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TRANSCRIPT OF PROCEEDINGS

TRANSCRIPT IN CONFIDENCE

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INDEPENDENT PLANNING COMMISSION

MEETING WITH APPLICANT

RE: RIX'S CREEK SOUTH CONTINUATION OF MINING PROJECT

PANEL:	**PROF MARY O'KANE** **ANDREW HUTTON** **TONY PEARSON**
ASSISTING PANEL:	**DENNIS LEE**
APPLICANT:	**JOHN RICHARDS** **BRETT LEWIS** **GEOFF MOORE** **CHRIS MOY** **CHRIS KNIGHT** **DIANNE MUNRO**
LOCATION:	**IPC OFFICES** **LEVEL 3, 201 ELIZABETH STREET** **SYDNEY, NEW SOUTH WALES**
DATE:	**11.02 AM, TUESDAY, 9 JULY 2019**

PROF M. O'KANE: All right. We might get started. Thanks, Dennis, for that. Um, so I will start with the opening statement. So in opening, I'd like to acknowledge the Gadigal people of the Eora Nation, the Traditional Owners of the land and pay my respects to their Elders, past, present and future. Um, we note that the Bloomfield Group that we're meeting with is seeking approval for SSD6300 to continue open cut mining of Rix's Creek South Coal Mine for an additional 21 years. My name is Mary O'Kane. I chair the Commission on this panel. Joining me are my fellow commissioners, Andrew Hutton and Tony Pearson, and the panel is supported by Dennis Lee from the Commission Secretariat.

In the interests of openness and transparency, to ensure 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. And this meeting is one part of the Commission's decision-making process, and this, along with, um, several other process pieces, will form the base of our determination, as well as all the documents in front of us.

Um, it's important for us to ask questions and to clarify issues. If we ask you a question you can't answer, please feel free to take it on notice and provide, um, written feedback to us later, um, which, of course, we'll then post on the website. And could you introduce yourselves for the transcript the first time you – or every time you speak. So – all right. Well, thank you for coming in. Thank you for all the material, um, and I guess you probably want to make some opening statement or presentation, and we've got a set of questions, then.

MR B. LEWIS: Well, I think probably the presentation is probably the best way - - -

PROF O'KANE: That would be great.

MR LEWIS: - - - to – to kick it off. I think you're familiar with the project.

PROF O'KANE: We are.

MR LEWIS: Um, if – if you're not, ah, please feel free to - - -

PROF O'KANE: We should be.

MR LEWIS: To ask, but, ah – so I think Geoff - - -

PROF O'KANE: Yeah.

MR LEWIS: - - - can run you through that - - -

PROF O'KANE: And we - - -

MR LEWIS: - - - and as we go through, please - - -

PROF O'KANE: We might then ..... questions.

MR LEWIS: Please, ah, interject and let's - - -

MR A. HUTTON: Yep.

PROF O'KANE: Yeah.

MR LEWIS: Let's get as much - - -

PROF O'KANE: That would be - - -

MR LEWIS: - - - information across the table as we can.

PROF O'KANE: And we're particularly interested – one – one big question is about the option 1, option 2 question. Interested to – to know your reasoning around all of that.

MR G. MOORE: All right. Geoff Moore. Um, thanks for the opportunity to – ah, to present here again. Um, so as far as an agenda, um, a quick overview. As I said, you're certainly more than familiar with – with the project. Um, just the regulatory responses that we've been – ah, that we've had so far, we'll address each of the recommendations separately, um, and then we've got the matters of greenhouse gas, which was a separate submission.

PROF O'KANE: Yep.

MR MOORE: And then a brief summary. Um, I'll try and run through these reasonably quickly. So I'm sure you're aware of the location. Ah, Rix's Creek South is in this area here. We have, ah, Rix's Creek North, the Integra Underground, um, Glendell in this region, Ashton, Ravensworth and, um – and, ah, I think that actually covers those. So it's – it is located in a – in – in a cluster of other operations, certainly to the – probably to the north-west of us. We have the Main Northern Railway line ..... through here, and also the New England Highway. And, ah, we're reasonably close to an industrial area of Maison Dieu or McDougalls Hill.

PROF O'KANE: Just one question on location. Um, sort of back on the previous slide, as Singleton expands, what's your understanding of the timing of the expansion of the town? So from where it is now, is it likely to come very close to the mine over what time, or is Singleton - - -

MR MOORE: The - - -

PROF O'KANE: You know, I know there's various permissions there, but do you think it's probably almost at peak size, or is that just too hard for all of us.

MR MOORE: Ah, I – that's – that's probably – yeah, that's - - -

PROF O'KANE: Yeah.

MR MOORE: I – I certainly couldn't comment on that. Ah, most of the development of Singleton at the moment is predominantly in this region - - -

PROF O'KANE: Yeah.

MR MOORE: - - - off the – off the plan here. It's sort of Singleton Heights, but it's - - -

PROF O'KANE: Yeah, we – we - - -

MR MOORE: It's heading more towards - - -

MR HUTTON: - - - drove around it, thanks, so we're familiar with it, yeah.

MR MOORE: Yeah. So that's – that's the main area.

PROF O'KANE: And you – and that will expand - - -

MR T. PEARSON: And just for the transcript, maybe if you could perhaps – the area you're pointing on the map is – is to the south and the west of - - -

MR MOORE: Yes. It's sort of – it's – it's essentially to the west of Singleton Heights – sorry; to the east of Singleton Heights. East of Singleton Heights.

PROF O'KANE: No. The – and the under point – the underlying piece of the question, really, is understanding how close the mine and the town get at various times, but maybe that's just such an unknown because of .....

MR J. RICHARDS: There is a natural barrier with the railway line coming down on the eastern side of the Rix's Creek site.

PROF O'KANE: Yeah.

MR RICHARDS: And, ah, none of the sort of residential development has occurred on the western side of - - -

PROF O'KANE: Right.

MR RICHARDS: - - - the railway line to – to date, and there is a significant topographical feature there where it rises up very steeply - - -

PROF O'KANE: Yes. Yeah.

MR RICHARDS: - - - up on the railway lines. So, ah, it – it is very unlikely that the residential areas will – will encroach to the west, ah, and as – as Geoff says, most of them have actually been – most of the new residential developments are out to the east of Singleton Heights.

PROF O'KANE: Yep.

MR RICHARDS: There are some slated in that northern area, but they – it's more a sort of a creeping, ah, extension of the existing residential area - - -

PROF O'KANE: Right.

MR RICHARDS: - - - to the north.

PROF O'KANE: Okay. Yep. Right.

MR RICHARDS: And – and I think if you look down to the south, there, um, are constraints there about the flood zone.

PROF O'KANE: Okay.

MR RICHARDS: So, um, it does look as though that area out to the east is the – is the principal area.

MR HUTTON: Um, Andrew – Andrew Hutton speaking. That plan shows the project area, not land owned by, um, Bloomfield or - - -

MR RICHARDS: True.

UNIDENTIFIED FEMALE: Yep.

PROF O'KANE: Or Rix's Creek North as well?

MR RICHARDS: True.

MR HUTTON: Right.

MR MOORE: Correct.

MR LEWIS: Brett Lewis here. Just to sort of try and answer your question, Mary, I think given everything that's been said with the project heading further west at a higher level - - -

PROF O'KANE: Yeah.

MR LEWIS: - - - the project's generally going to get further away - - -

PROF O'KANE: ..... away.

MR LEWIS: - - - from – from areas of residential, ah, as clumps of - - -

PROF O'KANE: Yes.

MR LEWIS: - - - development.

PROF O'KANE: Yeah. Good. No, thank you. That just helps me with that context.

MR MOORE: Ah, as we mentioned before, Rix's Creek South is now part of the Rix's Creek Mine, and Rix's Creek South has been operated since 1990. Um, the initial area of operations – early stages was in the northern part of the, ah, consented area, um, and Rix's Creek – what's called Rix's Creek West, it commenced Chris - - -

MR MOY: Early 2000s.

MR MOORE: Early 2000s, yes. Um, in terms of, um, our employment, I guess we – we certainly endeavour to employ local personnel, um, and then local contractors, preferentially. Um, 70 per cent of our employees reside – well, we would call it locally, at Singleton, Maitland and Cessnock, um, with 33 per cent from the Singleton area.

PROF O'KANE: And on employment, I – jumping to a question I had for a bit later, would you be able – and this is probably one to take on notice – to give us a rough idea of employment numbers over time, over the life of the mine. So by year or by a couple of years or something, and likely contractors that'll come. So what's the pattern over time?

MR MOORE: Projected? Projected. Just - - -

MR LEWIS: Brett Lewis. For clarification, do you – are you referring to Rix's Creek, the mine, or Rix's Creek South, because there - - -

PROF O'KANE: It's a good - - -

MR LEWIS: There is that sort of step change when we purchased, ah, the old Integra Mine. There was a - - -

PROF O'KANE: Well, it's more going for – I guess it's really about this application, but it probably wouldn't be a bad idea to show it as the employment that's coming off this particular application, but then adding Rix's Creek North to it to show the full employment - - -

MR LEWIS: Yeah. Okay.

PROF O'KANE: - - - picture, and, if it's easy, the contracting picture, because I – we got the total number, but I thought it'd be nice to see it - - -

MR LEWIS: Well, we can do that. We've got records of - - -

PROF O'KANE: Yeah. It doesn't have to be - - -

MR LEWIS: - - - contractors and - - -

PROF O'KANE: - - - down to the last person.

MR LEWIS: Yeah, but we can give you the - - -

PROF O'KANE: It was really just for – to see the – the sort of pattern - - -

MR LEWIS: A graphical representation?

PROF O'KANE: Yeah.

MR C. MOY: Looking forward, not looking backwards?

PROF O'KANE: Looking forward, yes.

MR HUTTON: While you're doing that, there is a bit of a discrepancy in the MOD 10 presentation which nominated 255 FTEs attributable to Rix's Creek South, and I think in this ..... you've nominated 130. So it's probably just a definitional piece, but if you

MR RICHARDS: Yeah.

MR LEWIS: Yes.

MR HUTTON: - - - could clarify that difference that'd be appreciated.

MR LEWIS: I think, Andrew, that those numbers, again, are site-based jobs and group-based jobs. There's a - - -

MR HUTTON: Yep.

MR LEWIS: There's a number of, ah, offsite workshop jobs and – and – and, ah – and some senior management jobs that are associated - - -

MR HUTTON: Yep.

MR LEWIS: - - - or allocated, if you like, to the Rix's Creek South operation. So - - -

MR HUTTON: I think if there was an opportunity to break that down - - -

MR LEWIS: Yeah, we'll try and make that clearer.

MR HUTTON: - - - into a pie chart or something and just show that for us. And to clarify the – just the difference between what we're calling Rix's Creek South and North and, I guess, your – the – the cumulative numbers across the group, but to have them split.

MR MOORE: Yep.

MR HUTTON: Yeah. That would be useful for us.

MR MOORE: And the final point there, following MOD 10, ah, determination for Rix's Creek South now, ah, is valid to the 24th of March next year.

PROF O'KANE: And that raises the question of – um, which we just raised with the department, clarification on this application. Is it 21 years from 24th of June 2019 or from 24th of March 2020?

MR MOORE: Ah, I think as we mentioned in the MOD 10 because that question - - -

PROF O'KANE: Yeah.

MR MOORE: - - - came up.

PROF O'KANE: It did, yeah.

MR MOORE: Ah, certainly, the resource that's there would be mined – would be able to be mined within, ah, a 20 – 20 – 21-year period.

PROF O'KANE: Yeah.

MR MOORE: So I guess – to be honest, it's probably not that critical from our perspective whether it's - - -

PROF O'KANE: Right. But - - -

MR MOORE: - - - from – from where the point is - - -

PROF O'KANE: What would - - -

MR MOORE: - - - because - - -

PROF O'KANE: - - - you prefer, I guess, is the – might be the way to ask it.

MR HUTTON: Yep.

PROF O'KANE: And you don't – you can take that on notice because we'll need to be precise - - -

MR MOORE: About the time.

PROF O'KANE: - - - if we grant consent.

MR MOORE: Yeah.

PROF O'KANE: Yeah.

MR MOORE: Yeah. Yep. So just to, ah, I guess, address some of the – the changes that happened in – from when the EIS was done, um, I – I guess a major change from our perspective was the purchase of, ah – of Rix's or the – the Integra, ah, Open Cut Mine in – in – in, ah, 2015, and that certainly allowed the – the production targets that we were seeking – sort of the maximum production targets we were seeking to be reduced from that, ah, 4.5 million tonnes per annum down to 3.6 million tonnes, um, on – on a ..... basis. Following from that is the – the reduction in – in, ah, I guess, air and noise, ah, impacts from – from the reduced production levels.

Um, part of the purchase involved the equipment with – at, ah – at the Integra Open Cut which, ah, was generally sound suppressed gear. So that has come into the fleet. Um, and, I guess, the major focus around the purchase was also the – ah, access to the rail loop. So that negated the – the need for – for the rail loop as part of the original EIS application. Um, throughout the process, there were also some changes with the, ah – the north pit that – that, um, removed the – ah, the need to divert Stonequarry Creek and in the west pit, um, to avoid Deadman's Gully.

MR HUTTON: So – so I'm clear, you're – if the project was approved, you will operate the north and south sides as a complex with two consents.

MR MOORE: Correct, yes.

MR HUTTON: Right.

MR MOORE: Yep.

MR HUTTON: Okay. But you will operate as one - - -

MR MOORE: One - - -

MR HUTTON: - - - operation.

MR MOORE: Effectively, one site. Yes.

MR HUTTON: Okay.

MR MOORE: Yep. Um, as I've spoken on before, the – the – Rix's Creek Continuation Project has been in the approvals process since 2013. Um, so, naturally, a lot of things have changed over that time. Um, I guess the – the – one of the significant points that we've noted on this chart at the moment is this, ah, Bloomfield decision, and based on our experience with the MOD 10 application, um, should the determination of – of this project not be finalised by, you know, around the, ah, end of October, then we will certainly need to be looking at what – what our next steps is and – and considering, ah, a MOD 11 application if that's required. Hopefully that's not required.

PROF O'KANE: I should say, hopefully it's not required. We are actually moving very quickly on it, but a lot depends just where we go .....

MR MOORE: Ah, in terms of the assessments report, I mean, we don't need to mention, ah, your own report, but, ah, certainly the August '18 report noted that the project has merit, if – if the – if, ah, we can address some of the – the recommendations – all the recommendations. Ah, we responded to those in, ah – in December, ah, '18. And – and the Department of Planning has seeked clarification on – on various aspects of the – of the project, ah, in the early months of – of this year.

Um, and then the Department of Planning – sorry – Department of Planning issued their final assessment report, ah, in June, um, noting that they've considered that, ah, we'd addressed all the – the Commission's recommendations, ah, to improve environmental outcomes, and that the – the project was actually – was in the public interest and approvable.

And I guess that – that's the similar conclusion that the department had in their May '18 report as well. In terms of the government responses, um, we don't have any outstanding issues in relations to – in relation to the projects. DRG required sustainable rehabilitation outcomes to be strengthened in the rehab strategy and that's – that's been conditioned – or in the recommended conditions. Um, council have confirmed that we've reached in-principle agreement. Um, that's something been with council for quite some time, um, and, ah, I think they're just waiting for the next step as to – to sort of finalise that. Um, OEH indicated they're satisfied with the calculations.

Ah, the EPI – EPA advised that, ah, they required the revised statement of commitments, which is now incorporated into the EIS definition and consent. And following the review of the draft conditions, New South Wales Health was, ah – was, ah, advised that they were – didn't have any other concerns. Ah, if we now turn our attention to the – the various recommendations.

PROF O'KANE: Maybe I just should comment on that last bit about New South Wales Health. We just were talking to the department ahead of you, and we were

agreeing that the health issue was a – is an ongoing problem, in the sense of Health's concern that it raises that any piece of particulate matter is potentially dangerous. Um, so we agreed – we signalled to the department, and they agreed, that it could be an issue, but we're yet to – that we might try and work out how to manage a way through that in some way, of, you know, be it public education or something. So we don't know where we're going, but it's a continuing issue on all minds. It's an important issue. So I'll just signal we might have to come back and talk to you at some point over a condition about public education or something.

MR MOORE: Right.

PROF O'KANE: And it might be wider than a single ..... it might be something – so I'm just getting it on the table, so when we come back you don't think we're – it's – it's trying to deal with an ongoing, big problem - - -

MR MOORE: Right. Yes.

PROF O'KANE: - - - in the community.

MR MOORE: Look, it's certainly a part of mining dialogue. It's been on – high on the agenda - - -

PROF O'KANE: I know.

MR MOORE: - - - for the last number of years.

PROF O'KANE: And you might have thought to yourself, what would help the community feel comfortable?

MR HUTTON: But before you start down the road of each individual aspect, is it possible to talk firstly about the option 1, option 2 scenario?

PROF O'KANE: Yeah, that'd be good.

MR HUTTON: Because everything sort of spins off – you've nominated an option 2.

MR MOORE: Mmm.

MR HUTTON: I'd like to understand your rationale behind selecting that.

MR MOORE: Okay.

MR HUTTON: Because then that was the – the option that went down the assessment path - - -

MR MOORE: Correct.

MR HUTTON: - - - before we talk about that particular .....

MR MOORE: All right. Perhaps I - - -

MR HUTTON: So it might need to jump ahead, but - - -

PROF O'KANE: Jump ahead. Or - - -

MR MOORE: I'll jump ahead.

PROF O'KANE: Yeah, jump ahead.

MR MOORE: I'll jump ahead to that one, yeah.

PROF O'KANE: Yeah.

MR HUTTON: If that's possible, that'd be most useful.

MR MOORE: Yeah, that's fine. Yep.

MR HUTTON: Yeah.

MR MOORE: So it was, yeah, certainly the – the trade-off study in relation to, um, ah, the out-of-pit dump. Um, so option 1 was essentially as per the recommendation, which was remove the – the western, um, overburden emplacement area completely and store that, ah, material on the north and south dumps, ah, by effectively increasing the height of those dumps. We also considered a, ah, configuration that was a combination of the EIS plan and option 1. Um, and that involved using part of the western, ah, out-of-pit dump area. Um, and we picked the area that gave the best volume per disturbance.

MR HUTTON: Okay.

MR MOORE: It was about – ah, obviously about biodiversity trade-offs, ah. Um, so it had part – has part of, ah – of that western out-of-pit dump, um, and also the remainder going into the – um, to the North Pit and the South Pit dumps, as per option 1. So just to, um - - -

MR PEARSON: Were they the two biggest, um, ah, variables in that equation? Because I think the report and your – your work mentions other things as well. So some things are equal, like air quality and noise.

MR MOORE: Yes. Yeah.

MR PEARSON: But then there's, um, final land use optionality and things like that, um, that – that did swing between which option you selected.

MR MOORE: Correct.

MR PEARSON: Were those – biodiversity impact and cost, were they the two biggest variables that - - -

MR MOORE: They were the two biggest variables that, I guess, drove the conclusion. Yes.

MR PEARSON: Right.

MR MOORE: Yeah. Um, I – I think when we looked at – well, certainly worked through the – the pros and cons of the two options – and I'll – I'll cover those in a second, if that's all right – but, yeah, there – there were a number of – of things, you know, ah, redisturbance of rehab, which, you know, there was a cost associated with doing that. Um, ah, certainly the – the final land shu – final land form shape. Um, I guess this is – sort of, regulators have views about, you know, how that should be – ah, be treated, and – and what's – what's a better land form for – for, say, agricultural use at the end.

So that's certainly part of it as well. So just to – to give you the picture of, ah, the two cases, so this – this became – sorry. The – the underlying plan on here is the EIS case, with the western out-of-pit dump area. Um, so option 1 removes that. It has a, ah – a dump in, ah, the North Pit dump here – area here, which actually, ah, because of the – the – the space that was required, ah, involved covering sections of, um, woodlands that had been – been planted some 20 years ago. So – so that was woodlands area.

PROF O'KANE: Yep.

MR HUTTON: How big's that area?

MR MOORE: Ah, I'll have to – I'll have to – I just haven't got it on my mind.

MR HUTTON: That's fine. Yeah. That - - -

MR MOORE: But, ah – yeah. I'll – I'll have to double-check that. Ah, and as well as the – the South – the South Pit area. The difference with option 2 is that we utilise – or propose to utilise part of the western out-of-pit dump, the – the northern part of it, ah, in conjunction with a reduced footprint, ah, on the North Pit dump, and also a reduced dump height in that area.

MR LEWIS: Brett. It was here and maintaining that treed - - -

MR MOORE: Maintaining that treed area, correct.

MR LEWIS: Yeah. That – that was a parameter in setting the dump up in the north, was maintain all of those trees that've been planted in the rehab.

MR HUTTON: Yep.

MR MOORE: So with the trade-off study, um, we – we only dealt with the – the volume that was in the western out-of-pit dump. It was confined to that, so it was as like-for-like comparison as we could with – with the EIS. Um, essentially all the parameters were kept as – as similar as possible so we could do that comparison. Ah, equipment quantities were changed, um, only where the – where it was affected by the – the haulage distance. So all the other parameters were – were kept the same. So it was really just a – driven by – by haul – haul, ah – haul fleet numbers. Ah, out of the – the assessment, as you mentioned, you know, air quality assessment, there was no significant changes indicated by the – by the – the two options compared to the EIS.

And, um, give or take some – some minor edge effects, ah, similarly with – with noise, not – not a significant variance. With the biodiversity, um, when we had those areas assessed, um, we found that the – with option 1 it was a 34 per cent reduction on the, um – on the offset credits associated, ah – with the EIS, and 24 per cent reduction for option 2. Both cases had additional haulings associated with, ah – with hauling to the North Pit. Um, option 1, because all of – essentially, the majority of that material was going to that North Pit area, um, 92 per cent of that volume, um, reported there.

So it was, um, you know, that increased the – I guess, the haulage, ah, distances and lengths and heights and – and therefore costs associated with that, whereas option 2 had, ah, just the 41 per cent going to the North Pit and 51 per cent to the western out-of-pit dump. So the other eight per cent was going to the south – that South Pit dump.

MR PEARSON: Visual impacts were assessed as largely the same - - -

MR MOORE: Largely the same. Yes.

MR PEARSON: - - - between the two. Yes.

MR MOORE: Yes. Yes.

MR PEARSON: So in terms of the biodiversity credits in your report, it has got 2.7 million – option 1; 1.9 million – option 2. Why is option 2 less when you're disturbing less land? So I'm looking at the department's assessment report, page 28, and the table – the table that they've – they've prepared, so this may not be accurate. I'm not sure. But - - -

MR MOORE: Right. Okay.

MR PEARSON: But their table is showing the biodiversity credits, the additional costs of each of the options – or maybe it's a negative, is it? Is that a saving perhaps? Maybe that's - - -

MR MOORE: It could be a saving. Yes.

MR PEARSON: Yeah ..... with the brackets mean – is it just the total?

MR MOORE: Yes. Yes.

MR PEARSON: Maybe just a saving.

MR MOORE: Yes. A saving.

MR PEARSON: Yeah. Okay.

MR MOORE: Yes. It's a – a negative - - -

MR PEARSON: Yeah. Okay.

MR MOORE: It's a negative cost - - -

MR PEARSON: Yeah. Okay. Yeah.

MR MOORE: - - - compared to the original.

MR PEARSON: The original proposal. Okay.

MR MOORE: Yes. Yep.

MR PEARSON: I got you. Yeah. Good.

MR MOORE: Yeah.

MR PEARSON: Thank you.

MR MOORE: Obviously, offsetting the – the biodiversity - - -

MR PEARSON: Yeah.

MR MOORE: - - - was the – was the haulage, so, um, option 1 required, ah, not any more trucks, more volume – but certainly more, ah, more machine hours associated with – with hauling the material to the north pit dump and as I said that's driven by the volume plus the haul distance plus the – the change in elevation. It du – it did have to re-disturb 24 hectares of established woodland that was planted there.

MR RICHARDS: That's – that's the answer you were looking for there?

UNIDENTIFIED MALE: .....

MR MOORE: Yeah. That's right. Yes. So the, um – um – ah – and we did – we did try to manoeuvre that volume around to see whether we could physically get it in, but it just wasn't – wasn't, ah, practical to be able to, ah, to fit the volume in and still leave that area undisturbed. Um, reduce class 45 ..... because that's – I mean, the current out of pit dump area is quite steep on the – on the western side and that's at – and that's where that comment's driven from. Um, option 2 also had some increased haulage cost, but, ah, substantially less than, ah, than option 1. Ah, it did require – there was about four hectares that's, um, younger trees – that's – that's certainly in that footprint, yeah, um, and – and smaller plots of them that would have to be disturbed. Um, and as we said provides more usable landform if – if we're treating the – the slope, ah, as a – as a criterion for that – for that measure.

So I guess, as – as you mentioned, ah, our option 2, ah, was the – was the preferred, ah, option out of it. Um, obviously, the – the reduction in credit was not – was not as good as option 1, but certainly, ah, you know, it's certainly significant. Um, there were no real changes as we mentioned with, um, air quality, noise or the visual aspects associated there. Um, costs overall when we considered the, ah, the – the biodiversity, the – the rehab, um, having to do the rehab areas, ah, and the haulage. Um, you know, there's a few dollars in it. But, essentially, in the scale of things reasonably cost neutral compared to - - -

MR PEARSON: And tho – those costs – again, just going back to that table, um, are they – are they dollars of the day or are they MPV costs?

MR MOORE: Just dollars of the day.

MR PEARSON: So if you were to MP – cause biodiversity credit obviously is today.

MR MOORE: Mmm.

MR PEARSON: Um, haulage costs are over 20 plus years. So you – you would expect from an MPV perspective, those haulage costs might be different.

MR MOORE: Ah - - -

MR PEARSON: So quite significantly different to the - - -

MR MOORE: Yes. They – they may.

MR PEARSON: .....

MR MOORE: Although realistically, those dumps would be – would be addressed fairly early in the project.

MR PEARSON: Right.

MR MOORE: That would be – you know, we – we would be dumping there tomorrow if that was our – our approval.

MR PEARSON: Is – is it possible for you to provide that information on a discounted basis at the – the discount rate that applies to the assessment of mining projects?

MR MOORE: Ah. Oh, I'm – I'm sure we could. Um, I – I think within the – within the scale of accuracy of the – the other things. I mean, the biodiversity is on a – on a basis of best estimate at the time. I mean, that's – that could fluctuate quite significantly as well, but, um, yeah.

MR PEARSON: In what way? So what are – so – I mean, what are the range of out – I mean - - -

MR MOORE: Well, we - - -

MR PEARSON: - - - what are the range of outcomes you might look at?

MR MOORE: - - - we've – we've used a, um – we've used a pricing that was current at the – the time, ah, from – from the biodiversity, um, calculator. Um, that can fluctuate as well, um.

MR PEARSON: Well, could you unpack that perhaps in your response on the discount as well so that that 2.7 you're saying could – could move - - -

MR MOORE: It – it could.

MR PEARSON: - - - either direction quite significantly, so if you could perhaps unpack that a bit as well.

MR MOORE: Mmm.

MR PEARSON: That – that would be helpful.

MR MOORE: All right.

MR PEARSON: I mean, if we could – that 7.9 and 1.2, if we could derive a – a – an MPV number for that. That would be helpful too.

MR MOORE: Right. Mmm. Um, I guess the other, ah, advantage out of option 2 was that, ah, access to the, um – sorry, yes, yeah ..... Access – access to the south and north pits, ah, that would be available, effectively, straight up and that that's what's I was saying. We would be – would be jumping there, um, early on in the – in the project. Um, the western, ah, outer pit requires a, um, a mining lease which is in the process, but that won't happen until after ..... if that – ah – if that happens. So that – that could push out – well, six months to maybe a year, I think.

Um, probably the – the main, ah, reason for choosing, um, the option 2 is that it does gives us operational flexibility. Having those – those two sites, um, which are both geographically, um, dislocated and – and also, you know, height differences and – and topography are quite different in – in both those areas. It does give us, ah, that opportunity to – to manage the operation, ah, both from a daytime/night time point of view, um, from weather patterns that are occurring on the day or – and even seasonal weather patterns. So, you know, there's – there's that opportunity to – to, sort of, look at our – our forecast and – and say, "Look, you know, we've got, you know, unfavourable conditions to be dumped in – in that one area. Well, we can – we've got the opportunity to go elsewhere."

MR PEARSON: Do you have a sense, based on historical data, what – what the flexibility actually means? So, like, weather patterns, how many days you're predicting you might lose due to weather patterns that would adversely affect option 1? Don't limit yourself to, obviously, weather patterns, but all the matters that you consider to be relevant to operational flexibility, have you got any historical data that might be able to quantify what that means?

MR LEWIS: It would be – I would imagine it would be quite difficult to go back and disseminate what – what may have – may or may not have stopped an operation on a particular day. I mean, it may – may have been – or whether we could have – could have gone to a – perhaps a lower dump for a longer period before we – before we would stop, if it was, say, a strong wind situation.

MR PEARSON: Even rough orders of magnitude. What I'm trying to understand with that, with that comment about operational flexibility, is what – what's the order of magnitude around this? Are we talking two months of possible impact related to weather and other issues, or are we talking a few days here or there? So something that can kind of bookend to the extent of the impact that might lead to a loss of operational flexibility would be helpful. So I'm not asking for, "On day X we had weather wind patterns of this which would have meant dumping on this site would have been prohibited or not possible".

MR LEWIS: Mmm.

MR PEARSON: Perhaps if we escalate it to perhaps a bit more than macro analysis, that, you know, wind conditions from a particular direction would provide an adverse impact and that's – that's – that's experienced on each day, or, you know, something like that - - -

MR LEWIS: Mmm. Oh, yeah.

MR PEARSON: - - - that just, at least, at an order of magnitude we can understand whether we're talking about months of impacts, or days of impacts, or hours, or weeks or whatever; to just help quantify what that operational flexibility actually means.

MR LEWIS: Mmm. Yeah, I think - - -

PROF O'KANE: You must have a sense of it.

MR LEWIS: Yeah, I think - - -

MR MOORE: Oh, we got a sense of it.

MR LEWIS: Yeah. At that sort of macro level, I think we could – certainly, with, you know, wind conditions and seasonal conditions, we know the typical weather in winter weather conditions and, you know, historical noise impacts and dust impacts I'm sure we could come up with some - - -

MR PEARSON: Yep. That would be helpful, yeah.

MR LEWIS: - - - some macro, as you say.

PROF O'KANE: Do you have a gut sense?

MR LEWIS: I – oh, I think that it's not going to be months, but it's going to be significant for the operation - - -

PROF O'KANE: Right. Yeah.

MR LEWIS: - - - because having – you know, in any mining operation having an option to go somewhere which is different to – to one place certainly gives you options whether it be wet weather, noise, dust, fog.

PROF O'KANE: No, we definitely accept that. It's just trying to understand with this one if it's going to be - - -

MR LEWIS: Yeah. So I think it will be – it will be significant.

PROF O'KANE: Okay.

MR LEWIS: Significant to us.

MR MOORE: Having said that, it's significant for a period as well. I mean, it's prob - - -

PROF O'KANE: It goes on for a week or something.

MR MOORE: Well, and – sorry – in terms of the volume that – when those dumps are full, they're full.

PROF O'KANE: Yeah. Yeah.

MR MOORE: So – and that probably would happen reasonably early in the – in the project, as I mentioned.

PROF O'KANE: Yeah.

MR MOORE: So it's not – it's not a 21-year impact.

PROF O'KANE: Yep. That's good.

MR MOORE: It might be a – it might be a five-year impact type of thing, but significant in that time.

MR RICHARDS: But especially in the winter.

PROF O'KANE: Yeah.

MR RICHARDS: We modify our operation depending on what the noise – what the noise monitoring might be out on site and we've got somebody out monitoring noise and it might be moving – moving an excavator to a different site, or moving a dump to a different area and having noi – we can – we can probably detail what the rough frequency of those sorts of events is. We can't tell you exactly how much it will be worth, depending on whether we can dump at this site or that site, or continue operation. You know, so that it's difficult to put a quantitative measure on it, but as a qualitative measure I think we could certainly come up with something.

PROF O'KANE: Okay. Thank you.

MR LEWIS: And I think what drove the guys here is that when you look at the site you've got the – the Maison Dieu area - - -

PROF O'KANE: Yeah.

MR LEWIS: - - - where that all other pit dump is, and then – and you haven't where the other dump is. You've got sort of the Singleton Heights potential issues there. So – and there they swing on different meteorological conditions. So they're actually very good to have those options to, uh, to give some flexibility for the – for the communities as well as the operation.

MR MOORE: Yes. So, look, that's - - -

PROF O'KANE: Yeah. That's good.

MR MOORE: - - - covers off our - - -

PROF O'KANE: Thank you. All right. Well - - -

MR MOORE: - - - recommendation 16 if that's - - -

PROF O'KANE: - - - we've left a couple of questions on the table.

MR MOORE: Yeah.

PROF O'KANE: So shall we go back to the - - -

MR MOORE: Yep. Yep.

PROF O'KANE: Yeah.

MR MOORE: Right. So back on recommendation 1, it talks about continual improvement. Can I just – and we believe that we've demonstrated a history of continuous improvement in – in the area of sort of best practice around the dust management side of the business. Nevertheless, we will update these as operational changes and – and technology advances happen. And we do modify operations based on – on the conditions and, you know, that's – that's just an ongoing part of our – our current practice. And, you know, with these changes, we will certainly test trial any new technologies and adopt things as – as – as they provide benefits to us and to the community.

MR RICHARDS: Perhaps just for clarity, a TARP is a trigger action response plan.

MR MOORE: Trigger response plan.

PROF O'KANE: Yes. We hit that occasionally.

MR RICHARDS: And I'm sure you understand that.

MR MOORE: That's right. Okay.

MR RICHARDS: But - - -

PROF O'KANE: Thank you. Yeah.

MR HUTTON: So there are TARPs in your current dust management plans that are available?

MR MOORE: They are, yes, yep.

MR HUTTON: Yep. And would they typically be the TARPs you would carry forward, or was there an opportunity to review those?

MR MOORE: There – yes. There's more than an opportunity to review them, yes.

MR HUTTON: Yep.

MR MOORE: They're – but they're there – they would be our baseline to start with.

MR HUTTON: Yep. Yep.

MR MOORE: And they just, yeah, define what actions we take when certain levels get to - - -

MR HUTTON: Yep.

MR MOORE: - - - through the weather station recordings and so forth. With recommendation 2, we've included all that – all that requirement in our – on our website linked to Upper Hunter air quality monitoring network contact details for the EPA environment line and also the Bloom – on the Bloomfield website and also a link on how to, effectively, use that information.

PROF O'KANE: And I guess we're interested in how comfortable people are accessing that, given this is one of the issues raised by the community, the way the whole issue of, you know, what they know. Do you have any sense of who accesses what, or have you talked with what used to be OEH about this and how they – you know, do – does the community feel it has got enough?

MR MOORE: Yeah, I prob – I don't – sorry; I don't have a sense of that.

PROF O'KANE: And that's fair enough.

MR MOORE: Yeah.

PROF O'KANE: I just didn't know, but we're interested, given you spend a lot of – you give a lot of attention to this issue – to make sure that that gets reflected in what the community understands, I guess we're trying to - - -

MR MOORE: Yeah. I think it's like with – probably like anything, that that those who are interested will go - - -

PROF O'KANE: Will find the mechanism.

MR MOORE: - - - will find it and go their way.

MR LEWIS: Brett Lewis.

PROF O'KANE: Yes.

MR LEWIS: Just to comment, I – I suppose for the public hearings, I've been quite surprised how – how people, as Geoff said, that want to find the information, it's there to be found. I mean, people are quoting - - -

PROF O'KANE: Some are very good at it.

MR LEWIS: - - - quoting lots of reports that were put up and details, and I think, well, you know, that's the system working.

PROF O'KANE: Yes.

MR LEWIS: So I think to answer your question, before the public hearings I would have said I don't know.

PROF O'KANE: Yes.

MR LEWIS: But since the public hearings, I'm saying, well, you know, it's there, it's available and people who want to find it are finding it.

PROF O'KANE: Yep.

MR LEWIS: And we're actually launching a new website this week maybe even today - - -

PROF O'KANE: Oh yeah.

MR LEWIS: - - - which we've put a lot of work in to make access to that information easier. So - - -

PROF O'KANE: Okay. That's - - -

MR LEWIS: So - - -

PROF O'KANE: And I guess that's anticipating exactly my next question.

MR LEWIS: Yeah. It's – it's just a more modern website that's a bit cleaner and - - -

PROF O'KANE: Given that technology has made - - -

MR RICHARDS: A bigger capacity, yeah.

PROF O'KANE: Yeah.

MR RICHARDS: And a bigger bandwidth.

PROF O'KANE: Yeah.

MR LEWIS: A lot easier to update from internally, rather than have to go a third-party provider so we can have a lot more current information up there as well.

PROF O'KANE: Yeah. No, do you - - -

MR LEWIS: Yeah.

MR PEARSON: Do you notify exceedances on your website? I noticed D condition D6 obliges you to notify exceedances to affected individuals, but do you notify exceedances on your website, or do you wrap that up as part of your annual review?

MR C. KNIGHT: I can answer that question. I – all the exceedances are put in the annual report.

MR PEARSON: Yeah.

MR KNIGHT: The annual review report. They're not currently conditioned for us to do so.

MR PEARSON: Right.

MR KNIGHT: Then, obviously, they will be recommending conditions in the reading of the - - -

MR PEARSON: Right.

PROF O'KANE: All right. Thank you.

MR KNIGHT: Okay.

PROF O'KANE: Next.

MR MOORE: In relation to our own residence, we have updated that since the – since this recommendation came out. Some of this had been done for Rix's Creek North.

PROF O'KANE: Yep.

MR MOORE: And – but ..... across, ah, both sites now, um ..... the – the fact sheet and also a letter that – that, um, sort of clarifies that point around, ah – about determination for – for conditions. And to be honest, our – I guess our view is if – if people don't want to be - - -

PROF O'KANE: There.

MR MOORE: - - - living there, ah, it's – it's in neither party's interest to – to, ah, persist with that relationship, yeah.

PROF O'KANE: Thank you.

MR MOORE: Um, regarding noise, um, our noise management plan is on the – on the website. Um, the – the - - -

PROF O'KANE: Just before we go onto noise, this is one of those questions probably none of us know the answer to, but Health's Mine dust and you fact sheet, do you think people – you know, how often is that used or quoted? I've heard nobody at the public meeting say, "I read the Mine dust and you thing", and, you know, "Point 3 says this". And this goes back to this issue of – of talking to Health about how to make sure people understand particulate matter. I just have no sense. Do you?

MR MOORE: No.

PROF O'KANE: No.

MR MOORE: I don't.

PROF O'KANE: Anyway, that's all right. I was just taking the opportunity to - - -

MR MOORE: Yeah.

PROF O'KANE: - - - ask in case one of us - - -

MR PEARSON: Have you had any tenants exercise their rights under that clause?

MR MOORE: No, we haven't. Ah, not that I'm aware of, no. No. And – and I think, ah, one of the points is that we have, er, which we made note in the – in the, ah ..... that we have some fairly long-term tenants, um - - -

PROF O'KANE: Yeah, you do.

MR MOORE: So, ah, ah, we will al – you will always get – you know, some people who are sort of - - -

PROF O'KANE: Yeah.

MR MOORE: - - - transient, but, yeah, there's – there's some there that have been there, I – I think, close to 30 years.

PROF O'KANE: Yes, you pointed - - -

MR MOORE: Yeah.

PROF O'KANE: - - - that out to us - - -

MR MOORE: Yeah.

PROF O'KANE: - - - when ..... all right. Thank you.

MR MOORE: Um, so we – we have all the – the – the remaining stuff on the – the webpage. Um, I guess of – of interest, we did have a – an unannounced audit or inspection by the EPA yesterday - - -

PROF O'KANE: Yeah.

MR MOORE: - - - in relation to - - -

PROF O'KANE: Yesterday?

MR MOORE: Yeah, in - - -

PROF O'KANE: Exciting week.

MR MOORE: Yes. In relation to, ah, our noise monitoring, and I might just ask Chris to comment on that.

PROF O'KANE: That'd be - - -

MR KNIGHT: So it was actually – ah, Chris Knight – um, the - - -

PROF O'KANE: That's – and it's news to us too, by the way.

MR MOORE: Right. Yeah.

MR KNIGHT: It was the EPAs noise assessment team out of Sydney as well as one of – or our regional officer. Um, and they, ah, were looking to see how we managed noise on site, and, ah, they walked away stating that it was a very robust and comprehensive noise management system and also to note, ah, we are doing real-time, ah, low-frequency and tonal penalty and management in regard to that aspect. And they mentioned that they are aware of no other mines in the valley that are doing that in real time. So, once again, a robust and comprehensive system.

PROF O'KANE: If, um – if – if they send you a report, would you be willing to forward it to us?

MR KNIGHT: Yes.

PROF O'KANE: That'd be great. Thank you.

MR MOORE: Thanks, Chris. Um, in relation to recommendation 5, um, going to noise attenuation, ah, that list was provided. Ah, it is – ah, attenuation timing is – is in the recommended conditions, ah, and, essentially, we're, I guess, ahead of that schedule. Um, we have been undertaking conversions of, um, a number of our 793 –

category 793 haul trucks, um, and, effectively, they all now have a sound secretion package fitted. Ah, the cladding of the prep plant, ah - - -

MR PEARSON: Do you want to just - - -

PROF O'KANE: Yeah, I was going to ask - - -

MR PEARSON: Yeah. Well, do you want to - - -

PROF O'KANE: Off you go. Go on.

MR HUTTON: I'm happy. If – what would the impact be, positive or negative, if you were to bring that noise attenuation schedule forward, say, a few years, so you – so, for example, the six year – current six year was a two-year requirement?

MR MOORE: Ah, I think we would probably almost go close to meeting that now, to be honest.

MR HUTTON: Right.

MR MOORE: Yeah. In terms of what it would mean to us – is that your question? Look - - -

MR HUTTON: So before you – so you could provide us with an updated schedule of attenuation - - -

MR MOORE: Which we did.

MR HUTTON: All right. Okay.

MR MOORE: Yeah. That was – that was provided.

MR HUTTON: Right. Okay.

MR MOORE: Yep. Um, from our perspective, we – we have, ah, officers out there doing real time noise monitoring and – and assessing, you know, what – what the conditions are. So, ah, I guess, from our impact, it would – it would – I mean it has, probably, reduced the – the noise levels. So that's allowed us to – to work within – within our constraints and - - -

MR HUTTON: Yep.

MR MOORE: - - - and limits.

MR PEARSON: So the attenuation, if accelerated, would actually have no impact on your achievement of the noise criteria because you – your monitoring allows you

to flex things. So – so there's no benefit, but the impact would be a cost, obviously, of capital to accelerate that program. Is – is that – am I reading that - - -

MR RICHARDS: That's probably a fair summary, yes.

MR PEARSON: Yes. All right.

MR LEWIS: Well, the benefit is that we would be able to operate longer - - -

MR MOORE: Longer, yeah.

PROF O'KANE: Before you - - -

MR LEWIS: For – for the same noise impact - - -

MR PEARSON: Right. Okay.

MR LEWIS: - - - you would – you would be able to operate through - - -

MR PEARSON: Right.

MR LEWIS: - - - more – more difficult conditions for longer.

MR PEARSON: So have you undertaken that analysis to – if – if the attenuation was – was accelerated?

MR LEWIS: Well, we've basically committed to a program of - - -

MR PEARSON: Over six years - - -

MR LEWIS: - - - capital - - -

MR PEARSON: Yeah.

MR LEWIS: - - - to – and mostly through – ah, any new equipment coming to site, we're sound attenuating anyway, as – as best practice. Ah, equipment that is key noise generating, ie, trucks on dumps, we've committed to, ah, doing those, ah, except for any that are almost immediately going to be out of the fleet, and then there is some ancillary gear that will be certainly, ah, noise attenuated as it's preplaced, but its contribution to a noise, ah, on the – to our neighbours is probably quite insignificant - - -

MR HUTTON: Okay.

MR PEARSON: Yep.

MR LEWIS: - - - in the – in the operation of the fleet. So, yeah, I would agree with Geoff's comment, except to say the six years if probably, ah, ah, more fitting for the whole fleet because some of that ancillary gear will – won't have an impact on the – on the – ah, on the outcome of our noise performance, but would naturally roll out.

MR PEARSON: It has a useful life, yeah. It still has a useful life.

MR LEWIS: Ah, but certainly the major gear, which you will see off the schedule that's been provided, or the typical noise gear will be sound attenuated within a lot shorter period, and, of course, we will want to do it anyway.

MR HUTTON: Yep. So giving that – giving that a priority - - -

MR LEWIS: Yeah.

MR HUTTON: - - - over something less.

MR LEWIS: Yeah.

MR HUTTON: Yep. Okay.

MR LEWIS: So – and, you know, as I said, we – we committed to doing the washery, um, basically this time last year to have that as a – as a show of good faith, but, also, we recognise that, you know, at the end of it - - -

PROF O'KANE: You can continue longer - - -

MR LEWIS: - - - we can continue on washing, ah, through, ah, less advantageous noise condition as well. So – and it's been very, very successful.

MR HUTTON: But that also goes to the all reasonable and practical measures for noise mitigation, which drives the ANC aspect of the Industrial Noise Policy – the cladding, having completed that.

MR LEWIS: Yep. Yep.

MR HUTTON: So I understand it's good faith, but it's also - - -

MR LEWIS: Yeah, no, we – we - - -

MR HUTTON: Yeah.

MR LEWIS: Yeah, it's - - -

MR HUTTON: Yep.

MR LEWIS: ..... should do it, but - - -

MR MOORE: I mean, as Brett mentioned, ultimately, if – you know, it's – it's what we're recording on the day will determine how – how – how long we can – can operate for. So it's in – in – in both interests at that ..... um - - -

MR PEARSON: Nothing's changed in terms of that PRP since we spoke during the review around the availability of best available technology that might – might – might be useful in terms of a PRP?

MR MOORE: Um, in relation to – sorry?

MR LEWIS: Pollution reduction.

MR PEARSON: So part of the - - -

MR MOORE: The – yeah.

MR PEARSON: Part of the – um, ah, the ability to access the ANCs is – is having a PRP in place, ah, and that – that – that – what comes underneath that is – is achieving all feasible, um, pollut – noise reduction sort of avenues. Um, nothing's changed in relation to, um, that assessment, if you like.

MR KNIGHT: Chris Knight. No, we've still got our project-specific noise criteria, as issued by EPA.

MR PEARSON: Yep.

MR KNIGHT: And those same limits are within our EPA licence now.

MR PEARSON: No, but what I'm getting at is has – has technology changed, or is there – is there anything that you can see on the horizon now that wasn't there nine months ago, or 12 months ago that – that – that could – um, that could reduce noise levels even further from what – what was committed to under the PRP?

MR MOORE: I'm not aware of any technology changes other than what's the current practice with – with attenuation of equipment.

MR PEARSON: Okay.

MR KNIGHT: Certainly, we have improved out noise management system, as I mentioned in regard to EPA, which is some further smarts in regard to a C minus A, the assessment of tonality and the assessment of low frequency, and we've developed a system now that does that on – on the fly, ah, in the field, and we can make operational changes based on those results.

PROF O'KANE: Yeah, no, that's a good point.

MR PEARSON: Thank you.

MR MOORE: In relation to the blast impact assessment, ah, we've updated that for the Coke Ovens and – and, ah, that will just be part of our process of managing that as – as we go forward with our standard, um, ah, site laws for managing levels. Ah, for recommendations, ah, 8, 9 and 10, um, which deal with stakeholder engagement strategy, consultation and rehab objectives and practices, ah, we've included those in the rehab – rehabilitation strategy, ah, and they are also included in the recommended conditions of consent. And, similarly, for recommendations 11 and 12, um, the rehabilitation strategy's been updated to address the Strategic Framework for Mine Closure, um, and the ongoing requirement to update the strategy is also, ah, in the recommended conditions.

MR HUTTON: I'm happy, ah, having understood – we had, obviously, a meeting with the department this morning and understanding the strategy and the departmental oversight of that versus the – um, the rehab plan, which, effectively is the MOP through the Resource Regulator - - -

PROF O'KANE: Yeah.

MR HUTTON: - - - um, I think the recommendations speak to themselves about, you know, expectations around stakeholder engagement. One of the issues that's, I guess, warranting more discuss – more thought is around the issue of sudden closure. So that if – if, for whatever reason, the mine was to cease operating, has the – has the mine given regard to achieving a post mine land use at a point throughout ..... I think the natural inclination is to think the end, but there is a prospect, um, that, you know, mining could stop during its life of mine. So – and the unplanned closure is referenced in that recommendation, as you can see .....

PROF O'KANE: And it might be an unplanned closure, or it might be a closure for repair and maintenance purposes. So the department raised the option what happened if we had another GFC or something like that. So - - -

MR MOORE: Yes.

PROF O'KANE: I think we've given you the opportunity to make any comment on that because given the great uncertainties around coal mining long-term – the poss – the possible uncertainties, but then the uncertainties with the margin of technology too, you just don't know. So we're just looking hard at the closure matter and, um, you know, any thoughts you have about it, about dealing with sudden closure, or dealing with a move to care and maintenance would be – would be useful and – and, I guess, we're also thinking we might need to have that discussion down the track if we're – if we're moving towards a positive determination.

MR MOORE: Right. Okay. Um, all right. So you - - -

PROF O'KANE: And it'd obviously welcome the mine's input, you know, to - - -

MR MOORE: Yeah.

MR HUTTON: And I guess - - -

MR MOORE: Yes.

MR HUTTON: - - - that's driven by the – by the, um, the planning sort of has been pushed – pushed out post determination for closure in a sort of we'll deal with that later.

PROF O'KANE: Afterwards.

MR HUTTON: Yeah.

MR MOORE: Ah, yes, although I guess with, ah – with the – with this project – I mean, er, given that the – the – the remaining area is not that – not that big, um, you know, there'll be progressive rehabilitation, and – and, er, as we move into the future, that – that area or that, ah, volume of rehabilitation will – will slowly decrease as we – we sort of tighten up the – the – the final part of the – of the project. Um, so it's very much a – a function of conditions at the day and – and, obviously, care and maintenance – there's a – there's a big difference between that and – and final closure - - -

PROF O'KANE: Closure.

MR MOORE: - - - in any form.

PROF O'KANE: Yeah.

MR MOORE: And, you know, I think it's, ah – I suppose with – with – you know, there are controls through the, ah, rehabilitation cost estimate bond - - -

PROF O'KANE: Yep.

MR MOORE: - - - that's – that's in place that sort of addresses that, but, um, I guess my only – my only comment is it is very much a – an assessment on the conditions at the time as to how that would be best approached.

PROF O'KANE: And I guess that's part of our question with the evolution cause everything's revisited every three years or whatever it is. What should be the triggers put into that evolution of looking at things? So, I mean, we don't have to answer it now. We're just sort of signalling it, um, um, so you can think about it, should we come back in that space.

MR HUTTON: What – what, ah, I think we'd appreciate to assist our consideration of that is a, um, progressive rehabilitation schedule.

MR MOORE: Mmhmm.

MR HUTTON: So - - -

MR LEWIS: Rehabilitation - - -

MR HUTTON: Yes.

MR LEWIS: - - - bond schedule?

MR HUTTON: Ah, yeah. Well, you'll have a Life of Mine Plan, and I'd like to seek at appropriate steps throughout that Life of Mine where you are in terms of the different rehab stages. So active pit, reshaping - - -

UNIDENTIFIED FEMALE: .....

MR HUTTON: - - - top soiling, seeding and so on. If you could demonstrate that through a series of figures - - -

MR MOORE: Mmhmm.

MR HUTTON: - - - to the point where coal is no longer extracted, that'd be very helpful in our assessment .....

UNIDENTIFIED FEMALE: Yeah.

PROF O'KANE: Ah, and including in that – no – when you'd be, um, sort of with the final void issue, when you'd be really particularly planning dealing with the – the water from that because, you know, I suppose, in the early years, you're a net water user, when does it become a – when does the mine become a water producer and when does that start to become a big issue.

MR MOORE: Okay. Yes, certainly, as ..... I mean, the MOP plans do have some staged plans, ah, perhaps not through to the end of life cause they're a - - -

MR HUTTON: But the cur –

MR MOORE: .....

MR HUTTON: The current MOP doesn't consider the option 2 scenario, does it?

MR MOORE: The current MOP doesn't include the option 2 until - - -

UNIDENTIFIED MALE: That's correct.

MR MOORE: It – it can't - - -

MR HUTTON: That's right.

MR MOORE: - - - until it's been conceded - - -

MR HUTTON: That's right.

UNIDENTIFIED MALE: Yeah, that's right.

PROF O'KANE: No.

MR HUTTON: So what we'd like is – is the option 2 effectively presented like a MOP.

MR MOORE: Um - - -

MR PEARSON: Recommendation 12 – can I just come back to that.

MR MOORE: Yep.

MR PEARSON: The wording in terms of what the department has included, it – um, do you feel that includes – to pick up this point about unplanned closure, do you feel that includes or extends to unplanned closure? So it's, um, condition B70M. You might want to take that on notice, um, but I guess it would be good to get your feedback on whether that condition, actually, in your view, adequately considers the – the issue of unplanned closure.

MR MOORE: Yes. Okay. We will take that on notice. In relation to this, the knowledge base, that, ah, knowledge base is in the revised strategy. We do – we are looking to the – for the final land use. We do have cattle grazing on the rehabilitated land which – which you did see on the – on the last visit. Um, we have a number of other – there's projects that have been ongoing over time. We – we have a current grazing and pasture study happening and, again, that's towards final land use; forestry trials which, ah, you could probably argue now whether that's the right way to go, but they were – they were done a number of years ago.

PROF O'KANE: Yeah ..... told us a bit about those.

MR MOORE: Yep. The use of bio-solids, which was, oh, I guess, a 1993 initial trial and there has been ongoing work with that, and Rix's Creek was, essentially, I guess, the industry leader in that area at the time. And through the New – the University of Newcastle there's sort of ongoing soil investigations, which is also assessing that – the benefits of that, ah – the use of that material. So there's – it's certainly captured in the strategy.

PROF O'KANE: And they're still going?

MR MOORE: It's still – it's still going. The risk register for recommendation 14 is included in the strategy and it's also one of the recommended conditions. And in relation to the final void, the view is the final – the quality and equilibrium levels

will, ultimately, be similar to – to the – the connected groundwater and that would sort of just be managed by the natural processes of ah, ah, rainfall, evaporation and infiltration. The final void and potential land uses, yeah, obviously, it's part of the planning process and the closure process, um, and, I mean, there's – there's a – there has been a lot of discussion about final voids, the opposing kinds of those over the time.

PROF O'KANE: Yeah.

MR MOORE: And – and, you know, I think that is something that will probably develop as – as time goes on with – with not only local, but probably also regional issues are in the valley.

PROF O'KANE: Yeah. I mean, we were interested there, again, in the sort of trigger effects and conditions what should be in the conditions to trigger, you know, appropriate timing on – on that and things. And we, you know – we accept that it – it has to be evolutionary.

MR MOORE: Yes.

PROF O'KANE: But how do we know, you know, this is thought about in an early enough time and – but there's a lot of technological reference in this space that will happen, including energy generation questions - - -

MR MOORE: Yes, yes. Yeah.

PROF O'KANE: - - - which I know you've been thinking about.

MR MOORE: Mmm. Yes. There's – I mean - - -

PROF O'KANE: And - - -

MR MOORE: - - - a lot could happen in the timeframe that we're talking about.

PROF O'KANE: Yeah. And I think it's also interesting you're talking about the regional strategy, which I think is a good thing.

MR MOORE: Yeah.

MR RICHARDS: I mean, there is a question in terms of final land use - - -

PROF O'KANE: Yeah.

MR RICHARDS: - - - about which part is – do we – has to happen first, whether it's the proponent of the – or the owner of the site sort of suggesting that this is the final land use, or whether it's somebody who's from outside in another industry - - -

PROF O'KANE: Comes to and sees - - -

MR RICHARDS: - - - coming and saying - - -

PROF O'KANE: Yeah.

MR RICHARDS: - - - "Look, we would be interested in using your site as another – for another land use.

PROF O'KANE: And it's a bit of both, isn't it?

MR RICHARDS: It's a bit of – it is a bit of a conundrum and there is, perhaps, the question there of the – ah, you know, the planning system, whether there is some flexibility that could be introduced to allow - - -

PROF O'KANE: Well, tell us.

MR RICHARDS: - - - these things to be - - -

PROF O'KANE: Tell us if you would like something like that - - -

MR RICHARDS: - - - to be - - -

PROF O'KANE: - - - in the conditions.

MR RICHARDS: Well, I think – well, for us it's a little bit early, but there's no doubt that we have had discussions with people interested in creating intensive agricultural usages such as, ah, abattoirs for poultry - - -

PROF O'KANE: Yes.

MR RICHARDS: - - - and people looking at other energy options - - -

PROF O'KANE: Yes.

MR RICHARDS: - - - such as, you know, solar - - -

PROF O'KANE: Solar.

MR RICHARDS: - - - around the area, but also we've had discussions with people about pumped hydro.

PROF O'KANE: Yep.

MR RICHARDS: You know, so there are – there are lots of ideas around there. So, you know, it's difficult to know then which project would be the one that suits.

PROF O'KANE: Absolutely.

MR RICHARDS: It depends who has got the money and - - -

PROF O'KANE: But you do need the - - -

MR RICHARDS: - - - who can get a development consent.

PROF O'KANE: You do need the flexibility to be able to - - -

MR RICHARDS: And whether we've got the flexibility to look for a different land use as we get towards the end of the cycle.

PROF O'KANE: Can you - - -

MR RICHARDS: I think until you get there, you can't really have enough certainty about which pathway you want to go down to – to, you know, make it easy to do anything and just suggesting there needs to be flexibility - - -

PROF O'KANE: Can you just check if there – anything should be going into conditions, I mean, to advise us so that we can think about it in conditions to make sure that flexibility is, indeed, there.

MR RICHARDS: Yes. There's - - -

PROF O'KANE: I'm not sure that it's for – I don't think it is prohibited now.

MR RICHARDS: There's one – there's one – there's one condition that is – that sits in the rehabilitation cost estimate, where, ah, I think the department say that until you have a development consent, no other final use will be considered, ah, on one side, compared to completely removing all infrastructure and rehabilitating the site, on the other. So where there is this potential for some of that infrastructure to be used - - -

PROF O'KANE: Yes.

MR RICHARDS: - - - but without a development consent, or an actual proponent come – wanting to come in, you know, that's – there's perhaps a thought there that that actually reduces your flexibility for no, ah, immediate purpose. And, you know, I'm not – I don't know what the answer is there and it's only something that has come up in my discussions at different times. But I think it is worth considering - - -

PROF O'KANE: I agree.

MR RICHARDS: - - - as part of – you know, that's a – that's a departmental thought.

PROF O'KANE: Yep. No, we will take that on board and maybe discuss it with the department. But we will probably need your – you to think about it, too - - -

MR RICHARDS: Yes.

PROF O'KANE: - - - at some point.

MR RICHARDS: Yep.

PROF O'KANE: Yeah. But that - - -

MR HUTTON: And I think what's most important is not to miss opportunities.

MR RICHARDS: Yeah. Yeah. So, I think, you know, we will – we will have a look, but it's – it's really within that – that, ah, interaction between the bonding that's required for the mine sites - - -

PROF O'KANE: Yeah.

MR RICHARDS: - - - and what they then see as being something that allows them to release the bond and alternate uses which may not – they may not all line up, is what I'm suggesting there.

PROF O'KANE: Yeah. Yeah. Okay. Let's solve it.

MR MOORE: I think that - - -

PROF O'KANE: That covers it?

MR MOORE: I think it almost covers that discussion on that – on that particular recommendation. Yes. In relation to recommendation 18, ah, water impacts of the north void. So this is – diagram, essentially, covers off how that is concluded from ..... yes, there was a consultant coming we would be using for assessment. So, essentially, it would – it would operate as intended as a freshwater dam, water table below the backfill level of the north – the north pit area, and once that breaches its equilibrium would then discharge as – as rainfall events allowed.

The offsetting strategy, as noted with the – with option 2 if it's approved, that does have the reduced number of credits. We have, ah, purchased a couple of, ah, land-based sites. We're in the process of getting those established as stewardship sites, which is taking a bit longer than probably anticipated, and we've – we've proposed a four-stage, ah, off-setting strategy. But we will be well placed – assuming the credit conversions are in line with what we would expect, we will be well placed to – to handle that.

MR HUTTON: Just before you step off offsetting - - -

MR MOORE: Yeah.

MR HUTTON: - - - I note in the department's assessment report that a – the Commonwealth have listed a new community.

PROF O'KANE: Yes.

MR HUTTON: That is currently – um, it was listed after you'd referred it to the Federal Government for - - -

MR MOORE: Correct.

MR HUTTON: - - - being a controlled action or not.

MR MOORE: Mmm.

PROF O'KANE: Mmm.

MR HUTTON: Where – where are you in that process, given that's now listed and that the offsetting requirements at a Federal level can be very different to that at a State level, what's your current, um, approach to that?

MR MOORE: Look, our – our understanding of that is that that does not apply to the project - - -

PROF O'KANE: Mmm.

MR MOORE: - - - because it was, ah, in – in place beforehand. Um, I guess the – the test of that will be when we go to try and get the – the, um, statement of equivalence of what was done under the – the FBA compared to the new system. Um, but it's certainly, you know, we – we have that, I guess, document – documented that that was in place before – - - -

PROF O'KANE: Mmm.

MR MOORE: - - - before that was brought - - -

MR HUTTON: So you don't believe there's any need to go back and – and make the Commonwealth aware of that being - - -

MR MOORE: They – they're – they're aware of it.

MR HUTTON: They're aware of it.

MR MOORE: Yes.

MR HUTTON: Okay.

MR MOORE: Yes. Yeah. Yeah. At the moment, I think our – our correspondence was with – with – was with, ah, the Commonwealth in relation to that.

MR HUTTON: Okay.

MR PEARSON: Could I ask, in – in our meeting with the department, it – it did – well, the department indicated to us that it – it did suggest to you that that the matter should be re-referred, but that you declined to re-refer it. Um, could I ask whether that's - - -

MR MOORE: Ah, the – they – they asked for, ah, an update. We did try and get an update. It wasn't that we didn't – didn't choose not to refer it. We – we - - -

MR PEARSON: Right.

MR MOORE: - - - tried to – to – we – we'd, I think, responded to, ah, a letter that had come from – from – ah, from the Commonwealth and, ah, we were seeking, I guess, their response and – and we did try and get a response from them again, but that wasn't – wasn't provided. I think that's probably the – the context of that – of that. But, no.

PROF O'KANE: Thanks.

MR MOORE: Um, on the financial side of things, so the base case was deemed as the – the, ah, cessation of mining and – and basically then just rehabilitation. So capital – no capital expenditure as such. Um, in terms of the – I guess, the inputs, as we've not previously, we produce a – a 60 per cent, ah, semi-soft and – and 40 per cent, ah, thermal product. Um, the reason we've just the Macquarie Bank data was – was for a – for a few reasons. One is that their – their data was more specific to, ah, splitting coal types versus the, ah – the other sources that were available. Um, and their – their data was out to 2030. We've just projected forward from there. Um, and, you know, kept that consistent with – with - - -

MR PEARSON: So recommendation 20 did – did ask, I think, specifically for references to other available commodity price forecasts, um, and I am aware of other forecasts that would – would meet the – the criteria that you've established for selecting Macquarie Bank data. Um, I guess my question is why – why haven't – given the specific nature of the recommendation, why – why haven't you provided reduced additional price forecasts?

MR MOORE: Ah, well, I guess the – the – you know, it's the resource that we were using, you know, for that, ah, indicated that there were no strong alternatives to the – perhaps if you've got the information, we can ..... that.

MR PEARSON: So did you look at others and – and – I guess, which others did you look at and therefore discount by virtue of that process?

MR MOORE: Um, I'd have to go back to the – to the data, but I think, ah, World Bank, ah.

MR PEARSON: No, no. In addition to World Bank, IMF and Macquarie, which other data providers did you look at but discount on the basis that it didn't meet the criteria that you've set forth for selecting a commodity price forecaster?

MR MOORE: Right. Ah, look, I – I would have to check with – with - - -

MR PEARSON: If you could, that would be great. Yep.

MR MOORE: Consult someone, yep. Ah, in terms of recommendation 21, sensitivity analyses were undertaken, um, and I think they've – they've listed as the – the discount rate, costs, benefits, ah, gross mining revenue, um, income tax exchange rate and – and wage – wage premiums. Um, I think probably historically the exchange rate has tended to follow the – the, ah – the movement in coal prices, as sort of a natural sort of hedging of, um, ah, the – the trends with that. Um, and when we look at certainly the – the historic data, there's the conditions where – where the project would – would provide ..... benefit certainly wasn't in the range of – of historical outcomes.

Um, I think, importantly, we do have – we're a little bit, um, unique in some ways, in that Bloomfield does have, ah, a fairly, ah, defined customer, ah, grouping, certainly in the premium markets and, you know, they're certainly longer term, the contracts, than is the – the industry norm. Um, and – and quite often the demand for – for Bloomfield coal exceeds what we can actually provide. So it's – it's, ah, certainly a little bit more unique than – than some of the – the other players in the industry. And in relation to the, ah, minimisation strategies, yes, it's a – that wasn't dealt with – with – with the consultants. But Bloomfield, I guess we use that as part of our normal business.

Ah, Bloomfield has been in business over 80 years, so it's – it's not something that just happens. It's, ah – it's – it's managed. Um, and because Bloomfield's a small operation, close to the action, ah, and able to respond fairly quickly to what's happening in the marketplace and what's predicted to happen. And, ah, there are a number of – of measures that we list here that, ah – that we use for – for dealing with, um, ah, with potential risks and, um, issues in the – in the market.

And while a lot of them are similar to other operations, I guess, our ability to – to react fairly quickly and, ah, make those decisions quickly is – is significantly different to the rest. Um, so – yes. When – when things aren't good you sort of obviously do – you tighten the belt and – and that – that works right through the – through the coal chain as well.

MR PEARSON: Could I come back to a couple more questions on the CBA.

MR MOORE: Mmhmm.

MR PEARSON: Could I understand what – and you may need to take this on notice – what – what, sort of, goes into it and what's not – I guess, more important, what's not in it. And I – by way of example, with the scope 3 emissions, for instance, and that being modelled as part of the CBA, or whether impacts related to, um, the use of achievable noise criteria are in – are modelled in the CBA and so on. So the things that, kind of, are impacts, ah, that have been left unresolved through the consent and conditioning process, ie, unmitigated or unoffset, and what are those that – that might not have been flowed through to the CBA?

MR MOORE: Flowed through. Okay.

MR PEARSON: They were two that I thought may not be in there, but – but they could be in there. Um, but if you could give some consideration to – to what the CBA doesn't include - - -

MR MOORE: Doesn't include.

MR PEARSON: - - - that would be very helpful.

MR MOORE: Mmhmm.

MR PEARSON: Um, and then the other question we had was in relation to the environmental externalities, which have been calculated at 5.9 million. And – and, again, if – again, you might need to take this on notice – but if you could unpack that a little bit, in terms of what's in it and how those calculations are made and what – what the, kind of, key drivers of those calculations are, in terms of the inputs to those calculations.

MR MOORE: All right.

PROF O'KANE: Thank you.

MR MOORE: In relation to the historic heritage aspects, um, the – yes, we'll prepare and – and that's addressed in the – the recommended conditions, a Heritage Management Plan. We will involve people who are appropriate for that task to – to assess the – ah, the Coke Ovens in their current form and what needs to be done. Um, and, again, the – the – the research into salvaging and recording this is a conditioned item. Um, in terms of public access, that's something that we will deal with, ah, in discussions with Singleton Council.

PROF O'KANE: Yep.

MR MOORE: It's a – there's a – there's pluses and minuses to all this.

PROF O'KANE: Yes. Yep.

MR MOORE: All right. On the – on the greenhouse gas issue, which, as we mentioned, was a – a separate response to the Department of Planning, um, is our annual, um, scope 1 and – and 2 levels are significantly lower compared to, um, the – the – the – Australia's annual re – levels there and – and including our commitment going forward. They were included in the economic assessment. I – I – I'm not sure whether that included scope 3. I – I – I'd have to - - -

MR PEARSON: Yep.

MR MOORE: - - - have to check that.

MR PEARSON: Can we ask just of the department – it is going to be somewhere in the information. Um, I just haven't been able to find it yet. Do you have a – do you have on hand the volume of financial scope 3 impacts? I think it was 71 – 71 million, but the volume is something of that order, but the financial impact of the scope 3.

MR MOORE: Yes. I'm not sure about the financial, but certainly the – the – the quantum was there – was presented in that report.

MR PEARSON: Yeah.

MR MOORE: Yeah.

MR PEARSON: If – if you could provide that, that would be – or at least point me to where it is - - -

MR MOORE: Yeah.

MR PEARSON: - - - that would be helpful.

MR MOORE: In terms of the – the coal that we produce, as we mentioned in MOD 10, Japan, Taiwan and South Korea. Japan and South Korea having – being a party to the Paris Agreement and – and they have their – their own reductions. And Taiwan is also – also has a reduction program in place and, actually, we saw that last week in terms of their – their focus on – on – and – and knowledge of a - - -

MR PEARSON: And what proportion of your coal goes to Taiwan, roughly?

MR LEWIS: 25 per cent.

MR PEARSON: Twenty?

MR LEWIS: About 25 per cent.

MR MOORE: But, certainly, for our metallurgical coal and also for our – our thermal coal, there is a – an ongoing demand for them and that's – that's quite strong for – for Bloomfield.

MR PEARSON: So - - -

MR MOORE: It's a – there's a lot of interest in – in those customers wanting our coal.

MR PEARSON: So that coal that goes to Taiwan, presumably that's because you receive more favourable pricing rather than a demand issue, in terms of volume. It's – it's just it's a better price. Is that – is that right or not?

MR LEWIS: It's actually semi-soft coal, not thermal coal that goes to Taiwan.

MR PEARSON: Right. Okay.

MR LEWIS: So it's coking coal.

MR PEARSON: So it's your coking coal that goes there.

MR LEWIS: Yes. And it's at a – at a lower price than what is going to Japan, so it's a – it's really a diversity program we have. We were badly affected as a company with the great earthqu – eastern earthquake and - - -

PROF O'KANE: Yes.

MR PEARSON: Ah.

MR LEWIS: In – in Japan, where they were – the whole east coast was badly affected. All our customers were on the east coast. We had the best – best customers, really, in the export market, but they were all wiped out in one – one tsunami - - -

PROF O'KANE: Yes.

MR LEWIS: - - - and we – it had a big impact on our company. So we made a conscious decision to get diversity of customer and comp – country, and that's when we diversified into Taiwan for semi-soft coal and get some customers in Korea for thermal coal in case there was a recurrence of that. So Japan is – is our key foundation for thermal and semi-soft, but we have those two other markets.

PROF O'KANE: Thank you. That's .....

MR LEWIS: Yes.

MR PEARSON: That's great. Thank you.

MR MOORE: Look, I guess, in summary, in this – I guess, we've seen this in some of the MOD 10 information.

PROF O'KANE: ..... yes.

MR MOORE: It was just adjusted for annual levels. Um, I guess, in summary, the option 2 project area is a relatively small increase on – on the total footprint - - -

PROF O'KANE: Mmm.

MR MOORE: - - - that's, um, that's approved in the consent – consent area, um, whilst still yielding, you know, a – a substantial life in that area, plus what's – what's already currently consented. And the mining that – that we talked about is the logical approach towards a – towards an end is – isn't – I mean, it's important that that – that that is in place so that the – the final, well, resources can be recovered and also there is a – a – a sequence that ends up with a, you know, a sustainable land use at the end based on a plan that's – that's in place.

PROF O'KANE: Thank you. More questions?

MR HUTTON: Well, I think all my questions have been addressed. Thanks, Mary.

PROF O'KANE: Good. Tony?

MR PEARSON: No, I think that's been great, actually. It's been really helpful.

PROF O'KANE: Yes. No, it's been great.

MR PEARSON: Yes.

PROF O'KANE: One question the department raised with us, the issue of understanding the resource and that at some point you might want to think about – and you told us about that about, you know, a year ago in the middle of the review – an underground – underground mining.

MR HUTTON: Yeah.

PROF O'KANE: So at what point would you think you'd be in a position to know whether you were going to want to do underground mining or not?

MR MOORE: The – the underground resource – correct me if I'm wrong – was in the Barrett.

MR MOY: In the Barrett, underneath the Arties pit.

MR MOORE: Yeah. The Barrett has a number of inherent issues - - -

PROF O'KANE: Right.

MR MOORE: - - - associated with it. I mean, it's, um, I – I – I think for us, we would be probably leaving that, I will say, as late as possible.

PROF O'KANE: Right.

MR MOORE: So on my perspective anyway, but I – yeah, I think that would be coming towards the end of the – of the project.

PROF O'KANE: Since it'd be in the – well into 2030-something - - -

MR MOORE: I believe so.

PROF O'KANE: - - - before some decision would be made.

MR MOORE: Yes. Yeah.

PROF O'KANE: Yes.

MR MOY: Add to that, if you like the - - -

PROF O'KANE: Yeah.

MR MOY: - - - north pit mining void - - -

PROF O'KANE: Yeah.

MR MOY: - - - actually mines through the underground – the old underground workings in that area.

PROF O'KANE: I was wondering about that, yeah.

MR MOY: So without mining that, the last thing we mine for an open cut is the north pit area.

PROF O'KANE: Yeah.

MR MOY: We don't have ready access to that resource, so it must be after the north pit's mined.

PROF O'KANE: Yep. Okay. Thank you. So that's gives a timing – a timing plan.

MR HUTTON: Does – does the, um, retaining the potential for underground impact landform? Like, it - - -

MR MOY: No, it - - -

MR HUTTON: No.

MR MOY: The north pit mining void becomes that - - -

MR HUTTON: The last piece.

MR MOY: - - - the last dish that we've - - -

MR HUTTON: Yeah.

MR MOY: - - - we've got enough dirt to backfill above the groundwater table.

MR HUTTON: Yes.

MR MOY: So at the point when it's a viable open cut, it provides a portal access to an underground resource.

MR HUTTON: Right.

MR MOY: And it's all underneath what's previously backfilled material.

MR HUTTON: Yes.

PROF O'KANE: That's handy. Dennis, is there anything we forgot to ask, based on our discussions?

MR D. LEE: There were a couple of things.

MR PEARSON: Yeah. The brine.

MR LEE: The brine.

MR PEARSON: Brine and - - -

PROF O'KANE: Yes.

MR PEARSON: - - - the hydrology purpose pit.

PROF O'KANE: Yes.

MR HUTTON: It was main – mainly around whether you'd given any consideration to water treatment as part of the void as part of your considerations in this current application for use in the environment or some other user outside the mine.

PROF O'KANE: And then what to do - - -

MR RICHARDS: Perhaps the short answer to that is no. And bear in mind that with any desal plant, there's always two streams. There's clear water here - - -

MR HUTTON: Yes.

MR RICHARDS: - - - but there's also a significantly high salt concentration brine - - -

PROF O'KANE: And that's the brine point.

MR RICHARDS: - - - that you've got to deal with.

PROF O'KANE: Yes.

MR HUTTON: That – that brine point. Yeah.

MR RICHARDS: You know, I think that's the sort of question that as we get close to the end and we start to look at what tho – whether there are other final uses for that particular water, if it, for instance, was going to be used by some sort of processing, um, company, you could see that perhaps that's something that they might consider if they – if they were keen to – to do it. I mean, the one thing about these sites is that they often have really good power infrastructure. They've often got - - -

PROF O'KANE: Exactly.

MR RICHARDS: - - - a reasonable - - -

PROF O'KANE: That's exactly why we're asking.

MR RICHARDS: - - - sort of boundary around - - -

PROF O'KANE: Yeah.

MR RICHARDS: - - - them to – with no close neighbours. So they – they obviously have some attraction to some – to some other industries, but while ever the mining company is sitting there in charge and – and mining, those industries aren't going to come anywhere near. It's only when they can see a – a timeframe to being able to either sort of access the site, buy into the site or – or, um, you know, get a long-term lease or some other instrument that allows them some security that they would be prepared to have a look at those things. And I – I'm not sure of the benefit of trying to desalinate a sal – a saline lake and then create a – a sort of fairly tough to deal with brine stream, ah, for a – for a sort of recreational usage of the lake.

PROF O'KANE: Or removing the brine. I mean, this is a big issue with, say, a lot of the - - -

MR RICHARDS: Or rem - - -

PROF O'KANE: - - - coal seam gas issues - - -

MR RICHARDS: Yes.

PROF O'KANE: - - - you know, where they - - -

MR RICHARDS: Or removing the brine. I mean - - -

PROF O'KANE: And another - - -

MR RICHARDS: - - - take it down to the sea is possible, but - - -

PROF O'KANE: Well, wherever. Another question – I don't know the geology of the site well enough, but, you know, whether you have any insight as to whether the mine – the brine might be valuable, you know, the old mine the brine phenomenon where there is suspended material in brine that's more than just the sort of - - -

MR RICHARDS: Look, it's not something – it's not something that we've actually got, ah, any real information on - - -

PROF O'KANE: That's all right. Yeah.

MR RICHARDS: - - - whether there are - - -

PROF O'KANE: And - - -

MR RICHARDS: - - - mineable elements in – in what is sort of a – ah, a saline solution.

MR HUTTON: I think it leads to presenting as – as many options in the early part of the mine life to look at post-mine land use options. That's my comment - - -

MR RICHARDS: Yeah.

MR HUTTON: - - - I guess .....

MR RICHARDS: Yeah.

MR HUTTON: The comment was made in the review to consider water treatment, um, as a potential option - - -

MR RICHARDS: Yep.

MR HUTTON: - - - amongst all the other ones you've discussed today as well. So - - -

PROF O'KANE: What was the other thing we forgot, Dennis?

MR LEE: Hydrology of the northern dam.

MR HUTTON: Yeah, I'm – I'm comfortable - - -

MR LEE: You're comfortable with that?

PROF O'KANE: Yeah. No - - -

MR HUTTON: - - - with that now.

PROF O'KANE: - - - that was nicely covered too.

MR LEE: Ah, air quality and the time series.

PROF O'KANE: Ah, yes. Thank you. Um, I'm interested on the air quality question. It was partly about when the town gets close, but you've sort of said it's moving away. Are there likely to be – so it probably affects air quality and noise. Are there likely to be times over the long length of this mine when the communities could be more upset than others about noise and air issues, or because everything's sort of moving away fairly steadily from the bulk of the population, is life just going to get better and better, or the - - -

MR MOORE: To be honest, I – I think, ah, when you look at where – where the site is and – and the movement, um, I – I don't think we'll see significant differences from what we've been doing for the last 10, 15 years in that area. Ah - - -

PROF O'KANE: It probably would be helpful on the – ah, the day of the public meeting, if we'd invite you to do a presentation to talk about that in some ways, of what the impact on the communities are in terms of air quality, noise, and overt time, or if there's no difference in that ..... but if there is a difference, if it is going to get better, I guess, it would be good to alert the communities to the issue, or if it's going to get worse, to alert them to when and where and - - -

MR MOORE: Yeah. Yeah. I think, probably – I think, to be honest, probably regional impacts will be – probably overshadow - - -

PROF O'KANE: Any given mine.

MR MOORE: - - - our impact.

PROF O'KANE: Yep.

MR MOORE: Or, in particular, our impact, yeah.

PROF O'KANE: True. That makes sense.

MR LEWIS: I think it's a pretty powerful slide, the one that shows where the mine is now and the area of the – of the 21 years. It's - - -

PROF O'KANE: Yeah.

MR LEWIS: It's quite small - - -

PROF O'KANE: It is, isn't it?

MR LEWIS: - - - and it's quite close to where the main operation is now. So over – really, over the 20 – 21 years is – I don't think there's going to be perceivable difference, really, of what's – what's happening there.

PROF O'KANE: No, I think it's very telling ..... see that. Good. Nothing else?

MR LEE: No, that's really - - -

MR PEARSON: No, thank you.

PROF O'KANE: Thank you very much. That was a very good session.

MR LEWIS: Thank you.

PROF O'KANE: And, um, you're all clear about what we're asking, or we can – we can follow it up too.

MR LEWIS: So those questions, some – some we can obviously work on fairly quickly.

PROF O'KANE: Yeah.

MR LEWIS: Would you like those back before or as soon as possible?

PROF O'KANE: When you can get them back. We're moving as quickly as we can on this. Um, just managing diaries and giving the notice is why we've had the public meeting, but, in any many ways, that's good. We're able to digest this. So I – and you don't have to give it to us all at once. So the more you can give it to us, the more we can deal with it.

MR LEWIS: Okay.

MR MOORE: If there are any clarifications, we can come back to Dennis?

PROF O'KANE: Please do, yeah.

MR MOORE: Yep. All right. Yep.

PROF O'KANE: Yeah, Dennis will very happily do that.

MR LEE: Yeah, I'll be your main point of contact, so come through me and I'll pass it on.

MR MOORE: All right. Thanks, Dennis.

PROF O'KANE: Mr Lewis.

MR LEWIS: So, Mary, what do you think is – after the public meeting, is it a similar process to MOD 10?

PROF O'KANE: Um, yeah. We'll just be, you know, writing, and we might be asking, but then if we're going towards approval, we'll be talking conditions .....

MR HUTTON: I think I said this morning, we would – we would like the opportunity to visit the site.

MR LEWIS: Yeah.

MR HUTTON: ..... as well - - -

PROF O'KANE: Yeah, we definitely would.

MR HUTTON: - - - just to have a look at the aspects that are different to what we saw during the review. So, Dennis - - -

MR LEWIS: Yep.

PROF O'KANE: And it's all fresh enough that we do remember a lot of it.

MR HUTTON: Yep. Yeah.

PROF O'KANE: But, you know, then - - -

MR LEWIS: It's always good to have another look.

MR HUTTON: It's more about foc – yeah, focusing on those – those option 2 aspects - - -

PROF O'KANE: Yeah.

MR HUTTON: - - - now that we've got that locked in, but Dennis will tic-tac with you in terms of, um, a schedule and where to go and that sort of stuff.

PROF O'KANE: Yeah, and while we've sort of planned for the next morning, as I said, if the number of – you know, if only a handful are turning up at the meeting, we might see if you would be willing to come forward into the afternoon.

MR LEWIS: Yep. Okay.

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