

SOUTHERN LINK INLAND PORT HEARING

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CLIENT: ENVIRONMENTAL PROTECTION AUTHORITY

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ATTENDEES: **PANEL:** Cindy Robinson, Ray O'Callaghan and Steve Abley

APPLICANT:

Stanec:	Andrew Craig, Nick Keenan and Mark Scaife
E3Scientific:	Simon Bloomberg & Bryony Miller
Waterways Consulting:	Dr Richard Allibone
Representatives:	Sarah Scott, Joanna Dowd and Kevin Kearney
Planner:	John Kyle
Dr Claire Conwell	

DUNEDIN CITY COUNCIL: John Sule

OTAGO FISH & GAME COUNCIL: Nigel Paragreen

OTAGO REGIONAL COUNCIL:

Earthworks, erosion & sediment:	Jason Smith
Natural Hazards:	Amanda Ling
Freshwater Ecology:	Emily Lion-Cachet & Raymond Chang
Hydrology:	Mike Thorley
Contaminated Land:	Ben Waterhouse
Representatives:	Mat Bell and Hannah Goslin
Pattle Delamore:	Ben Throssell

AUDIO NAME: Southern Link Inland Port Hearing - Freshwater

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[Start of Recorded Material: 0:00]

C ROBINSON: My name is Cindy Robinson from Christchurch [inaudible audio 0:10].

S ABLEY: [inaudible audio 0:15].

R O'CALLAGHAN: Morning, Ray O'Callaghan.

C ROBINSON: We are supported today [inaudible audio 0:25] and our audio tech.

You've got a large team here today. We do have [inaudible audio 0:40].

First, just thank you very much for your submissions. It's been a very helpful exercise for the Panel just to give some shape. Hopefully, just ... we're also grateful for the ORC summary as well. That's been very useful and probably we just need to record our thanks to Te Rūnaka o Ōtākou for their work with the Applicant to resolving their issues, and also for Fish and Game, thank you very much for working constructively with the Applicant and for your very useful submission.

Using your submissions, Sarah, as a bit of a template for our agenda, we're just bearing in mind too that wherever possible, we'll release witnesses as soon as we've dealt with them. For today, we probably want to deal with from onsite to end of pipe in that order, so we'll start with earthworks erosion and sediment control and we'll group that with the groundwater contaminated land. Shortly, the Panel has some questions for Mr Keenan, Mr Smith, Dr Waterhouse, Mr Scaife and Mr Thorley. We'll deal with that in the first instance and then move to a discussion on the natural hazard issues, the difference or the issue that Mr Throssell's raised and try and address that and then move on to the stormwater quality/ecology end of pipe issues.

Before we move to that, there's just a couple of things also that we'll deal with towards the end of today, but I'll flag now one matter that arises from yesterday, Sarah. It's a minor matter, but I don't want it lost in the scheme of things. In terms of the noise discussion yesterday, just when I was flicking through the conditions, there's a condition in DCC 71B which deals with amenity. It's a package of mitigation measures for 54 Rutherford and 273 in relation to visual screening and management of potential glare issues, but in the wording of that condition and the tale that if the landowners don't take up those mitigation measures, then effectively they're deemed not to be

concerned about those effects, but it includes reference to noise in that condition. In light of our discussion yesterday, I can signal now I don't think that's appropriate and it needs to be ... it might be just an error, but can you have a look at that please?

S SCOTT: Sure. Thank you.

C ROBINSON: The other matters that once we get through today would be worth having a discussion about ahead of the next condition session is we'd like to unpack a little more the issue around certification or no certification and just get a better understanding of that issue so we can have a conversation. It doesn't necessarily need a resolution today, but just to help the Panel with that.

The other issue, as you flagged yesterday, is we have yet to resolve the issue about the format of conditions for ORC, and it would be helpful if the Panel could talk with Ms Goslin and perhaps Mr Kyle as well about what the issue is there.

S SCOTT: Yes, we can do that today.

C ROBINSON: Okay, so with that in mind, we'll get on with (unless you've got anything else) earthworks, erosion, sediment, groundwater and contamination.

S SCOTT: Sorry, thank you. Look, I wouldn't really call my legal submissions submissions cos there's not much legalistic in there, but my intention was to help structure what we see as leftover issues. There's just one update that there's an error in the legal submission, so I just want to put that on the record. I've handed up the correct replacement condition around the Treatment Management Plan. I've passed a copy to Hannah at ORC, so if we could just replace it with a separate version and then I can get a PDF version through to Awesta as well.

C ROBINSON: That just reminds me too, I should perhaps ask Ms Goslin in terms of the agenda for today, is there anything else that (you're welcome to come forward too) ORC ... cos we need to record the hearing when I'm talking, whether there's any other issues that don't neatly fall in Sarah's issues statement.

H GOSLIN: No, everything that you suggested in terms of the agenda will fit what we still have issues with. Thank you.

C ROBINSON: All right. Okay, thanks.

- S SCOTT: Is there room for me to stay here?
- C ROBINSON: Yeah, I think so.
- S SCOTT: Thank you.
- C ROBINSON: There's a few online, aren't there? We probably should do a little bit of a roll call to make sure we know who we're talking to. So, Mr Keenan, come forward and take a seat. Mr Smith is online.
- J SMITH: Good morning.
- C ROBINSON: Thank you. Good morning. And also it'd be useful to have on hand Dr Waterhouse, Mr Scaife and Mr Thorley. We've got Dr Waterhouse, thank you. They're all online. Oh, well, thanks.
- M THORLEY: Yes, here, present. Thank you.
- C ROBINSON: Great.
- R O'CALLAGHAN: Let's kick in.
- C ROBINSON: You kick in.
- R O'CALLAGHAN: Good morning. So, just trying to wrap up a couple of issues together in this, Mr Keenan and the others, so please raise your hand to contribute to the discussion.
- Just a first question, Mr Keenan, that's been in my mind, just relating to the stormwater around the site, the swales around the site, management of offsite stormwater around the site. At the moment, the proposal is on the western side to have the swale, a large swale beside the railway line from Dukes Road North down past the pond and to Silver Stream to convey extreme event surface water secondary flow around the site. It's not essential or can you confirm it isn't essential whether that physical swale is either inside KiwiRail land or within the Applicant land. It doesn't matter from a functionality of the swale. It just might impact the way in which the rail sidling, where it sits or where the swale ... if KiwiRail, for example, were not agreeable to have that swale within their land, then I take it that the Applicant would just simply locate that swale within the application site, or is there something that I'm missing, well, that would be a problem?
- N KEENAN: No, I think these swales are there for diversion of clean water to keep it away from the main site. If they were placed inside the subdivision or outside, as

long as their function is still the same, they take flows from further north, the flows want to go south to the Silver Stream. I think it doesn't matter where they are placed, as long as they have got the right size and capacity.

R O'CALLAGHAN: Okay, that's fine. We're just wanting to be clear that there isn't something that could derail the swale.

On the other side, on the eastern side, the way the swale's designed, it has got this provision to discharge some flow, extreme flow through the flap gates (we'll call them) in the bottom of the noise attenuation wall to come across into the site rather than the full extreme event secondary flow being conveyed directly down the swale to Silver Stream. Is there a reason for that of why you are intending to make provision to bring some of that secondary flow through the site rather than taking it direct to Silver Stream?

N KEENAN: I think there is some good reasons for that. I'm probably not the right person to be asking that question. My focus was really on the internal side of the subdivision, so the onsite stormwater. Andrew (Mr Craig) would be the right person there to talk about diversion flows.

R O'CALLAGHAN: Okay, that would be helpful. Could you come up and address it at the same time? It is a job. The goal here is to get all the input.

A CRAIG: Certainly.

R O'CALLAGHAN: You heard the question, you understand where I'm coming from?

A CRAIG: Yes.

R O'CALLAGHAN: Can you give us a bit of indication? The reason for the question is that the flap gates could create, by good design, you can avoid it, but it's possible that they create a penetration in the noise wall. We've heard from the noise experts that it's desirable to avoid gaps, holes, etc, and noise. We're just trying to understand the reasoning behind it.

A CRAIG: The reasoning behind it, first of all, is there are MLV mass loaded vinyl flaps to help with the noise issue, and I'm not saying that they have quite the level of performance. From a flooding perspective, we have the slight challenge that we're sitting right adjacent to an existing railway line that's got a very long, low gradient. The excess flow coming from the north, when it gets to a certain level, is either just below or just over the railway line, so that the aspiration or the managing, not quite competing objectives, but getting the system functioning as a system is to allow the majority of the overland flow

down the swale. When it gets to the over design, when it gets above that threshold to allow some shallow water through the site so as to not change the rate of water going over the railway line into the Frontera commercial area.

R O'CALLAGHAN: My question was more relating to the eastern side swale, the eastern swale, cos I understand that is releasing water into the site as well.

A CRAIG: No.

R O'CALLAGHAN: Oh, sorry, I misunderstood.

A CRAIG: The eastern cut-off swale is basically a—

R O'CALLAGHAN: Full capacity swale.

A CRAIG: —full capacity swale. I don't believe that there's a requirement for any passage of water through there because the water coming from the east is actually a really small amount. It drains predominantly into Silver Stream anyway down near the south-eastern corner. We're not making a significant diversion. Well, it's not a profound diversion by doing that. The main majority of the overland flow comes from the Mill Stream down adjacent to the overline on the eastern side of the rail line. That's the main flow path that we're trying to manage through the opening of the noise walls down the hard stand on the western portion of the site.

On the eastern portion, that issue isn't prevalent. The swale is quite a lot smaller. It's just managing that relatively small overland flow and it's taking it straight to the Silver Stream, not through noise walls or bones [? 12:43] on the eastern side.

R O'CALLAGHAN: Fine, that's helpful. Thank you.

Just moving to there's some discussion between the experts and there's been conversations regarding infiltration and infiltration devices. Now I understand from the application information, envisage the base of the pond is intended to discharge via infiltration. It hasn't had a specific design function at a given rate. Correct me if I'm wrong, but it's not intended for that to be an impervious pond, so the small events will soak away through the ground. Is that the intention of that pond?

A CRAIG: Do you want to take that Nick or do you want me to do that?

N KEENAN: Well, the first thing is the pond is really set up for attenuation for the large events, of course.

R O'CALLAGHAN: Yes, but at one point there that the outlet of that is attenuation, and I interpreted the plan that the outlet was above the base. You've got some dead storage above the base. Is that by design? Is that the intent? What I'm really trying to understand here is we've got a whole combination of things, groundwater, protection of groundwater, functionality of the pond. Its primary function is attenuation, I understand that, and then how it discharges and that impacts monitoring of the stream and monitoring in a broad sense to ensure that everything's doing what it is intended to do. I had just assumed from the information that the dead storage in the pond, the bottom bit, that will soak away by soakage, and a bit of evaporation cos it's not intended to be a permanent water pond.

N KEENAN: Yeah.

R O'CALLAGHAN: Is the base designed by way of soakage? Will it naturally soak, put it that way?

N KEENAN: Naturally, it will.

R O'CALLAGHAN: It'll naturally soak. It's not a design function of the pond, but the bottom bit will soak away after an event. Is that as you see it operating?

A CRAIG: Yes, but also we'd add that the envisaged dead storage, if you want to call it below the lower outlet, would be targeted to be very small because we don't want long periods of standing water while that water gradually soaks. We also don't want that to be limited by potential clogging of the soil pores, so we want that storage to be as low as possible because we also don't want to attract additional bird habitat near the aerodrome.

R O'CALLAGHAN: Yeah, okay. Other elements of the stormwater treatment within this site, is there an intention to have soakage as part of the design operation of those elements within the site?

N KEENAN: I think very marginally it would, yeah. Wherever there's green areas, that's where we would accept some soakage through the ground, but I think in terms of treatment, we're not relying on soakage for disposal of rainfall at all, I don't think.

R O'CALLAGHAN: No.

N KEENAN: It's more rainfall. We'll have the roofs. The roofs will be relatively clean. They'll go through tanks and storage elements like that where it can be reused, but otherwise—

A CRAIG: And the run-off into the pond, the water from roofs that doesn't go into the tanks when the tanks are at sufficient capacity goes to the storage pond because that also helps to manage dilution during the first flush.

R O'CALLAGHAN: One of the issues that's been raised by ORC with respect to contamination is this potential conflict of having soakage devices in areas where there's been identified soil contamination, contamination on the site, and hence creating this risk of potentially soakage devices leaching any residual contamination into the groundwater. There's been a suggestion by way of condition that any proposed soakage operation device considers the previous location of contamination and makes sure that it's clear of it and all of those matters. It seems to me that that's a sensible requirement so that there's not some error and someone puts the soakage device. I would've thought that would be reasonably achievable from your design criteria cos you're not relying on large and extensive soakage devices across the site.

N KEENAN: No, but at the same time, I think with detailed design, you would look at that kind of arrangement where the contaminated area is.

R O'CALLAGHAN: Yes, please comment.

S SCOTT: Sorry, it might be a question for Mark Scaife actually. You might want to ask him his views on that.

R O'CALLAGHAN: Right, no. Yes, I have invited ... please Mark, if you have a comment on this, please share it with us.

M SCAIFE: Morning. Yeah, so it's my understanding that the only incidental infiltration will really occur through the base of the attenuation pond. At all the other locations and across the site, there's a PSI and DSI, and there's been some sampling being completed. At those locations, there's going to be remediation plans.

The Remediation Plan and the Contaminated Soil Management Plan are going to be reviewed by ORC for best practise prior to being certified. That means that those locations where there is contamination identified are going to have to be remediated to best practise, and it's not best practise to

discharge stormwater onto contaminated land. ORC is going to be able to see that.

The other thing that the Contaminated Site Management Plan's going to contain is accidental discovery of contamination, in which case the works have to stop and you'll have to notify ORC. [inaudible 19:25] will have to look at that site and say, 'How am I going to make sure that this doesn't impact human health or the environment?' Once again, ORC is going to be able to have a look at that Plan, which makes the chances of actually discharging any stormwater to the ground incidentally very, very low. They are already in place in the consent conditions at the moment, so that would preclude being able to discharge or let stormwater infiltrate into the ground at a location where there is contaminants to leach.

R O'CALLAGHAN: Right, and I take it that where the pond is located, there hasn't been any identified contamination in that area?

M SCAIFE: No, no contamination identified, and the excavation will be relatively deep as well, but if they do find something that they shouldn't, then that'll get tested and it'll get reviewed.

R O'CALLAGHAN: Thank you. Okay, so it's just linking that contamination with the thing.

Just jumping across to erosion sediment control proposals, there's a suite of conditions dealing with that - Erosion Sediment Control Plans, Construction Management Plans, etc. You've got a site here that you build Stage 1, you're operating on Stage 1, then construction occurs down the track a little bit on Stage 2. There's further earthworks relating to the construction of Stage 2 while Stage 1's operating. Do you envisage that your Erosion Sediment Control Plans dealing with the earthworks related matters for Stage 2 while Stage 1's operating, will the discharges from that create a risk of sediment discharge cos erosion sediment control devices are only designed to contain sediment within a given level? You've then got this issue of the discharge from erosion sediment control devices, presumably, will they go through the pond or will they be directly discharging to the swale?

There's monitoring conditions or the operations around the operational discharge (we'll call it for want of a better word) that ORC has used. We've got operational stormwater and at the same time at two phases, a Stage 2 and at a Stage 3 (there may not be earthworks related to Stage 3), but you've got this two sources that we have to make sure that it doesn't corrupt the intent of the monitoring conditions and compliance conditions from this

operational stormwater and construction stormwater. Have you given thought to that in the way in which you envisage the Erosion Sediment Control Plans being structured and managed, etc, for your Stage 2 construction work?

N KEENAN: Not in detail, but I would think like any subdivision, you do have this staging aspect. I would say that Erosion Sediment Control Plans in the first stage would be targeted to whatever the stage is being developed. The long-term operational pond, which will be down in the bottom corner, that'll be set up from the start. There will be an overload. There will be a heavier load on that area for sure during the first two or three stages. The way probably to get around that is by a higher maintenance and monitoring regime on the operational side of the devices. In an operational sense, in a fully developed area, I would imagine the stormwater devices would be monitored or maintained once every six months perhaps, but if it was during a stage where you're in that transition stage, you would increase that frequency quite a lot, I think.

R O'CALLAGHAN: Maybe, Sarah, in considering the conditions, if it stays in the structure of operational stormwater and construction stormwater, then both Applicant and ORC just think about and tie up. That might mean that the staged Erosion Sediment Control Plan for Stage 2 and Stage 3 construction gives additional consideration to the consented operational discharge from the pond, because otherwise you might flip that into non-compliance, not because you didn't do the normal industry practise in erosion and sediment control for your Stage 2 construction, simply because the two are potentially in conflict. So, just trying to make sure that that is ... and that might mean that your erosion and sediment control infrastructure, your SRPs and chemical treatment, etc, are at a higher design rainfall event to achieve a given outcome, or they're a bit bigger or you've got belts and braces prior to it getting to the pond and out the outlet, given that there's not a lot of storage in the outlet. Basically what comes in is going to almost go out in your event that would trigger your monitoring of your ponds. Maybe that is the way of dealing with it. We don't need an answer today, but we'd like an indication on that when we have a discussion on conditions, I think.

N KEENAN: Construction phase is normally TSS, so suspended solids, so yes.

R O'CALLAGHAN: Yes, the suspended solids is of interest in terms of the water quality with respect to the stream. In a subdivision, yes, you do bulk earthworks in one stage, you stabilise it, you carry on, then you go into another stage, but you

don't have the rigour around the monitoring of the watercourse following the stabilisation of a given thing, where we have a greater rigour here because we've got this monitoring of operational stormwater from another part of the site. Okay, so you can come back to us on this. It's just making sure that we're not setting it up to fail with these conditions.

N KEENAN: During that transition, yeah.

R O'CALLAGHAN: Yeah, and it probably leads to having this construction discharge or stormwater and operational stormwater. Maybe this does create that advantage of having the distinction between the two. I don't know.

Okay, so that was all I had on that engineering, but back over to you.

C ROBINSON: Do you have any questions?

S ABLEY: Ray, you took my question. That's good.

R O'CALLAGHAN: Okay. No, so that's fine from the engineering within the site.

Just one question, Sarah, on the groundwater issue, I see that that's generally closed out. There's general agreement from your submission, I think there, that the conditions are deemed by the parties to manage groundwater matters. There's some monitoring quality and groundwater level monitoring, and then once that's confirmed over a given time that everything's all good, that drops away. Am I correct in that?

S SCOTT: This is at Paragraph 419 under the groundwater. The difficulty is we thought we were all agreed, but there is some overlap with contaminated land evidence that's come through.

ROC Yes.

S SCOTT: We thought we were agreed, but at the limit [? 28:38] there, I'm not sure we are [laughter].

C ROBINSON: Well, if we've finished with Mr Keenan in this test, then he can just leave.

R O'CALLAGHAN: Yes, I think that's fine. Yeah, maybe we finish on that engineering, Mr Keenan, Mr Smith, and maybe we deal with this groundwater matter now.

C ROBINSON: Yeah, definitely.

S SCOTT: Yep.

C ROBINSON: Okay.

R O'CALLAGHAN: Your groundwater expert is not with us today?

S SCOTT: No, we do. Mark Scaife's here. Contaminated land, we don't have an expert here. The reason is because in our Section 55 response, we understood everything to do with contaminated land was agreed through the condition that we'd agreed with ORC. That's why we didn't file evidence as part of our Section 55, and that's why you don't have one here now.

C ROBINSON: Well, we can still ask some questions of clarification and explore that, and if there's a need for us to seek further input then we'll deal with that as a reply matter.

S SCOTT: I think Mr Scaife should be able to deal with all the questions or matters that have been raised. I think there's just some matters of detail probably will resolve the issue.

R O'CALLAGHAN: Do we have Mr Waterhouse?

C ROBINSON: Yes, we've got Dr Waterhouse.

S SCOTT: Yes, we do.

R O'CALLAGHAN: Dr Waterhouse, oh, thank you. Yeah, so maybe we can excuse Mr Keenan.

C ROBINSON: We can, yeah. Thank you, Mr Keenan. Mr Smith is online, I think.

R O'CALLAGHAN: Right, and I think Mr Waterhouse is [inaudible 30:11].

C ROBINSON: [inaudible 30:10] But for ORC, Mr Smith—

R O'CALLAGHAN: ORC

C ROBINSON: —was wanting to be released as well.

R O'CALLAGHAN: Oh, yes, fine. Thank you.

J SMITH: All right. Thank you.

C ROBINSON: We need Mr Scaife, Dr Waterhouse and Mr Thorley. All right?

R O'CALLAGHAN: Yes.

C ROBINSON: Yes.

R O'CALLAGHAN: First, I could just ask Dr Waterhouse, in the Section 53 response, you made a comment in your document that in your view, you were concerned about the scale and complexity of the site with respect to contamination. You say, 'The scale and complexity of the site warrants a more robust process whereby additional investigation ... contaminated land matters'. What was it about the initial investigation work carried out by the Applicant that raised your concern regarding the scale and complexity that you felt it needed greater additional investigation?

B WATERHOUSE: Yeah, so the initial DSI, my initial comments and review of the DSI highlighted quite a few of what I perceived to be gaps in where the targeted investigation was.

The site generally is quite large. It's got a long history of agricultural uses. There's various historical structures that weren't there at the time of the investigation, and there were structures that were there at the time of the investigation that weren't adequately assessed in my opinion. That said, the subsequent discussions around conditions and how that was managed, I was satisfied that a sampling and analysis plan, which is in this Condition A4A in the Resource Consent A, could remedy or could be a mitigating factor to those concerns.

R O'CALLAGHAN: Right, so you're of the view that appropriately worded conditions can manage these contamination matters?

B WATERHOUSE: Yeah, definitely. I think if we're talking specifically about contaminated land management from the construction perspective, from the DSI perspective, then yes. From the stormwater discharge to land perspective, the Sampling Analysis Plan condition is doing a lot of the heavy lifting, so to speak. We're looking at basically wrapping everything into an addendum investigation and coming up with agreed criteria or levels that the basin or the swales could be at from a contamination perspective. I feel that that doesn't speak to necessarily the discharge consent for stormwater to land because there's nothing in there that says, for example, it can't be discharged to contaminated land or there's no agreement as to what the baseline condition should be.

I genuinely think these are reasonably straightforward to remedy through conditions. It's just a case of agreeing what the baseline condition should be if you're going to discharge stormwater to the land, which currently is only really contained in Condition A4A.

R O'CALLAGHAN: Mr Scaife, in Sarah's document just released or given to us today, you've got some comments on the way in which the wording of those conditions are relating to managing that interface between contamination and groundwater. Do you wish to comment on that?

M SCAIFE: Yeah, I would've thought that they would've been done with regard to contaminated land, contaminated soil. They would've been done in the contaminated land in the management plans and then reviewed and said, 'Yep, this is how we're going to deal with these specific areas,' cos it's more of a specific thing. Once it gets designed, it needs to be dealt with then, and I would hope that that gets reviewed by ORC and confirmed that it's dealt with effectively and as it should be.

R O'CALLAGHAN: In your mind, is it a process, you go in and do the detailed investigation, you've got your rep agreed, you go in and do the work, tidy up, take away the contaminated material, close it out, do the testing, confirm it's all okay? There's some groundwater monitoring going on to confirm from a quality perspective. There's nothing else that has been missed, leaching or whatever. End of story, the issue is closed out. Is that as you see it?

M SCAIFE: Yeah, so basically we'd go in or the contractor would go in. They would already have the plan on how they were going to deal with the contaminated areas on the site, which would be via removal or excavation and removal from that location. If they found any more, there would be a process in place how they are dealt with, remediated and that process reviewed. We haven't proposed any groundwater quality monitoring because we're not proposing to do any discharge for a contaminated land or discharge of anything that's really contaminated rather than just the treated stormwater. That would be through the base of the attenuation pond as an incidental discharge. That would be controlled by the quality of what's in the pond, which is going to be discharged to the Silver Stream, so it can't be too nasty.

R O'CALLAGHAN: Sorry, I thought I saw in the previous conditions and it may have been updated since then, but in the Section 55 response, there are the conditions in there. There was a condition regarding groundwater monitoring of level and quality for a period of time, and then when those results confirmed that there was nothing to see here that would cease. Is that condition still in the suite?

S SCOTT: Still [inaudible 37:02], yes.

- R O'CALLAGHAN: It is, yeah, okay. That's fine. Yep, so that's belt and braces. Mr Scaife, isn't it, you do the stuff with the contamination and then a bit of testing the groundwater to make sure everything's okay, that didn't miss anything, and then you're away.
- M SCAIFE: Yeah, is that in the consent conditions at the moment, Sarah?
- S SCOTT: Yes, it is, and you've summarised it well.
- R O'CALLAGHAN: Sorry, I missed that one.
- M THORLEY: Can I just ask a question about that myself?
- R O'CALLAGHAN: Yes.
- M THORLEY: Levels are in the conditions as far as I understand, but quality sampling of groundwater is not.
- C ROBINSON: We're looking at Condition 31. That's the results. Condition Groundwater 28 to 32. No, it's not quality.
- R O'CALLAGHAN: It was monitoring of groundwater.
- C ROBINSON: Levels.
- R O'CALLAGHAN: At one stage, I read in there quality, the testing of it, but did I misunderstand?
- C ROBINSON: It's under that groundwater level monitoring.
- R O'CALLAGHAN: Yeah, and then come down.
- C ROBINSON: Level monitoring.
- R O'CALLAGHAN: And then over.
- C ROBINSON: Level monitoring – level.
- R O'CALLAGHAN: Okay, sorry, so we're just into groundwater level monitoring, not quality monitoring.
- M SCAIFE: Yeah, and I think that's something that me and Mike discussed on Wednesday last week, was it Mike, when we discussed what was actually being discharged through the site? Feel free to—

M THORLEY: That's fine.

C ROBINSON: Yeah, perhaps just get Mike Thorley just to comment on that too.

R O'CALLAGHAN: Yeah, is it agreed or not?

C ROBINSON: It doesn't appear to be agreed, so let's just understand.

R O'CALLAGHAN: Yeah.

S SCOTT: Yeah, look, I think part of the answer here is what the activity being proposed actually is. As Mark Scaife mentioned, we're not proposing to discharge stormwater to ground. There was some answers from Nick about that earlier as well. I think part of it is the conditions need to be fit for purpose for the activity that consent is sought for. I think maybe that's a bit of a disconnect in the conversation that we're having, so I just suggest you keep that in mind with your questions.

R O'CALLAGHAN: Yes.

C ROBINSON: It's still an effect of the stormwater seepage to ground.

S SCOTT: As far as that will occur, that is right.

C ROBINSON: That's right, yeah, and maybe this speaks to the structure of consent conditions too. The issues are not necessarily tied clearly to the activity.

R O'CALLAGHAN: Mr Thorley, is it your opinion that there should be groundwater quality monitoring added within that suite of groundwater monitoring?

M THORLEY: My opinion at the moment, based on what the designers are describing, I don't think there's a need for groundwater quality monitoring, but the issue is what is authorised in the consent conditions themselves versus the design intentions that are described here.

The disagreement, if you want to call it that, is largely about drafting of conditions here. If there are only incidental discharges to land from the operational stormwater, then from my perspective anyway, it'd be good to see the conditions reflect that, because in five years' time, people might've forgotten about the design. They look at the conditions and go, 'What can we do here?' If there were, for instance, discharges to land or there was a change to soakage for whatever reason, and it's about having conditions that would then require some additional validation and monitoring thereof.

At the moment, what we've been told, I'm reasonably comfortable with what the designers are saying, but it's about getting that clear in the conditions.

C ROBINSON: Have you offered any wording or parameters for such a condition that the Applicant can consider?

M THORLEY: We have had discussions about that lately. I haven't been specifically asked to do that in recent times, the last couple of weeks.

S SCOTT: We haven't drafted that.

C ROBINSON: No, but it might be helpful. If it's just the risk that flows from incidental infiltration that occurs from the stormwater management on the site as opposed to a direct discharge. I mean this question doesn't need to be conditioned, but if it were, I think we would need to see what you anticipate the condition would be.

R O'CALLAGHAN: The Stormwater Management Plan process, that includes conditions where the Stormwater Management Plan goes before ORC and is approved, certified prior to construction occurring. If the Stormwater Management Plan, currently the intent of that is not relying on a lot of discharge to land treatment elements in it, so if it remains so, then that's all easy. If there was, as you say, this potential design change intent for Stage 2 or Stage 3, then perhaps the condition relating to approval of the Stormwater Management Plan, which is likely to have a number of things that plan must address, it could include a point relating to the extent or otherwise of discharge to land treatment elements. That could then trigger into requiring groundwater quality monitoring, if the design's relying on those treatment events. Perhaps would that be a potential way forward because you get to certify that Stormwater Management Plan?

M THORLEY: Yeah, I don't think the conditions need to be overly lengthy or complicated, but it just needs to say incidental soakage. Otherwise, if it's going to be specific soakage basins or something of that order, don't put it in contaminated land and ensure it's sized sufficiently for what it needs to be. If it's particularly grubby or in a sensitive part of site, then there's some monitoring of that, but hopefully from what I'm seeing, it's not going to be needed. The conditions at the moment are silent on some of those matters. It just authorises discharges to land, but doesn't constrain the volume or the size and scale of that at the moment either.

- C ROBINSON: Yeah, and I would like to see that if this is an issue that it's recorded in a condition that we can look at the wording, and if it's simply a matter of tweaking another condition to make that clear, well, we can work with that.
- M THORLEY: Yeah, so there's an additional condition that was accepted recently on Consent D, which did limit the discharge of the trade waste - Condition D7. That actually largely mitigated this type of issue where it said all the runoff from the wash bay needs to go to trade waste up to the 10% AP. That can't go to land, and by way of inference, the remaining water, which should be reasonably clean, can go to the stormwater system and so on. For Consent B, there are just in my view, a few gaps that I would expect could be reasonably promptly tidied up.
- C ROBINSON: Yeah, we can talk about timing, but did Mr Scaife have a comment on that aspect?
- M SCAIFE: Yeah, no, I completely agree with Mike. Sounds good.
- C ROBINSON: So, you're happy to work on that?
- M SCAIFE: Yeah, I think just a little tightening of those consent conditions.
- C ROBINSON: Yeah, so we've directed that there's an updated draft set of conditions to come back to the Panel on the 18th, which is the end of the week. Our expectation is you work on that to include those in that draft. If there is a difference of opinion, we still want to see the alternate wording on the 18th.
- M SCAIFE: Yeah, no, sounds good. Perfect.
- M THORLEY: Sure.
- S SCOTT: Excuse me, Madam Chair, can I just ask a point of clarification?
- C ROBINSON: Sure.
- S SCOTT: It's certainly my client's expectation that technical experts are not coming back for another say at the conditions hearing.
- R O'CALLAGHAN: That's correct.
- S SCOTT: I just want that to be made clear to everyone. We do really invite that wording to come through, so ideally we include it.
- C ROBINSON: We will redirect that.

- S SCOTT: Thank you.
- C ROBINSON: That's our expectation too; we're not repeating this conversation on the 18th. It goes across the board, if the issues are outstanding that could be resolved by a drafting solution, we need to see it on the 18th, whatever it is.
- R O'CALLAGHAN: Do you want to touch on any issue [inaudible audio 48:05].
- C ROBINSON: Yeah, so it's not—
- R O'CALLAGHAN: Just before we leave site, we're still in the confines of this.
- C ROBINSON: Yeah, so the next topic we had was the natural hazards issue. So, thank you to the stormwater groundwater witnesses. There's this issue around the floor levels, and I guess it's a bit of a jurisdictional issue. I think Mr Craig and Ms Ling are generally agreed on the approach from a regional perspective, but Mr Throssell's come in from the side raising an issue from DCC, and we want to unpack that and understand whether that's accepted, that that's a matter for the Council at building consent stage, or what are we dealing with? Online, have we got Ms Ling and Mr Throssell online as well? Thank you.
- B THROSSELL: I'm here.
- C ROBINSON: All right. Okay, Mr Throssell, can you start by just giving us a summary of what the issue is that you still have and whether you are asking the Panel to consider that we should address this in a DCC suite of conditions and please explain why you're having a view on the ORC conditions?
- B THROSSELL: Sure. I think I'll start with the context of my review. The context of my review was to undertake it under the DCC or through the lens of the DCC Second Generational Plan. That Plan, I think it's under Rule Set 11, it's got guidance on how to assess particularly flood effects. In summary, it directs you to have no creation transference of offsite risk, and it gives a specific example about flood risk. I highlighted this in my review back in April, that I think there needs to be conditions for setting floor levels, and I think there also needs to be conditions on flood effects. I'm not quite sure how that just ended up in the Otago Regional Council set of conditions. Perhaps it was simpler just to combine the two rather than having two competing set of conditions, but these are issues that I have raised from the start in my review. They're not new. I'm not adding them.

I think the floor level one is potentially the easier one to address. I don't disagree with the intent of the condition. Again, I'm not a planner and I'm not a lawyer, but my reading of that condition is that only an assessment of floor levels if it's required. In my experience, you'd normally agree the methodology for setting the floor levels, and then you'd come and set them at building consent stage. That might be, we will set floor levels to the 1% _ 30mm freeboard, but we're not going to go and set those floor levels right now, but that will be the methodology we will apply. The intent there was just to tidy up that condition.

On the flood effects, I think that's a question that Craig and I have had some further discussion on. I think we're not too far away. I have been thinking on this a little bit more as well. I think, Craig, you raised a fair point around the flood hazard extent. If this flood hazard extent was to be reassessed today with new information that might not reflect exactly what's in the district planning maps. I think there is also the question of what is an acceptable increase in flood levels given the wording of those rules, which I do interpret as reasonably conservative. It does say no offsite transference or creation or exacerbation of risk will generally be accepted. There is that word generally in there, which I think perhaps provides some wiggle room, but not a lot.

C ROBINSON: Just to avoid straying into matters of planning with technical witnesses, Mr Sule, do you want to come to the table and just before we go too far down this track, can we just get a sense check here in terms of where DCC sits in a plan interpretation?

R O'CALLAGHAN: Yeah, is it a planning or a building matter? Where does this rest?

J SULE: Well, the district plan has hazard maps and it has rules for activities. The activity itself requires a consent cos it's a potentially sensitive activity in terms of the definitions of the plan. It also requires consent for structures, and the main issue with structures is blocking flow paths and displacement onto other sites.

As I understand it, Mr Throssell has concerns about in the major flood events, the level of displacement on other sites and the effects it might have on most parties. It is a DCC matter in relation to the use of land. The ORC won't control buildings, so it's the DCC's responsibility to do that. In this case, normally we're dealing with a barn in a flood plain, which is normally not a problem, but when you've got eight hectares of buildings, then there's

this displacement issue that's present. That's why it's a matter for the DCC to address. That's how it's come.

Why it got transferred, cos you've asked that question, that was a decision made by the planning team for the Applicant. The Council itself has no particular issue with where the condition sits. Consent's required for it, and if it's better sitting within the ORC conditions, then that's fine. It's just it is a DCC matter that requires a consent, and he retains concerns. Our expert retains concerns in relation to displacement of flood waters from the buildings on that site.

C ROBINSON: In terms of the drafting of what that condition ... have you offered a condition that would meet DCC's issue?

J SULE: Mr Throssell has proffered a condition, yes, and to be ... experiences, as you say, when you've normally got a Lego brick in a bath [? 55:15], Council doesn't have a lot of experience in setting conditions on the situation cos most time the advice that we get is that there's no real issue because in this case, we've got a massive amount of buildings and containers, and then this is a new situation for the Council. That's why it's sought its advice from Mr Throssell on this matter.

R O'CALLAGHAN: I'm still trying to get my mind around it. There's two areas to be protected. You've got your offsite, your macro flooding model, and does this activity increase the potential flood risk in the surrounding area and hence raise the water level and create additional risk to existing properties? And then you've got inside your boundary fence where you've got buildings, the Applicant, the consent holder will have buildings. I would've thought that the protection of those buildings inside their site is controlled only by the Building Act, but have you got an overriding higher level of flood protection imposed within the property owner through the District Plan that they have to achieve over and above the Building Act?

J SULE: No, it's the concerns in relation to other sites. The Building Act, from my understanding, only deals with residential floor levels. It doesn't deal with industrial floor levels.

R O'CALLAGHAN: No, that's not correct. It does deal with industrial or non-habitable buildings. It just has a lower design event that that has to be protected for, and that's a little bit about then it's for the property owner to make their risk assessment and design accordingly.

- J SULE: There's also the health and safety aspect of it that relates to this activity being within a flood prone site, but the Applicant hasn't applied for hazardous substances as part of this application. If you're in a flood prone site and you're a potentially sensitive activity with hazardous substances and they are affected by the flood waters, that's another aspect that would apply to Council's activity here.
- R O'CALLAGHAN: Just on that, the Applicant is taking responsibility for designing the level of flood protection with their site. They've got the big bypass swales around it. They are, in a sense, inside their site responsible for that level of flood risk. Again, I come back, inside the site, is this not a pure Building Act control mechanism? In fact, does it need any conditions implicating building floor levels inside the site on this consent?
- B THROSSELL: I think the wording, there's two components to this, I think, as you've identified. There's the onsite risk and Rule 11.7.2.1 says the risk from natural hazards is avoided or is no more than low.
- R O'CALLAGHAN: Can I just stop you there? When you say that, are you relating this to offsite or onsite? Split the two so I can understand.
- B THROSSELL: I'll start with the two. First of all, there's the risk on site and then there's the risk offsite. I think there's two components exactly as you've identified it. I think the risk onsite can be easily mitigated in my experience, and that risk for flooding is mitigated by increasing floor levels. That's how you mitigate the onsite risk.
- R O'CALLAGHAN: Sorry, can I just pause you there? Yes, but those floor levels would be set taking into account the site design and how they are managing potential secondary flow, isn't it, primary and secondary flows as part of the stormwater design solution for the site and its immediate surrounds? Do you agree with that?
- B THROSSELL: Yep, I would agree. The only thing I would add is that in my experience, at this consenting stage, you would usually agree the methodology for setting that floor level. You're agreeing on the methodology to mitigate that risk, that natural hazard risk internally within the site. Land development projects that I've been involved in, we will agree at the resource consenting stage, not the building consenting stage. We will say, 'This is how high we're going to build our floor levels. They're going to be built to the 2% event + freeboard and we'll determine what that freeboard is now. We won't leave it to the building consent stage.' Again, I'm actually not 100% sure. You'd have to ask a

planner as to exactly why it's not left to the building consent stage and why that's addressed at the resource consent stage, but that is my experience in setting floor levels is that the methodology is agreed at the resource consent stage, but because of the reasons that you've just outlined, you haven't got a final site design, you don't know exactly what those water levels will be, you do leave the absolute determination of that floor level to the building consent stage.

S ABLE: So, effectively there's a residual risk that just gets caught in a condition, and it's the risk of the design cos that's still not completely assured?

R O'CALLAGHAN: At the end of the day, it has to pass Building Consent E1, and Council has control on granting the building consent for the buildings, not for the site, but for the buildings.

S ABLE: Yeah.

R O'CALLAGHAN: Just with respect to onsite, do we have an agreed suite of conditions with respect to floor levels on site or have we still got disagreement between the parties?

A CRAIG: There is from my side. I don't think that it is appropriate at this stage to use a single freeboard number above the 1% event because that risk profile of how the site's design both inside buildings and their interface with their immediate surroundings of hardstand, operational requirements, forklifts, straddlers and side loaders, and the ability still in the detailed design to modify those gradients very slightly to improve overland flow, we also have a site where the difference between a 1% event and let's say a .2% to 1:500 year ARI is relatively small because the overland flow is coming from a pretty small catchment from the Mill Stream further up north. We're not in a situation where we're adjacent to a major river, where the difference between a 1% event and 500 year event or .2% could be substantially larger. Picking freeboard based on extreme events, emergency management, health and safety, building type, building use, there's many factors that come into that mix. In my view, for this scale of site, I think it's premature to fix a single freeboard level on the assumption that that freeboard level is appropriate for all of that suite of considerations.

R O'CALLAGHAN: Yes, well, at the end of the day, the freeboard is to some degree a bit of contingency allowance to also incorporate the complexity and reliability of the modelling, of the estimates of the water level, potential difference

between an estimate and reality for the same event. Is the Applicant wanting to just not have the freeboard, a set freeboard set by way of condition?

A CRAIG: By way of condition, that is my honest preference because I think that it requires more detailed work during detailed design to select in conjunction with the designer and the client what that residual risk profile means. I'm not suggesting we won't have freeboard, I'm just saying the selection of freeboard for different building types, uses, door orientations requires further work, so setting a single freeboard value now is inappropriate. We will comply with the Building Act and we will almost definitely have freeboard above what's required for the Building Act, but the exact details thereof are yet to be determined.

R O'CALLAGHAN: Yep, I understand. Okay, that's onsite, and can we flip the conversation to offsite because there was various comments, interaction and conditions relating to 10mm, 20mm difference etc. There was concern raised by the Applicant regarding, well, the reliability and stability of the modelling in the first place down to those levels of accuracy. Can we just perhaps start with Mr Thorley or whoever wants to go first on just presenting us with the various thoughts dealing with the offsite matter, which I assume is fundamentally driven at trying to have confidence that there isn't an unacceptable level of increased flood risk for existing properties offsite? That's the goal of this condition, isn't it, or conditions relating to this matter?

A CRAIG: Yes.

R O'CALLAGHAN: Do you wish to start, Mr Smith, or who wants to lead off with that?

A CRAIG: I'm open to hear if Mr Throssell wants to jump in. Otherwise, I do have some thoughts prepared.

B THROSSELL: Yep. No, I'm happy to hear yours. Let's go with yours.

A CRAIG: Look, it is around the stability of models and their accuracy at this sort of catchment wide scale. When we first attended a site visit with representatives of ORC and DCC, we were talking about whether or not the site may have an impact on the upper and lower ponds, which are quite far downstream, the Silver Stream. We set our modelling space quite wide. That requires a relatively coarse mesh to be able to compute those numbers at a sensible speed. If we are wanting to progressively tighten the threshold for proof, the burden of proof, that could be done, but it then means that we would likely, amongst other things, need to narrow the search radius.

We're also in a situation where the flood plain or where the Silver Stream itself is quite significantly in-sized and the overland flow coming from rainfall and from excess flow that can't maintain internal within the Mill Stream are trickling braided across the flood plain. It's not as though you have a situation with a flood plain and the stream are directly connected with one another hydraulically. It's a little bit of a different situation in that respect.

I think rather than trying to move towards having two separate search radiuses in which you have certain effects within a 500m and another set of effects, so very basically how you prove that you're having no adverse or no material adverse effects out to 2,000m, we can draw that back and possibly even have a single search radius, 800m or 1,000m. At that point, the rules can still apply within that search radius in terms of the 10mm, 20mm and 15mm on rural land. Incidentally at anything more than about 500 or 600m of radius, you've only got on the left bank of the Silver Stream, Mosgiel, which is going to be dictated very heavily by that 10mm threshold around the outside. We'll talk to how that outside of buildings operates in a moment, but that will largely be driven by having to comply with that 10mm threshold on the true left bank of the Silver Stream. On the true right bank of the Silver Stream, anywhere downstream of our site is basically commercial, so that's where that 20mm would apply. It's not with the intent of trying to allow an offsite effect, it's just the burden of proof where you've got shallow diffuse overland flows that are more sensitive to changes in fruit [? 1:8:07] number, velocity, depth. If they're currently 20mm, they're more prone to fluctuations than a stream that's doing 400 to 500 Q-max.

In that sense, there's a convenient split that maps across to commercial and urban zones. I'm happy to support operating within that regime up to a distance of, let's say 1,000m, and that we only have that ... need to do that rule would be a simpler way of managing that.

Briefly, if I may on terms of internal, which is the wording that I originally proposed, internal, the philosophy behind that was to do with if there is very, very shallow flooding, again 1-2cm outside of a building and you change it by 1cm, that's less pertinent than if you're on the threshold of being either wet or dry or if it's already in your building, which probably has 150-200 more threshold and it's already inside, you don't want it to get worse.

The philosophy of looking ... when I say, 'Looking internally', allowing a small threshold to be added above the surrounding terrain. If you come to a

property where you're having some issue, you could potentially even do a threshold survey, but that wouldn't be the general rule. You would apply a low threshold assumption relative to your terrain and then see if any of those buildings that you're testing have got the potential for internal flooding.

Now the possible way of doing that would be to look at a buffer perimeter around the outside and say, 'Have you got anywhere outside that's more than 50 or 100mm deep?' Okay, for those buildings, we want to constrain flood effects to less than 10mm, but if that's not the case, then we would be in the 20 or 50mm zone depending on whether it's commercial or rural.

R O'CALLAGHAN: Thank you for that. In the scale of risk, it's primarily the offsite water that is the potential threat to additional flooding because your onsite water is contained within your pond and it's got its controlled discharge to Silver Stream.

A CRAIG: Yes.

R O'CALLAGHAN: As I understand at the moment, the existing situation in the extreme events, there's overflow over the railway embankment and further carries on to the west and through the commercial zone and surface flooding from that and it makes its way into Silver Stream.

A CRAIG: Yes.

R O'CALLAGHAN: Under your proposed solution for protecting the site and dealing with offsite secondary flow and extreme flood events, you've got your swale around your site direct. At the moment, do you consider that your design solution is actually providing additional flood protection to the downstream west and side west of the railway line from the functionality of the swale, or are there other matters within Silver Stream, potential over topping of banks and ponding from that, that actually it doesn't matter whether you put it that way and then it floods or that way and it floods, the flooding still occurs?

A CRAIG: What we don't want to do is have a situation where water gets over the railway line significantly more than it does in the current situation and then propagates through Fonterra and the aerodrome. That's really the situation that we're trying to avoid.

R O'CALLAGHAN: Correct me if I'm wrong, is your swale along adjacent to the railway line, part of the roadway, that's catering for that design event?

A CRAIG: It's catering for the majority, but not the entirety. That's deliberate because if we take 100% of that water that's coming from the north and we take it all to the Silver Stream, even if it's fractionally faster than in the current case, it does two things: it has the potential to slightly increase, even if not by much, water levels in Mosgiel from overtopping of the silver stream. We want to avoid that. That's probably the main thing that we want to avoid.

R O'CALLAGHAN: Yeah, you're taking away existing ponding.

A CRAIG: Not taking it away entirely, but has the potential to exist.

R O'CALLAGHAN: If you were to contain it completely within your swale, then the loss of existing storage increases level in Silver Stream and increases a risk.

A CRAIG: Yes, and if we reduce the water going over the railway line, you then have slightly more arriving in Silver Stream. We're are trying to, as closely as reasonably practicable, mimic—

R O'CALLAGHAN: Balance.

A CRAIG: —the current split between over the railway line and arriving in Silver Stream. They do reconcile those two flow paths, but because of the diffuse nature of the overland flow, they fully reconcile about 2km downstream. Obviously I understand Mr Throssell's concern of having an apparent effect that far downstream, so the point is to try and minimise the passage of perceived aureal [? 1:13:23] effects that far downstream, but that's where they would fully reconcile. The design intent is to try and mimic the existing as far as possible.

The other aspect I'd like to raise for Mr Throssell's and the Panel's consideration is potentially some tightening of the wording around the events because currently the draft wording suggests events up to the 1% event with climate change. The number of events, storm durations, etc, is not currently fixed in the wording, and I think in order to have an efficient demonstration of proof, I'd rather try and fix that we not only stick to the 18-hour storm duration that's been used in the stormwater assessment as being critical for both the Silver Stream and the Mill Stream flood plain, but also potentially limit the number of AEPs that are required for the purpose of consenting requirements. It doesn't mean that we wouldn't run other events as well, but that we potentially run, for example, the 2% current climate and the 1% future climate as an envelope that we demonstrate for both of those cases. I'd be keen to hear Mr Throssell's view on that.

R O'CALLAGHAN: In terms of the pass/fail criteria, if we've got the balance right or not, do you have a view on what that criteria might look like?

A CRAIG: The criteria that I proposed in my evidence in Section 55 where I clarified the minor editing that had happened with the drafting of the consent conditions, I'm happy with that in principle, which was the 10mm I was using at that point internal flooding. If that changes to be external, we then may need to define an additional parameter of what might be constituted nuisance flooding outside a building. 20mm in commercial, I'm happy with, and 50mm in rural land, happy with.

In terms of search radius, I would be open to explore a narrower search radius in the order of somewhere between 800 and 1,000m in order to have both a smaller model domain, but also not allowing the perception of propagating effects a significant distance downstream.

R O'CALLAGHAN: Right, thank you. Mr Thorley, do you want to respond, or Ms Ling?

A CRAIG: Mr Throssell, I think.

R O'CALLAGHAN: Who wants to go next?

B THROSSELL: Yeah, I'm happy. Mr Throssell, I'm happy to go next. I think what Mr Craig's suggested sounds sensible. I think I'd be happy with a 1,000m search radius from the boundary of the site. I think that's sensible. That will capture some of the residential areas. The 500m search radius, I don't think would've quite captured any residential areas. I think it's important to close that one out.

I think I've already stated in evidence that I'm happy with the 10 and 20mm increases, and I guess just for clarification, I think maybe some clarification on ... there was one point of difference which you did provide some clarification to, which is on measuring the effects on buildings and a preference to use internal flood depths. I don't have any strong disagreement with using internal metrics. I probably would prefer to use water levels rather than depths only because in my experience, again it's a technical modelling issue. When you're comparing two models, it doesn't always happen, but sometimes you can get a slight mesh disalignment. If you're doing it from the depth, the model calculates the depth from the mesh. I generally find the water service elevation to be more consistent when considering differences, but I think that's probably just a minor technical issue.

I think the things I'm unclear on then would be, are we happy if it is a residential area, but not a habitable dwelling, what the tolerance for flood effect is? I think that was probably our only area of disagreement and the need for the model to be submitted to DCC and the need for independent peer review.

Other than that, I think everything Mr Craig has commented on so far addresses any concerns I have on effects. I guess we don't have to sort it out right now, but on the principles of what's been agreed so far, I think I see those as the outstanding issues.

R O'CALLAGHAN: And Ms Ling?

A LING: I have a comment at this stage. The 1% AEP flood results that had been provided showed the general trend of reduction in the flood elevations, so happy to work with both parties on revisions to the condition.

R O'CALLAGHAN: Is there still continuing discussion on the tweaking of the wording of conditions or have you reached a point where you are at your positions?

A CRAIG: Well, I'm checking if Sarah wanted to add something.

R O'CALLAGHAN: Sorry, let me rephrase that. Just park the onsite, just with respect to offsite, it sounds like you're reasonably close.

A CRAIG: We are close, and I think through the summary evidence, Ben set out some additional narrative that wasn't raised in our previous verbal conversations. Yes, that gives us something to work on in terms of what his concerns may be and how we might address those. I think that is something that hopefully can be taken through to a drafting exercise.

R O'CALLAGHAN: Okay, that's helpful. We've had a lot of input from the experts today and we can take this into next week's process. Yeah, no more from me.

C ROBINSON: Do you have any questions?

S ABLEY: No.

C ROBINSON: Just in terms of the internal issue, so perhaps just checking back in with you, Sarah, in terms of whether you have instructions around that issue, I understand the technical reasons for the approach. That's been explained well, but what is the Applicant's position? Are you accepting that it is an issue for DCC and that it is appropriate for Mr Throssell to have some input

into what the condition is? As Mr Sule said, it really doesn't matter to DCC in which suite of conditions it sits. Do you have a view on that?

S SCOTT: I don't have any instructions because I've just sat here and listened to it as well, but what I think I would comment on is if it's sitting in the ORC condition set, then DCC has no further involvement in it. I'm just trying to understand how that would work in practise.

C ROBINSON: I was thinking in terms of the building consent process, that the building consent team at DCC is not going to be presumably interested in the ORC conditions.

S SCOTT: I can't answer that question, but look, I think I need to go away and talk to Southern Links in light of this conversation and we'll be putting forward what our position is in the condition set.

C ROBINSON: Okay.

S SCOTT: I'm just thinking ahead, a very short statement (it'd be from Mr Kyle probably) might be helpful to explain where we've got to, just to guide any questions on that. I mean, if there is any. The Applicant's position is guided by Mr Craig's explanation about onsite, and if there is a difference in terms of the actual on the merits, then that will remain, but we will try and resolve the conditions as far as we can.

C ROBINSON: Yeah, I think that would be helpful.

S SCOTT: Yeah.

C ROBINSON: Again, from the DCC side of it, if DCC's in the position where it continues the view that there should be an appropriately worded condition where that lies, I think you do need to come up with a wording, an alternate wording if it's not agreed so that the Panel's in a position to consider that.

S SCOTT: I assume you're looking at Council, not me [laughter].

C ROBINSON: Yeah, [overspeaking] at general discussion, Mr Sule in the corner, yeah. It would be useful to have some alternate wording if there is no agreement as to how that issue's going to be resolved.

J SULE: If it's just a question of design, then it's probably okay for it to sit with the—

C ROBINSON: You probably need to be at a mic, sorry.

- J SULE: Just thinking aloud there. I mean, if it's a condition of design, then it doesn't seem any problem with it sitting with the ORC conditions, design lead condition, but if this condition's relating to buildings, well, it's a building consent process and there probably should be a specific condition within the DCC suite.
- C ROBINSON: You need to think about it carefully and have a conversation with Mr Kyle about where that would sit and how that would work. Obviously, the Applicant can take instructions as to whether that's something they're comfortable with.
- J SULE: Previous experience in dealing with the building consent processes, the building officers themselves do appreciate the resource consent process setting the parameter for them to review. It's just a lot easier for them if the level's set. That's why probably it is done a lot at consent stage rather than leaving it to Building Act stage because I suppose there's less chance of errors and missing situations if it's contained within the consent.
- C ROBINSON: At least from what we've heard today, there does appear to be a considerable amount of thought having been put into that issue. It may be that the complexities of this particular activity don't necessarily lend themselves to that.
- J SULE: Is there anything more for me apart from talking to the DCC about what their preference is?
- R O'CALLAGHAN: I have just one thing to add to that.
- C ROBINSON: Yeah, sure.
- R O'CALLAGHAN: Yes, I think with respect to how DCC might like that condition to look, but also consideration too with respect to onsite, is there a need for the condition at all with respect to onsite? If there is no condition, it falls back to Building Act requirements.
- J SULE: I think the DCC's position is not concerned with onsite so much.
- R O'CALLAGHAN: Yes.
- J SULE: The Applicant's indicated when they work out what hazardous substance they're going to store there, they'll make another application under the DCC plan if they exceed the thresholds. The concern has mainly been in relation to displacement effects.

- R O'CALLAGHAN: Yes, I understand, so hence my comment that it might be that on reflection, DCC decide, well, onsite will lead to design, detailed design, Building Act requirements. Offsite, yep, here's the process and the conditions and the way in which they work to ensure an appropriate outcome with respect to offsite risk.
- J SULE: Yes.
- C ROBINSON: All right, yes, I think DCC, you don't have to sit through the next stage of the process. We're going to move on to the stormwater quality and ecology water quality issues, but I think we will just take a 15-minute break.
- S SCOTT: I'm just thinking we might not need (I might be wrong) Mike, Mark, Ben and Amanda. Do you need them anymore?
- C ROBINSON: Do we need Ben, Amanda or Mark Scaife? Sorry, Mike Thorney. Do you need them?
- R O'CALLAGHAN: Yeah, and Ben, they can all drop out, I think.
- C ROBINSON: Yeah, they can drop out.
- S SCOTT: Did you all pick that up? [overspeaking].
- C ROBINSON: Sorry, there we go.
- B THROSSELL: Yeah, thanks guys.
- M THORLEY: Okay, thank you.
- C ROBINSON: Thank you very much for your contributions.
- M SCAIFE: Thank you.
- B WATERHOUSE: Thank you.
- M SCAIFE: Thanks for your time.
- C ROBINSON: Thank you. That's great.
- S SCOTT: All right. We'll take a 15-minute break and have a cup of tea.
- C ROBINSON: Thanks.
- [Break in hearing].

C ROBINSON: Mr Chang and Ms Cachet, is that how we ... and Simon Bloomfield and Ms Conwell.

R O'CALLAGHAN: Dr Conwell.

C ROBINSON: Uh, Dr Conwell, yeah. We've got Bryony Miller. Thank you. It's a long list of names [laughter].

Okay, we'll follow a similar format, Panel questions, and if you've got a contribution, please make it known, but best to ... manage the Panel.

R O'CALLAGHAN: Okay, thank you. Good morning. Just as in the last discussion, we have separated a little bit about onsite and offsite, so with respect to the water quality and potential effects on Silver Stream, etc, I think it'd be helpful if we just start the conversation on the pond, what's coming into the system. Focus a little bit first on the level of treatment up to the discharge, views around, but a discussion around how the discharge is monitored, whether it's the pipe, whether it's at the pipe, whether it's the pond, is there any and to what extent there is? Then, the conversation will flow into within the Silver Stream and the upstream/downstream and how you recommend and give us some assistance and how that works.

The reason I'm interested in pursuing it this way is because then we can compartmentalise in a sense what do we do onsite, what level is required for onsite level of treatment and follow through.

Dr Conwell, in your statement, I think it's a response to the 53 comments, you set out in those Paragraphs 211 through to 210, '12, '13, whatever, in your opinion, it was to monitor the outlet of the pond for suspended solids, copper, zinc, TPHs, etc, to make sure that the onsite treatment is doing its job and doing the job that is appropriate and best practical option for this site, managing the potential for contaminants released and then dealing with it in that manner. My reading of your Paragraphs 211, etc, went through that you were effectively saying that ... but my understanding from that was that you were saying the operational monitoring, if you do that and you monitor that discharge, then that'll go a long way to ensuring that everything that can reasonably be done on the site to manage the potential effects is being done. It's just confirming, it's your view, you manage the outlet so that you can tick that box on the effectiveness and appropriateness of not just the construction, but it's also the longer term operation of those management devices on site. That's your view?

C CONWELL: It's not so much managing the outlet itself. It's ensuring that your treatment train, before it gets to the outlet, is established.

R O'CALLAGHAN: Yes, I don't mean necessarily specifically the flow in the pipe, but it's a manner of confirming that what is being done on site is appropriate.

C CONWELL: Yeah, so I've taken the view of being informed by Mr Keenan's evidence around the treatment train approach. If you have your best practical onsite option, that is combined with your good housekeeping practises, like your cleaning, your maintenance, capturing your first flush for your wash bay areas, those sorts of practises, your maintenance plan, source control for building materials, those sorts of aspects. You do that as best as you can is your best practical option. You're managing what's going into that final stage of your attenuation pond, and then if you monitor that or take samples from your attenuation pond, that's one of the, I guess, components of being able to then assess what's the efficacy of our treatment train and do we need to change anything on site or is it actually ... it's performing better than we designed it? It's about being able to inform what those practises have ... how good are they working in practise? Are they good enough? If they are, great. Don't have to worry about it or just keep tracking it, but if they're not, it's a tool to then say, well, what else do we need to change on site that we can then go and look at reducing any source control options around that?

R O'CALLAGHAN: There's a potential with a site this large and an activity of this nature, a lot of vehicles, trucks, lifts, etc, that if these devices in completeness in total aren't performing properly over time through lack of maintenance or things not quite going the way they started out going, then you could have a deterioration of the quality, increased level of contaminants in the pond and hence in the discharge. Hence that triggers the ongoing monitoring of that effectiveness of the treatment devices.

C CONWELL: Yeah, for sure, and it's like that with any stormwater treatment device train. I even think with say in urban designs, if you put in a rain garden, you can't just put it in, leave it and forget about it because it gets clogged. It gets rubbish, it gets hardened, it doesn't serve its purpose of infiltration. You need a maintenance schedule, and the same principle applies if you put a UPT in. That has a lifetime or a servicing requirement that you then need to go and change the cartridges for filtering at a certain time period, and also recognising you're going to have peak times as well where you probably have a higher activity on site. You need to probably have a better watch on when those peak activities will occur, and also if the activities on your site change

year on year as well, you need to be aware of your onsite activities as well and how they influence your resulting contaminant loads over that period as well. There's lots of moving parts to it, but it's really about that keeping track of everything.

R O'CALLAGHAN: There's also the moving part of the first flush effect of the first flush in a given rainfall event. There may be some weeks of relatively dry weather, a build-up of potential contaminants on the surface, and then that first flush of 10/15mm can have quite an effect on putting a dump of contaminants from that surface into the pond and into Silver Stream, isn't there?

C CONWELL: Yeah, that's the highest risk type of event, but I guess the purpose of that, capturing it onsite and attenuating it as much as you can, it dampens that signal out. It reduces that immediate acute toxicity window that you would normally see, and I guess dampens that risk of that acute toxicity type of event occurring.

R O'CALLAGHAN: We heard from Mr Keenan this morning that the pond itself isn't designed to have a lot of dead storage, that initial flow in. We understand one of the concerns is they don't want standing water in the pond for days following the event because of a potential risk of adverse impact on the operation of the airport system. Understand that. Is it your understanding that there's not necessarily going to be much buffering of that first flush? There might be a little bit and this might be a matter for detailed design. There might be a little bit, but then the pond's going to start discharging soon after the flow is coming in. Is that your understanding or would you recommend that through an engineered solution, it has some degree of buffering in that first flush activity as a way of achieving some additional treatment component, not just attenuation component from the pond if that was able to be achieved without compromising the standing water solution?

C CONWELL: Yeah, so I think in the past week we've spoken about doing more of that investigation of that treatment capacity, especially in managing the dissolved component, which is your highest risk fraction of your discharge. Whatever gets discharged to the Silver Stream, the most at risk component will be in your dissolved phase. That's the discussion we've been having in the past couple of weeks and especially last week about having that more comprehensively assessed in that detailed design stage, but also recognising that the first flush is intended, as much as possible, to be captured in those onsite stormwater treatment devices, like your catch pits and GPTs and UPTs as well. Totally recognise there is a limitation of the

attenuation basin itself in its capacity to treat or assimilate any contaminants.

R O'CALLAGHAN: Yes, it's more a storage related issue. A little bit of settlement maybe, but it's not a wetland. It's designed as a treatment basin.

C CONWELL: Correct.

R O'CALLAGHAN: It's an attenuation.

C CONWELL: It's an attenuation pond, but also in the same vein at the time of that storm event when it is discharging, it'll be in those high rain events where you do have a lot of flow in the stream as well as contributions from the upper catchment as well. That's another factor to consider, so it's a combination really, but the first priority would be to do that detailed design investigation.

R O'CALLAGHAN: To capture that dual role of the pond, but more emphasis accepting, more emphasis on attenuation, but trying to get some benefit from a buffering and treatment perspective, can that be woven into the condition around the design of the pond, attenuation pond as one of the objectives of the design? It might have a higher weighting or attenuation and a lower weighting, but trying to get some benefit in a treatment sense from the pond, if good engineering can achieve that, is that something that might achieve a dual benefit that can still be workable through a condition process of the way that pond is designed and operates?

C CONWELL: Yeah, I mean I'd probably defer to Nick and the other engineers to talk to more of that design aspect, but in principle, I think it can serve that dual component. That's the approach that has been taken in the overall treatment train assessment approach, where we've said this is a treatment up to this point. When it gets discharged where we have relied upon the attenuation basin up to that point to serve to some degree a level of treatment, so recognising it's not as much as what came before it, but it does serve a purpose to some extent.

R O'CALLAGHAN: Perhaps, Sarah, there can be a bit of conversations between the engineers and Dr Conwell between Tuesday just to assist. We don't need them on Tuesday, but that's just to assist in that discussion of the wording of that design certification of the pond. It isn't just an attenuation pond. If there can be at a reasonable level assistance or some level of treatment, the best practical option, I guess is the way it would be phrased. That would be helpful to assist the management of the environmental effects downstream.

Okay, that's helpful. Thank you. Just putting to one side for the minute how the pond is ... and where in the pond it's monitored, I note in the latest correspondence that there isn't an intent. I think it was by discussion with yourselves and OIC, no intent to have maximum trigger levels by way of conditions on the discharge from the pond, not in the stream, but in the discharge from the pond. Can you just explain collectively explain why the logic is in your opinion that it wouldn't work or isn't appropriate or isn't needed around having maximum values in the discharge? I don't mind who goes first.

C CONWELL: I'm happy to go first [laughter]. Sorry. I took my leanings from the process that was defined for the wastewater environment performance standards that did set end of pipe trigger values for wastewater being discharged, so using the same principle of getting a good understanding of the dilution factors in your receiving environment, and then you combine it with your, I guess, target end state that you would like, so your default guideline value or a threshold that is of no more than minor risk for the appropriate wording. You basically back calculate it, taking into account your background concentrations as well, and then you back calculate with your target value, with your dilution factor. You back calculate it, take off your background value, and then that gives you your, I guess, maximum or threshold of what comes out of your end of pipe. To calculate that dilution factor, you need a really good understanding of your hydrology in your stream, as well as the upper catchment and the behaviour of that over time.

As we know with stormwater, it goes up and down very quickly, so calculating a dilution factor for flows that could be quite flashy in a lot of the cases would be very difficult to set for a blanket number that could be applied. That's where I see the problem coming in. You would have to have almost like a rolling type or a moving type of numerical standard, which I see as very impractical to actually implement. I think it just lends itself to a high level of technical non-compliance where you might have a breach at your end of pipe, but it actually might result in a very ... the actual resultant of your concentration at your zone of mixing might be very ecologically insignificant. That's where my thoughts are.

R O'CALLAGHAN: Before the response from the others, I'll just put a layer in there, flip the word around to maximum levels, but just comment on the desirability or otherwise of still having the recording information to help inform the assessment when it comes to the results also coming from the upstream/downstream monitoring, so the collective monitoring. Happy to

hear from others. In other words, do you still have the monitoring? Yes, it's a good idea. No, we don't need it.

S BLOOMBERG: Yeah, it's part of the plan to collect samples at the discharge at the outlet, from a suitable location at the outlet, which is used as part of the assessment of the non-compliance that has occurred in the stream. You go back and look at the sample from the outlet to see if you could discern where the issue is with the treatment train. If it's in your sample from your outlet, that will help guide your action, your management actions. That's the purpose of that discharge sample which you spoke to.

R O'CALLAGHAN: Yeah, so more of an information base to help inform the assessment from the stream monitoring. If there is a problem, where might the problem sit? Is it from the site or is it something to do with something going on upstream? Is that the thinking?

B MILLER: Yeah, I think that's correct, and also in terms of a lot of the guidelines, they're all set around the supporting or protecting the ecology of the instream. Coming back from that, it becomes harder to understand that interaction of the level or the source with the ecology. From my perspective, it becomes quite an entanglement to understand how that concentration relates to any discernible understanding in the ecology itself. Those guidelines are set around instream values and protecting the ecology, so I think as you go one step further up removed, it becomes much harder to untangle that aspect and understanding any effects.

R O'CALLAGHAN: From that, you're implying, and don't get me wrong, I'm not necessarily disagreeing with you, but the focus, the higher order objective here is assessing, confirming and being satisfied about instream ecology wellbeing. This is just one of the potential impacts or threats to that wellbeing.

B MILLER: Yes, correct, and as Simon said, that discharge sample as well just helps that understanding. There are overland flow paths that happen between the upstream and the downstream, so on an event coming in from the true left as well as upstream on the true right. As much as, as an ecologist, the goal is to ensure that it's protected, we also have to ensure that ... we don't have control over those other overland flow paths. They're outside of that area, so we also have to be quite targeted at discerning what is coming specifically from this site to make sure that we're able to measure that and hold that accountable back up the train of—

R O'CALLAGHAN: So, you see the information from the monitoring of the pond as a useful input into the overall assessment. That's not necessarily the dominant driver. There may be other factors at play.

B MILLER: Yes, correct.

S ABLEY: If I could, once you've done the testing, how fast could you respond? How fast would you be able to conclude something?

B MILLER: For water quality specifically?

S ABLEY: Specifically around the ecology.

B MILLER: Around the ecology, so you take the invertebrate samples and that generally takes a week to sort, ID and verify them. You can probably have that information within the week all going well. We don't have evidence or other things to be putting in, so we do that and then you can understand quite quickly if you've got a change between the upstream and the downstream samples.

S ABLEY: Thank you.

R O'CALLAGHAN: Anything to add?

R CHANG: Yeah, look, I do, unfortunately – apologies (while you're here). Look, from an ORC perspective, I think there are two key outcomes that the monitoring's trying to achieve. One is, as Ms Miller said, it's about making sure that the ecology is appropriately protected. There is also an element of making sure that the water quality parameters themselves are appropriately protected from a Te Mana o te Wai perspective, the intrinsic value of each of those parameters and what they're contributing to the Silver Stream as a whole.

I think the philosophical question you're asking really is if you are looking to set a concentration at the end of pipe as a compliance trigger, in my experience, there are some councils in New Zealand that do have that. I'm thinking particularly of the Bay of Plenty, and typically in the experience I've had with those consents, they would have an ANZG derived value.

Now, noting Ms Miller's commentary that it is ultimately protective of ecology, which I don't disagree with, it's practically from an operator lens quite difficult to demonstrate compliance with as a functional limit in and of itself because of the intricacies of stormwater that we talked about. Our position has been that we would like to get a really clear understanding of

the event mean concentration coming out of stormwater, which we think is the appropriate measure.

We've talked about how the Applicant is effectively conforming in principle with that by measuring out of a buffered attenuation basin to give us a buffered concentration, and that alongside the upstream and downstream sampling gives us an understanding of what the Applicant's site contribution is to the overall quality of the stream. I think it's a suite of parameters and perspectives from the monitoring that help us understand the Applicant's effects on the receiving environment. We are much more comfortable with the updated proposal around our ability to detect, monitor and enforce that.

R O'CALLAGHAN: You're comfortable that there aren't maximum levels in the pond not to be exceeded, just to have that information collected and incorporated into the overall assessment of, yes, it's okay, no, it's not?

R CHANG: Yeah, because of the adaptive management regime associated with it, so there is a ... if I'm found to be over this threshold, then I'm going to do further investigation to do that. It's probably worth noting that it is reasonably consistent with other ORC stormwater discharges in the region. In my summary of evidence, I referenced the DCC global stormwater discharge consent. That's got a similar framework, a little bit more detailed because it's all of the city, but a similar approach.

R O'CALLAGHAN: Does that framework provide a mechanism for ORC to initiate action if, for example ... and I'm not suggesting this would happen, but if for example, the infrastructure onsite managing stormwater, the collection of sumps and treatment devices and all that, if it wasn't maintained, let's take a worst case scenario, consent holder, we're all busy doing other things, whatever, it's not maintained, so the concentrations in the pond and the outlet now become an issue above guidelines, all that stuff, an issue where then it is having effect. Is there a mechanism within that where you can come back and say, 'Well, hold on, your operation through adaptive management or review, whatever', you can come in and trigger the Applicant to lift their game in terms of the maintenance and operation of the treatment devices, the treatment train process on site?

R CHANG: Look, I think that's a good detailed question for the framing of the conditions. I probably can't answer that immediately.

R O'CALLAGHAN: No, so we'll park the response to that question until Tuesday, but that's the sort of linkage that I'm trying to just see that, oh yeah, we all understand

what the objective here is, there's no dispute about that. It's just making sure that ... I mean, what's the goal here? If everything is done as well as it can be onsite and it all operates as Mr Keenan and the other engineers expect it to, and as the ecologists have assessed on behalf of the Applicant with respect to the stream and dilution and activity, then everything should all continue to pass go in a monitoring and compliance sense. That's really, we're trying to make sure that there is that connection.

With respect to that, I had initially anticipated that that ... so we'll just park the discussion about whether it's grab sampling or composite sampling for the moment, but just physically sampling where with respect to the pond. I'd always just assumed that this is end of pipe, but in a conceptual sense, not in an actual physical sense. Is there agreement of where you sample from this pond to collect this data? Has that been discussed? Is there a general area you're going to do it? Again, just the grab versus composite, but it's from the pond or it's from the pipe cos the pipe starts flowing once you're getting into this reasonable rainfall, modest rainfall process? Is there agreement of the way the condition thinking through that, or is that still something that's at large with your discussions?

R CHANG: I'll just take the opportunity to say my bit first, and I'm sure there'll be some adjustments to that, but my understanding of our conversation has been that the concept and principle has been agreed, that it will be taken at an appropriate stage in the attenuation pond. That gives us a, if you will, a start-ish of the pond discharge that is consistent with a buffered and reasonably early in a storm cycle stage so that we're managing when in the storm cycle and profile we're getting that sample from, but the specific details haven't been agreed yet. That's to come.

R O'CALLAGHAN: Any response to that?

C CONWELL: No, that's a pretty accurate assessment.

R O'CALLAGHAN: It's solvable between you, is it? It's not like there's a big dispute, one party says, 'Well, we're not going to do it,' and the other party's saying, 'Well, we want you to do it'.

C CONWELL: No, we haven't.

R O'CALLAGHAN: That can be part of your Monitoring Plan, and the Monitoring Plan goes to ORC for certification anyway, doesn't it? That's the mechanism where the science comes together and expertise comes together in confirming that.

Okay, and then just flipping the last bit to it then is a previous view from ORC was they want this mean composite sampling. Applicant: 'No, we think grab sampling is sufficient'. Have you had further discussion on that point or is that still something that's ongoing? You don't need to solve it. I'm just trying to understand is that still an issue at large or has that been refined?

R CHANG: I'll go again, and everyone please correct me, but I think our key perspective when we made that comment was that we were looking for greater clarity around how the storm profile was being quantified. Our understanding now is that the principles, as we just talked about, will give us a view that the stage in the storm cycle, and hence the runoff, will be generally grabbed and quantified at roughly the similar time across storm cycles, which gives us the amount of comparability that we were looking for in terms of being able to compare between storm cycles.

It's very typical, as I'm sure you know, Commissioner, that a grab sample regime in historical conditions, might have said go grab a water quality sample if it's rained after 24 hours. The reality of being able to compare between storm samples was limited at best, so our initial position was that we were looking to make sure that the sampling regime was able to be as representative as possible across the storm events.

In principle, we suggested an EMC approach, but it didn't need to be via auto-sampler for every 30 minutes across a storm cycle, just something that gave us comparability across different storm cycles that we could use to tie back to the principle of the monitoring.

R O'CALLAGHAN: Do you think that through the refinement detailed design of the Monitoring Plan and certification of the Monitoring Plan, that issue can be left to the Monitoring Plan, or do you want it locked in in some form of condition wording?

R CHANG: Look, the principles of what we've been talking about, it feels like we're all really aligned. How detailed that needs to go into the sub-condition around the SMF, I guess if I was to put a regulator's hat on, which I am obviously wearing today, is that the more specificity, the easier to enforce it is, but I appreciate that the Applicant It's going to want some flexibility.

R O'CALLAGHAN: Okay, so maybe we park that discussion 'til the meeting on conditions, unless you've got something to add.

S SCOTT: Well, we can. I mean, we're obviously listening and we'll be looking at whether the conditions are fit for purpose in terms of the advice. Sorry, I was looking concerned at the suggestion that experts might give a different position depending on who they were representing in this process. That was my deep breath, sorry [laughter].

R O'CALLAGHAN: No, okay, so that was all the questions that I had with respect to within the site. When we close that out, we'll then move to beyond the site.

C ROBINSON: Do you have any insight? I think we've covered that.

R O'CALLAGHAN: Okay, cool. Thank you. Before we just leave this, I just want to just check my notes here. There's something that was ... yeah, no, that's covered where I wanted to get to.

Right, so can we just extend the conversation now into the stream monitoring? There doesn't seem to be too much misalignment in the stream. The objective's quite clear. There's obviously some natural influences in the way the stream and the sampling where it's not pure black and white in the stuff over the period, but where are the parties at with respect? Is there any real notable disagreement or misconnect where the parties are at with respect to the monitoring and the use of the monitoring interpretation and threshold levels of the upstream/downstream monitoring with respect to the conditions? Where is that currently sitting?

S BLOOMBERG: Well, I've read your summary of evidence, and I think we're all in reasonable agreement.

R O'CALLAGHAN: You're all in reasonable agreement?

S BLOOMBERG: Yes.

R O'CALLAGHAN: In terms of the wording of the conditions relating to that, is that also other than the grab sample versus some more composite sampling, are they reasonably well aligned as well? Now's the opportunity, while we've got you in the room, before we go in next week and talk through the conditions. Are there issues there that we need to be thinking about here today?

B MILLER: From my review of the conditions, I think they pick up what's put in the draft Stormwater Management Plan really well. They're enforceable conditions. Given that this has some flexibility around the water quality aspects, it doesn't really have a lot of change regarding the ecology aspects. I think with

regards to the consent conditions, they've picked up the ecological monitoring well.

R O'CALLAGHAN: Is the intent, once the full activity is operating through to Stage 3, it continues to monitor, and then does the scale, intensity or frequency of the monitoring decline if everything is ... I don't put the pond monitoring in that category, but with respect to the stream monitoring, is that intended to be dropped down in scale, intensity and frequency over time or is it intended that that level of monitoring will remain through the operational life of the site?

S BLOOMBERG: Yeah, I think as part of the adaptive management framework, the management practise is informed by the results. I think you mentioned if the treatment train is performing very well, then you might have results which suggest you can reduce your frequency or reduce the suite of analytes. In the Stormwater Monitoring Plan, there is some discussion of that process. It's in the conditions as well. I think there's a sunset clause.

R O'CALLAGHAN: It would be required to continue to monitor the pond level going forward to ensure that the operation of the treatment train and the unit are performing as per their intent. Do people have a view on that?

R CHANG: I might share that when we went into our informal conferencing earlier in the week, Ms Lion-Cachet and I hadn't had the opportunity to delve deeply into the draft conditions. There are a couple of matters which we did raise during the conferencing, but there are a couple that we did not, which entered our summary of statement slightly later. It's probably worth setting those out in a little bit more detail now because it ties into your question, Commissioner. We think in principle that while it might be appropriate to decrease frequency or certain analytes in the monitoring regime, it's probably not, but we wouldn't support completely ceasing monitoring either from the pond, for lack of a better word, the discharge and the stream. We think that a level of ongoing monitoring is appropriate given the size and risk profile of the site, but we would be happy to consider a decrease depending on the findings over time as generally drafted in the clause at the moment.

C ROBINSON: What condition?

R CHANG: I think we're talking about B34 and B36.

C ROBINSON: Oh yeah, so it's your list.

R CHANG: There's a list of analytes which is a different condition, and then B34 and B36, if I read them correctly, talk about the plan and adjusting, decreasing, possibly ceasing monitoring. We think that there should be ongoing monitoring in principle, but that there could be a limiting of certain analytes or frequencies based on ongoing monitoring performance and good monitoring performance. We didn't share that at the conferencing because we hadn't put much detail there.

There's another point there about another detail which we didn't raise, but we're putting on the table now given the condition hearing next week. One of our prevailing concerns has been about making sure that the analytical suite that is being monitored for in the course of time reflects what's happening on site. That's been the conceptual site model that we've been talking about. We think the level of certainty that we've had around what might be coming from the site has not been high. Principally that's okay, but we also think in principle that might justify the regular review of what might be happening on site as a port operation and then reviewing whether the analytical suite reflects that port operation, and that should be done semi-regularly. No opinion on what that might mean, but in a business planning sense, I'm imagining that the Port might have a view on we're going to be moving logs for the next couple of years and then we're going to stop moving logs and deal more with fertiliser. That might require a change in analytical suite, for example. That's another principle that we think is important to incorporate.

R O'CALLAGHAN: On that last point is like a mechanism through adaptive management, a review of the monitoring plan, a different activity or something's changed, notable has changed, so let's have another look, another check of the monitoring plan through an adaptive management approach. We now think this activity creates a risk of such and such contaminant. It's included in the suite or we're finding consistently there's just absolutely nothing over here to see, nothing's changed, we can drop those elements off the monitoring suite through that adaptive approach. That's the expected intent of the conditions?

R CHANG: As I read them, apart from the possibility of a sunset clause which ceases monitoring entirely, which we don't think is appropriate. The complete lack of ongoing monitoring wouldn't be supported.

C CONWELL: I'll just add to the answer from our part. Just in terms of the monitoring frequency, I don't think at any time the Port has suggested to discontinue monitoring in entirety. There's always been the intent to maintain a core

suite of monitoring for key contaminants of concern, such as TSS and metals where those are commonly monitored across the country. That's never been put on the table as discontinuing in its entirety at all. As Simon said, there's adaptive pathways to increase monitoring and decrease it as commensurate with onsite risk. That is accounted for in the adaptive monitoring framework.

R O'CALLAGHAN: Just pausing there for a moment.

C CONWELL: Sure.

R O'CALLAGHAN: If that ongoing monitoring, let's say of the pond is confirming great, everything's working well and has done for quite some time and there's no impending change, so I'm not suggesting a change in the monitoring of the pond, but would that open the door then to a reduction and reduced scale of monitoring of the stream in your mind?

C CONWELL: I think in my experience, that's definitely been the case for ecological monitoring, which is undertaken quite comprehensively in the first few years of any consent, such as year on year for the first five or so years of any consent being in place. It's reviewed and looking at trends over time in a statistical sense, not just a let's see what it looks like, let's do a formal analysis of it. If there's improved health in your stream ecological indices or no change over time, then you can look to reduce the frequency of that to say every two years or every three years. That's definitely been the case with quite a number of ecological monitoring programmes that I've been either reviewing or been involved with in terms of designing. In terms of in-stream monitoring itself, again I think it's never been proposed to discontinue that in its entirety.

R O'CALLAGHAN: No, just reduce the frequency.

C CONWELL: Just reduce. Well, to reduce it to ... I think it's always been maintained at a quarterly basis and to ensure that it maintains a core suite of key indicators of concern as well, such as your TSS and your core metal suite. That's just the first component.

In terms of the analytical suite, so in our discussion last week, I did make a specific comment that I did look at the analytical suite that is currently being monitored at Port Chalmers. I compared that against the proposed table in the consent conditions. I would say that the proposed suite in the consent conditions are more comprehensive than what's being monitored at Port

Chalmers, so it covers a pretty broad suite. It covers your comprehensive metal suite, your nutrient suite, water quality modifiers, which Port Chalmers don't include because it's discharged. Sorry, Port Chalmers discharges to a marine environment, so some of your water quality modifiers, such as your hardness and DOC, your organic carbon, isn't needed because it's going to a marine environment, so those don't apply. But in a freshwater environment, those apply, so they're included in the monitoring suite. There's also provision to include escalated up to your semi-volatile organic compounds, which will include your PAHs and other chemicals, like your pesticide suite, if there is an indicator that your monitoring has breached, say, a burst flush type unmanaged discharge event or if there's a particular at-risk activity that has then triggered that further activity.

For the Port Chalmers data, that's obviously a long running commercial port area. Everything, all the data, I've looked at the past two years of quarterly data for that. All the SVOCs and TPHs are below detection limits, give or take one or two that are just above that or either at detection limits or just marginally above it, but by and large, all the SVOCs are below those laboratory detection limits. So, we've done some comparisons against the Port Chalmers data with some simulated onsite stuff.

R O'CALLAGHAN: It gives a bit of confidence doesn't it, about it.

C CONWELL: Yeah, so even under a currently existing operational port site, we've got a lot of confidence that the contaminants that are potentially a concern, like your SVOCs, which are harder to manage and harder to capture onsite, they're actually at very low concentrations. That gives us, I guess, a bit more confidence about how we're assessing risk and also how we're designing the monitoring response to then inform any adaptive management processes.

R O'CALLAGHAN: Okay, thank you.

Earlier in the morning, I put a question to Mr Keenan and his colleague regarding the monitoring and the potential conflict of an ongoing discharge from an ongoing operation, Stage 1 for example, and construction activity, potential sediment load from construction of Stage 2. First off, do you think there is a risk to the monitoring regime and the intent of what it's trying to achieve if there is this construction discharge? After erosion sediment control procedures and all that good stuff, does that create any concerns to you in how the stream monitoring could look or would look or could result

with this two discharges coming out of the pond? There's one from the operational part of the yard and the other from the construction part of the yard. Does that raise concerns to you or is the threshold, no, there's a threshold, I don't care how you meet it, you've just got to do what you've got to do to make sure that we achieve the outcomes of the stream monitoring? Is that the answer to that question maybe? Give us a bit of thought about how you view that.

C CONWELL: Do you want to talk to that first?

S BLOOMBERG: Well, as far as I understand, both the construction site discharge, the stormwater from the construction areas and the operating areas all go to the attenuation pond and mix together in the attenuation pond.

R O'CALLAGHAN: Yeah.

S BLOOMBERG: The suite of analytes that we're testing for includes the common analytes that we might expect from the construction phase as well. The Stormwater Monitoring Plan is set up for managing operating phase stormwater, which includes stormwater from the construction areas of the site. That's accounted for in the Plan at the moment.

R O'CALLAGHAN: If you turn your attention to suspended solids, for example, and that's always the most difficult element to manage in a construction site where you're doing earthworks, because the erosion sediment control facilities are designed to deal with a particular event, IV or whatever the guidelines are in this area, so you have a greater event, then the discharge consent from the ponds permits a higher level of sediment, and you can well have a sediment discharge from the ponds. It is permitted by the Erosion Sediment Control and Discharge Guidelines. But then you end up with a sediment load, high suspended solids (relatively high) going into the pond, mixing with from the operational and then you're doing the monitoring and including in that suite is suspended solids. Is the answer here that, well, if the limit is here for suspended solids, then while construction's going on for Stage 2, they better do a good job of managing their sediment discharge, otherwise they're going to breach?

I'm just trying to make sure we don't end up setting this thing up to fail cos then what they're doing? Hold on, we're permitted to do the construction work. We've had our Erosion Sediment Control Plan approved. It meets the ORC guidelines, and now we've got a breach over here and suspended solids because it discharges to ... and obviously it doesn't discharge. I'm just

saying, is this something that has been considered or does it need to be? Maybe it doesn't. I'm just trying to understand is there something here that is actually a missing gap that we do need to think about and nut out how it's sorted? Maybe it's not a problem, but I'm just trying to get a feel.

C CONWELL: I don't think we've spoken about it or set it out specifically as part of our statements, but I think there's a definite overlap with Mr Keenan's area of expertise. I would expect that that would be something that we'd have to get advice on from Mr Keenan to help us inform how that's appropriately staged as well.

R O'CALLAGHAN: Maybe that is managed by way of that development of the final Erosion Sediment Control Plan and at construction linked together with the Monitoring Plan.

C CONWELL: Yeah, correct. There's a few layers to it, and just before, I guess in the break this morning, we spoke briefly about the in-stream monitoring and how that would be managed to account for the two different activities. If you've got construction on site plus operational onsite, how the potential confounding of your discharge with your baseline monitoring. Simon and Bryony have discussed that, how we'd have some partial overlap of just taking an extra sample at a location just upstream at the point of discharge, as well as maintaining your regular discharge monitoring and your downstream monitoring, so that while construction is in place, that you've covered your bases essentially. You've still got your upstream site, your point of discharge, plus just upstream of that point of discharge, and then your downstream monitoring site. That would be undertaken during your construction period.

R O'CALLAGHAN: That could be incorporated into the certified Monitoring Plan.

S BLOOMBERG: Just to clarify, I guess, the risk of TSS in the discharge is the same during construction Phase 1 under the ESCP as it will be under the operating phase where we are allowing for the discharge from the operating site as well as the construction site.

The operating site, as far as I'm aware, will have good housekeeping practises. Dust will be managed. TSS is not specifically an issue that we're expecting from that part of the site, so I imagine the range of TSS concentrations will be consistent between those two phases.

The approach that works for the construction Stage 1 will work for the operating phase as well.

R O'CALLAGHAN: Yeah, so I'm more concerned if your construction of Phase 2 earthworks is at a greater scale and hence relying upon more SRPs and devices and has a greater risk of reaching what you would like to have coming into the pond at an operational level.

The difficulty in my mind arises that in designing the erosion sediment control measures, they are designed to contain sediment within the ponds up to a given event. Beyond that event, it's okay to discharge heavily laden discharge, silt laden discharge. It's permitted by the discharge consent for the pond. No one wants it, but it's hard to get a clean discharge as those events exceed the design event.

I think we just come back to it's an issue to be addressed at detailed design and a detailed design of Erosion Sediment Control Plans, and that implies to me a relatively close correlation in the Monitoring Plan to give consideration to ... and it might be like just managed by just another line in the Monitoring Plan. The Monitoring Plan shall give consideration to stages when there is both construction and operation on site. It shall give consideration to the effectiveness of the Erosion Sediment Control Plan. Perhaps we double-barrel it by having the Erosion Sediment Control Plan, it shall give consideration to the operational activities on the site,. That might mean it has to up its game or have a higher design event or have a second pond or a bigger pond or more occulation, whatever it might be, to achieve the objective so that both the Monitoring Plan and the Erosion Sediment Control Plan work together at phases when there is construction and operation on the site.

S BLOOMBERG: Yeah, and that would get identified in the monitoring.

R O'CALLAGHAN: Yeah, so perhaps if the experts can, between now and Tuesday, give feedback through to Sarah on how that might look so that then there's reasonable (hopefully) agreement between you on how that matters, so that you don't end up with a non-compliance. Everyone's doing the right thing, the erosion sediment control people are doing everything that they need to do or are permitted to do and have to do, and even going further hopefully. Equally, the treatment train for the operational thing's doing its bit good as or better then, but irrespective of all of that idea, we've got a breach of suspended solids in the discharge that compromise the water quality

monitoring in the stream. That's what I'm trying to just avoid cos you don't want it either. The consent holder doesn't want it and ORC doesn't want it [laughter].

B MILLER: I think also that brings into play that upstream monitoring site as well, because when you're in those higher level conditions, the stream is turbid and there is sediment being mobilised from throughout the forestry catchment upstream as well. It does give you that measure of understanding what's coming down already into potentially quite a turbid environment. That's why that upstream one will help alleviate any of those on-paper non-compliance issues that aren't actually in a logical or a site specific problem.

R O'CALLAGHAN: Yeah, that sounds like it can be managed through that process. All right.

C ROBINSON: I probably just wanted to firstly, before this most recent discussion, we had an explanation just around the intentions regarding monitoring based on the other issues, new issues that you've raised. That explanation from Dr Conwell, did that address your concerns?

R CHANG: Look, I think the principle that she explained is reasonable. I think where my confusion rests is in drafting of B36(2), where at the end of that clause, it says, 'The consent holder may provide the results of the survey to ORC, and with agreement may cease the operational phase water quality required by conditions B34'. So, if that's not the intention, that would be good to be updated.

C ROBINSON: If you can work to get clarity on that, that reflects the understanding of how it's actually going to work in practise.

In terms of the opening statement that Ms Goslin filed, which just had a summary of the outstanding issues, just a general question just directed to you, Mr Chang and Ms Lion-Cachet, in terms of those four remaining issues. Are you expecting further input from the Applicant for those issues or is there now a degree of comfort regarding those matters, this This one being baseline monitoring before bulk earthworks commence?

R CHANG: Yeah, I think the discussion that Commissioner O'Callaghan's literally just gone through does canvas the basis of our concern around the ability to discern some of the construction phase effects from, in that case, operational effects. We think it's even more important that baseline monitoring is truly representative baseline without having had undue

influence from construction. I understood from, I think, the summaries that there had been further thought put into that, but I haven't had the opportunity to understand what that might be. If you could possibly help with the other matters, that would be useful.

C ROBINSON: Yes, sorry, the other one was ORC to be notified in the event of an exceedance for [overspeaking] value.

R CHANG: Yes, I think we're comfortable with the proposed adjustment in principle.

C ROBINSON: Ongoing emphasis should remain on source control. We've heard all of their treatment training performance, adaptive management, I think.

R CHANG: Yep, and I believe I saw last night that there had been a new draft condition around the submission of the BPO Report or certification, and then ongoing monitoring of the site's discharge should be committed to in principle. We've already discussed that.

There's probably one other very relatively minor point. We discussed this at our informal conference. We sought some clarification or I guess our position was that the kanakana monitoring, if it is to be required, should be provided to ORC for certification. I did note that perhaps given the relative nature of how important that point was, it had been missed from drafting, so it'd be good to know.

C ROBINSON: You can follow that up with the Applicant.

S SCOTT: Is that monitoring for certification? You want to certify [overspeaking].

R CHANG: If the kanakana monitoring comes up with the need to have a kanakana plan, then that plan would be submitted. Our position is that it should be submitted for certification if it was determined to be required from the baseline monitoring.

C ROBINSON: That's all of those issues. Again, just the emphasis that we've made, we're not expecting to have experts debating substantive matters on the 22nd. It's really a check-in on condition drafting and workability. You need to resolve your issues ideally this week and input any alternative drafting if there is any into the process for this by Tuesday.

R CHANG: Understood.

R O'CALLAGHAN: That's good. Yeah, very helpful. Thank you.

C ROBINSON: All right. Yeah, so thank you very much for your contribution for this morning's discussion. Thank you.

That brings to an end the freshwater topic, and then there were just a couple of matters, Sarah, that you wanted to raise. We just mentioned this issue about the Applicant's position on why some plans are to be certified and others are not. If it's going to take a while to work through that, happy to defer that.

S SCOTT: I think it's efficient to do it now.

C ROBINSON: Yeah, and we can hear from your perspective. We understand that the DCC position and probably ORC is that they should be certified, but we just need to understand why there's a different view. Thank you.

UNIDENTIFIED
SPEAKER:

Good morning. Yeah, the issue of certification, well, it's a little bit like horses for courses. Some plans of course should be certified because of their function, whereas others not. There's a deliberateness around the approach. Having said that, we will have another look at the whole certification question when we do a redraft of the conditions in the light of the discussions that have been held last week and through the course of this week.

One area where certification should be looked at with a good deal of scrutiny, I suppose, is when an engineering design is put together, normally a condition would suggest that the engineer would go through some quality assurance or certification process themselves rather than forcing that onto a council because of the issues around potential liability. We are a little bit guarded in that sense rather than suggesting that the Regional Council should certify an engineering set of specifications or a design, then the engineer should be held accountable for doing that by the conditions. But again, we'll take a good look at the certification question when we come to do a redraft of the conditions in the light of the discussions.

S ABLE: Nothing specific, but in that particular example, how would that be any different to another engineer providing, for example, a building consent, which goes through the Council, but is actually certified by the engineer on the Applicant's side?

UNIDENTIFIED
SPEAKER:

On the Applicant's side or the consent holder's side?

- S ABLEY: Well, on the consent holder's side.
- UNIDENTIFIED SPEAKER: Yeah, you could set up a situation where the Regional Council is required to get separate engineering advice to go through a certification process as well. It might not be deemed to be an absolute certification function, but just a verification function, so there's a subtle difference.
- C ROBINSON: It may be that some of the word certification may not necessarily be fit for purpose for all—
- UNIDENTIFIED SPEAKER: Precisely.
- C ROBINSON: —process under a consenting [overspeaking].
- UNIDENTIFIED SPEAKER: Yeah, there could be a verifying role.
- C ROBINSON: [overspeaking] the expectation as to what it is that the Councils are being asked to do.
- UNIDENTIFIED SPEAKER: That's correct.
- C ROBINSON: Yeah, okay. Well, I think, do you have anything?
- R O'CALLAGHAN: Yeah, just exploring that, are there any aspects of the infrastructure constructed by the consent holder for this development that will transfer to DCC as public infrastructure or is it all private infrastructure? The only thing that I might possibly think of, Mr Keenan, is storm wastewater. Have we got a pump station on this site discharging wastewater or is it gravity?
- N KEENAN: [inaudible audio 2:36:58].
- R O'CALLAGHAN: Pump station. Is that going to be retained within ownership of the landowner consent holder or is that transferring to public ownership? Not sure? So, typically infrastructure that is being passed to public ownership goes through a certification process from Council to confirm it complies with their design standards as opposed to agree with you and understand your concern on other matters where certification by the engineer with respect to design standards, soils, whatever, earthworks, etc, doesn't belong in a certification process within Council because that word certification has other legal meanings for the engineer. If there is infrastructure passing

Council, they may want the certification with respect to that, that it is complying with their standards, etc, but that would be pretty minor, I think, on this site.

UNIDENTIFIED

SPEAKER: Yes, a good example is a subdivision consent where infrastructural assets do end up in Council ownership, then it's quite correct and logical for the Council to make sure that they inherit something that meets its standard. In this case, a lot of the assets are on site with the exception perhaps of some of the wastewater and potentially some of the roading issues, upgrades around the entrance.

R O'CALLAGHAN: Even though, yes, cos that will pass back to Council within the road reserve.

UNIDENTIFIED

SPEAKER: Yes.

R O'CALLAGHAN: Then the (I'll use the word) certification of management plans, monitoring plans, all that good stuff, then that's in a different bucket because that is where the ORC or DCC is trying to confirm that that is consistent with their ability to implement and monitor those consent conditions for compliance.

UNIDENTIFIED

SPEAKER: Correct, yes.

R O'CALLAGHAN: There's no real objection, is there, from the Applicant in the term certification with respect to all those monitoring plans?

UNIDENTIFIED

SPEAKER: No.

S SCOTT: No, it's in our condition set.

UNIDENTIFIED

SPEAKER: That's right.

R O'CALLAGHAN: Yeah, that's fine.

C ROBINSON: No, that's really helpful to understand. Thank you. We look forward to your view of those issues.

The final matter we were just going to cover off today, Ms Goslin, if you could as well, just the issue that ORC potentially has with the topic.

H GOSLIN: Yes, and I've just been, in preparation to respond to this question, just reflecting back on the Section 53 comments that we provided. Obviously, they were made on the basis of an earlier version of consent conditions. Helpfully, with the Applicant's Section 55 comments, the consent conditions were revised somewhat to insert a lot more clarity that we had identified as being an issue earlier.

There were two main issues. The first was around we don't have an issue with, I guess the overall format, the overarching format of the consent conditions where there's the general set and the activity specific sets that sit in behind. The key thing from our perspective is to just be really clear in those activity specific sets, what relevant conditions from the general set would apply to those activity specific sets. There's some language used in those activity specific sets that talk about the relevant general conditions. It's providing some more specificity, I guess, as to what that actually means and what conditions would apply.

The other aspect was on the splitting out, I guess, of those activity specific sets potentially. Obviously, as we've heard today and through the lodgement of the Section 55 comments and consent conditions, the earlier versions were a little less clear around what monitoring regimes and whatnot applied to construction phase discharges versus operational phase discharges. Again, have no problem with all of those activities being held on the one stormwater consent. It makes sense from an operational perspective, particularly where you've got the rolling, progressive construction and operational phase stages happening. It's just making sure that it's really clear what consent conditions would apply to the construction phase stages versus operational phase stages.

C ROBINSON: Are we there yet or there's a little bit more clarity that you would be seeking over the next few days?

H GOSLIN: Yeah, I think that's fair to say. The conditions that were filed as part of the Section 55 were much improved, and we'll keep a watching brief as the next iteration of consent conditions are provided.

C ROBINSON: No, well, that's good. I guess just from my working through the evaluation side of it, the structure is very useful in terms of where it's arrived at for 55, but the concern was, is this going to cause some kind of administrative difficulty for the Council when it comes to monitoring and enforcement functions?

- H GOSLIN: Yeah.
- C ROBINSON: If the Council's comfortable that it can work within the broad structure, subject maybe to some better cross-referencing, or then go to it.
- H GOSLIN: Yes, that was a specific question actually that we raised with the database folk, I guess, at Council. The systems can suit the format of the consent conditions, so that's not an issue for us.
- C ROBINSON: Right.
- R O'CALLAGHAN: We're getting the next iteration Friday. Is that right?
- C ROBINSON: Yeah.
- R O'CALLAGHAN: Is that achievable?
- S SCOTT: Great question cos I wanted to talk to you about that. We have been discussing whether it's going to be possible. I mean, we can probably put forward our version of the conditions by Friday, but to get the input that has been discussed with ORC and DCC experts might be a little bit more hard to achieve. I think it's fair to say from our end, the goal is to lodge something that is as aligned as possible. We don't want to give you something that's not quite there, so we were wondering whether we might be able to push the conditions hearing back to later in the week.
- C ROBINSON: I've got an availability issue of a commissioner disappearing overseas for a few days.
- S ABLEY: Two weeks.
- C ROBINSON: For two weeks. Look, can you leave that with us? I think we're going to do a little bit of work this afternoon on where we land because we're of course conscious that certain things have to happen if we were to arrive at a position on certain matters. Let us reflect on that and come back to you quite quickly with a view that if at all possible, we could push that out further.
- S SCOTT: Yes, and I mean the other option I guess is that we don't have a conditions hearing because there is of course the opportunity for feedback. Look, I'll leave that in your hands. We just don't want to lodge something that we haven't—

C ROBINSON: Creates more problems potentially, yeah. It is very much a workshop and we are conscious that there is a process for condition comments, but in terms of using the Panel time most efficiently and arriving when we get to a point of a draft decision with conditions, we don't want a 10 or 15 working day timeframe in which to fix up problems that could have been avoided earlier on in the process. We're very keen that when we are documenting our decisions, there's a set of conditions that are pretty nearly there.

S SCOTT: Yes, I mean, if we could push it back by a little bit, then it'd be sensible.

C ROBINSON: We'll talk about that.

S SCOTT: Okay.

R O'CALLAGHAN: Nothing more from me.

C ROBINSON: Yeah, and thank you. Just, look, from a Panel perspective, I know it's a lot to get you all here, but it is very useful to have the face-to-face even in this type process. We feel that it's a much more efficient process to put our concerns to people involved directly rather than a paper or there's enough paper on this file already to sink a ship, so we really do appreciate your support for the process that we've undertaken today. So, thank you.

R O'CALLAGHAN: Thank you.

S ABLEY: Thank you.

[End of Recorded Material: 2:46:36]