999 report?

MR BALL: Yes.

MS HEDGE: And so who made the decision that that would...that would...be the way forward, that it would go back inside city design?

MR BALL: Ah well it would have been mine um to um...I don't...there was no option to um go outside city design. City design are our...are our...are the organisation that Council uses to do this work, so there's no option to ah to take it outside, so I'm not clear what's behind that.

MS HEDGE: Ok, no that's fine.

MR BALL: There's no decision in a sense that that's the group we use.

MS HEDGE: There was a decision though to do something ...?

MR BALL: A peer review?

MS HEDGE: No to continue the work, you could have done ...

MR BALL: Absolutely.

MS HEDGE: ...nothing after Professor Mein report. I'm not suggesting that would have been prudent but that's an option.

MR BALL: Could have yes, yes. Not, not a very prudent one, no.

MS HEDGE: And so did you make that decision to continue to work?

MR BALL: Absolutely, absolutely.

MS HEDGE: Good. And was that a decision on which you sought guidance from your divisional manager or the CEO or any Councillor or...?

MR BALL: Again, certainly not the Councillors. Um it would have been...if anything it would have been a discussion with one of my weekly meetings with um Michael Kerry, but I would have just let him know what I was doing rather than...certainly I didn't need his endorsement for that.

MS HEDGE: Yes, I understand. And was there a scope of work determined to give to city design or were they...other than deal with Professor Mein's recommendations?

MR BALL: That ... that would be in the scope of the work.

MS HEDGE: Okay and was that given to them by you?

MR BALL: As part of that process I've just mentioned, yes.

MS HEDGE: Yes. And how about the timeframe, was that determined by you when a report would be prepared?

MR BALL: We...ah...what we would have ah...we would have negotiated that ah because I wouldn't have had any um...any understanding of ah the level of work required um so I would have needed guidance from ah city design as to what was a reasonable timeline to undertake those um reviews because they got to feed it into the model etc, etc, so um it would have been a negotiated timeline.

MS HEDGE: Hmmm hmmm. And was there discussion about that different timelines could apply to different scopes of work, they could do a longer more comprehensive study in a longer period or they could do a short, I understand and please correct me if I'm wrong that you can do studies over different periods of time depending on how comprehensive you are...

MR BALL: Sure, sure, sure, sure. My...my expectation was that um ah Russell's recommendations, ah we discussed those, I would have asked city design how long it was going to take to, to revisit the model using these recommendations and I would have taken their advice as to um the update of to the model in accordance with these recommendations because I, for me, I wanted a result that complied with um these recommendations, so whatever was the appropriate time um that was the time required and so I obviously would have asked them to expedite it but um I still would have taken their guidance as to what the time...reasonable timeline was to comply with all of those recommendations.

MR PORTER: Ah Barry, when you say to revisit the model, are you talking about revisiting SKM's work but with these different issues that...different assumptions and so on?

MR BALL: Absolutely, um the, the...I think the model is the model and it is really about the inputs um and so it is about revisiting those inputs um so that's my understanding is um you then have to run the model, you then have to calibrate the model against some known event and then you've got to um use that as a...as a mechanism to then do the extrapolation to the design sort of event, so there's a timeline in obviously processing that.

MR PORTER: But was it your understanding that a lot of the heavy lifting had already been done by SKM and it was just a matter of ...well not just a matter...but it was a matter of using their work to produce a revision.

MR BALL: Absolutely, yeah, absolutely, yeah.

MS HEDGE: Okay and was there...what was the interaction like between when the instructions were given and the June 1999 report was produced? Was there...did you see draft reports and were you involved or was it just wait until the end and then you get your report?

MR BALL: Um I certainly didn't get any of that detail, um Gavin Blakey may have had some ongoing...well he would have had ongoing discussions, whether he saw any content um I'm not sure, that's something you'd need to ask him, but um ah what I saw was effectively the outcomes of that June report.

MS HEDGE: Hmmm hmmm. So let's talk then once you've gone the June 1999 report.

MR BALL: Yep.

MS HEDGE: And please correct me if I'm wrong but I just want to set the premise so I don't have to ask you the whole CMC inquiry, you considered that it hadn't sufficiently dealt with Professor Mein's recommendations?

MR BALL: Well it hadn't dealt with all of his recommendations.

MS HEDGE: Yes. And was that a decision made by you?

MR BALL: Yes.

MS HEDGE: And did you seek guidance from people above you?

MR BALL: Well, not from above me no, I um I would have...it would have been a discussion I would have had with the team and obviously also engaging ah Ken Morris as well, so it was not...it wasn't my decision, it was my decision but it wasn't my consideration alone, I would have engaged the others in that discussion.

MS HEDGE: I understand and so um the CEO or the (inaudible) Councillors weren't involved...weren't involved at that stage in terms of what to do next?

MR BALL: I was keeping them informed um so they would have been aware that um you know the recommendations, the process around revisiting ah the model with those ah recommendations, we were waiting on this report, um when we got the report, I would have kept um certainly Michael and ah the chairperson informed of what was going on through our...

MR PORTER: That's the chairperson of what Barry?

MR BALL: Ah Tim Quinn the chairperson of the um city planning committee isn't it...urban planning committee, whatever?

MS HEDGE: Yes I think that's right.

MR BALL: Yeah, yeah. I would have kept them broadly informed of the process because I was having regular meetings with both of those people, you know weekly to two-weekly depending on their...of their um their agenda and mine.

MS HEDGE: Okay I understand and then a decision was made that it should go back to city design to deal with all of the recommendations of Professor Mein?

MR BALL: Correct, correct.

MS HEDGE: So again, why was it decided that it would be city design, is that again because they're the preferred supplier as you said?

MR BALL: Well more than that. They're um...it ah...they're the ones...they're the...they're the experts for Council, um they're the ones that if there is a...if there's new methodologies, new thinking um they need to be part of that process in the best interests of...certainly of Council and certainly of the community, you...you want the...the organisation, that is your key um design group um part of that process.

MS HEDGE: Hmmm hmmm.

MR BALL: There was a sort of no decision there...it was...that was the logical organisation or the only organisation to use.

MS HEDGE: I understand. Can I just given you have the requirement there can I just take you to question eight on it? (inaudible) did you see that question? What if anything was done in response to the statement on page ten?

MR BALL: I'm not clear on the point being made there...it was...it was a statement...

MR PORTER: Well the first...with respect the first question is do you recall that statement, reading that statement in the June 1999 report?

MR BALL: No definitely not.

MR PORTER: Okay.

MS HEDGE: Okay. Is that the sort of statement...I don't want you to answer the question there I'm only asking you to just look at the quote can I be clear...is that the sort of statement that you would expect a city design report to make?

MR BALL: I don't know ....

MR PORTER: Barry, would you like to see (inaudible) in context or ...?

MS HEDGE: Would you like to see the report?

MR BALL: I think so because I just um yeah I ...

MS HEDGE: I can quickly get the report so ...

MR BALL: Yeah.

MR PORTER: That might be best I think, that might be best.

MS HEDGE: Just leaving the room.

MR PORTER: Can't make small-talk with the tape on. All the secret plans.

MS HEDGE: Sorry for the delay, clean copies are hard to come by without highlighting and writing. Alright do you recognise that report?

MR BALL: Vaguely.

MS HEDGE: Ah on page ten...

MR BALL: It's coming back to me yes. Is that the ...

MS HEDGE: I think it's um in the second last paragraph on the page but feel free to read as much as you like, feel comfortable with the document...

MR BALL: That's alright. Well I wouldn't have classified this as ah um I suppose as a um this is the flood study itself, this is more a...a document addressing um those recommendations with obviously the background information, so um I suppose that ... I was thinking about a different sort of document when you mentioned a um, you know a flood design report. But putting that aside, the ... so what it says here is that the ... I think the third last paragraph you know um had an argument that the data recorded in the 19th century's of the (inaudible) and therefore should be ignored on this basis the design flow would be um six-eight considered with the .... consistent with the current Q100, on the basis of the thorough and intense research undertaken in this study, this approach can not be supported and then the simple option of saying that the current development control levels represents is not valid. Um the issue here was that um...that the um...that I didn't think that there was sufficient thorough and intense research because it didn't still comply with Russell Mein recommendations so it still wasn't addressing his recommendations.

MS HEDGE: I understand but my purpose for asking you about that sentence is to ask about the divisional responsibility between city design and waterways. In turn...is that the sort of statement that is city design's point of view or is that really waterways' point of view, in terms of a division between technical and policy?

MR BALL: City design can put a recommendation in whatever terms in the way they rate obviously wouldn't whatever the way they wish, but in the end, the acceptance or the adoption of a...of a particular standard is...is a recommendation that the waterways branch would take up to the decision-makers, the decision-makers being ah Council.

MS HEDGE: Hmmm hmmm. So that's not unusual to see something like that and then you would make the decision as to whether it went up further to Council?

MR BALL: I wouldn't...no...just to be clear, I would take this advice as well as other advice, um then take something forward that took into account all of that advice for the decision-maker, so this is simply a perspective from a group of experts, ah I had another perspective from a peer review process that we all were part of um, my understanding was at that time that this report didn't adequately address those recommendations, therefore until it did that, I wasn't taking it for approval up the line.

MS HEDGE: Yes, I understand.

MR BALL: So this is a perspective.

MR PORTER: So is it fair to summarise your position is if you had read that at the time, your view would have been that you disagreed with that proposition?

MR BALL: At that time, yes.

MS HEDGE: Did you consider sending this report, the June 1999 draft report, for a peer review by anyone?

MR BALL: Um, well it, well it hadn't addressed the peer review recommendation so it would have been a waste of time.

MS HEDGE: Hmmm hmmm. So did you consider it and reject it on that basis, or did you not consider it?

MR BALL: I don't know.

MS HEDGE: That's fine. It's a long time ago ...

MR BALL: For me...for me it would have...it still hadn't addressed the issues therefore I doubt it would have come into my head to um...to send it off to another peer review, I already had the peer review, um so, but I...as I said it was a long while ago but...

MS HEDGE: Okay and you used your expertise in the area to determine that it hadn't adequately satisfied the recommendations made by Professor Mein?

MR BALL: Well no I took advice from my group and my own um understanding of the intent of the recommendations and still believe it didn't ah meet all of Russell Mein's recommendations.

MS HEDGE: And the people in your group, this is in the waterways branch, what sort of qualifications do they have?

MR BALL: They're all um ah well in this team that I'm talking about are all experienced engineers having worked in stormwater management and stormwater design for many years and in fact two of them, Peter Barnes and (inaudible) came out of city design.

MS HEDGE: Okay so is the expertise in city design and waterways, is that fairly similar...fairly similar the qualifications of the staff?

MR BALL: They would have similar um backgrounds, um I would expect that the expertise in the waterways branch in the stormwater might have had a few more years on some of the staff in city design in the water area.

MS HEDGE: Okay. So we've established that you decided that city design should continue on with their work.

MR BALL: Absolutely.

MS HEDGE: And was it...did you determine the scope of work or the instructions that were sent to city design?

MR BALL: They had already been determined through um the peer review process.

MS HEDGE: So they were the same instructions that were put down before the June 1999 report were, just reiterated?

MR BALL: Absolutely, yes, yes.

MR PORTER: Well that's to the best of your recollection not looking at documents isn't it?

MR BALL: No, yeah.

MS HEDGE: That's fine.

MR PORTER: Because there is a great deal of documentation about setting up the scope of the work and...

MS HEDGE: Yes and as I say...it's the person who made the qualifications and the person who I'm trying to get to who made the decision. And so I'm going to ask about timeframe again. I take your general comments earlier but was their specific...do you remember talking about a specific timeframe for that piece of work?

MR BALL: No, I don't remember, no, just talking about the general process yeah, the details I haven't got it.

MS HEDGE: Hmmm hmmm. And then throughout that period between June and December again there may have been interaction between city design and waterways...

MR BALL: There would have been.

MS HEDGE: ...below...officers below you but you weren't involved in that interaction.

MR BALL: No, no, there would have been, there would have been interaction, it was continuous interaction um across a whole range of different issues.

MS HEDGE: Okay. So then if we can go to the point where you received the December 1999 report, would it be correct to say that you still didn't consider that it addressed all of Professor Mein's recommendations.

MR BALL: Correct.

MS HEDGE: Um who was involved in discussing that and making that judgement?

MR BALL: Again I can't recall but it would have been broadly the same process that we would have had ah Ken um and ah I would have involved the senior staff from ah the stormwater area in the branch. Um again I would have talked that through and indicated to Ken that it still didn't fully address um those recommendations coming out of the peer review report.

MS HEDGE: Hmmm hmmm, did city design agree that it didn't address the recommendations?

MR BALL: Um there was probably some push-back about it but in the end we agreed up front back when that peer review process had happened that this was the appropriate way forward, and so that was still my...that was still the agreed way forward, so from my perspective until we had addressed those recommendations or we were able to go back and suggest that some of those recommendations needed to be tweaked, then from my perspective um until they were addressed then we didn't have...I wasn't willing to accept the design coming out of the...out of city design.

MS HEDGE: Okay and was that judgement canvassed with Mr Kerry, Councillors, E&C committee, CEO and...

MR BALL: Again the recollection would be is that it would have just been part of a general discussion to keep them updated um of where things were at. Particularly as we received the report I would have advised them we were due to get the report and I would have advised them that we got it but there were still issues so um it would have just been a keeping them informed discussion.

MS HEDGE: I understand. And so my...my memory of the history then is that there's many discussions leading up to a technical workshop in October of 2000, is that an accurate premise to ask some questions on without going to (inaudible).

MR BALL: Yep.

MS HEDGE: Okay and at that workshop um you were the representative of the then, I think, Department of Natural Resources and Water...

MR BALL: ...and Mines, anyway.

MS HEDGE: ...advised that they were doing a study and that they were expecting results within a couple of months.

MR BALL: Yeah, well we already knew they were doing something that's why...partly why they were invited and also I think they were...obviously this whole process started because of ah a study they were doing I think in the early '90s and then obviously there was further revision to that, so they were a player over to the side as was um SEQ Water. But um...so um the workshop obviously needed to um bring those people that were previously involved plus we felt it was needed to um I suppose in some way partly to help progress the um recommendations and progress this issue to get some other players in there I think we invited the chair of the water panel from the Institute of Engineers um anyway and ah Ipswich City Council we had already been keeping them fairly well um involved, sharing documentation I think because it was obviously a related matter and we had to be consistent in our um...in decisions we were making and so...so, so it was a representative group of...of um experts but particularly organisations that were all part of a process, so I think that was in October we had the meeting um and we um were obviously were revisiting um sort of where the situation was and the ah the recommendations, getting their input and the representative we had from the department, John Ruffini indicated that they were as you said working on this um, doing some work, and his perspective at that time was ah he would think the numbers would come down pretty close to the current number at the port office or even slightly lower and he expected to have that sorted out in a few months time and ah so um we agreed at that meeting that based on that then um we would um wait for that information to then feed that into ah... into the model to assess um the appropriate development levels and say...yes I think that was really the outcome of that meeting in October.

MS HEDGE: Okay, so that decision to um pause until you had that data was made by the whole group?

MR BALL: Ah well I would have made it, but I think again going on memory but there was obvious logic in that because there was a key bit of data that was to be input into the model and it would have...it was the same data that was being used in SEQ Water's um management of the dam and it would be used in Ipswich's similar flood study activities of setting its own development levels so the logic was to obviously use the same

piece of data for all of those um works, so um it was sort of a no-brainer to then wait for that information.

MS HEDGE: And did you seek or advise people, Mr Kerry, E&C committee, Councillors of that decision?

MR BALL: I suspect again I would have advised um certainly Michael and Tim.

MS HEDGE: And sorry, was that Tim Quinn? Sorry just a little bit quiet...

MR BALL: Yes, Tim Quinn, yes.

MS HEDGE: And that was for the purpose of advising them of your decision not seeking their guidance?

MR BALL: Correct.

MS HEDGE: Yes.

MR BALL: Yes. Well advising them that this important bit of information is available, I would have indicated to them the comments that John had made um and that um um for the logic I've just indicated that we would wait for that data.

MR PORTER: When you say that you advised them and you made the decision, is it correct or is it not correct that if they forcibly disagreed with you, they had the authority to direct you to do something else?

MR BALL: Absolutely. Yes.

MR PORTER: Did they?

MR BALL: No they did not, no.

MS HEDGE: And throughout that period between December 1999 and October 2000 were you still talking to them about updating them as you said about the progress of your investigations.

MR BALL: Yes.

MS HEDGE: And at any of those times was there any concern by My Kerry or Mr Quinn?

MR BALL: Not that I can recall, no.

MS HEDGE: ...about what was happening? No.

MR BALL: No. Some frustration I think for timelines, wanting to resolve it of course, but um, um we were waiting on

information from the State Government who were waiting on information from the from BOM, the Bureau of Meteorology, so there was a whole process that we had no control on. That would have just been part of the discussion but um...

MS HEDGE: Who indicated frustration?

MR BALL: Oh I think we all would have been...we were all frustrated as obviously this was an issue that was...that needed to be resolved. We were taking...everyone was um...there was a process there that we wanted to all resolve and most on from.

MS HEDGE: Okay. And then from October 2000 until I'm not entirely sure of the date, late 2003, that was period during which you waited for the results.

MR BALL: Correct.

MR PORTER: You were speaking about people being frustrated. I think Ms Hedge's question to you covered the period leading up to October 2000 when you answering that question. Is that what you had in mind or...were you thinking a different period?

MR BALL: No it was post, it was post. Yeah, yeah, okay.

MR PORTER: Yeah, I thought that misunderstanding might have occurred.

MS HEDGE: Oh, thank you. So can I ask then about the period pre, so December 1999 to October 2000?

MR BALL: No that was...that was just due process going on there. No, my comment was reflecting I think the fact that we were waiting on these external agencies, we had no control, we were waiting on the state and the federal government (inaudible) and BOM to do their work, so...and it was a long period of time.

MS HEDGE: That's post to October 2000?

MR BALL: Yes.

MS HEDGE: I understand, so, but can I just ask you about December of 1999 to October 2000? Was there frustration then about the period of time that had elapsed throughout...

MR BALL: No, no, not that I can recall, no.

MS HEDGE: And so from October 2000 there was no frustration at that point about the period, but then as time went on...

MR BALL: Oh of course, yes.

MS HEDGE: Okay.

MR BALL: Because we had an expectation we'd be getting something in two months time and it didn't happen for a number of years, so...

Unknown: ...it still hadn't.

MS HEDGE: Can I ask about the statement that Mr (inaudible) made at that meeting that he considered…he gave a preliminary estimate of it being close to the current estimate…

MR BALL: Yes.

MS HEDGE: ...um and again the rightness or wrongness of that view is not my concern, my concern is about the process, and so what was your belief about how much work that was based on? Did you believe that was a good, accurate estimate on the basis of comprehensive work?

MR BALL: Ah, well, yes the advice he gave us was that they had done um extensive modelling and the I suppose the second is that I also knew the um skills and expertise of John Ruffini so I trusted his professional judgement, um so in both cases the level of work and also the individual making that comment, I knew he wouldn't make that comment unless he was reasonably certain of that being an accurate comment. So it gave me...it ah...I took great weight out of his view and his um suggested outcome.

MS HEDGE: If his preliminary view was that the flow numbers would be much higher than the current...sorry similar to what SKM had said for example, just as a hypothetical, what would you...what would have been your response to that?

MR BALL: Hypothetical. We still would have had to have um resolved the study to comply with those recommendations of the peer review, that was still an absolute, um and so I expect um we would have got an agreement out of that workshop to um move on from ah whatever the issues were to move on and ensure that we had a flood study that complied with the peer review recommendations. And that was really um really the intent of that workshop was to work out what we needed to do to ensure that we fully complied with the peer review recommendation.

MS HEDGE: Okay. So during the period from October 2003, sorry October 2000 until late 2003, I understand there's a lot of correspondence between Brisbane City Council and the department, I don't really want to take you through any of it, um but could you tell me your involvement...a lot of that correspondence involved Gavin Blakely, what was your involvement?

MR BALL: Well mine was merely, um not merely, to continue to um get the um reports from Gavin as to the current status and just to ensure that the ah process was on track. Um I um on that CRC um one of the senior people from DERM was there so I would have had some discussions with them. It would have been a more informal process just to keep saying that we really want this dealt with quickly but the response we were getting was um generally that the bureau was also doing work and it was more...it was more delay occurring from the work the bureau was doing, the Bureau of Meteorology. So they were a bit...they were waiting on that information as well. I suppose we understood the issue and we had no control on it, so, yes.

MS HEDGE: Yes. And were you reporting this to Mr Kerry and Mr Ouinn?

MR BALL: Yes.

MS HEDGE: Yes, how regularly?

MR BALL: I don't know, I don't know. It would have come up in discussion on a sort of an irregular basis.

MS HEDGE: And as time went on did you discuss other options?

MR BALL: No there was no other option because the data that was coming from BOM and then being modelled by the state was the fundamental inputs into the model, so there was no other options.

MR PORTER: Was that data that dealt with this aerial reduction a factor?

MR BALL: No it was more changes so the um the aerial reduction factors is a methodology and so um ah that is really some of the assumptions and how you might tweak the inputs into the model, um this data I'm talking about is um the bureau was reassessing rainfall patterns in Australia, that's key because rainfall patterns is one parameter and DERM were looking at um the flows in the river based on dam safety so to come up with the correct decision you have to calibrate the rainfall pattern across the Brisbane catchment which isn't an easy thing to do, a lot of judgement and a lot of value judgement and then you have to calibrate that against stream flows and then the dam is a factor in that as to how much you release and then you have to bring these two different methodologies together against known events as a calibration e.g. the '74 flood, but the problem with the '74 flood is we didn't have Wivenhoe Dam and so there's again assumptions required. So until you get the calibration right you don't have a model that you can then say 'what if' and um...and so it was pointless

doing any work until we had the revisited rainfall patterns and therefore we didn't have the stream flows that DERM were doing. This was...you know going to the discussion we had earlier about learnings, this isn't a very good case study because um you wouldn't in the future do a flood study when you knew there were um in the water landscape changes to rainfall patterns being evaluated, you're just wasting your time, you'd wait for that work to be finished then use that work. You wouldn't do while the state are revisiting its flows in the river based on protecting the dams so it's a timing issue. So the timing wasn't good but there were some factors for that but that's for me if you're looking for a case study, this isn't a good case study because of the ... it came purely in the middle of some changes in methodology through AR&R and another change in data through rainfall pattern variation, so. That was the reason why it took so long and all the rest of it is because it's a fairly unique situation where you've done a major study and you're changing both methodology and changing the data in.

MS HEDGE: And was that known in 1996 or was that just an unfortunate...

MR BALL: No. Well certainly the BOM upgrade wouldn't have been know then because that sort of came in, so the um...the um...I think the methodology was...was around...wasn't current practice but it was starting to be current practice particularly in the south. So, so I think there was certainly would have been an understanding of that...of the new methodologies particularly for larger catchments, this is a very, very large catchment in which to do this analysis on.

MS HEDGE: While we're on the topic of experience and learnings, it seems to be from what I've read and please add to this because I have you know only six months experience in this, but that many of the bureau studies and state studies take many, many years, often much longer than is originally forecast, so how should a Council deal with that (inaudible)?

MR BALL: Council have got no control on that, that's and um, Councils can be part of those processes and that's the example of the CRC catchment hydrology, so they can be, if they're part of it they have an earlier and better understanding of where some of the thinking is going, so I think Council being involved in those sorts of research areas is core, now whether you do it as individual Council or as an association, there's lots of different ways of being part of that, so I think it's core business to Council understanding where methodologies are going. Things like rainfall patterns that's a bureau role and both the state and Councils simply take that data, no-one does that better than the bureau and can do it better than them, so

that's an input that you just take as a given for a certain location.

MS HEDGE: Can you think of any circumstances where it would be a better option to push through with old data and have an answer than to wait?

MR BALL: What in this field? You talking about flood modelling?

MS HEDGE: Yes.

MR BALL: No not at all, no. Absolutely you would make sure you've got the best information to make a decision. Um the last thing you want to do to a community member is to give them a bit of paper saying "you're now going to get flooded", then give them another one three and six months later "sorry we thought you were, it's only going to get partly flooded now, sorry", six months later after that "sorry you're not gonna get flooded at all". That I don't think any Council would see that as an appropriate way of interacting with the community.

MS HEDGE: Hmmm hmmm. Can I give you a hypothetical?

MR BALL: Sure.

MS HEDGE: If you have never done a flood study, if you're a Council who's never done one, so you have no flood modelling, is that a situation where it would be worth pushing through with old data rather than waiting perhaps years for data to do a...

MR BALL: Old data is...I think what you would do is you would get the right set of experts in the room. Old data would be a bit of information over here but it wouldn't be the determinant, they would use it as one of the inputs to at least get a feel for the extent of flooding in certain events, but I don't think that would be a reasonable sole foundation for decision-making. I think you would bring other um considerations, other experts in to interpret that um in that location, based on their broader knowledge. So I think that would be a more appropriate way of assessing it when you haven't got current data.

MS HEDGE: Okay. So that process you've just described wouldn't be a flood model, it would be more of an understanding of the historical data and synthetic data to assess what's appropriate?

MR BALL: Yes, as a starting point and say that what we want to do then is to ground-truth that um through a process of...an effective flood modelling exercise.

MS HEDGE: And in your view, that should wait until whatever processes are occurring, updates to methodology or to...

MR BALL: Well you would look at the landscape about where all of that currently is and make some decisions, if um if it's a fair way into the rise, then you would make a call as to whether the value was doing it now and then update it based on the data. So, it would be a decision you would make based on knowing where methodology changes and where data changes were being sort of revisited.

MS HEDGE: Hmmm hmmm, ok. And so during that period if we can just come back to the Brisbane experience from October 2000 to late 2003, was there times during that period where you had updates on when you should expect it or did you, were you...

MR BALL: Yes, I mean I can't remember...but we...we were always going to get it within the next few months sort of thing.

MS HEDGE: Right and it just continued on?

MR BALL: Yes.

MS HEDGE: And so each time you were told that you made another decision that you should wait, and I accept that you say that's a no-brainer, did you advise Mr Kerry and Mr Quinn of those decisions each time you were told?

MR BALL: I would have kept them in...in regular...with a regular update, a verbal um part of discussions.

MS HEDGE: Okay, well can we go then to when you received the data? Sorry do you have any questions on that?

MR ENSBEY: No.

MS HEDGE: Can we go then to when you received the data in 2003? And at that stage you decided...well a decision was made to engage the independent expert review panel and also SKM to do different things, can we talk about each of those separately? Did you make the decision that you would have an independent expert review panel of any form?

MR BALL: That was a decision um made with um the then Mayor, Tim Quinn, um so um obviously it had become a broader issue into the community um through the Courier Mail exercise, so um what we did was to ensure that um it ah the outcomes were um I suppose um able to stand up to any sort of evaluation that we

would um put a...put an expert review panel in place to um to look at the 2003 I think outcome, was it 2003? It's just in my memory whatever it was...it was...

MS HEDGE: There was two draft reports by SKM that went to the panel, I'm not sure that they're in that list because they were drafts.

MR BALL: SKM that's right. No, no, yeah. So, so we put the panel in place that's right, and we um...then we had SKM and city design um present um because I think they had...they had put that data into their model, so there wasn't...I don't think there was a report presented to us, it was them presenting to the expert panel um the update of their model and the update of the outcomes based on... based on putting that data we received from the bureau and the state so, and obviously the role of the panel was then to um...was to provide some expert comment um on...on that um...on that modelling that was done.

MS HEDGE: And the expert review panel didn't do any of their own modelling?

MR BALL: No it was simply a group responding to the outcomes of the modelling and/or requesting that some further refinement to modelling might occur, so they physically didn't do the modelling.

MS HEDGE: Yes.

MR BALL: It was still SKM doing the detail modelling.

MS HEDGE: Yes, yes. And they didn't see the modelling that SKM did?

MR BALL: I don't know. That was a process that I sort of...it was...I stayed sort of away from that process to ensure that they um...the detail of the process I was obviously um a part of it in the background but um I was making sure that they had whatever access they needed to the information to make the right...you know the most appropriate decision for us.

MS HEDGE: Okay. And the independent expert review panel, there was a period of about five weeks between when they were established and when they handed down their report. Can you tell me about how that period of time was decided?

MR BALL: Um. I can't be certain, I...I expect I would have had a discussion with Russell, Russell Mein the chair, and I would have asked him what was a reasonable period of time to um... for the group to meet...I think they...I think they met on two occasions...anyway I can't recall the detail, but um I would have asked him I think what was a reasonable period of time

for them to evaluate the model and prepare a report, so I would have gone on his advice.

MS HEDGE: Okay, so when it was originally decided by the Lord Mayor you said to set up an independent expert review panel, the Lord Mayor didn't decide the timeframe?

MR BALL: No.

MS HEDGE: And so what aspects of independent process did the Lord Mayor decide?

MR BALL: Um. I would have assumed because it's going back...certainly the need to have the panel...I would have suggested the representation um on the panel um, it wouldn't have ... it dead set didn't come from the Mayor, um so I think ... my recollection would be the only decision he would have made is to agree to getting the panel together and that review process um I don't...it would have been a timeline as I said, I would have talked through with Russell and certainly the panel members, um again it's testing memory, Russell might have even have had some input into the panel members as well. I suggest he might have recommended Erwin um Weinmann, I'm fairly certain he might have recommended him, um I would have recommended the um Alistair...Alistair McIntosh...Josh McIntosh and um Colin, they would have been certainly the two names because they were on that previous um workshop and Colin was someone we were working with regularly through the whole process, so um he was someone local who had background obviously, he was head of civil engineering previously at UQ. So, so um yeah, so the panel members would have been probably Russell and myself and a couple of others (inaudible).

MS HEDGE: And so the decision on the timeframe made by you after discussion...

MR BALL: ...with Russell, yep.

MS HEDGE: Yep but once made by you was that advised to Mr Kerry, Mr Quinn, the Lord Mayor, all three of those people?

MR BALL: Absolutely, yes.

MS HEDGE: And advised to them with no dissent from any of them?

MR BALL: No.

MS HEDGE: Okay. Was it clear at that stage that that meant that the expert review panel would deliver a report before SKM deliver their final report?

MR BALL: No, well the process was that the review panel did their review and then based on that SKM would produce their final report so they would have to look at any of the recommendations that were appropriate to the flood study coming out of that, um they would look to whether there was anything coming out of that that they would need to consider in their final report, so that would have been ... would have been the timing for it.

MS HEDGE: Recommendations coming out of the expert review?

MR BALL: Yeah, yeah.

MS HEDGE: Understand and how was it decided that it would be SKM that did the modelling work to give the draft reports to the independent expert review panel?

MR BALL: Well they'd been through that tender process, they were the holder of the model. What we were doing was looking at the assumptions and the data coming in, not the...we weren't challenging at any stage the model, so they were the appropriate organisation to continue to work on the project.

MS HEDGE: Okay, not city design?

MR BALL: Well city design...the city design didn't exist but the design area, they were the commissioning organisation for SKM. So it was a city design report done by SKM. It wasn't an SKM report, it was a city design report. The provider of that service was SKM. Maybe I'm not clear with...

MS HEDGE: I think this is a part where the CMC report sort of...well the CMC report was done in 2003 so it perhaps doesn't go into (inaudible) in these things, but what you said about city design doing the actual technical work during 1998 and 1999, was that not true in 2009, they no longer did technical work? Do you see perhaps my confusion?

MR BALL: No I'm not clear.

MS HEDGE: So in 1999 city design were doing technical work?

MR BALL: They were a design office so they always do technical work, that's their job. What they do is they outsource because of workload or expertise needs or complimentary skills to engineering consultants.

MR BALL They always do - they were a design office - they always do technical work.

MS HEDGE: Okay.

MR BALL: That's their job. What they do is they outsource because of workload or expertise needs, or complimentary skills to engineering consultants.

MS HEDGE: Right, so sometimes they do it themselves, internally -

MR BALL: Yeah.

MS HEDGE: Sometimes they outsource -

MR BALL: Absolutely, yeah.

MS HEDGE: And so in 2003 they outsourced, and that's - their role was the same in 1999?

MR BALL: That's not my, it's a decision they make -

MS HEDGE: Okay.

MR BALL: I have no involvement in how they undertake their work, they can choose to do it in-house, external, or a mixture of both that's entirely up to them.

MS HEDGE: I understand.

MR BALL: Okay.

MS HEDGE: I just wanted to make -

MR BALL: Yeah that's, that's just yeah.

MR PORTER: And having said that, are you surprised that they would have chosen SKM to do -

MR BALL: No, not at all.

MR PORTER: And the reasons for that are?

MR BALL: Well, SKM were the one's that developed the model — the model — the model is, is the thing that takes you 18 months to put together. The issues, the issues were never to do with the model, the issues were to do with the inputs and the, and the methodology, um, and so that's about how you, how, the assumptions, ah, that you make, when you feed information into the model, and how you use the model, and not the model itself. The model is the, is the, is the thing that takes you forever to put together to get the calibration, um. And so, and so there was never an issue with the, with the model itself, so, if we, we would be wasting public money if we went out and got ah, ah, xyz to, to start the modelling

process again - because they would have to re-calibrate it and create another model, to feed that data into it, so ... so, um.

MS HEDGE: I understand--

MR BALL: --okay.

MS HEDGE: ah, now, we're sort of, at this point now, where I've probably got 10 or 15 minutes to--

MR BALL: --Well what's the time?

MS HEDGE: --get to the end.

MR PORTER: -- Ten past nine.

MR BALL: Yeah, I've probably got another 10 or fifteen--

MS HEDGE: --10 minutes?

MR BALL: Is that alright?

MS HEDGE: Is that alright? I understand that you have to be in court, as well, so-

MR SAMMUT: It's alright with us.

MS HEDGE: Well, let, let's try and keep it to ten minutes--

MR BALL: --yeah--

MS HEDGE: --and hopefully that will narrow significantly what needs to be asked of you, either in writing or in the interview, or whatever. So you, there was a timeframe therefore, also for SKM; were you involved in setting that timeframe?

MR BALL: This is to come up with the final, um, the, ah?--

MS HEDGE: No, to come up with the draft reports that went to the independent expert review panel.

MR BALL: So if I, just so I'm clear, um, so just set the timelines again for me--

MS HEDGE: --so, for the independent expert review panel, to-

MR BALL: --Yep--

MS HEDGE: --put down its report by September, that required SKM or city design, or together, to put forward a draft report in August - and so that was a timeline for them, so that they must do that by August.

MR BALL: --yes--

MS HEDGE: Were you involved in setting that timeline?

MR BALL: Again, I can't recall but it would have been the same process as before—it would have been, "How long does it take for you to feed this data and information into the model"—

MS HEDGE: --mm--

MR BALL: --"What's a reasonable timeline, with urgency, but what's a reasonable timeline." Same process.

MS HEDGE: And, in your view, at that stage, there was further-other-work that needed to be done for a comprehensive study?

MR BALL: Just a bit more detail on that one.

MS HEDGE: So SKM had done a study and created a model in 2000-in 1998—so they had a model. And then there was this extra, bureau data, that could be put into that model, and dam data from the Department--

MR BALL: --yep, whatever, yep--

MS HEDGE: But, you could also start, do a full flood study from scratch in terms of reassessing old data, doing bathymetric surveys—

MR BALL: --yep--

MS HEDGE: There's lots of other things that could be done in a flood study. And so at that stage did you consider that those other things were not necessary for a comprehensive flood study?

MR BALL: No, they would have already been done---I'm just, again, not clear on the question. The process was, is that all those things that you mentioned were all part of that original study--

MS HEDGE: --mm--

MR BALL: and the, um, it, it would have continued to keep, the study would have continued to keep current, based on any new data information, um, based on significant events in the river — but, ah, there wasn't, from memory, any major event — so the, the model and its calibration would have been current, um, and what it needed was the new flow data, coming in from the, um, from the work that the state was providing — so they would have had to have fed a new set of flow data through the

model; they would have then had to look at, um, whether they had appropriately dealt with all the recommendations coming out of the original peer-review from Russell Mein; and, um, and then calibrated the model against known events, and then extrapolated that the Q100 event at the port, and that would have been the basis of their, of the information that they presented to the expert review panel. So it would have been the best information available at the time to make decisions on.

MS HEDGE: --mm-hm--

MR BALL: So there—so there—so there was no other information, that was required, it would have used, well I would have expected it to have used, the best information available at that time, which was the new information from the state, and the recommendations coming out of the peer-review—

MS HEDGE: --mm-hmm--

MR BALL: --and that would have been the starting point for the, um, for this process with the expert panel.

MS HEDGE: Were there technological advances between 1998 and 2003?

MR BALL: Ah, I don't know, but if there was, the model would have reflected that. That's my point, it would have been continued to have kept current for that period of time.

MS HEDGE: And who would have done that?

MR BALL: City design.

MS HEDGE: Right. Okay.

MR BALL: I mean, that was, part of that was, what, all they, all the recommendations in Russell Mein's peer-review was. Because it didn't have some of those more recent methodological improvements, so, that's why I'm struggling with the questions it was b-because--the model would have been the best based on data and methodology at that point of time.

MS HEDGE: I think you've answered by saying that.

MR BALL: Okay.

MS HEDGE: So after the, when the independent review panel report was handed down, and then there was that process of resolution going through committees and Council and so forth, and I don't intend to go through any of those--I'm interested

though in what your view was of the recommendations made by the independent review panel.

MR BALL: Um...

MS HEDGE: Do you need, you probably need to see a copy of them—is that?—— I don't have one in here…

MR BALL: Well, but, I--

MS HEDGE: -- Do you feel? --

MR BALL: --So they were a set of recommendations, that, that's fine, I accept them as a set of recommendations from an expert panel.

MS HEDGE: --mm-hmm--

MR BALL: Um...

MS HEDGE: And was it your decision whether they were implemented or not?

MR BALL: It's not my decision, no.

MS HEDGE: Whose decision was it?

MR BALL: That's ah, well there was a mixture, the key one that I was concerned with was the, was the decision on the, um, the Q100 level for development.

MS HEDGE: --m-hmm--

MR BALL: The others were-

MS HEDGE: Sorry?

MR BALL: --From memory, they were recommendations that city design needs to look at as it continues to, um, improve and evolve its flood modelling, ah, for particular purposes, I think that there was one there that they--for DERM, um, for them to take on-so, so those recommendations were a broad set of recommendations back to Council--

MS HEDGE: --mm--

MR BALL: --and so the appropriate areas of Council would progress those.

MS HEDGE: So, I'm interested in the ones about further work, not the ones about the Q100. So the ones about the further work—

MR BALL: --Well that's--

MS HEDGE: --that should be completed?

MR BALL: --Well that's a, city design one, and I one of them was a DNR issue.

MS HEDGE: Right, and so, city design made decisions about whether they should be incorporated?

MR BALL: That's right. It, it's in, it's in the--I don't get into the detail about how they do their models-

MS HEDGE: --mm-

MR BALL: and what, and what, you know, what methodologies they use-

MS HEDGE: --mm--

MR BALL: that's entirely up to—they're the experts in that area.

MS HEDGE: Mm. So one of the recommendations was still Monte Carlo analysis...

MR BALL: That's a city design issue, not one for me.

MS HEDGE: Okay. So, to do that you, you're familiar what a Monte Carlo analysis is?

MR BALL: Yes.

MS HEDGE: At least broadly?

MR BALL: Yes.

MS HEDGE: And so you would understand that it would take some time, many months?

MR BALL: Yes, particularly, well back then with the computing power, we're talking, sort of, 8 years ago, you know, we didn't, didn't have many of those things floating around.

MS HEDGE: No, so months or years--

MR BALL: --Yeah, whatever it is-

MS HEDGE: I'm not too particularly hung up on, but I just mean it--

MR BALL: --No--

MS HEDGE: --it takes a long time-

MR BALL: Well, I don't know, I really don't know, what it would have taken, and I don't know whether you do it for the whole catchment, whether you do it for elements, so, it was-

MS HEDGE: --okay--

MR BALL: It was a, it was a detail of technical work that was appropriate for city design to take on.

MS HEDGE: mm-hmm. And so you were not involved at all in any decision as to whether or not to do a Monte Carlo analysis?

MR BALL: No, it was purely a decision for the experts in those areas.

MS HEDGE: Okay.

MR BALL: Depending on the, and I think it was ah, I think it was for partic—I wa——I don't think they were recommending it for, um, for the whole flood study anyway, I think it was in particular situations, but I might be wrong there, but anyway, it was something for the, for the, for the city design group to look for the appropriateness of when that was needed.

MS HEDGE: And was there a discussion that set that out, or was that just understood by everyone, that it was city design and that Waterways, or water resources as they might have been by then--

MR BALL: --Waterways--

MS HEDGE: --were just not involved in that decision as whether that work should be done.

MR BALL: Look, it was a, the report was given to Council, and so each of the areas relevant to undertake those recommendations, it was up to them to take that on.

MS HEDGE: mm-hmm. Okay. And then there's the December 2003 report, done by city design, SKM--

MR BALL: --Yep-

MS HEDGE: --and in that report a similar recommendation was made, that a Monte Carlo analysis be done. Is that, were you involved in whether those recommendations should be implemented?

MR BALL: No, no. That's not something that I was-

MR PORTER: Did you have a view at the time about whether, it was, um, a worthwhile course to do the Monte Carlo analysis before making recommendations to Council?

MR BALL: well my, it's going back, but I suppose I go to my point, is that it was, um, I didn't have, I suppose I didn't have enough understanding as to what the, um, both the time, the value, um, even whether it was, ah, it was fairly new process, whether when you add up, um, both the ability to do it, the time to do it, and um, and the value in doing it, whether it was worth the exercise. I didn't have a view on that, because I didn't have enough knowledge to understand any of that; that was really for the experts, and the experts to make decisions around that were city design.

MR PORTER: Do you recall have any discussions with anyone in city design, Ken or anyone, about the wisdom of doing it?

MR BALL: Um, no I can't recall, we probably talked about, generally—whether it was Ken, or whoever—I'm sure it was within the team we talked about the recommendations, but I don't recall the decisions, or the content of those discussions, no.

MR PORTER: Sitting here now, do you have any independent recollection of discussions about the recommendations?

MR BALL: Independent discussions?

MR PORTER: Independent recollection of actual discussions, or is it an area that's a bit vague to you?

MR BALL: I think that, I think that the bit that I was concerned with was making sure that we were making the right decision around the Q100. The issue of the other recommendations, I was really leaving it to the group in my team, and to city design, the stormwater group in city design, to work through. I didn't see those things as things that I needed to focus on. My main issue was ensuring that we made the right decision as an organisation around the Q100 level.

MR PORTER: When you say it was your team who was involved, would that be-

MR BALL: --Gavin--

MR PORTER: --Gavin Blakely, who would have been most involved that-?-

MR BALL: The stormwater section, Gavin, and the team.

MS HEDGE: Okay. And so, does that mean that you didn't talk to Mr Kerry or Mr Quinn or the Lord Mayor or any other Councillor about those recommendations, because...?

MR BALL: Well, no, obviously those recommendations was something that we did talk about with a key-MR PORTER: Just clarify which recommendation we're talking about.

MS HEDGE: Sorry, I mean the recommendations for further work that should be completed by the Brisbane City Council, including the Monte Carlo analysis.

MR BALL: Well, to put it in context, we received the document, it had a number of recommendations, clearly, I spoke to both Michael Kerry and the Lord Mayor, which was Tim Quinn at that stage, about those recommendations, obviously because it was something important to Council to ah, which it was obviously waiting on information, then we had to take it through a process, so obviously I spoke to both of them about the process we would use and, um, but, um, about how we might-so, the key one, as I said, was, getting clarity for the community about what the Q100 level was. Because that's what the issue in the press was and we had to ensure that we gave certainty and clarity around that, so my focus was getting that through the process and getting that endorsed by Council. Um, those other recommendations I didn't put a high priority on at that point in time because this other one was the most key one. I'm sure there was discussions around those, but I don't know, I can't recall, the detail of those discussions, my focus was on certainty on this other, on the key recommendation from the review group.

MS HEDGE: Okay was your, was (inaudible) in the rest of your time there, at the Brisbane City Council, those recommendations for further work, were they ever a focus. For you, I understand you're saying that city design - but there may have been something else.

MS HEDGE: those recommendations for further work, were they ever a focus, for you. I understand your saying that city design might ...

MR BALL: Yeah...um...honestly can't recall um any detailed discussions around them. Arrh, testing my memory, I then left the, I then took the... Drought became a bit of an issue and I took a role in drought for the Council so I sort of started to step out of and I can't think of the time line so there might have been some initial...arrh...work started and then um I really moved out of the area so it's really testing, testing the memory exactly sort of the details of that I'd have to sort of take those questions on notice and see if I could...

MS HEDGE: Okay.

MR BALL:..follow, follow that through.

MS HEDGE: I really only have two more questions. The first is could city design. Let me start that again, was it required that you or some other area of Council engage city design to do those, to do the work suggested or could they do it on their own initiative?

MR BALL: Now clarify the work suggested.

MS HEDGE: Well let's say the Monte Carlo analysis just by itself.

MR BALL: Oh, okay, okay.

MS HEDGE: Could they do that of their own initiative or was it required that some other area of Council engage them to do it.

MR BALL: No they could do that off their own initiative. It's a.m. it's a modelling technique or a decision-making technique. It's simply... it's simply a methodology that they would use so it was entirely up to them...

MS HEDGE: But, okay...

MR BALL: but, sorry...

MS HEDGE: I understand ...

MR BALL: but sorry.

MS HEDGE: To do any flood study investigation does city design require...

MR BALL: That's a different question.

MS HEDGE: It is and I'm asking a different question now ...

MR BALL: One you're talking about how. The other you're talking about the what.

MS HEDGE: Yes.

MR BALL: Absolutely it needed some, needed some internal process to, to get approval to undertake work through a arrh budget process and go to the market to um undertake the process the detail of, of what methodology to use would be arrh left to the experts.

MS HEDGE: Okay so just to...I'm just going to try and repeat that back just to be clear that we've got the same idea...so for city design to do any work for flood modelling, flood study type work, they would need to be commissioned by another area of Council but then once they were commissioned.

MR BALL: No I didn't say that.

MS HEDGE: Okay, well please...

MR BALL: yeah.

MS HEDGE: ..please clarify what...

MR BALL: What I said was, was that if city design were going to do some modelling they would have to seek...another, sorry...I'll clarify this or qual, qualify this because I'm talking about umm processes back in say 2003 not, not 96. 96...

MS HEDGE: yes...

MR BALL: ..was a different set up..

MS HEDGE: mm hum.

MR BALL: ...2003 under the purchase of the provider...umm...if they chose to undertake... arrhh ...a flood modelling...umm..event, they, through a budget process would argue that they needed funds to undertake a flood model and that was, that was put in front of ..umm..arrh..the budget committee and the Lord Mayor would make a determination whether he was willing to provide funds to do that...

MS HEDGE: umm uh.

MR BALL:...so that's how funds are made available to do that sort of work. If the funds are there then there's an internal process within Council to undertake that work and that would be, that would be city design..um. going through a tender process to get appropriate providers to undertake that work.

MS HEDGE: ...okay...

MR BALL: so that's the, that's the process.

MS HEDGE: I understand ...

MR BALL: okay.

MS HEDGE: and would city design decide to do flood modelling without being asked by any other...

MR BALL: ... if they could ...

MS HEDGE: ...organisation ....

MR BALL: ...or it could be either, they could, they could identify that because of, of the um...their knowledge of some changes that have come through eg the driver out of this one which was some ... umm ... DERM doing some work ... um ... to do with the dams back in the early 90s identification that there was potentially a higher flood...um...Q100 of the port therefore...um...that was a..um..a reason to have a look at whether there was a need to um to do further um modelling in the river um or it could have come from another area of Council saying that um there might be some significant redevelopment happening or there might be some um strategic arrh intent to um improve or to change standards somewhere and therefore we need some arrh, or to put a bridge or two in, we need arrh flood modelling to assess um the appropriate standards to apply..umm..and that so they would have... that could be another way of initiating if not a full study, at least a part study so there are different drivers or different mechanisms that would identify the need to do work.

MS HEDGE: okay, and if they were to do Q100 work, work on what the Q100 is at any point along the river that would be driven through waterways or that could be driven by their own initiative.

MR BALL: or, or by the..um..transport group wanting to umm put a umm a bridge across the river, main roads wanting to put a bridge across the river... arrrh.. umm.. a developer wanting to extend into the river opposite South Bank....

MS HEDGE: okay...all those things that you're just...

MR BALL: all of those things so multiple, multiple reasons to do flood analysis...

MS HEDGE: and would you know about it...would you be advised that they were doing certain work...

MR BALL: no.

 $\ensuremath{\mathsf{MS}}$  HEDGE: if it were started by their own initiative or for some ...

MR BALL: no, no they, they're a service organisation for the whole of Council so waterways would get them to do certain activities but they also would get ..arrhh...commissioned work from a range of other parties within Council and organisations within Council.

MS HEDGE: Okay, so city design could have implemented the recommendations of the independent expert review panel without you

MR PORTER: ..You can't answer that question .....

MR BALL: No....

MR PORTER: without having them put in front of him because some of them weren't directed to city design or Council....

MR BALL: sorry, I just....I'm not clear of the question say that...

MS HEDGE: Okay, well I didn't actually finish the question so that's no, so that's not surprising that you're unclear...umm...let's talk about just the Monte Carlo analysis recommendation, just that. Just that one.

MR BALL: yes.

MS HEDGE: is it, is it true from what you've said...and please correct me if I'm wrong - I'm just trying to establishing what you're saying... that city design could have implemented that recommendation without you knowing in response to, in request from some other part of Council.

MR BALL: it's a... yes it's a...

MS HEDGE: That's all I'm asking.

MR BALL: yeah, yeah.

MS HEDGE: okay.

MR BALL: Well...they could use that technique putting...you're suggestion it's to implement the recommendation...umm...that's...there's a couple of different...umm...components of that....One is, one is they could use the Monte Carlo analysis in their um evaluation of the impact of flooding on a particular location so they can do that anytime they want to do it it's simply a methodology to use and they can be requested to do that by, by a particular part of the organisation because they want a level of certainty that was...that they felt they needed...umm...the recommendation... I'm not the...it is really the as I said it's a methodology so it's something that they would really make some decisions around.

MS HEDGE: okay.

MR BALL: But I'm not sure how that recommendation was progressed through the organisation.

MS HEDGE: I understand. Um...we're up to my last question sorry that ended up with a few follow-ons the first one...arrrh...there was the December 2003 SKM report and then a February 2004 SKM report both of those reports gave a Q100 estimate that was different, to the one given by the independent expert review panel, umm....

MR BALL: What were they?

MS HEDGE: One was 3.51, and one was 3.16 if my memory serves me.. but I'm quite not, not quite sure which one, which way around...I'm not sure if anyone else....

Unknown: one was 6000 cumecs and one was 6500 cumecs.

MR PORTER: yeah..in terms of cumecs.

MS HEDGE: Oh well....

MR PORTER: ... the flow ...

MS HEDGE: one of them was given a flow and just determined a height so I'm not...I'm speaking in height because that was...the February 2004 report didn't actually determine a flow on its own. It determined a height from a flow given to it so a flows are sort of not a good comparator for those two reports but in any case...

MR BALL:..yeah...

MS HEDGE: ....um...in the 3 metres to 4 metres and for the purpose of my question it doesn't really matter what they are so much as did you have a...when you got those reports did you brief.. Mr Kerry..., Mr Quinn who was the Lord Mayor at that stage, about them or well I won't say or, I'll just ask the question....

MR BALL: Ummm...I don't know....no I can't be certain because from a Council perspective we'd have through the, through... from what I recall when we got the..um..the peer review...they gave us a number which was between 5 and 7 which was 6, we went to..umm.. e and c and then to Council then got the...um... original 6.8..umm..umm.6800 as the adopted Q100 for Council so Council made a decision that's what it's Q100 would be.

MS HEDGE: ...umhum.

MR BALL: ..umm...these two reports then...arrh.. gave us some values of the same order umm when you take into account the variability and the judgement and all of that so these were,

these were more I think than for as detailed...umm...modelling for when redevelopment might occur for as I said when bridge construction or other activities in the river that they would be a model that used to understand the flow um impacts of those structures...umm...so they were, they were two design reports which I normally wouldn't see, umm and I don't know even know if I did see them, Gavin might have seen them umm and I don't know that the Mayor or Michael...there was...I wouldn't have seen it as any value in taking them up the line because they are simply design reports that they in nonpractise they would not see. It would, it would not be normal practice for them to umm to see this sort of information so umm but I can't recall... I mean umm I might of, I might of...arrrh...let them know they were there because of all the, all the process that's gone on before just...just in...a sense of completeness..umm..but...umm..but if it were just, if they were the standard sort of ... arrrhh..design reports then they ... as I said they probably wouldn't see it so...I'd have to...

MR PORTER: You'd have to look at it wouldn't you?

MR BALL: I'd have to see them but I'd have to...I mean I'd really have to test the memory because they would have just been part of a process and I just can't ...you know ...there are lots of processes going on and I just couldn't be certain whether, whether they saw them or not...

MS HEDGE: Umhum.

MR BALL: there was no...if there was an obvious need they would have ...they... should have seen them and they would have but in this case it would only have been a follow up...umm...for information because there was nothing in there that they had to to deal with or make decisions around and unless they had to make a decision around it or deal with it, I wouldn't have put it in front of them...umm...

MS HEDGE: and so what would create an obvious need for them to see it.

MR BALL: well if they'd come back and said it should have been 7500 cumecs and we need to revisit the Q100...

MS HEDGE: okay.

MR BALL: ... but they didn't say that ... umm ...

MS HEDGE: no.

MR BALL: ... so there was no point in presenting it back to them.

MS HEDGE: I understand.

MR BALL:...but you know as I said I may have done it for completeness but...um...unless there was a driver.

MS HEDGE: Okay, that's the end of my questions...do you have a...

MR ENSBEY: Just one very general question of process relating to the recommendations that came out the independent expert report... the area of that they were directed to make an assessment of whether to implement that recommendations or not, and I think the emphasis....may arise from what you have already said ... they could obviously assess them in terms of whether it is a sensible cost benefit analysis and whether it was good use of public funds ... they could also assess ...

MR PORTER: sorry, assess what?

MR ENSBEY: assess whether to implement the recommendations.

MR PORTER: ..which recommendations?

MS HEDGE: shall we just focus on the Monte Carlo analysis?

MR ENSBEY: for example the Monte Carlo analysis, they could look at that and say it was either it is a good or poor use of taxpayers money ...they could also potentially assess it.

MR BALL: ratepayers? Yep.

MR ENSBEY: Yes, ratepayers yep...

MR BALL: Yep, ratepayers, yep.

MR ENSBEY: potentially assess it might be simply impossible of the computering power wasn't available ... was it also open to an area or that area, to conclude that is was arrh. .. undesirable or unhelpful to implement a recommendation that came out of the inquiry?

MR PORTER: Which area are we talking about?

MS HEDGE: city design.

MR ENSBEY: City design .. in the example of the Monte Carlo analysis ... was it open to city design to umm decide that it would be unhelpful or unnecessary to implement a recommendation that came from the independent expert panel?

MR BALL:..arrh the recommendations were to Council and so umm I would have expected that the city design or decision-making group that you talk about the Monte Carlo one they would have to had to have considered whether it was for the reasons, for

reasons you have said appropriate to use it, so they couldn't have ignored, couldn't have ignored, there is no way, no way that the recommendation could have been ignored, so it would have been umm.., it would have been a consideration that they would have had in decision-making, so I, is that, umm.., see it would have been their decision but it's one that they could not have ignore it because it was a recommendation coming out of that, so, out of that review, so. I am just not sure, not sure what you are trying get at.

MR ENSBEY: ..It is just a question as to really to the status of the recommendation, as I understand what you are saying, they were obliged to consider it and arrrh...that they couldn't have considered certain costs and benefits, it was open to them potentially, provided they gave it proper consideration to conclude that is was umm.., unnecessary or undesirable to implement it even if it might have to been feasible....

MR BALL: in certain circumstances because it's a, because it's a, it's a umm arrrh, it's a recommendation that might be more be appropriate in some situations than in others because it depends on what's, what the purpose of the, of the particular study was for, umm...yeah.

MR ENSBEY: Alright, thank you.

MR BALL: Do I do another set?

MS HEDGE: Nothing from anyone else?

MR BALL: Umm, umm, I am just not sure.

MR PORTER: No, no that's fine.

MS HEDGE: Look I think if, if that answers the question.

MR PORTER: I think difficulty is, Barry clearly does not have much recollection of all on what happen with the recommendation and those parts of the recommendation he has already given evidence that his focus, understandably given his role was the Q100 recommendation, so, I think he's probably done the best he can, that's my assessment of it.

MS HEDGE: Absolutely and if we want to ask something further, probably even better to have documents and...

MR PORTER: I think so.

MS HEDGE: ....and time for him to consider questions, I, I totally agree.

MR PORTER: yeh, I think he is having trouble. Of course it is. I think he is having trouble and understanding exactly which recommendation about what we're talking about in a particular time and I think he might have a bit of misapprehension about methodology as oppose to carrying out the methodology in certain circumstances, I don't know, but I think we probably got as far as we can without going to the documents.

MS HEDGE: ...and its 10 o'clock and so, that's a good time to finish, so I will end the tape there.