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TRANSCRIPT OF PROCEEDINGS

TRANSCRIPT IN CONFIDENCE

O/N H-1289872

INDEPENDENT PLANNING COMMISSION

MEETING WITH APPLICANT

RE: DUNMORE LAKES SAND PROJECT MODIFICATION 2

PROJECT #: D608/20

PANEL: **DIANE LEESON (CHAIR)**
PETER COCHRANE

OFFICE OF THE IPC: **BRAD JAMES**
ALISON HILL

APPLICANT: **DAVID BOLTON**
JAMES COLLINGS
KATE JACKSON
ADNAN VOLODER
CHRIS BROWN
BEN WILLIAMS

LOCATION: **SYDNEY**

DATE: **12.06 PM, THURSDAY, 1 OCTOBER 20**

THIS PROCEEDING WAS CONDUCTED BY VIDEO CONFERENCE

MS D. LEESON: Thank you. Before we begin, I would like to acknowledge the traditional owners of the land on which we meet. I would also like to pay my
5 respects to their elders, past and present, and to the elders from other communities who may be here today. Welcome to the meeting. The Dunmore Lakes Sand Project is an established dredge and sand extraction operation in Dunmore near Illawarra region of New South Wales. It is owned by Dunmore Sand and Soil Proprietary Limited, which is a wholly owned subsidiary of Boral Resources New South Wales
10 Proprietary Limited. Dunmore Sand and Soil is seeking approval to extract sand from two new extraction areas known as stages 5A to the north and 5B to the south within the existing approved life of the operations. The project is located within Shellharbour Local Government Area.

15 My name is Diane Leeson. I am the chair of this IPC panel. Joining me is my fellow commissioner, Peter Cochrane, Brad James, and Alison from Office of the Commissioner are also in attendance. In the interest of openness and transparency, and to ensure the full capture of information, today's meeting is being recorded, and a full transcript will be produced and made available on the commission's website.
20 This meeting is one part of the commission's decision-making process. It is taking place at the preliminary stage of this process and will form one of several sources of information upon which the commission will base its decision.

25 It is important for the commission to ask questions of attendees and to clarify issues whenever we consider it appropriate. If you are asked a question and are not in a position to answer, please feel free to take the question on notice and provide any additional information in writing which we will then put up on our website. I request that all members here today introduce themselves before speaking for the first time, and for all members to ensure that they do not speak over the top of each other to
30 ensure accuracy of the transcript. We will now begin. So thank you, all. Kate and James, I think you just indicated that the names and roles of all of your participants today will be in one of the slides, so we won't go into that - - -

35 MS K. JACKSON: Correct.

MS LEESON: - - - right now. We do have an hour set aside for this meeting, and Brad has sent you, I think, an agenda, and that was to start with a presentation on, basically, the processing side of the quarry. We then have some questions, and we will open it up for quite a general discussion, so please feel quite relaxed, and we'll
40 hand across to you – unless there's anything else procedurally, Brad, that you'd like raised, we'll hand over to Dunmore to take us through the presentation.

MR B. JAMES: Sure. Just confirming that you can see – screensharing is working
45 okay?

MS LEESON: It is. Thanks, Brad.

MR JAMES: Great. Over to you, Kate and Boral.

5 MR BOLTON: Okay. It's David Bolton speaking. I'm the general manager of
quarries for New South Wales and ACT for Boral. So, look, Commissioners, thank
you for the opportunity to present to you today. You know, Boral is committed to
making sure that, you know, our proposal here at Dunmore Sand and Soil is a
responsible and – is responsible and best practice. We – you know, we've done a lot
10 of research into the local environment and our effects on that to make sure that our
development is – meets all the appropriate planning guidelines and either meets or
exceeds those requirements.

15 With me today, if you just want to go onto the next slide there, onto slide 2 – so with
me today you'll be hearing from James Collings a little bit more about the
operational practices of the site. He will be supported there by the quarry manager,
Chris Brown, if there's any questions in further detail around that. Ben Williams is
the dedicated environmental coordinator for the site, so Ben will run you through a
few slides also, and, you know, is also able to field any other detailed onsite
20 environmental questions that you may have. Kate Jackson, as you're aware, is
responsible for all of our planning applications in New South Wales, and, in this case
here, Adnan has done a lot – has been responsible for this specific development.
Unfortunately, Paul Jackson isn't able to attend today due to school holidays,
however if there's anything else that you require from Paul we can certainly follow
25 that up for you. So, look, I'll hand you over to the team now to run you through the
detail, but – and I'll – I'm always here for any other questions along the way.

MS LEESON: Thank you, David.

30 MR COLLINGS: Okay. I think over – sorry. James Collings. I will take us
through a brief overview, and the next slide, I think, just has a table of contents on
there that we've structured largely around, at least, our understanding of the agenda.
If there's any areas, obviously, that we haven't covered off deeply enough or that we
want some more info on, then we'll naturally discuss that as we go along. So next
35 slide – the next couple of slides – there is only two, but the next couple of slides, I
guess, give a very brief overview of our operation. Obviously, we discussed some of
this at our site visit on Monday.

40 The long and short, I guess, of it, from a proposal perspective relative to what we
currently do, there's no change. We're not proposing any changes to our dredging,
our processing, our maintenance, our sales activities. As you can see there on the
screen, it's 6 am to 6 pm Monday to Saturday is our dredging. Sunday and the public
holidays by application. To give a bit more context to that – and we did briefly touch
on it on Monday – one of our larger production months – I know we said we
45 traditionally have run at around about 350,000 tonnes per annum of production,
and, obviously, there are months that are up and down, but when I look back through
2018, I think it might have been May, we had a very large production month of about

300 tonnes shy of 50,000 tonnes, and the operation dredged and ran the processing plant, because those two things happen hand-in-hand, from 6.30 to 5.30 Monday to Friday only.

5 There was no dredging operations on the Saturday. There was sales and maintenance on the Saturday, so just to provide some context, but the – you know, the capacity within that processing plant is, you know, more than, I guess, meets our requirements without, sort of, pushing those boundaries out, and I think we alluded to that when we met onsite.

10

MS LEESON: Yes.

MR COLLINGS: That we very rarely run to those consent conditions, but I just thought it would be helpful to provide, you know, some actual data around that.

15 Consent period, as that says, no change. We know the 800,000 tonnes per annum production and transport limit. We're not suggesting anything different in that space, but we're after something that looks like our usual run rate, road and rail processing and extraction method the same – there's a slide that touches on that next – and the dredging area or the disturbance area, more to the point, of the proposal, being 11 – a
20 bit over 11 and a half hectares versus the existing operation, stage 2 and 3 and 4 of 51 – a touch over 51 hectares. You can see from the diagram – I think we all know what that looks like from the locality of our proposed stage 5A and 5B relative to the existing operation, but for clarify that's described in there.

25 MS LEESON: James, can I just ask a quick question there? It's around the site boundary for stage 5A and B.

MR COLLINGS: Yes.

30 MS LEESON: The project boundary is, obviously, very much bigger than the proposed extraction limits or the disturbance limits. Is that boundary simply representative of the property – the legal property boundary?

MR COLLINGS: That's correct.

35

MS LEESON: Okay. Thank you.

MR COLLINGS: Yep. Okay. Next slide. This is a simple pictorial. It's showing the dredging operations only. We haven't described the – I guess, the processing
40 plant end, but we can briefly talk about that, but as we know, we're not proposing to do anything different in that space in that that all remains exactly as is within the existing operation, so in very simple terms, though, what we do when we want to dredge sand is we clear the site, the layer of topsoil, whatever else might be the case. Topsoil is naturally put aside for rehabilitation purposes later on, and bunds are – you
45 know, are built as required either under consent or whatever else it might be to protect the area. We then need to – before you put a dredge in, naturally, you need to

– you need to build a pond, so we do use an excavator to dig out an area enough to float the dredge.

5 The dredge doesn't require deep water to float. It doesn't have a – you know, it's a flat bottom vessel, for want of a better word. It doesn't have a hull. The dredge is then – or that sand is put aside. Some of it might be used in bunds. Others would put back into the dredge pond to get extracted by the dredge. The dredge is floated. As that shows, there is, I guess, coming out from the bottom of the dredge, if you put it back into the – what we call the ladder, which is inclusive of the suction line, that is lowered – well, naturally, the pit drops as the dredge dredges, but, ultimately, it has an extent, and as we described the other day, at the minute we're limited to around that, sort of, 12 – you know, 12, 13 metres is the extent of our existing dredge's capacity, although I would note that if, you know, sand is deeper and, you know, ultimately, you know, we'd be able to dredge deeper, we would want to be able to do that, but we have pretty strict guidelines from our – hang on, screen saver's come on – pretty strict guidelines from our mining engineers around batter angles, and I think that was questioned the other day onsite, and the design is a three to one batter angle below water level to ensure bank stability.

20 MS LEESON: And I think we – sorry, James. I think we will have a few questions around depth beyond about 12 metres, and it will go to batter stability. It will go to aquatic – sort of, water quality and aquatic species. It will go to noise in terms of operations if it's different dredge equipment, etcetera, so just to flag, they're the sorts of things that are starting to come to our mind around the difference between, say, a 25 12-metre and a 27-metre potential, given that you're actually seeking approval to be able to go to 27 metres should you have the equipment to do so.

MR COLLINGS: Yes. Understand. I mean, I would say the dredging equipment itself would be exactly the same. In terms of pumps, etcetera, there would be no difference, I wouldn't think, in that space. In terms of some of the – you know, those other matters around water, etcetera, I would – that's not my wheelhouse. I naturally defer to others to help answer some of those. So as you can see, though, in that diagram - - -

35 MS LEESON: So – sorry, James.

MR COLLINGS: Sorry.

40 MS LEESON: So does that mean that technically you could get to 27 metres with your existing dredge and pumps and equipment?

45 MR COLLINGS: With the existing pump, we could, but the – that line showing from the bottom of the dredge down to the – what's shown as the cutter head is a – you know, is a steel-framed ladder, as we call it. Naturally, you can only make those things so long before, you know, any wobble at the top causes stress and damage and metal fatigue, and there's limitations at the end of the day, similarly as to why, you know, excavators and trains and other things only have certain length booms,

because you practically can't go any longer, and that's why at the minute the reality is we're limited to what we're limited to at the minute, because of those physical constraints around how you can design something like that now.

5 MS LEESON: So if I can just labour that point for a minute – sorry to be doing this and interrupting you all the time.

MR COLLINGS: You're right.

10 MS LEESON: If I look at circle 2.2, groundwater – that's the phase, but on the diagram you've got 2, and then you've got a line that runs up to a – there's a white, sort of - - -

MR COCHRANE: Going across.

15

MR COLLINGS: Yes.

MS LEESON: - - - there, is it?

20 MR COLLINGS: Yep.

MS LEESON: And then it drops down to point 4. Is that the ladder you're talking about, or are you talking about what runs between, say, direct between 2 and 4, that line under the water?

25

MR COLLINGS: Yeah. So the line that runs from the bottom of the dredge down to 4 is the ladder. The lines running away from 2 up to the end of that white line are wire ropes. That's simply then moved – that's what allows the dredge ladder to move, you know, down as the sand – as we extract the sand.

30

MS LEESON: I see. Thank you.

MR COLLINGS: Yes. So those – yeah. The - - -

35 MS LEESON: Sorry. I've got Peter sitting beside me. We're only using one computer because of feedback issues, but I think Peter had a question there.

MR COCHRANE: Yep. Again, labouring the point a bit. So with the same dredge, but the mechanical part being the cabling and the ladder, it would be just the mechanical change you'd need to go from 12 to 27 metres; is that right?

40

MR COLLINGS: That's exactly right. The ladder itself – cabling can naturally be longer, ladder itself would need, you know, some new design, some new engineering to be able to physically build it such that it would operate as required. Yeah.

45

MR COCHRANE: Okay. So there would be, then, no change to the noise level associated with going to greater depths?

MR COLLINGS: None whatsoever.

MR COCHRANE: Okay. Thank you.

5 MS LEESON: Thanks, James.

MR COLLINGS: So then down – as that says in point 3, the dredge operator naturally lowers – lowers the cutter head, or lowers the ladder, if we want to use that terminology. As the sand is extracted, there's a rotating cutter on the end that is
10 simply used – because the fan is naturally, you know, compacted over time, so it needs to be loosened up. It's a suction pump that is located within the hull diesel rung, suction pump, it's located within the hull of the dredge that simply sucks that cut sand, so the cutter head loosens it, for want of a better word, and then it's like a big vacuum from that point on. It simply sucks the sand and water up through that
15 pump and out of the processing line which is shown there as the black piping under 5 coming out of the back end of the dredge and across to the existing processing plant. There's a vibrating screen in the processing plant, and the rest of the operation in that sense is – occurs as a result of the pumped process water and sand. There is a requirement to have a booster pump, as you would have seen, in between the dredge
20 and the existing plant to ensure that we can sufficiently push sand and water across to the existing processing plant.

MR COCHRANE: And would that be electric or diesel powered, the booster?

25 MR COLLINGS: What did we – electric. Electrically powered.

MR COCHRANE: Okay.

MS LEESON: And there are two of those pumps, are there? One up near stage 5A
30 and one near – down near stage 5B on the diagram I'm looking at?

MR COLLINGS: Yep.

MS LEESON: Yep.
35

MR COLLINGS: Yep. Yep.

MS LEESON: Okay.

40 MR COLLINGS: And it is – it's easy for me to sit here and say it's as simple as that. Does that cover off what you needed? Is there some more info - - -

MS LEESON: That's – no. That's - - -

45 MR COLLINGS: - - - that would be valuable?

MS LEESON: That's really helpful, and I think – unless there was something more you wanted to do on that, we could probably, while we've got that diagram up, just talk about a couple of the issues, particularly for stage – maybe if we deal with 5B first, and then we can come back to 5A if there are other questions on that area
5 specifically. In no particular order, if we – and I'm sorry if we didn't have these on the agenda. It's just, you know, the thought bubbles keep going as you – the more and more you look at these, and so if there's anything that you're not comfortable to answer today or you can't, as I said earlier in the opening statement, please just take them on notice and come back through head office - - -

10

MR COLLINGS: Sure.

MS LEESON: - - - through Brad and Alison, and we'll deal with it that way. One of the first questions was really in the way the topsoil is removed, and it relates, I
15 think, to the Aboriginal artefacts and cultural heritage. Are we right in understanding, from what you've just explained, that the stripping of the topsoil would then take you through any levels of Aboriginal artefact – likely Aboriginal artefacts, and they would be extracted as part of that before you get to the water level? Seems like just a logical proposition. And is that how you're going to do it,
20 and you'll then operate within – sorry, when I say operate, you will do that within the normal regulatory bounds and processes and protocols?

MR COLLINGS: That would be right. We, obviously, have our – you know, any heritage works and assessments prior to conducting any work, and, you know, what
25 we would then do is that initial screening, and we would be happy to have, you know, Indigenous groups onsite as we took that initial layer of topsoil off to make sure that anything else, you know, is identified, and we'd work closely with them in that sense, but, yes, that would be how we would – that layer treated explicitly in that respect before we'd then get into – call it mass excavation of everything below,
30 which would be the sand extraction itself.

MS LEESON: I mean, it's been put to us that there may be – because it's sandy soil, shallow burials occurring. They're not necessarily related to the massacre that's
35 said to have happened in the area that's recorded to have happened in the broader area, but the protocols, obviously, cover discovery of any human remains as well, I would imagine.

MR COLLINGS: Yep.

40 MR COCHRANE: To what depth do you need to go to with the excavator before you can float a dredge?

MS JACKSON: I think from the top of my - - -

45 MR COCHRANE: When you hit groundwater?

MS JACKSON: Your ground water is at point 6, point 7 metres

MR COLLINGS: Yeah. Look, we would probably dig to four metres, maybe, in that order.

MR COCHRANE: Well, that would certainly be enough to cover - - -

5

MR COLLINGS: Say again?

MS LEESON: Absolutely. No. We were just saying that that would definitely cover any artefacts or finds.

10

MR COLLINGS: Yes. Yep.

MS LEESON: Yes. Yes. Thanks. Peter, did you want to go to the issues of the batters on – or the stability of the – well - - -

15

MR COCHRANE: One of the things we were a bit concerned about was just greater clarification on the project's setbacks, particularly from the 69 Fig Tree Lane property. There's a three-metre setback. It wasn't immediately clear to us that then, on top of that, you have a bund area and any access routes, etcetera, so the actual practical setback before any – there was any dredging or excavations was considerably more than three metres. We were just concerned about land form stability, given the whole area is sand, and I'm sure you dealt with this before with the other sites, but we have asked the Department if we could get a diagram, which is a little bit like the one you're showing on the screen now, just to show us how those boundary issues work to feel comfortable with that land form stability around the margins of the actual extraction area were being protected.

20

25

MR COLLINGS: Yeah. Look, we can certainly provide some more detail on that, and I can't talk to a lot of that from a planning point of view, but what I can say operationally is, you know, what we do leave behind and the batters we leave behind, you know, are designed by our in-house mining engineers. We do have external consultants as we've used at our existing operation. You know, if I use an example, alongside that road that we drove down alongside stage 3 when we went to look at the – at the discharge point - - -

30

35

MS LEESON: Yes.

MR COLLINGS: - - - on Monday, there's a series – you know, there's our pond. There's the road, and there's a series of powerlines. We've had some external geotechnical consultant, BSM, give us advise on – you know, on how close we'd want to be able to dredge to those power lines or not to ensure - - -

40

MR COCHRANE: Because - - -

45

MR COLLINGS: - - - you know, integrity of the ground, etcetera, so I can't talk for what was necessarily in those plants, suffice to say that there's definitely sufficient, I guess, offset and distance from any structures, from, you know, any fence lines

etcetera, when you consider that one in three gradient below water level that we leave behind.

5 MR COCHRANE: Okay. I guess this arose probably more in the fact of going from 12 meters, which is your existing, if you like, experience, and 27, which is just over double.

MR COLLINGS: Yeah. Well, the batter underwater would remain the same.

10 MR COCHRANE: Okay.

MR COLLINGS: It would be one in three the whole way to provide that – that bank stability, if I put it that way.

15 MR COCHRANE: Okay. Thank you.

MR COLLINGS: Okay.

20 MS LEESON: Thanks, James.

MR COLLINGS: All right. I think – yes?

25 MS LEESON: Yeah. No. I think just while we've got this diagram here, rehabilitation is a major endeavour you've done, and, you know, the stages that we looked at, we could see the successful rehabilitation happening around the edges of the ponds. With the stage 5B pond being between 12 and 27 metres, even at 12 meters, that's quite a considerable depth, and I think we heard onsite that your water quality testing is really just about surface water level. We're interested to understand what the water quality management arrangements are for a deeper body of water of –
30 call it 12 meters, to make sure that, you know, there's sufficient dissolved oxygen, that the – you know, we're not going to end up with algal blooms, what aquatic species might be populated or not. I haven't seen yet what the plan is for the management of a pond of that depth, and I would quite like to take us through that if you can, or – and/or point us to the relevant parts of the documentation.

35 MR COLLINGS: Yep. I think we'll need to take – I certainly can't talk to that. I think we would want to take that on notice and, you know, make sure we get our facts right in that respect.

40 MS JACKSON: Yeah. So so, yeah, we just need to check in with the water engineer that we used.

45 MS LEESON: Yeah. Because I think, particularly because by and large this is isolated, as I understand it, from the river, which is understandable - - -

MR COLLINGS: Yep.

MS LEESON: - - - because you're looking at water quality issues of the river and not impacting that, so if there's not a lot of water movement within the pond, we're quite interested to understand how that will be managed.

5 MS JACKSON: Yep.

MR COLLINGS: Okay.

10 MS LEESON: And just while we're there, indicatively, I know we touched on it, but – while we were out onsite – indicative depths of stage 1 and 2 and 3? I know it varies depending on where you – where your resource depths are, but in the middle of those ponds would we be expecting to see depths of – how much?

15 MR COLLINGS: So I just – I was just looking over at Chris Brown, our quarry manager. So stage 1, I think, was anywhere between 12 and 18, would you say?

MR C. BROWN: Yep.

20 MR COLLINGS: Yep. And stage – our stage 2 pond runs anywhere from, you know, a metre deep as you go to the – to the west where the hill, you know, intersects with the sand, down to 12 metres roughly, and stage 3 is the same, 12 metres down, sort of, on the eastern – towards the eastern end, and I think we've got a shallow – I'm looking at Chris now, but a shallow is about, sort of, three metres up in the west.

25 MS LEESON: Okay. So you're varying between three and 12 metres across your other ponds

MR COLLINGS: In our existing operations, yep.

30 MS LEESON: Yes. Yes. And you're not required – are you required, rather, to test water quality at depths in those, or is it just surface water as I thought I understood on the site visit?

MR COLLINGS: Just surface water.

35

MS LEESON: Yes. Okay. Thank you. Okay. Well, if you can come back to us on water management of the ponds – of five big ponds, that would be greatly appreciated.

40 MR COLLINGS: Okay. We can do that, and we might wrap up in that with, to my knowledge, we've not had any issues with algal blooms or anything such as that, so we might just cover off that from a history perspective as well if that's helpful in terms of - - -

45 MS LEESON: Yes.

MR COLLINGS: - - - understanding how that works.

MS LEESON: Yep. Thanks, James.

MR COLLINGS: Excellent. Operation important, given I've taken up the lion's share, but I might – we might scoot on, I think, to Kate. Yep.

5

MS LEESON: By all means.

MR COLLINGS: Wonderful. Thank you.

10 MS LEESON: Thanks, James.

MS JACKSON: Okay. So hi. This is Kate Jackson, the regional manager for planning and development in New South Wales and ACT, so I'm just going to cover off our views on the assessment report, the DPIE assessment report. So, look, overall, on review of the report, we believe the project management has been well explained in that report. We did, however, want to provide a little bit more detail to the establish the boundaries, in particular, for stage 5B, and that's really just in relation to the application.

20 MS LEESON: Kate, if I can just stop you there. Your audio is not particularly clear to me. Louisa, can you pick it up properly at your end?

MS JACKSON: I've moved – I've just closer to me; is that better?

25 MS LEESON: Not particularly. Is there anyone else in your office that can perhaps turn off their – mute their - - -

MS JACKSON: No. Yeah. No one else has their - - -

30 MS LEESON: No. That does sound a bit better now.

MS JACKSON: Okay. Is that better?

35 MS LEESON: Keep going. We'll see how we go. Thanks, Kate. Keep going.

MS JACKSON: No. That's okay. That's okay. Sorry. I'll just get to my bit. Okay. So if we go – okay. You're on that – the next slide. So if you look at that image, you can see that stage 5B is located within a remnant flood plain vegetation area, which has been identified as Bangalay Sand Forest. That's been pretty widely covered both by the community and within our reports. So the vegetation on the flood plain totals around 200 hectares, and it's not actually connected to any other vegetation on the escarpment, so in the foothills, or any other areas of woodland, and that's predominantly due to, obviously, the Pacific Highway and also the significant areas of agricultural land to the west. So there's really a very limited capacity for the vegetation around 5B to provide habitat to that are reliant on connected patches of vegetation.

45

So you can also see from this figure that 5B was really designed to avoid the coastal wetland and the coastal wetland proximity areas, so you can see those marked on that – on that figure. I mean, it's also minimising the clearing of consolidated vegetation, so it's really just taking vegetation from the edges, if you like, of that vegetation area. So if we go to the next slide, so this shows an aerial view of the stage 5B area. So you might remember from the site visit on Monday that when we stood on that southernmost point of 5B looking to the north, you would have noticed that the Bangalay Sand Forest was heavily impacted by agricultural activities, and pretty much all the understory had been cleared for cattle grazing in that case. So you can really see that from that aerial site. Obviously, the yellow line is the outline of the 5B area, and the more areas of Bangalay are further to the south and then to the west there, which you can see from the aerial.

So the total area for 5B of Bangalay Forest that's going to be removed, so I've broken it down into good, moderate and low. So the good area of 1.42 hectares, the moderate area was 3.11 hectares, and the low was 2.97 hectares, so as you're probably aware, the moderate and the good quality areas are used to calculate the offsetting requirements under the bands. Okay. So I think I passed over to Adnan. You're up next.

MR VOLODER: I'm trying to be as efficient as possible as I can with documents. Sorry about that. My name's Adnan Voloder. I'm the planning and development manager within the land and property group Boral. Just a couple of other elements we wanted to touch on briefly if we may, because some of these elements can't necessarily be reflected all that well in the actual assessment report, so if you don't mind, Brad, just going to the next slide. Thank you. So what we really just wanted to emphasise a little bit here was value that we see that you get in doing the aerial representations of what the likely impact area will look like.

Unfortunately, we didn't get time to go and venture out to the top of the hills so that we could get to the same vantage point, but I hope you still find some benefit from these illustrations. If you don't mind, Brad, just going to the following slides, and this aerial representation was prepared by one of our graphic designers, and what it has done is taken in all the pad line work that we've prepared and plotted it into a visual processing program which then delivers this particular visual, and what it does is it represents what the stage 5B operations prior to when we do commence extraction operations. You can probably see the dredge there, floated on just to the centre right, abutting the – what will be the eastern – sorry, the western boundary of the site.

As you can see, what we have tried to do is try to avoid the areas to the south and west of the site as it – as it is depicted directly to the centre and to the west of the plains, if we're looking to the south, in the interests of avoiding impact to the more dense and well connected Bangalay Sand Forest which surrounds the resorts. Another element which is for development use is the establishment of the pond and the other uses that it could serve in the long term. We believe it will have added benefits to the ecological communities as well as may recall on the day, one of

the community representatives – I think we did go to that – the existing operations, that shallow wetlands can also provide habitat for other ecological species, and also, as you would have witnessed, on the day we do have the ability to provide effective rehabilitation outcomes through our rehabilitation plans and deliver ecosystems of value to the corner.

Obviously, as part of this modification, we would be required to do further consultation with council and other community groups so we can work to tailor – further tailor the rehabilitation plans for the habitats which those groups collectively would be most appropriate and of most value. We would also submit that the pond would have the ability to improve water quality, particularly going into the river, through the fact that it would be, as a result, eliminating land or surface area which would otherwise be available for the purposes of agriculture and thereby remitting, you know, nutrients which would ultimately be affecting the catchment area. If we can go to the next slide, please. Here we've also tried to stay with that last image – sorry, the following image. This is just depicting stage 5A area to the north, located towards the southern end or the south-eastern end of stage 5A on the - - -

MS LEESON: This is taken from about the driveway to 431 Riverside?

MR VOLODER: That is correct.

MS LEESON: Yes. Thank you.

MR VOLODER: If we go to the next slide, Brad, please. What you see there is what we expect the area will look like once we do establish the bunds and treat them appropriately, and when we say treat them we mean vegetate them, as we believe that will soften the appearance of the attraction area itself and will also afford other sediment and dust control measures as the bunds themselves would be managed and vegetated in that way. If there weren't any other questions on these particular slides, we'd be – we propose to move forward to discussing the groundwater elements. That's – if that would assist.

MS LEESON: Thanks, Adnan. Yes. Thank you.

MR VOLODER: We're going to have Ben discuss these now.

MR WILLIAMS: How's it going? I'm Ben Williams, the environmental coordinator at the side.

MS LEESON: Hi, Ben.

MR WILLIAMS: If I could get you to just go to the next slide. Yes. So this is just, basically, an overview of the catchment, just to give reference to the Minnamurra River catchment. It's approximately 120 kilometres squared. Approximately 48 and a half per cent of that is cleared or agricultural land, with two per cent urban development, 1.2 per cent industrial, 47.9 per cent vegetation and wetland, so the

majority of the site has got the history of agricultural land or previously cleared, as you can see in stage 5A and B. Agricultural impacts were the largest factor influencing water quality in the catchment, and they're for the river. Project area is less than one per cent of the catchment area, and that area is mostly made up of that former – former agricultural land or area that's been previously cleared.

So if I could just move onto the next slide. So we've done monitoring at the site since 2001 with our consultancy their findings have found that the act of rapidly response to rainfall and tidal flow was the primary influence on local groundwater levels. No flow or groundwater direction impacts have been observed or bottled at the site, previous timeframe. We also have no issues with pH in the dredge ponds. All the fines from the extraction are returned to the processing facility at Tabitta Road, which further reduces any potential acid sulphate impact risks. At stage 5, we've also developed a acid sulphate management plan to formalise these management processes. We know there may have been some other questions in relation to groundwater if that's correct. If you want, you can ask them and I can address them while I'm here.

MS LEESON: We've covered a few questions on groundwater. Peter, did you have anything in particular you wanted to raise?

MR COCHRANE: Nothing – no. Nothing in particular, specific. Thanks.

MR WILLIAMS: No worries. Well, if you don't mind, we might move onto the next section, which is flood protection and recovery. I can move through that. So the flood modelling consultation has been done with the agencies, as you see in 5A and 5B extraction area. So we might move to the next slide. So your RLs are here in stage 5, so you've got information about the it just gives a bit more context to that image you saw before from Riverside Drive. Those have been – this is viewing more from the driveway, and that provides you with - - -

MS LEESON: Then these bund levels, are they the ones that were proposed or the ones that you've moved to in the RTS?

MR WILLIAMS: These are the one in 100 year levels, which were from the response to submissions.

MS LEESON: Thank you.

MR WILLIAMS: The difference was – yeah. Too easy. There was about 10 to 20 millimetres difference between the two figures.

MS LEESON: Yes.

MR WILLIAMS: Awesome. We might move to the next slide, and that has the RL for the bund for stage 5B, and the locations. So, yeah, you can see there those are again those one in 100 year flood bund levels just - - -

MS LEESON: And if I could – sorry.

MR WILLIAMS: Yep.

5 MS LEESON: I should have asked you before you moved onto 5B. Back on 5A, I
read that an increase in level of the five-year ARI flood level across Riverside Drive
of about 16 millimetres, an increase. What's not clear to me is what's the situation
now and is 16 millimetres additional a tipping point? I mean, is that a road closure
10 point? Does that impact the recycling plant in any way?

MR WILLIAMS: We can provide that – those details taken on notice. Yeah. We
might get back to you.

15 MS LEESON: I mean, of its own, 16 millimetres doesn't seem very much, but if
there's, you know, some minor flooding of the roadway at the moment that doesn't
force its closure, would the additional 16 millimetres likely cause its closure?

MR WILLIAMS: Yeah. We can take that on notice. We'll have specific detail
around that in our flood modelling, which is located in that plan, and that way we can
20 give you a precise answer to that question.

MS LEESON: Thank you.

MR WILLIAMS: All right. So we might move to - - -
25

MS LEESON: Want to go back to 5B?

MR WILLIAMS: Yep. That one there. Yep. And then 38, those RLs are what you
see before, and the flat height difference is that image that you see, so as you
30 are, kind of, referring to that differential which we can then provide that information.
We can provide some more clarification in writing if you request. Just let us know
via Brad.

MS LEESON: Thank you.
35

MR WILLIAMS: Awesome. We might move to the next slide, which is traffic and
transport for the rehabilitation. I'll pass that one through to Adnan. Thank you.

MS LEESON: Thanks, Ben.
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MR VOLODER: I think we're ready to go. So my understanding was that the panel
was hoping to get some greater certainty here around what traffic impact would be
associated with that project. On that particular point, I think it would just be worth
highlighting that the principal vehicle impacts associated with the project will
45 generally stem from either the – or primarily from the construction operations
associated with establishing either stage, and then, significantly in the scale of the

project, the importation of to the site in order to backfill stage 5A to its present form, being lands.

5 Obviously, we have presented some indicative timeframes in the report in which we would hope to achieve those particular outcomes. However, I'm sure the panel can appreciate there are market constraints which do affect the availability of materials. However, our desire – and we are fairly confident also that we would be able to achieve rehabilitation in that one stage is most of the in the timeframes that we put forward in this particular applied. Given the impacts, as we highlighted on the day when we did go out onto site, we did flag that our traffic in fact, 10 recognised that the current active point, being the intersection of Riverside Drive and Fig Hill Lane isn't appropriate for the utilisation vehicles, primarily relating to sightline distances and the proximity of that intersection to the outbound – sorry, the south-bound exit lane of the highway.

15 As a result, we proposed to establish a new access point to the site, specifically, to address that issue to allow haulage vehicles sufficient sightlines and a distance to stop and make a safe right turn in. This matter was actually flagged with us during the course of the assessment, and what we did was intersection plans to Kiama 20 Council. Given in that particular section sits sort of on the boundary between Shellharbour and Kiama, and we did receive written correspondence from council that the intersection solution, being a dedicated right-turn lane, was appropriate for that particular location.

25 If we can just go to the next slide, what we've done here is we've tried to extract the latest data from the traffic impact assessments that we did. Obviously, what we've tried to do is model the worst-case scenario and what sort of impact we could have on a particular road and the likely demand on our intersection. What we anticipate would occur on average would be between three trucks per hour and 30 potentially 23 trucks per day delivering VENM material and an absolute peak of five trucks per hour or 45 trucks per day. These sorts of activities, they could occur over a 48-week period in order to fully realise the full rehabilitation of the 5A area.

35 MS LEESON: That appears to be – I understand the complexity of the availability of the import material, and running the quarry business, clearly, you have campaigns for the extraction and export of the product. And similarly, I would think, and I think you explained the other day that the importation of VENM is on a campaign basis as well. And that's very peaky, if I can put it that way. It's not a level, steady process. And I would imagine that you're doing that through campaigns and that you would 40 have campaign periods when your truck movements are likely to be significantly higher. Is that a fair comment, that you will have periods where, in fact – this is a simple arithmetic analysis, what you've put here – is it a fair statement that you would actually have periods of much higher – likely have periods of higher traffic volumes coming to the site?

45 MR VOLODER: I might just fetch one of my business colleagues, if I may, to answer that question, if that's okay.

MS LEESON: Yes.

MR BOLTON: Yes. Sorry. It's Dave Bolton here. Yes. We – I just wanted to probably call on the importation of VENM materials and our existing Dunmore Sand
5 and Soil operations for rehabilitation.

MS LEESON: Thank you. Yes, that would be good to understand. Thank you.

MR BOLTON: Yes. So – so we – the VENM that we would be anticipating to
10 bring in here would not necessarily be coming from our quarry and operations but from other construction activities that occur in the Illawarra region. So you are correct in that the demand and availability of those materials does fluctuate. However, the truck movements that we have put in here allow for us to actually manage the vehicles onsite because there will be very strict inspection and
15 receivables protocols on each of those vehicles as they enter site. So, you know, trying to more trucks than what we have up here – have indicated up here – it's not really practical, anyway, onsite. So I don't see any real risk that – that the truck movements would increase from there. Secondly to that and to ensure - - -

MS LEESON: Sorry. So what you're saying – sorry to interrupt, David. So what
20 you're saying there is that your receival inspection and protocols would actually preclude you bringing many more trucks than that an hour onto your site.

MR BOLTON: That's correct. That's correct. And so support that and ensure
25 compliance, we have then the flexibility to be able to divert any excess vehicles that – that – that, you know, may have left a construction site and need to, you know, tip their VENM. We are able to divert those – those trucks and that material to our existing Dunmore Sand and Soil operations there in stage 2 or stage 3 to – to ensure that we do not allow any vehicles beyond limits that we are suggesting.

MS LEESON: Okay. So you - - -
30

MR BOLTON:

MS LEESON: You need to and you can manage those movements into the site?
35

MR BOLTON: Absolutely.

MS LEESON: Thank you.
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MR VOLODER: Wonderful. Moving along, Brad, if we could just go to the next
slide. What we've also tried to do is – it's a little bit tricky to visualise again –
utilising of our design, is tried to provide a depiction of what the intersection
would likely look like once it is established. So if we go to the next slide, what you
45 will see is the introduction of that new access point, the remarking of that that dedicated right-turn lane which we believe and our experts believe provides

sufficient space to allow free-flow movement to continue to occur along Riverside Drive without being impacted too significantly by our operations.

MS LEESON: Thank you.

5

MR VOLODER: If there weren't other questions, we can probably move on to - - -

MS LEESON: Not on traffic and transport, I don't think. Peter, unless you had something.

10

MR COCHRANE: Just a quick question, thinking of that diagram, have you got any idea what the traffic movements into the Minnamurra – I think it's the Minnamurra – waste recycling depot which are heading in the opposite direction?

15

MR VOLODER: I cannot recall precisely off the top of my head, but I would – I can confirm that for you, as it wouldn't have been reflected in our traffic impact assessment. But I will extract some information for you and provide a summary, if that's okay.

20

MR COCHRANE: Just wondering what the likelihood of having, you know, two large vehicles facing each other on those two exit lanes at the top of a hill.

MR VOLODER: Certainly. Yes. We can – we can confirm what our modelling has found and what it projects. We will work it out for you.

25

MR COCHRANE: Okay. Thank you.

MS LEESON: Thanks, Adnan.

30

MR VOLODER: That's all right. Moving on to the recommended conditions. So we were given an opportunity to review the conditions, and we feel they appropriately respond to the nature of the projects. We did, in consultation with the department, provide some initial feedback in relation to the wording and to the timing of some of those conditions, and that's really reflected in the before you.

35

So we've – we do find that the majority of those conditions are workable, and we feel confident that we have effectively implemented and achieved the outcomes that are being through those conditions.

40

A solution that has been put forward in relation to the amount of construction noise, for example, at stage 5B, we feel is appropriate, and we welcome the opportunity to work with our neighbours to resolve any concerns that they have. And the business has already been in touch with those particular landowners, so we are honouring those initial pathways of communication with them. We would like to briefly discuss one condition, though, with you, and that relates to condition 32, the into the timing which some of the management plans need to be provided. I might hand over to the Ben to discuss this, given that he is regularly and actively involved in the

45

implementation and in relation to these management plans to guide you a bit further, if that's okay.

5 MR WILLIAMS: Hi. How is it going? So with the surface water management plan and the soil water management plan, for that particular condition, it's – we would like that to be reworded to not permitted stage 5A until the water management plan in stage 5A has been approved. We believe that it's appropriate that the soil and water management plan is separated into a prospective sub-stage as each of our operations have different natural conditions and require appropriate management processes. What we really want to do is really to tie in the management plan to each stage. That – when we were on – when you guys were onsite, for example, on – the other day, you would have seen areas that – adjacent land lots, for example, in stage 3, which is currently – hasn't been extracted, but do have a for. That particular area, for example, is in its title zone compared to other areas, so that will be the justification for that.

MS LEESON: So essentially, you would be looking to hold the stage 5B management plans back and not have to have those done in order to commence 5A?

20 MR WILLIAMS: Until we're – yes, until we're in stage 5B.

MS LEESON: Yes.

25 MR WILLIAMS: Yes. So each stage has a specific commencement it's the most rational way forward, yes.

MR COCHRANE: Would you still have one soil and water management plan or would you have separate ones for 5A and 5B?

30 MR WILLIAMS: We would still have one, but the – the particular action plan for stage 5 would be in a separate stage plan which would be approved.

MS LEESON: Yes.

35 MR COCHRANE: Okay.

MS LEESON: Okay. We will give that some thought. Thank you. If you would like to expand upon that and provide that to Brad, then we will think about that more closely.

40 MR WILLIAMS: Awesome.

MS LEESON: Okay.

45 MR WILLIAMS: All right. I will just pass along to - - -

MS LEESON: So yes, we're just up to pictures from – that I can see now. Okay. Terrific. There are probably a couple of other questions that we would like to put to you. We're a little over time, but I'm sure you won't mind. One is around the biodiversity and offset credits, and I think we're just trying to understand what your
5 current thoughts are in terms of satisfying those credits; whether it will be stewardship sites – I think I understood around the Bangalay Sand Forest when we were there onsite, your view was probably to make the requisite payment to offset the credits. I might have had that wrong, I'm not sure. But in respect of the other ones, what's your current thought process around those other offsets?

10 MR WILLIAMS: I will refer that one to Adnan. I will let him come in.

MR VOLODER: It's Adnan again. So we did present in our report that given the time constraint that we're current facing at the moment, the – the preference,
15 currently, would be to retire credits and to purchase those offsets through the State Government pool. However, we are exploring other opportunities. We have looked at, in the past, opportunities to create a stewardship site. Unfortunately, my – a bit tongue-tied at the moment; apologies.

20 MS LEESON: That's okay.

MR VOLODER: And those sorts of investigations really involve us trying to establish communication with, for example – I will just give you a bit of detail on one of the – one of the options. But we're looking at – we were considering whether
25 or not there was a possibility of establishing a stewardship site next door directly to the west which was previously the RMS lot.

MS LEESON: Yes.

MR VOLODER: However, the discussions with the agency at the time, they didn't really come to fruition on the basis that the authority at that particular point in time when we were progressing the proposal was looking at disposing of the land and not necessarily seeking to engage with us directly and have those opportunities. However, in the last, I would say, probably, two or three months, the ownership of
35 the land has now transferred into private ownership, so there is the possibility that that opportunity could come to fruition at a later date. However, as I'm sure the panel can appreciate, those sorts of matters would be subject to, probably, some further consideration from a commercial perspective in relation to whether or not the landowner would be open to such an arrangement on their site in that it isn't in our
40 control and secondly would also be subject to further investigations being completed on that site to really definitively establish whether or not sufficient management procedures can be implemented to achieve a stewardship site – oh, my God.

MS LEESON: It is a tongue-twister.
45

MR VOLODER: There's – whether or not a stewardship site would be appropriate and whether or not sufficient credits would be available because, as you probably

would have observed, there was quite a significant amount of weeds and vegetation there which currently would render the value of that area to be sort of questionable to an extent. But those are options that we have considered and would be open to. However, given the time constraints currently that we're facing and in the interests of
5 trying to address the immediate demand for resources in the region, the preference would be to pay into the funds.

MS LEESON: Okay. Thank you.

10 MR COCHRANE: I'm just trying to understand your time constraints issues. I'm assuming your – the staged production would focus on stage 5A first and then 5B, so you must be at least a few years away from the possibility of 5B being – you don't start any extraction there.

15 MS LEESON: I think the assessment report says two to three years - - -

MR COCHRANE: Yes.

MS LEESON: - - - following stage 5A's commencement.
20

MR VOLODER: That's correct.

MS LEESON: Yes.

25 MR COCHRANE: Yes. So I'm just not quite sure what time constraints – two to three years would seem a reasonable amount of time to be able to negotiate a local stewardship agreement, I would have thought.

MR VOLODER: Certainly. So there is that element in firstly negotiating the
30 agreement, but then there would be the other elements associated with going any further; conducting the investigations; doing the surveys to really establish whether or not that option would be meaningful and – and worthwhile from an offset perspective; and then the amount of time that it has taken to really establish those sites from the legal perspective. One would assume – well, based on the information
35 that we have, that process can take, generally, two or three years, potentially, sometimes even more, depending on the type of area that you're dealing with in question.

MS JACKSON: Yes. So it's Kate here. So we actually already had the
40 stewardship rights at Koollanburra in the Shoalhaven area, and that's through our Peppertree Quarry and limestone quarry – mine. And to establish that site, it has taken – in fact, it's still not fully established now. But yes, it has been well and truly over two years. So it's not a quick process, and it's certainly not a process that we want to rely on in instances when, you know, we are running out of sand.

45 MR COCHRANE: Yes.

MS LEESON: It wasn't a major concern, I think it's fair to say. It was more a level of interest as to what your current approach is.

MR COCHRANE: Yes.

5

MS JACKSON: Yes.

MR COCHRANE: And did you – given the adjacent Bangalay Sand Forest to the south of 5B, did you consider – was there any prospect of a stewardship arrangement being entered into with the existing landowner of – that you were leasing from for that southern part of the forest to be managed specifically for stewardship reasons?

MR VOLODER: Certainly. So that is something else that we've explored. But then again, what we've tried to out is how much value would be attained from an offset perspective of locking up that small section of land. Also we realise that there is vegetation out there. We were really trying to find areas that would achieve an appropriate nexus in terms of scale. Whilst you could establish an – an offset site first up, we would suggest that a larger site would be preferential, given the fact that the credits would probably be – be of more value to the surrounding habitat rather than an isolated section plan, we would say.

15
20

MR COCHRANE: Right.

MS LEESON: Are you right with that answer?

25

MR COCHRANE: Well, I'm unconvinced, but I don't think you're going to add more to it.

MR VOLODER: We can provide clarification if you like. However, as I mentioned earlier, the – the constraints that we're facing at the moment really paints – paints a picture to us that the preference would be to – to go down the path of offsetting rather than a stewardship currently.

30

MS LEESON: Into the fund.

35

MR VOLODER: And into the fund.

MS LEESON: Yes. Okay.

40

MR COCHRANE: Yes.

MS LEESON: Thank you. Thanks for that. In terms of other questions, I don't think I had much else. I'm scrolling between different devices here, so bear with me.

45

MR COCHRANE: We've talked about quality. We've talked about slumping and the offsets and the sort of project boundary issues.

MS LEESON: I didn't have any other material questions.

MR COCHRANE:

5 MS LEESON: Peter.

MR COCHRANE: No, I think that was – we've covered it.

10 MS LEESON: Okay. Thank you. Brad and Alison from the office of the Commission, are there any matters that the Commissioners haven't raise that you think we've overlooked that we should be exploring?

MR JAMES: Nothing from me, Di. I think it's all covered.

15 MS LEESON: Thanks, Brad. Alison?

MS HARRISON: Nothing from me either, Diane. Thank you.

20 MS LEESON: Okay. Thank you. Sorry, Peter has one more question by the look of it.

MR COCHRANE: I just wanted us to put on the record our thanks for you hosting the site visit and your free and frank responses to our questions.

25 MS LEESON: Yes.

MR COCHRANE: Thank you very much.

30 MS LEESON: Yes, that was greatly appreciated. Thank you. Is there anything else that you wanted to convey to us today while you had the opportunity?

35 MR BOLTON: Look – it's Dave Bolton again here, guys. I just wanted to take the opportunity to thank you – thank you for the opportunity to provide more clarity over our proposal. And, you know, we're – you know, we're certainly open to – to any area of this development where, you know – where, you know, we haven't considered, you know, the environment and our community and our local – our local surrounds adequately. We – we are – we're totally open to – to any suggestions that the Commission may have with regard to – to anything here in our – in our application. We want to make sure we are doing the right thing, and – and, yes, we will, yes, gladly address any other questions that you – you may have between the –
40 between now and – and the hearing and – and ultimately, your – your – your decision. So thank you again.

45 MS LEESON: No, thank you, David, and thank you to the team. There has been quite a bit of effort put into that. We don't have any further business. Brad and Alison will come back to you to follow up on those few things that we did raise today and you've undertaken to come back to us on. And we will do that over the

next few days. And other than that, we look forward to seeing you at the public meeting which will, no doubt, be another electronic version of this. So we will see how we manage to get through that. We've done some big public meetings and hearings in recent times or other Commissioners have. So if they can nail it, I'm sure
5 we can get the technology sorted as well.

MR COLLINGS: All right. Well, let us know – let us know if there's anything that we can do to assist to make that, you know – that presentation, that forum more effective. So please don't hesitate to reach out if – if – you know, if we can help in
10 any way.

MS LEESON: We will do, and we will do that via the office. So thanks very much for your time today and as I say, we will see you on the 28th.

15 MR COLLINGS: Thank you, Commissioners.

MS LEESON: Thanks. Thank you. Bye.

20 **MATTER ADJOURNED at 1.13 pm INDEFINITELY**