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O/N H-966126

**INDEPENDENT PLANNING COMMISSION**

**MEETING WITH DEPARTMENT OF PLANNING AND ENVIRONMENT**

**RE: VICKERY EXTENSION PROJECT**

**PANEL:** **PETER DUNCAN**  
**PROF ALICE CLARK**  
**PROF GARRY WILLGOOSE**

**ASSISTING PANEL:** **MATTHEW TODD-JONES**  
**DAVID WAY**

**DEPARTMENT OF  
PLANNING AND  
ENVIRONMENT:** **MIKE YOUNG**  
**STEVE O'DONOGHUE**

**LOCATION:** **IPC OFFICE**  
**LEVEL 3, 201 ELIZABETH STREET**  
**SYDNEY, NEW SOUTH WALES**

**DATE:** **1.03 PM, THURSDAY, 6 DECEMBER 2018**

- MR P. DUNCAN: So, formally, good afternoon and welcome. Before we begin I should acknowledge the traditional owners of the land on which we meet and pay my respects to their Elders past and present. Welcome to the meeting today, as I said. Whitehaven Coal Limited, the applicant, is proposing to develop the Vickery
- 5 Extension Project, an open cup coal mine near Boggabri, New South Wales. My name is Peter Duncan. I'm chair of this IPC panel. Joining me today is Professor Alice Clark and Professor Garry Willgoose. The other attendees at the meeting are David Way – David – and Matthew Todd-Jones from the IPC Secretariat.
- 10 Of course, Mike Young and Steve O'Donoghue representing the Department of Planning and Environment. In the interests of openness and transparency and to ensure the full capture of information, today's meeting is being recorded and a full transcript will be provided and made available on the Commission's website. The meeting is one part of the Commission's decision-making process. It is taking place
- 15 at a preliminary stage of the process and will form one of the several sources of information upon which the Commission will base its decision. It's important for the commissioners to ask questions of attendees and to clarify issues whenever we consider it appropriate.
- 20 If you are asked a question and you're not in a position to answer, please feel free, you know, to take the question on notice and provide any additional information in writing which we will then put in on our website. So the outline for the session is we've allowed about an hour and a-half and we have your documents. We're happy for you to give us a presentation or provide us a presentation or brief to start with,
- 25 and then we will have some questions. And we may, if we need to, ask for another meeting if we need some more information during the process. So, over to you, Mike and Steve.
- MR M. YOUNG: Sure.
- 30 MR .....: .....
- MR YOUNG: Thank you, Peter. Thank you for the opportunity. Today, I guess, we didn't have a formal presentation as such.
- 35 MR DUNCAN: Right.
- MR YOUNG: I guess, you know, we were thinking that, you know, you've had the – our report now for some time and obviously copies of the other relevant
- 40 documents, EISs, etcetera. And the other thing: it is very early in the assessment process - - -
- MR DUNCAN: Yes.
- 45 MR YOUNG: - - - so it is a – I guess, for – you know, the Minister for Planning has called a public hearing into the project, but that will be an initial hearing, as I

understand it, and so there will be – this will be part of a broader multistage hearing for the project, so - - -

MR DUNCAN: That's correct, yes.

5

MR YOUNG: - - - our report, I guess, is something that focuses more on summarising some of the issues and concerns raised during the exhibition of the EIS and also summarises the input from some of the key agencies – New South Wales Government agencies into the assessment process based on their preliminary review of the EIS itself, and also includes or attaches a range of preliminary reports from 10 four experts that the department has engaged to provide advice for its assessment of the project going forward. So, I mean, I'm happy to, sort of, go through elements of the report if that's helpful or if there are – whether it's – you're in a position to have absorbed, you know, that and have questions. So I'm happy either way. Whatever 15 ..... most benefit to you.

MR DUNCAN: Yes. Look, I think, just by way of introduction, if you could just – a quick summary - - -

20 MR YOUNG: Sure.

MR DUNCAN: - - - of where we are to date - - -

MR YOUNG: Sure.

25

MR DUNCAN: - - - and then what you see is the key issues - - -

MR YOUNG: Sure.

30 MR DUNCAN: - - - out of the initial .....

MR YOUNG: Yes. That's fine. That's fine.

MR DUNCAN: .....

35

MR YOUNG: And I guess it was a little bit unclear as to exactly what the expectations were of today in terms of - - -

MR DUNCAN: Okay.

40

MR YOUNG: Because we are in this slightly different process.

MR DUNCAN: That's correct, yes.

45 MR YOUNG: Yes. For this project.

MR DUNCAN: I understand.

MR YOUNG: So, firstly, I will talk about maybe some of the background to the project and some of the history and then maybe talk about the process and where we're up to in the process, etcetera. So, I think, as we indicate in our report, coal mining in this area is not something that's new. It's not something that's new in the broader Gunnedah basin. It's also not something that's new in this particular location itself. So there has been various mining activities occurring over the last 20 to 30 years - - -

MR DUNCAN: Yes.

MR YOUNG: - - - in those areas. There has been various approvals that have been issued for that mining, but obviously now all of that mining – historical mining ceased and been rehabilitated, and I guess the main extant approval that applies in that area is the approval of the Vickery coal project which was granted, I think, in two thousand and - - -

PROF G. WILLGOOSE: 14, it says in the - - -

MR YOUNG: 14. That sounds right, yes. 2014.

PROF WILLGOOSE: In here.

MR YOUNG: Which was a state-significant project at the time. That was granted under delegation by – from the Minister for Planning at the time. Clearly, you know, Whitehaven has not commenced that project. They've not commenced the consent, so under the consent or under the regulation they have five years within which to commence those – that mining project, so I guess that's probably some time in 2019 which is - - -

MR DUNCAN: Sounds like it is. Yes.

MR YOUNG: - - - which is, at this stage, when the current approval would potentially lapse, unless they were to commence the project. So, clearly, I think Whitehaven has obviously looked at the operational and economic side of developing that project and determined that, from an economic and a practical point of view, it's seeking to, I guess, extend or expand the project to mine the coal, plus an additional 44 million tonnes, I think, over a more – over a slightly shorter time period – 25 years instead of 30 years – and to do that at a significantly higher rate than what was originally approved, so 10 million tonnes versus 4.5 million tonnes a year.

So I guess from a sort of a strategic perspective, the main, I think, relevant contextual piece of information – or issue is the fact that there is, you know, a valid approval that applies essentially to the same site and would allow Whitehaven, I guess, to develop the mine in accordance with that approval today. Obviously they're seeking this further extension for those sort of practical and economic reasons. So in terms of the key elements of the project, I think it's good to focus on what are the differences between the approved project and the proposed.

MR DUNCAN: Yes. That would be good.

MR YOUNG: And so, essentially, there are a number of key changes. Firstly, as I've mentioned, there's a – it will be slightly shorter life where they will mine the coal. There will be an additional resource of coal – or coal resource targeted, which would involve some extensions to the existing open cut footprint of the approved project. Associated with that, there would be some changes to the overburden emplacement areas, which involves removing one of the proposed overburden emplacement areas to the east and making it essentially one larger or extended overburden emplacement area to the west emplacement area.

Probably – so that's kind of the mining changes. So, really, mining in a very similar area with some extensions, obviously with a much more significant rate of extraction, so, arguably, more intense mining. And you can see those yellow parts are the new areas, which I think you've probably seen those maps before.

MR DUNCAN: Yes. Yes. We have.

MR YOUNG: So that's, I guess, the key changes in the mining. In terms of ancillary infrastructure or, you know – to support the ongoing operations, what was approved under the 2014 approval was to – there was no coal handling and preparation plant to process the coal. That was to occur at the existing Gunnedah or Whitehaven coal prep plant, which is further south, just north of Gunnedah, and the idea was to transport by road – a combination of private road and public road – to access that prep plant. So, really, what one of the key changes is, rather than process at that existing prep plant, they're proposing to construct a prep plant on the site and they're proposing to extend – or construct a rail spur off the main rail line to the site so that they can load directly from that prep plant onto the rail line and then to markets.

So the other change is that the surface infrastructure area was further over to the east, so it was more in this kind of area south of the Vickery State Forest, whereas, now, they have moved essentially most of the surface infrastructure, including the new prep plant, over onto this side of the project. In addition to that and the other part marked on that particular map, other than the rail spur, is the borefield to the north of the site where they're proposing to install a number of bores to provide additional water supply for the operations of the project. So those are, I guess, the key changes to the sort of the footprint and the proposal.

It's probably worth mentioning that the extent of the – or the boundary of the disturbance footprint in terms of mining towards the Namoi River, which is to the – I guess to – yes – just there, that's right – and also to a number of residences, which also tends to be towards that direction on the other side of the Namoi River, the extent of the actual footprint compared to what's approved is almost the same in terms of the actual mining area.

MR DUNCAN: Okay.

MR YOUNG: So I think that's important.

MR DUNCAN: On that sort of western side.

5 MR YOUNG: That's correct. Yes. So I think there's probably - - -

MR DUNCAN: Okay.

10 MR YOUNG: I'm not sure that's the best map. One of those original maps is probably helpful.

MR S. O'DONOGHUE: Just showing where the residences - - -

15 MR YOUNG: Yes. Where the residences are. Yes.

MR O'DONOGHUE: Yes. Yes. Yes.

MR YOUNG: To the - mostly, they're to the west and south-west, yes, except in - - -

20 MR DUNCAN: So they're marked on this - - -

MR YOUNG: They are.

25 MR DUNCAN: This is the plan - the land ownership plan?

MR O'DONOGHUE: Yes.

MR DUNCAN: So they're marked - - -

30 MR YOUNG: Yes. So they would be marked as red dots, I would expect.

MR DUNCAN: - - - private - red is a private dwelling.

35 MR YOUNG: Correct. Yes. So - - -

MR DUNCAN: So the extended footprint - - -

MR YOUNG: Yes. That's not a very helpful map, that one.

40 MR DUNCAN: Okay.

MR YOUNG: There is another map that's probably more helpful.

45 PROF WILLGOOSE: I'm just looking at the original - - -

MR YOUNG: Yes. Yes.

PROF WILLGOOSE: The 2014 to see if we can actually find something that shows clearly the footprint. That's - - -

MR YOUNG: Well, if you look at the one with the yellow - - -

5 MR DUNCAN: Yes.

MR YOUNG: Not the yellow circles, but the yellow polygons - - -

10 MR DUNCAN: Yes.

MR YOUNG: - - - those are the actual new areas.

MR DUNCAN: Those two there.

15 MR YOUNG: So if you look at the boundary of this colour, that's essentially areas already approved for disturbance.

MR DUNCAN: Okay.

20 MR YOUNG: So there's no yellow on that part of the site, I guess, is what I'm saying. So - - -

PROF WILLGOOSE: Which one is that? That's - - -

25 MR DUNCAN: So figure 4 - - -

PROF WILLGOOSE: Figure 4. Okay.

30 MR DUNCAN: - - - gives a better indication.

PROF WILLGOOSE: Yes. Yes. .... in here.

MR DUNCAN: General arrangement project mining area. Actually, it's figure 2.2

35 in the - - -

PROF WILLGOOSE: Figure 4 in the report though.

MR O'DONOGHUE: It's figure 4 in our report.

40 MR DUNCAN: Yes.

MR O'DONOGHUE: Yes.

45 PROF WILLGOOSE: Okay.

MR YOUNG: So I think part of the context as well is that you may have heard of the Blue Vale Pit, which is some - which was originally part of the proposed

extension, which involved the new open cut pit to the south-west of the site and closer to the Namoi River. I don't think it's actually shown on any of the maps, Steve.

5 MR O'DONOGHUE: Yes. Yes. Not – the Blue Vale Pit itself is .....

PROF WILLGOOSE: This is it here, isn't it?

MR O'DONOGHUE: Yes. That's it there.

10 PROF WILLGOOSE: Yes.

MR O'DONOGHUE: Yes.

15 MR YOUNG: Yes.

PROF WILLGOOSE: So that's a final – that's the final void from Blue Vale.

MR O'DONOGHUE: That's the final void of the Blue Vale Pit.

20 PROF WILLGOOSE: So that – so, presumably, it's mined in that area, but that's just the remainder of - - -

MR O'DONOGHUE: Yes. That's right. That's the final void - - -

25 PROF WILLGOOSE: Void. Okay.

MR O'DONOGHUE: - - - from previous mining.

30 PROF WILLGOOSE: Yes.

MR O'DONOGHUE: Yes.

35 MR YOUNG: There was some historical mining there and they were proposing to, I guess, create a new – or reopen that oven and create a new Blue Vale Pit there.

PROF WILLGOOSE: Okay. Yes.

40 MR YOUNG: However, by the time they lodged their formal – Whitehaven lodged its formal application, they had altered their plans such that they were no longer proposing to extract coal within the Blue Vale Pit. Obviously, that – having open cut coal mining closer to the Namoi alluvium, the Namoi River and associated residences, was of particular concern at the time, and I think, obviously, the company recognised that and withdrew that as part of its application.

45 MR DUNCAN: Yes.

PROF WILLGOOSE: So this is the area that there was public – because I remember reading in the newspaper – online things in the newspaper – there was concern about the original proposal going too close to the Namoi, so - - -

5 MR YOUNG: And that's, I guess, the context of why I'm raising it, in the sense of, yes, there was some media concern there and the company obviously, you know – we have to ask it about its reasons, but, you know, I'm sure that the concern of the community and proximity to those sensitive areas was part of the equation. So – but what that then achieved, I guess, for the company is that, in terms of mining  
10 activities, overburden emplacement, extraction and so forth, that the proximity to those areas is no different to what's already proved. So that's, I guess, the point I was trying to make.

Now, is – will there be additional surface infrastructure, like the prep plant and other  
15 things, closer to those residences? Yes. There will be. Is there an extension of the open cut and overburden to the north? Yes. There is. That's those yellow areas on that map. But in terms of proximity to those particular sensitivities, there's no change from the approved operations.

20 PROF WILLGOOSE: So I will just - - -

MR DUNCAN: Okay.

25 PROF WILLGOOSE: Okay. Here we go. There's the - - -

MR YOUNG: Yes. So - - -

PROF WILLGOOSE: Sorry. I missed this one. Yes. There we go. So - - -

30 MR YOUNG: Yes. That's the most illuminating one.

PROF WILLGOOSE: Okay. Yes. Yes. Okay. That was the one I was looking for, so. Okay.

35 MR YOUNG: So I think those are the key aspects of the project, unless I'm missing – I mean, we can take some of that as read. I'm sure there's other details there, but those are sort of the key aspects.

40 MR O'DONOGHUE: Yes. Well, on the project aspects, yes - - -

MR YOUNG: Yes.

MR O'DONOGHUE: - - - they're the main - - -

45 MR DUNCAN: Okay.

MR YOUNG: In terms of issues – and maybe I will preface that by talking about the nature and extent of the consultation that has been undertaken by the department.

MR DUNCAN: Right.

5

MR YOUNG: So when the Vickery Coal Project was first approved, it would be fair to say that the nature and extent of the submissions we received was reasonably low. I think we received, at the time - - -

10 MR O'DONOGHUE: It was about 23 - - -

MR YOUNG: - - - 22 or 23 submissions in 2014, which meant that – in terms of the delegations at the time, it meant that it could be determined by the department under delegation from the Minister for Planning as opposed to the Planning Assessment Commission at the time.

15

MR DUNCAN: Sure. Sure.

MR YOUNG: So it does indicate that, you know, obviously there has been a change, I think, in the level of concern within the community about coal mining generally and also, obviously, specifically about this project, because, now, we've obviously got, I think, 560-odd submissions, something like that, albeit that 62 per cent or something of those submissions were in favour, but, still, were in the hundreds of submissions as opposed to 20 – you know, the twenties.

25

MR DUNCAN: I understand. Yes.

MR YOUNG: Yes. So there has been that change. So I think the department recognised that, because we have quite a close relationship with many of the community groups and landowners within that region, because there are a number of operations in the Gunnedah region that we have interactions with the community and community groups. So we – obviously, once we got the EIS, we put it on exhibition for 42 days, which is a couple of weeks extra than the statutory minimum of 28 days, but we also recognised that it's important for the department to hear firsthand from the community, as you guys will be in a couple of weeks, and also to explain the process to them – to the community. And so we arranged for a community meeting up in Boggabri. I think that was in - - -

35

MR O'DONOGHUE: In September - - -

40

MR YOUNG: September. September.

MR O'DONOGHUE: The 26<sup>th</sup>, I think.

MR YOUNG: 26 September, where we had it at the Boggabri Golf Club and approximately 70 people were there. I think it was a mix of local farmers and landowners, representatives of some of the local community groups, but there were

45

some – also some representatives from further afield who were involved in environmental groups that have an interest in coal mining and an interest – or have raised concerns - - -

5 MR DUNCAN: Yes.

MR YOUNG: - - - historically with mining in that area and mining in general. So, in addition to that, we also recognise that the people living closest to the proposed extension, obviously, are the people that are likely to be most affected and so we've  
10 also had individual meetings and group meetings with some of the very local landowners, particularly those to the west of the site. So, for example – I think it was probably earlier this year or last year - - -

MR O'DONOGHUE: Probably last year, I think, we had that meeting with the - - -  
15

MR YOUNG: Last year - - -

MR O'DONOGHUE: Yes.

20 MR YOUNG: - - - where we met with 30 or more local farmers on the Mirrabinda property, which is the – one of the large properties directly to the west of the site - - -

MR DUNCAN: Okay.

25 MR YOUNG: - - - and it was clear from even, you know, a year or more previous to now that there was emerging concern amongst that group of farmers about the potential impacts of the Vickery Extension Project.

MR O'DONOGHUE: They have formed the Boggabri Farming and Community  
30 Group, which is one of the submissions. So that's a group of – mainly landholders who – in that closer proximity to the mine - - -

MR DUNCAN: Yes. We've been contacted by various groups - - -

35 MR O'DONOGHUE: Yes.

MR D. WAY: So they have ..... contacted us directly and requested to - - -

MR DUNCAN: We will be looking at going to some ..... sort of a cross-section of  
40 those sites - - -

MR YOUNG: Those properties? Yes. Yes. Yes. I think it's probably – just before going to the issues – just re-touching on, I guess, some of the conditions associated with the current Vickery Coal Project because I think it's relevant for the assessment  
45 of this particular project. So when that project was approved, there was – I think it was only two properties that were in – that received acquisition rights as a result of significant noise and dust impacts associated with the Vickery Coal Project. One of

those properties has since been purchased by Whitehaven and so my understanding, I think, now there's only one property that remains in that – or continues to have acquisition rights which can be exercised at any time.

5 MR DUNCAN: Can it?

MR YOUNG: Yes.

MR DUNCAN: Okay.

10

MR YOUNG: And that is the owners of the Mirrabinda property.

MR DUNCAN: Okay.

15 MR YOUNG: And on that particular property – it's a very large property and there are a number of dwellings on that property. And so if you were to – we don't have to go into it now but there's a number of ..... you know, it's not just one of those red dots. There's a number of those red dots that would form the property.

20 MR DUNCAN: On that particular property.

MR YOUNG: If you want to point it out?

25 MR O'DONOGHUE: Yes. I've got – there's a figure here that's – that helps because it has got the noise contours on it, so - - -

MR DUNCAN: That's the property .....

30 MR O'DONOGHUE: Yes. So that – so ..... this is – the three – these three residences here on are on the Mirrabinda property - - -

MR DUNCAN: Yes.

35 MR O'DONOGHUE: - - - and this one here is within the noise acquisition criteria - - -

MR DUNCAN: Okay.

40 MR O'DONOGHUE: - - - on that ..... and the other two are just .....

MR YOUNG: That's the current predictions of the extension project, though, not the – is that .....

45 MR O'DONOGHUE: No, no, no, it's – no. This is – for the – just for the extension project?

MR YOUNG: Yes .....

MR O'DONOGHUE: ..... yes.

MR YOUNG: So those contours are for the extension project - - -

5 MR DUNCAN: Yes.

MR O'DONOGHUE: Yes, yes, that's right.

MR YOUNG: - - - but that property – Mirrabinda – the entire property has  
10 acquisition rights under the current approval - - -

MR O'DONOGHUE: Yes, it – yes, it does, yes - - -

MR YOUNG: Yes.

15 MR O'DONOGHUE: - - - because it's - - -

MR DUNCAN: Okay. Just simply because of the - - -

20 MR O'DONOGHUE: ..... all - - -

MR DUNCAN: - - - relationship in the original approval - - -

MR YOUNG: So the ..... we would have assessed noise and air quality impacts at  
25 the time - - -

MR DUNCAN: Okay.

MR YOUNG: - - - and because they were above a certain criteria - - -

30 MR DUNCAN: Yes.

MR YOUNG: - - - they would have received those acquisition rights at the time.  
The Department's policy is that we don't tend to break up properties in one  
35 ownership, so if there's impacts on - - -

PROF WILLGOOSE: This is the original noise contours?

MR YOUNG: Yes. So it's probably - - -

40 PROF WILLGOOSE: ..... that's 127B – 27C – so that's this one - - -

MR DUNCAN: Yes.

45 PROF WILLGOOSE: - - - here, which is just inside the 40 dB – so these contours  
have moved out a little bit ..... you know, in that region there – yes.

MR YOUNG: So under the policy at the time, anything over 40 dB was seen to be a significant noise impact and therefore those properties would receive acquisition rights if nothing could be done to further mitigate the noise, that is, of course.

5 MR DUNCAN: So there is a potential for mitigation measures, as well.

MR YOUNG: So – well, one would – so that property under the current approval – and I guess that’s a matter for the IPC ultimately to determine how does translate into the new approval - - -

10

MR DUNCAN: Right.

MR YOUNG: - - - or new – if it is approved, that is - - -

15 MR DUNCAN: Yes.

MR YOUNG: - - - you know, that would need to be considered but I guess what we’re saying is that as a result of the approved operations, the predictions were that it would exceed the relevant criteria and therefore they should have acquisition rights.

20

MR DUNCAN: Okay.

MR YOUNG: But we would have turned our mind – or we turned our mind at the time to the extent to which those things could be mitigated - - -

25

MR DUNCAN: Yes.

MR YOUNG: - - - because you don’t – one must look at mitigation measures before one thinks about acquisition rights.

30

MR DUNCAN: Sure. Sure.

MR YOUNG: Now, under this situation, under – you know, where the IPC and we, in assessing the projects in the EPA would be certainly looking at has the company – is the company proposing to employ all reasonable and feasible mitigation measures on the site to minimise their noise before you then even get – ask questions about regulatory responses to those noise exceedances if there are any - - -

35

MR DUNCAN: All right.

40

MR YOUNG: - - - if that makes sense?

MR DUNCAN: Yes.

45 MR YOUNG: So in terms of issues – and I think what we tried to do in our report is really to, sort of, break it – focus on the key issues that were coming out of our consultation with the community and also from agencies and from our technical

experts. And I think even in the executive summary, we summarise what we see those issues as. And they do focus firstly on the rail spur, which is obviously a key new piece of infrastructure, which is different to the current approval.

5 MR DUNCAN: Yes.

MR YOUNG: It is something that concerns the community particularly because of its location crossing the Namoi River floodplain and the potential impacts on flood behaviour. There's also concerns about noise and dust and visual impacts associated  
10 with actually building that piece of infrastructure. There are a number of properties that would arguably – under the existing approval would have limited impacts in terms of amenity impacts - - -

MR DUNCAN: Yes.  
15

MR YOUNG: - - - that now – maybe because of the proposal to develop the rail line would – there – would be subject to potentially – you know, those amenity impacts that they would not have otherwise been subject to. So that's the first issue. It has – it's – there's a range of issues with the proposal ..... the first issue really is do they  
20 really need it? Is it possible – what other options have been considered? Are there options to the north or to the – directly to the west of the site whereby they could get access to the rail line? And I understand that the company has made some consideration of alternatives in its documentation - - -

25 MR DUNCAN: So that – the alternative in line with the original approval would be road, I assume, and there's - - -

MR YOUNG: Indeed. That's right. And - - -

30 MR DUNCAN: So there's - - -

MR YOUNG: Yes.

MR DUNCAN: - - - change there.  
35

MR YOUNG: So we – I mean, we – the Department is – wherever possible is keen to see our coal transfer – transport occur on rail - - -

MR DUNCAN: Yes.  
40

MR YOUNG: - - - as opposed to roads.

MR DUNCAN: Yes.

45 MR YOUNG: It's fair to say that this particular Blue Vale Road is one of the few exceptions in New South Wales, where - - -

MR DUNCAN: Okay.

MR YOUNG: - - - coal is continuing to be transported by road and so, in broad terms, we support rail options for coal - - -

5 MR DUNCAN: Right.

MR YOUNG: - - - transport of coal. So, assuming that, the question is, well, if this is to proceed, you know, what options are there available in respect of the alignment for the rail line? And the company has looked at a number of options, and I think it's set out what it believes are the clear reasons as to why this option is its preferred option - - -

10 MR DUNCAN: If the rail – if the project were approved and the rail went ahead, does that mean all on-road transport would cease?

15 MR YOUNG: So that is a key issue that I think we need to explore further.

MR DUNCAN: Right.

20 MR YOUNG: What the company has said is that they would continue to transport coal by road and in the current manner - - -

MR DUNCAN: Right.

25 MR YOUNG: - - - and only, I think, up to the current approved rate - - -

MR O'DONOGHUE: Yes. Yes.

30 MR YOUNG: - - - under the existing approval until the rail line and the prep plant were operational - - -

MR DUNCAN: I see.

35 MR YOUNG: - - - fully operational. So there would be an interim period. I don't think it's a clear - - -

MR O'DONOGHUE: They flag in some of the appendices and the traffic assessments and that that they've made some estimates of when that would cease, you know, pending that. So I think it's really only looking at the first couple of years, until they predict – you know, they've estimated it would be up to full capacity. But they're leaving some latitude there - - -

40 MR DUNCAN: So the rail - - -

45 MR O'DONOGHUE: - - - I guess.

MR DUNCAN: - - - line in the preparation plant would lag any commencement, in theory, by about at least two years?

MR YOUNG: That's correct.

5 MR DUNCAN: Yes.

MR YOUNG: Yes. Yes.

10 PROF A. CLARK: And after it's fully operational, they would cease road transport?

MR YOUNG: Correct. That's what they're saying.

15 MR DUNCAN: Okay.

MR YOUNG: Obviously, any – if the IPC was minded to prove the development, that would be a key area for any, sort of, conditioning and so forth, to make sure that those triggers are quite clear.

20 PROF WILLGOOSE: And one of the comments in your report was that at the current time they're transporting coal from other mines down that road and that they would transport that coal to this prep plant.

25 MR YOUNG: I think that's important to say – that - - -

PROF CLARK: On road?

PROF WILLGOOSE: Well, I assume by road - - -

30 MR O'DONOGHUE: It would be. Yes.

MR YOUNG: Yes.

35 MR O'DONOGHUE: Yes.

MR YOUNG: Yes.

PROF WILLGOOSE: - - - to this prep plant, so - - -

40 MR YOUNG: So I think that there's probably some context I left out – is the fact that the Rocglen Mine, which you can see is over here - - -

MR DUNCAN: Yes.

45 MR YOUNG: - - - which is an operational operating mine – again, a Whitehaven mine. That currently transports via road to the Gunnedah prep plant.

MR DUNCAN: Somewhere down – quite a way away.

MR YOUNG: Yes. Yes.

5 MR DUNCAN: It's just down - - -

MR YOUNG: It's a way - - -

MR DUNCAN: Yes.

10 MR O'DONOGHUE: This is a good map, just to show you where - - -

MR YOUNG: Yes.

15 MR DUNCAN: So from there to there, that's quite a distance. Yes.

PROF WILLGOOSE: Yes. That's right. It's quite - - -

PROF CLARK: Yes.

20 MR YOUNG: That's right.

PROF CLARK: That's right.

25 PROF WILLGOOSE: Quite - - -

PROF CLARK: That's where - - -

PROF WILLGOOSE: - - - a way - - -

30 PROF CLARK: - - - it is now.

MR YOUNG: So there's - - -

35 PROF CLARK: Yes.

MR YOUNG: - - - the Whitehaven - - -

PROF CLARK: Yes.

40 PROF WILLGOOSE: Yes.

MR YOUNG: So directly south - - -

45 PROF CLARK: Yes.

MR YOUNG: - - - is Whitehaven.

PROF WILLGOOSE: Yes.

MR YOUNG: Here's Vickery. Here's Rocglen. In addition to that, there's the Tarrawonga Mine here - - -

5 PROF WILLGOOSE: Yes.

MR YOUNG: - - - which is one of the three Leard Forest - - -

10 PROF CLARK: Yes.

MR YOUNG: - - - Precinct mines, which - - -

PROF CLARK: So they mothball - - -

15 MR YOUNG: - - - is also operated by - - -

PROF CLARK: - - - this one?

20 MR YOUNG: Well, they do have a consent. The consent runs out in '22.

MR O'DONOGHUE: For which one?

MR YOUNG: For the prep plant. The one - - -

25 MR O'DONOGHUE: For the prep plant? Yes. 2022, the prep plant - - -

PROF CLARK: Okay.

30 MR O'DONOGHUE: - - - consent expires.

MR YOUNG: Whether they – I think the intention is that over time that will be phased out. Yes. But it has a valid approval and can continue operations at this stage. The other thing, though, that is important to recognise is that the proposal to

35 transport coal, you know, for maybe up to two years, or that kind of timeframe, before they develop the rail spur. Whitehaven would argue, I think, that that is a continuation of the current situation, because coal from Rocglen and from Tarrawonga and – indeed, under the current Vickery approval is allowed to be transported via road to the Whitehaven prep plant. And they're proposing to, if it is

40 approved and they're transporting coal – or transporting coal by road from Vickery, that they would do that at no greater rate than what the current 2014 approval is. Yes.

MR DUNCAN: Right.

45 MR YOUNG: And so they would only, then, ramp up to 10 once all of those other elements were in place.

MR O'DONOGHUE: Just the other thing – the Rocglen coal mine – that will – they've only estimated will extract coal till next year – you know, 2019. So it has probably only got another year's extraction. And then they would probably leave Tarrawonga, as that has got a longer life. So that would still be quite a period of time  
5 where they would be bringing coal from Tarrawonga.

MR DUNCAN: From there to there.

PROF WILLGOOSE: But - - -  
10

MR O'DONOGHUE: Yes. And - - -

MR YOUNG: Correct.

15 MR DUNCAN: In theory, when the plant was - - -

MR YOUNG: Yes.

MR O'DONOGHUE: Yes. But there's a couple of – it's mainly private haul roads.  
20 So they're - - -

MR DUNCAN: Are they?

MR O'DONOGHUE: This road here is a private haul road; it's not a public road.  
25

MR DUNCAN: Right.

MR O'DONOGHUE: There's a stretch of public road here - - -

30 MR DUNCAN: Yes.

MR O'DONOGHUE: - - - and then there's a private haul road again. So most of the route is a private haul road, except for one - - -

35 MR YOUNG: So whilst – the development of the - - -

PROF CLARK: So that's their land.

MR YOUNG: Yes.  
40

MR O'DONOGHUE: Yes.

MR YOUNG: And they own almost all the land on either side of that road.

45 MR DUNCAN: Under the current approval, is there a figure on how many truck movements per day? Is there a - - -

MR YOUNG: It's a - - -

MR O'DONOGHUE: Yes. I think - - -

5 MR YOUNG: - - - tonnage limit.

MR O'DONOGHUE: Yes.

MR DUNCAN: A tonnage limit, is it?

10 MR YOUNG: Which would have been based on some assumptions about road movements.

MR O'DONOGHUE: I can - - -

15 MR DUNCAN: Yes.

MR O'DONOGHUE: I can get those figures for you, but, you know - - -

20 MR DUNCAN: I was just curious to know what - - -

MR O'DONOGHUE: Yes.

MR DUNCAN: - - - it currently is.

25 PROF CLARK: Yes.

MR DUNCAN: Then, what changes if this were to be approved – probably initially, but, then, two years down the track. Because it's sort of ..... scenarios, isn't there?

30 There's a current approval and what that allows - - -

MR YOUNG: Yes.

MR DUNCAN: - - - then there's this potentially interim time, where - - -

35 MR O'DONOGHUE: Yes.

MR DUNCAN: - - - things have been phased out and - - -

40 MR O'DONOGHUE: The traffic impact assessment does, you know – for those years does have the traffic - - -

MR DUNCAN: Does those three - - -

45 MR O'DONOGHUE: Yes.

MR DUNCAN: Yes. Okay.

MR O'DONOGHUE: Yes. It doesn't - - -

MR DUNCAN: Scenarios.

5 MR O'DONOGHUE: It does the traffic numbers for - - -

MR DUNCAN: Okay.

MR O'DONOGHUE: Assuming it's still going to - - -

10 PROF CLARK: So you can see - - -

MR O'DONOGHUE: - - - the CHPP.

15 PROF CLARK: - - - how much is removed from the road.

MR O'DONOGHUE: Yes.

PROF CLARK: Yes.

20 MR O'DONOGHUE: There's figures there.

MR YOUNG: So, essentially, yes, that's – but the total approval – the way that all those three mines are regulated is that, together, those mines can't exceed a certain

25 threshold.

MR DUNCAN: Yes.

MR YOUNG: And so if this is approved and they're able to develop that prep plant,

30 the longer-term scenario, putting aside that two-year period, would be that you would then remove all coal transport on this public road down here - - -

MR DUNCAN: And.

35 MR YOUNG: - - - and you would only then have the road transport principally on private haul roads from the Tarrawonga Mine to this prep plant, and we would avoid the need to use that part of the road network.

MR DUNCAN: What's that road?

40 MR O'DONOGHUE: That's Rangari Road. So that's Rangari.

MR DUNCAN: Okay.

45 MR O'DONOGHUE: And it goes – it's also known as the Manilla Road.

MR DUNCAN: Okay.

MR O'DONOGHUE: So it goes across to Manilla.

MR DUNCAN: Okay.

5 MR O'DONOGHUE: And it's sealed along that stretch. It - - -

MR DUNCAN: It's a sealed road?

MR O'DONOGHUE: It's a sealed road for that part. It turns into dirt further - - -

10 MR DUNCAN: Okay.

MR O'DONOGHUE: Further to the - - -

15 MR YOUNG: Currently, Whitehaven has approval to take the Tarrawonga coal all the way to Gunnedah Prep Plant.

MR DUNCAN: Yes.

20 MR YOUNG: So it's a development right they have at the moment. And so - - -

MR DUNCAN: Right.

MR YOUNG: - - - if this project just proceed in the manner proposed, then it would be an advantage, in a sense, of – you would remove the need for any further transport further south of Vickery.

25 MR DUNCAN: So that's the route it takes now.

MR YOUNG: That's right.

30 MR DUNCAN: That's shown in broken line on - - -

MR YOUNG: Yes.

35 PROF WILLGOOSE: Yes.

MR O'DONOGHUE: Yes.

40 MR DUNCAN: - - - figure 1.

PROF WILLGOOSE: So how would be approvals for that work? Let's imagine this is approved. Now, they've said they will do that, but presumably they've got this right under their existing approval to take it all the way to Gunnedah. Is there

45 the possibility for – in the context of this, to remove their right to use that road and force them to use the new prep plant?

MR YOUNG: Garry, I think that's something we can probably talk about as we go through.

PROF WILLGOOSE: Yes. Okay.

5 MR YOUNG: From a legal point of view, a consent authority is not able to alter a development right unless there's a modification seeking to do that.

PROF WILLGOOSE: Okay.

10 MR YOUNG: So in other words, the consent authority can't change the Tarrawonga approval.

PROF WILLGOOSE: So could we - - -

15 MR DUNCAN: Right.

PROF WILLGOOSE: Could we give it approval that said, "This will only be approved if there's a change in the consent for Tarrawonga"?

20 MR YOUNG: That's probably detailed legal advice. My feeling would be no.

PROF WILLGOOSE: Okay.

25 MR DUNCAN: Yes.

MR YOUNG: Can't do that.

MR DUNCAN: Thank you.

30 PROF CLARK: So just a question - - -

MR YOUNG: But, look, I mean, I think it's some detail that we can easily work out, because, clearly, Whitehaven operates all of those mines and it's clearly proposing to, you know, not use that road post that. And so I'm sure there's ways and means that we could - - -

35 PROF WILLGOOSE: I'm just mindful of the - - -

40 MR YOUNG: Yes.

PROF WILLGOOSE: - - - way ownership of mines changes – you know, sort of - - -

45 MR YOUNG: Sure.

PROF WILLGOOSE: - - - from year to year, that - - -

MR YOUNG: Sure.

5 PROF WILLGOOSE: You know, they may promise that. And Whitehaven may own that mine now, but that doesn't mean that they're going to own it five years from now.

MR DUNCAN: Alice has a question, I think.

10 MR YOUNG: Sorry.

PROF CLARK: Yes. You spoke about a cap. So there's a collective amount of tonnes that they're allowed to move on the infrastructure here. Is that cap there to, I guess, manage the road and manage – or is it for some other reason?

15 MR YOUNG: The cap is there, to some extent, to reflect the total amount of coal that's likely to be extracted from those mines. And, secondly, to - - -

PROF CLARK: As a resource-management device?

20 MR YOUNG: Well, it's – so it's somewhat complicated. Essentially, that cap was put in as a road-management measure because there are some concerns that RMS and council have in regard to the access to the prep plant near Gunnedah, associated with the crossing of the Kamilaroi Highway at that point.

25 MR DUNCAN: Right.

MR YOUNG: And so the consent for Vickery Coal Project – 2014 consent actually requires – if they go above a certain volume - - -

30 PROF CLARK: Yes.

MR O'DONOGHUE: 3.5.

35 MR YOUNG: Go above 3.5, they're required to construct an overpass over the Kamilaroi Highway, to that prep plant.

PROF CLARK: So the reason why, I guess, I asked that was – that if this comes to be, will that cap be then lifted?

40 MR YOUNG: Well, no, because - - -

PROF CLARK: Would there be any reason why they wouldn't - - -

45 MR YOUNG: Well, they wouldn't need to use that road at all, then. They wouldn't need to use this road at all, so there would be no need for a road cap.

PROF CLARK: That's - - -

MR YOUNG: And it would all be - - -

PROF CLARK: So it is a road cap; it's an infrastructure cap.

5 MR YOUNG: Yes. It would all be on the rail.

PROF CLARK: Okay.

MR DUNCAN: And the crossing you mentioned at the Kamilaroi Highway, is that  
10 an intersection at the moment, or is it a - - -

MR YOUNG: It's a - it's - so the Blue - - -

MR DUNCAN: - - - staggered - - -

15 MR YOUNG: Yes. So Blue Vale Road comes in like that - - -

MR DUNCAN: It's a T - yes.

MR YOUNG: - - - and then they have to go down for a about 100 metres on  
20 Kamilaroi Road - - -

MR DUNCAN: And then turn.

MR YOUNG: - - - and then turn right into the prep plant.

PROF CLARK: And that makes sense how they go .....

MR DUNCAN: Okay. I understand what you mean now.

30 MR YOUNG: And there was a commitment, if they went above 3.5, they would  
have to build an overpass over the Kamilaroi Highway.

MR YOUNG: Where there's a condition requiring it, in fact.

35 MR O'DONOGHUE: Yes. Yes.

MR YOUNG: Yes.

MR DUNCAN: Okay.

40 MR YOUNG: Yes. Okay.

MR DUNCAN: All right.

45 MR YOUNG: So that's the rail spur. I guess the only thing in regard to the rail -  
well, there's a number of things. In terms of the flooding, we've had some

preliminary advice from our expert, Erin Askew, from WMA, who has provided a preliminary report. He has visited the site; he has met with some local landowners.

MR O'DONOGHUE: She.

5

MR YOUNG: She. Sorry. Sorry. I apologise. She has visited the site and met with some landowners, and from the preliminary report that Erin has provided, there are a number of matters that she and we are seeking further detail on.

10 MR DUNCAN: So the route that the rail takes is broadly on property boundaries?

MR YOUNG: Correct.

15 MR DUNCAN: Okay. Okay. The issues then are in this report that she has identified from the property owners' point of view?

PROF WILLGOOSE: There's another report in there - - -

20 MR O'DONOGHUE: Yes. There's an appendix there with her – yes – with her detailed advice. Yes.

PROF WILLGOOSE: And my reading of it is that they're mostly technical issues. There's nothing in there that is problematic in terms of being able to overcome. It's just a matter of - - -

25

MR O'DONOGHUE: But that – yes – that's correct. It's mainly – it's seeking more clarification on a range of issues where it's not clear in the technical reports, but one of the main concerns, like, from the community, because Erin visited the local community members and this was one of their key concerns, was the potential flood impacts, which is one of the reasons we got Erin out there to speak to the property owners. And they're mainly interested on potential impacts of changed flood behaviour on their individual properties in particular.

30

MR DUNCAN: Yes. I understand. Okay.

35

MR YOUNG: So my understanding is that the design of the rail line, that they have agreements with the landowners for which they – where the actual infrastructure is located and that they have sought to align the proposed rail line on the edge of their property, such that that would mean that if there was – which I'm not saying there would be, but if there was any kind of banking – you know, a build-up of floodwaters, it would tend to occur on the upstream side, which is on the properties with which Whitehaven has agreements, as opposed to the downstream side of properties where Whitehaven doesn't have agreements with those landowners.

40

45 MR DUNCAN: Okay.

PROF WILLGOOSE: Well, it really depends on the structures they use. If it's viaducts, then that's true, but if they use culverts – and she comments about not having enough information about where the viaducts are going to be and where the culverts are – with the culverts, there's potentially downstream impacts as well - - -

5 MR YOUNG: Sure. Sure.

PROF WILLGOOSE: - - - because you're concentrating on water – some - - -

10 MR YOUNG: Sure. Fair comment, Garry.

MR O'DONOGHUE: And I think – yes.

MR YOUNG: So I think one of the key things that we and, I think, Erin, has indicated is we consider that the company, in its response, ought to provide further details about the design exactly along the lines that you've just indicated.

15 PROF WILLGOOSE: Yes. I mean, they're engineering details, but they have to be sorted out at some stage. I think - - -

20 MR YOUNG: Yes.

PROF WILLGOOSE: - - - you know, given the concern, they need to be sorted out now.

25 MR YOUNG: So I think we indicate in our report we agree with that. Yes.

MR O'DONOGHUE: That's right.

30 PROF WILLGOOSE: Yes. I mean, the technical approaches that have – both that they have adopted and Erin's perfectly accepted approaches for doing this.

MR DUNCAN: Okay.

35 MR YOUNG: So the only other thing on the – sorry, Alice.

PROF CLARK: Could I just come back to this - - -

MR DUNCAN: Yes, Alice.

40 PROF CLARK: - - - point ..... So if we take out this road here, we no longer need to take the coal through there, we can then increase the production rate considerably from the combined group taking it through the rail. Does it shorten the amount of time that these mines are in operation for?

45 MR YOUNG: So – well, firstly, on Rocglen, as we indicated, that's reaching the end of its life, so I - - -

PROF CLARK: That's right. So no more resource there.

MR YOUNG: They will be having to rehabilitate that in accordance with their obligations.

5 PROF CLARK: Okay.

MR YOUNG: Tarrawonga does have a considerable length within its existing approval, but it has a cap on the tonnage that it's allowed to extract and transport from the site, and so that wouldn't change under this proposal. The only thing that it is going to change - - -

10 PROF CLARK: So it's not a collective tonnage. Okay.

15 MR YOUNG: Well - - -

MR O'DONOGHUE: Only in terms of the transport.

MR YOUNG: - - - only in terms of the transport.

20 PROF CLARK: Okay.

MR YOUNG: Yes. Yes. So - - -

25 MR DUNCAN: Just – while on that, does the transport then put a cap on how much production? If the cap is on the transport, that really - - -

MR O'DONOGHUE: It - - -

30 MR YOUNG: They - - -

MR DUNCAN: Or do they stockpile?

MR YOUNG: - - - align.

35 MR DUNCAN: Okay.

MR YOUNG: They align.

40 MR O'DONOGHUE: It does from the collective. So they might take more coal from one operation and less from another, but they would juggle it to keep to that production level.

MR DUNCAN: Okay. They're able to do that. Yes. Okay.

45 PROF CLARK: Thank you.

MR YOUNG: So I think Tarrawonga has a three million tonne - - -

MR O'DONOGHUE: I think three million. Yes.

5 MR YOUNG: It can produce three million and it's only allowed to transport three million.

MR DUNCAN: Okay.

10 MR YOUNG: So that's matching.

MR DUNCAN: Sorry. I just .....

MR YOUNG: So the only change will be the 10 million – 4.5 to 10 million - - -

15 PROF CLARK: Which is from this one.

MR YOUNG: - - - which is Vickery. That's right. That's right.

20 PROF CLARK: Yes. Thanks.

MR DUNCAN: Okay.

MR YOUNG: Sorry. It is complicated. Yes.

25 PROF CLARK: Yes.

MR DUNCAN: Yes. There's lots of overlap and moving parts here for the – scenarios that come into play.

30 MR YOUNG: There are. There are. There are.

PROF CLARK: I guess the reason for my question was to try and find out if, by doing this, you shorten the amount of time that you're actually here mining and disturbing things - - -

35 MR DUNCAN: Yes.

PROF CLARK: - - - which would be an important thing to understand.

40 MR DUNCAN: Well, I think you said at the start, didn't you?

PROF CLARK: Yes.

45 PROF WILLGOOSE: That's right. It goes from 30 to 25 and - - -

MR YOUNG: So – yes – and that’s all – I mean, that’s all we and you, arguably, can look at in the sense of they’re seeking approval to go from 4.5 to 10 million. They’re saying that more coal, but they will do it in a quicker time: 25 years instead of 30 years.

5 MR DUNCAN: 25 years against 30.

PROF CLARK: From here.

10 MR YOUNG: Yes. But we and – you know, they’re not proposing any changes to Tarrawonga and this project – the only thing that this project would facilitate would enable them to take the existing approval, approved extraction rates and transport rates from Tarrawonga and to wash the coal here - - -

15 PROF CLARK: Sure.

MR YOUNG: - - - rather – and put it on rail rather than go to the - - -

PROF WILLGOOSE: Though that does impact on this, because that’s part of, you might say, the benefits of this; is that if - - -

PROF CLARK: That’s what I was getting at. Yes. That’s what I was getting at. Yes.

25 PROF WILLGOOSE: Yes. That’s – which I think is where Alice is going here, so – yes.

MR YOUNG: That’s – yes – but, I mean, in the absence of a modification to Tarrawonga, then I guess – well, we have no indication that that would facilitate a greater intensity of extraction or a greater amount of transport from Tarrawonga. And, in fact, most caps on mines are not driven by the transport, they’re mostly driven by the intensity of the use on the site, things like dust and noise issues on the site itself.

30

35 MR DUNCAN: Yes.

PROF CLARK: Emissions. Yes. Of course.

MR YOUNG: Yes. Yes.

40 MR DUNCAN: What’s the life of Tarrawonga currently; the approval?

MR O’DONOGHUE: Well, I think it’s the – I will have to check for sure, but it’s into the 2030s. Yes.

45 MR DUNCAN: So 20 to 30 years.

MR O'DONOGHUE: No, no.

PROF WILLGOOSE: 2030.

5 MR O'DONOGHUE: It's in 2030 or something.

MR DUNCAN: 2030s.

MR O'DONOGHUE: I'm not sure of the exact year, but it's twenty - - -

10 MR DUNCAN: So it would - - -

MR YOUNG: It was approved in 2012, 2013.

15 MR O'DONOGHUE: We've got the - there's a - it has had a few - it has had an extension project.

MR YOUNG: Extension.

20 PROF CLARK: Is that based on current resource knowledge - - -

MR O'DONOGHUE: Yes.

PROF CLARK: - - - or is that - have they drilled the whole thing out?

25 MR O'DONOGHUE: No, no, no. They've still got - they're, you know, only part way through the resource.

MR YOUNG: Well, they have a development consent, we think, for somewhere in another - you know, probably 15 years or more.

30 MR O'DONOGHUE: Yes.

PROF CLARK: Yes. Okay.

35 MR DUNCAN: Okay.

MR YOUNG: Yes.

40 MR O'DONOGHUE: I mean, the other thing that there is in the information - you know, they are designing the CHPP to handle up to 13 million tonnes per year. So that's the cap that they have set it to.

MR YOUNG: It should be three plus 10.

45 PROF CLARK: Yes.

PROF WILLGOOSE: Okay. So – yes – okay.

MR DUNCAN: Yes. Okay. I get that.

5 MR O'DONOGHUE: Yes.

MR YOUNG: Yes.

10 MR O'DONOGHUE: Yes. You know, so they have sort of set a – they have set a design cap to that - - -

PROF CLARK: Makes sense.

15 MR O'DONOGHUE: - - - and which would produce about eleven and a half million tonnes of coal at ..... road to rail out.

PROF WILLGOOSE: Now that you've just mentioned that, a question is, under the current arrangements, okay, they take all their stuff down to the Gunnedah coal handling plant. What do they do with the waste after they process it? Do they truck it back to the mines or - - -

20 MR YOUNG: So there is backloading along the same route - - -

MR DUNCAN: Same route.

25 PROF WILLGOOSE: Okay.

MR YOUNG: - - - and so there's co-disposal of rejects.

30 PROF WILLGOOSE: And so the co-disposal, for instance, is done at Tarrawonga. So there's - - -

MR YOUNG: Tarrawonga, I assume, or - - -

35 MR O'DONOGHUE: They take it back to Rocglen and Tarrawonga.

MR YOUNG: Rocglen.

PROF WILLGOOSE: So they take it back to original source.

40 MR O'DONOGHUE: Yes. So the – yes – so the - - -

PROF WILLGOOSE: So then, for instance, it obviously makes sense to take it back to Rocglen if – because it's shorter, so - - -

45 MR O'DONOGHUE: Well, I don't think they know if it's – they don't – it's not really that clear that it would be from the same line. So they get the rejects - - -

PROF WILLGOOSE: Yes. Okay. Okay.

MR O'DONOGHUE: - - - you know, and it could go back to - - -

5 MR YOUNG: Yes. It's not tracked in that level of accuracy.

MR O'DONOGHUE: Yes. Yes.

PROF WILLGOOSE: Okay. Okay. Okay. Yes. We – okay. That's fine. So - - -

10 MR DUNCAN: All right. So is there anything else with the rail line?

MR YOUNG: Yes. Just – I guess, the main thing is just alternatives - - -

15 PROF WILLGOOSE: Yes.

MR YOUNG: - - - and the company has considered an alignment to the – to the west.

20 MR DUNCAN: A different rail alignment?

MR YOUNG: Yes. Instead of this line. And also, obviously, the one to the north. You may be aware that there's already an existing rail spur that comes out into the Leard Forest mines - - -

25 MR DUNCAN: Yes.

MR YOUNG: - - - from the main rail line, one to the Boggabri mine operated by Idemitsu and a relatively new one to the Maules Creek line, which is a Whitehaven project, although both projects have joint venture partners. So it's not as simple as just one company owning it. Look, I think there are some practical difficulties with a rail alignment to the north. One is they don't own all the land.

30 MR DUNCAN: Right.

35 MR YOUNG: Two is that they would have to then seek agreement with, presumably, the joint venture partners associated with this rail line.

MR DUNCAN: Yes.

40 MR YOUNG: And, thirdly, I guess from an economic point of view, they've indicated they've done some modelling showing they had actually – because of the extra distance and the associated infrastructure and potentially, you know, agreements with joint – other joint ventures, etcetera. The economic cost of that

45 would be significant.

MR DUNCAN: Okay.

MR YOUNG: I think there are similar constraints to do with land ownership and ability or inability to reach agreements to the west. And so they've selected, I guess, arguably, the shortest and they've been able to reach agreement with the two land owners in question for the alignment to the south.

5 MR DUNCAN: Okay.

MR YOUNG: So, look, it's – the department does consider there are some advantages, particularly to the north, because it does then align, or potentially joins up with another rail – an existing rail spur, that's obviously used for mining at the moment. And so it's something that, you know, we believe possibly, you know, needs further consideration in the assessment.

10 MR DUNCAN: Okay.

15 MR YOUNG: Potentially further justification from the company.

MR DUNCAN: So - - -

20 PROF WILLGOOSE: A line to the west really doesn't address the community concerns about flooding because you're going - - -

MR YOUNG: You would have a very similar - - -

25 PROF WILLGOOSE: - - - you're going across the same rivers.

MR YOUNG: Very similar concerns.

PROF WILLGOOSE: In fact, one of them, actually, looks like it would probably have a much larger catchment area where it hits the rail line.

30 MR YOUNG: That's true, Garry. Exactly. So in some ways, the one to the north has the advantages of avoiding the flood plain.

35 PROF WILLGOOSE: Yes.

MR YOUNG: But there are other constraints.

MR DUNCAN: Okay.

40 MR YOUNG: So I know I'm going slowly. I apologise.

MR DUNCAN: It's all right.

45 MR YOUNG: Maybe we – yes, are we going to ask questions as we go, I suppose.

MR O'DONOGHUE: Just to clarify, too - - -

MR YOUNG: Yes.

MR O'DONOGHUE: - - - so Tarrawonga can carry out mining operations until  
December 2030.

5 MR DUNCAN: Right.

MR O'DONOGHUE: Yes.

10 MR DUNCAN: Okay.

MR YOUNG: Maybe you want to talk about water resources, too? We've done rail  
spur water resources.

15 MR DUNCAN: Yes. Okay.

MR YOUNG: I will probably start with the aquifers, and so forth.

MR O'DONOGHUE: Yes. Okay. So the – just outline – there's probably two: the  
20 main concern from the community is, you know, potential impacts on the Namoi  
alluvium. So it's in the upper Namoi groundwater source. So it's quite a productive  
flood plain through that area. You know, where the Namoi River comes through  
there's a lot of – Mirrabinda is a good example where they've got a lot of pivots.  
They're tapping into the – mainly, the groundwater source.

25 MR DUNCAN: Yes.

MR O'DONOGHUE: And they get some surface water, but it's predominately  
groundwater. So it's very deep groundwater source, highly productive in a high rate.  
30 So it's a very valuable area with the soils. So it's, you know - - -

PROF WILLGOOSE: Well, hang on, when you say it's deep, the alluvium,  
certainly to the further south - - -

35 MR O'DONOGHUE: Yes.

PROF WILLGOOSE: - - - when we were looking at Watermark, it was about 50 to  
60 metres deep.

40 MR O'DONOGHUE: We're – yes. We're talking about the same sort of depth.

PROF WILLGOOSE: Yes. That's right.

MR O'DONOGHUE: Yes. Depths here, or more. Yes.

45 PROF WILLGOOSE: So we're not talking about 300 metres deep.

- MR O'DONOGHUE: No, no.
- PROF WILLGOOSE: Or from – yes. Yes.
- 5 MR DUNCAN: No. 50 or 60 metres deep.
- MR O'DONOGHUE: It's all probably deeper - - -
- PROF WILLGOOSE: Yes.
- 10 MR O'DONOGHUE: - - - you know, than that. Yes.
- PROF WILLGOOSE: Yes. Yes.
- 15 MR O'DONOGHUE: And it's similar to Watermark. You've got the – so the upper – you've got the Gunnedah and Narrabri formations as well - - -
- PROF WILLGOOSE: Yes. Yes. That's right. Yes.
- 20 MR O'DONOGHUE: - - - with the deeper one. So I guess the mine – the other main water source is the Maules Creek formation, which is the Permian rock where the coal resource is. So that's the one the open cut would be in, and all the open cuts within the – that water source. And with small parts – the emplacement area, just going into a smaller embayment area of the upper Namoi alluvium, but there's no
- 25 open cut mining in that.
- MR YOUNG: So why is that important, Steve, in terms of the difference between being in the hard rock versus the alluvium and that connectivity over all?
- 30 MR O'DONOGHUE: Well, it's, I guess, the modelling – you know, they've done, probably – to do a water model. So with that peer review. So the key issue is that most of the water taken is coming out of the Permian aquifer. So the mining flows. So HydroSimulations did the modelling. So it's Noel Merrick and Frans Kalf did a review of that. So they're predicting inflows, you know, in the order of just below
- 35 one megalitre a day. And most of that, you know, is predominantly coming from the Permian inflow. So while there is connectivity between the Permian and the alluvium, it's the amount you sort of take from the alluviums is a small component of that take. So they're predicting less than 0.1 megalitre a day coming out of the alluvium.
- 40 MR YOUNG: Is the volume of groundwater inflows similar than to the current approval or - - -
- 45 MR O'DONOGHUE: The – it's predicted – it's fairly similar. It's slightly less than the – that what was predicted in the two thousand – the earlier Vickery Coal project.

MR DUNCAN: What was the reason for less? Is it simply a modelling assumption, or is it - - -

MR O'DONOGHUE: I think – well, they've updated the model.  
5

MR DUNCAN: Okay.

MR O'DONOGHUE: So that's one aspect. So, like, even though the – you know, the pit shell is a bigger area.  
10

MR DUNCAN: Yes.

MR O'DONOGHUE: So there's a bigger volume with the pit shell. You know, they've got more data, I guess, that they've been collecting over that period.  
15

MR DUNCAN: Okay.

MR O'DONOGHUE: And the models – you know, they've done more work with the model.  
20

MR DUNCAN: I assume real data as well.

MR O'DONOGHUE: Yes. They've collected – yes. So there has been more data. They've had bores down.  
25

PROF WILLGOOSE: I would be asking fairly hard questions about that because there's some significant uncertainties in some of those parameters that they will be using. It's clear from the peer review done for you guys - - -

MR O'DONOGHUE: Yes.  
30

PROF WILLGOOSE: - - - that there is concern that they haven't pinned down some of those numbers. And the numbers – you know, well, the difference between 1.2 and one in terms of groundwater flows are nothing, basically. So, I mean - - -  
35

MR O'DONOGHUE: Yes. So that's certainly – like, I mean, Hugh Middlemis who did our peer reviews. So – and the IOC both did Ray's concerns or about the level of uncertainty since the alluvium analysis that was done. And that's something that we've sort of documented in our report that further work – you know, further  
40 assessment needs to be done on that, or advice back from the proponent on the extend of sensitivity assessment they've done and, you know, particularly - - -

MR YOUNG: But, in broad terms, Steve, the assessment, at least, the company is doing and, I guess, subject to sensitivity analysis etcetera, it is showing that there is  
45 very limited - - -

MR O'DONOGHUE: I think – yes - - -

MR YOUNG: - - - impacts on drawdown etcetera on neighbouring - - -

MR O'DONOGHUE: It is, I guess, the main – you know, aquifer interference policy is the – is what it's assessed against. You know, it's ..... the pressure levels  
5 the minimum – minimal impact criteria. So, I guess against the New South Wales Government policy, it's meeting the minimal impact criteria. The original project did, as well. So it's not hitting those levels that's predicted it's going to – it's an acceptable level under New South Wales Government policy – mindful of – you know, there has been recommendations about the further, you know, review of the  
10 sensitivity analysis and predictions.

PROF CLARK: Okay. So I think you've just answered my question. It was in the – you know, second-last paragraph here on page 25 where your independent expert has said it's fit for purpose but says there's more work to be done to align it with best  
15 practice.

MR O'DONOGHUE: Yes.

PROF CLARK: And I was looking for some clarification between fit for purpose  
20 and meeting best practice.

MR O'DONOGHUE: Well, I think the model is set up – you know, it's fit - - -

PROF CLARK: Is it good enough or is it not?  
25

MR O'DONOGHUE: It's fit for purpose in that model, you know, is set up in an appropriate way - - -

PROF CLARK: Okay.  
30

MR O'DONOGHUE: - - - you know, but, you can do more – what Hugh is saying is that you can do – with – a lot of projects now probably do more sensitivity analysis than what was applied to this project - - -

MR YOUNG: So, essentially, what you do, Alice, is the model is okay and it's providing sound and, you know, acceptable outcomes, but you can stress the model or put in different assumptions at different ends of the spectrum to test, well, what would be the implication if, you know, this number was 10 instead of 20 or whatever it is and so - - -  
35  
40

PROF CLARK: Yes.

MR DUNCAN: And that's what Mr ..... suggest - - -

PROF WILLGOOSE: ..... there's two issues. There's the – basically, the construction of the model – there's construction of the model to the acceptable standards and then there's the physical information - - -  
45

MR DUNCAN: Yes.

5 PROF WILLGOOSE: - - - that characterises that model – is there enough  
information ..... invariably, with groundwater models, there's not enough. And the  
one thing that the – both the ISC and the peer review nominate is that there isn't  
10 enough information in terms of the connectivity between the deep aquifers and the  
surface aquifers. And this came up – this – I might say this came up with Watermark,  
as well, that it's difficult because you've got, you know, maybe 200 metres of rock  
15 between the surface aquifers and, you know, the aquifers in the Maules Creek  
formation. And the only way to do that is to do pump tests which is very rarely done  
for this sort of stuff, so – this is the issue that comes up with coal seam gas, as well,  
so - - -

MR DUNCAN: Okay.  
15

PROF WILLGOOSE: And it's those surface aquifers that are critical. And I would  
– my assessment, looking at this, is that it – the bigger issue rather than the mine is  
actually the borefield - - -

20 MR DUNCAN: Yes.

PROF WILLGOOSE: - - - because the borefield is in the surface aquifers, so it is  
going to have an impact on those – at surface groundwaters which are the ones that  
are agriculturally important - - -  
25

MR DUNCAN: So the borefield is new.

MR YOUNG: Correct.

30 MR DUNCAN: What was the water source for the original approval?

PROF WILLGOOSE: My question exactly.

MR YOUNG: They – my recollection was from the Namoi River - - -  
35

MR O'DONOGHUE: ..... would have been .....

MR DUNCAN: And so there will be an approval there to take water out of the  
Namoi River?  
40

MR YOUNG: Well, they would need a licence.

MR DUNCAN: A licence, I should say.

45 MR YOUNG: Yes. Yes.

MR DUNCAN: Relevant terminology.

MR O'DONOGHUE: But they've got – they do have entitlements for surface water and groundwater – you know, sources already, so in the EIS, they do document that they've got – they've got - - -

5 PROF WILLGOOSE: I - - -

MR YOUNG: ..... the key difference - - -

MR O'DONOGHUE: Yes.

10 MR YOUNG: - - - is they didn't need as much water - - -

MR O'DONOGHUE: Yes.

15 MR YOUNG: - - - (a) because the mining wasn't as intense - - -

MR DUNCAN: I see.

MR YOUNG: - - - but particularly they weren't washing the coal.

20 MR DUNCAN: Okay.

MR YOUNG: ..... wash that because they didn't have a prep plant.

25 MR DUNCAN: That would happen in a prep plant. Okay.

PROF WILLGOOSE: And I'm sure a lot of ..... licences they've got ..... borefield is because they've acquired properties around the borefield and they would have associated licences, presumably, so - - -

30 MR YOUNG: Yes, that's right. Yes. Yes.

MR DUNCAN: So use of the prep plant for dust control - - -

35 MR YOUNG: It would principally be dust suppression - - -

MR DUNCAN: Yes.

MR YOUNG: - - - and washing the coal.

40 MR DUNCAN: Okay.

MR YOUNG: But I think, just on the borefield, it is – I mean, Steve can comment about what the predictions were in terms of drawdown and so forth, but in terms of, actually, the take of water – I'm not sure whether you're familiar but these areas are managed under a Water Sharing Plan, as most areas – water sources around New South Wales are. And anybody who's then wanting to take water from that water

45

source under the Water Sharing Plan needs a licence and there are caps and regulations about how that's all done. And mining companies and agricultural companies etcetera all have to play by the same rules and so any allocations are administered under the Water Sharing Plan. And so the company, whilst that may  
5 have some localised impacts, and you can comment about that, in many ways, provided that they have a licence for that within the Water Sharing Plan, then they're entitled to take that water.

10 PROF WILLGOOSE: Sort of.

MR YOUNG: Well, if there are - - -

PROF WILLGOOSE: Well, during drought, those entitlements can be reduced - - -

15 MR YOUNG: That's right – yes - - -

PROF WILLGOOSE: ..... that's ..... during the last drought – sort of, not here, but further south - - -

20 MR YOUNG: But the entitlement can change - - -

PROF WILLGOOSE: Yes.

25 MR YOUNG: - - - based on the allocation and the extent weather .....

PROF WILLGOOSE: It depends on what sort of licences they have. If they are general security licences, they're on the same footing as farmers, but if they have a high security licence, they have a higher ..... than farmers. And so if there is a reduction of a unit in the licence, which happened during the last drought, down here,  
30 where they reduced the unit to 30 per cent of what it was – so if you had a licence for a megalitre a year - - -

MR DUNCAN: You only got - - -

35 PROF WILLGOOSE: - - - you only got 300 - - -

MR DUNCAN: Yes.

40 PROF WILLGOOSE: - - - gicalitres. Then they would be - - -

MR YOUNG: Yes.

PROF WILLGOOSE: - - - in that same boat.

45 MR YOUNG: I guess what I'm trying to get it is that the company is seeking approval for the construction and operation of that borefield, but, arguably, the actual take of water is something that's regulated under the Water Sharing Plan.

PROF WILLGOOSE: Yes.

MR YOUNG: And, therefore, you know, it's like an EPA licence. It can be varied from time to time. And so the Government, as opposed the planning consent - - -

5

MR DUNCAN: Okay.

MR YOUNG: - - - you know, nominating, you know, in 10 years time in these weather conditions, you know, the Vickery Coal Project can only have this much water, well, no, that's all done through the water licensing regime as opposed to through the planning regime I guess is the point I'm making.

10

PROF WILLGOOSE: Although that – but that does impact then – and, I mean, this happened in the Hunter during the last drought is that most of the mines there went from having a water surplus to having a water deficit and, at the same time, as dust was a problem - - -

15

MR DUNCAN: Yes.

PROF WILLGOOSE: - - - because they didn't have enough water and most of them then ended up having to put bores down to .....

20

MR DUNCAN: So it compounded in times of drought?

PROF WILLGOOSE: Yes .....

25

MR YOUNG: And so there's the – there's other mines in the region that have had subsequent – sought approval for the sinking of bores - - -

PROF WILLGOOSE: Yes.

30

MR YOUNG: - - - for precisely that reason.

PROF WILLGOOSE: Yes.

35

MR O'DONOGHUE: So I guess – I mean, they have done – they've modelled the impact of the take of water based on their – you know, the water demand and how much – the water balance modelling they've done.

40

MR DUNCAN: Yes.

MR O'DONOGHUE: So they've looked at the uncertainty around that and in different percentile dry and wet years and how much extra water they would need. And so they've modelled it on the basis of the – you know, that take of water, but also meeting the requirements of the rules of the Water Sharing Plan, so, you know, distance from other bores - - -

45

- PROF WILLGOOSE: Yes.
- MR O'DONOGHUE: - - - distance from property boundaries - - -
- 5 PROF WILLGOOSE: Yes.
- MR O'DONOGHUE: - - - and that. So that they've, sort of, applied the rules of the Water Sharing Plan to .....
- 10 PROF WILLGOOSE: However, they've done it on the basis of there would not be a restriction of the water that they actually had from that .....
- MR YOUNG: So the way that – that's regularly a problem or an issue that needs to be addressed - - -
- 15 PROF WILLGOOSE: Yes.
- MR YOUNG: - - - for any mining project - - -
- 20 PROF WILLGOOSE: Yes.
- MR YOUNG: - - - in terms of the supply of water.
- PROF WILLGOOSE: Yes.
- 25 MR YOUNG: And that can be from surface or groundwater sources - - -
- PROF WILLGOOSE: Sure. Yes.
- 30 MR YOUNG: - - - and those things are licensed and can vary over time, so the requirements under standard conditions for mining projects in New South Wales require if the company is finding it difficult to find sufficient water for its operations, it is not then allowed to continue its operations at the same intensity. It's actually required to ramp down its operations to match its available water supply - - -
- 35 PROF WILLGOOSE: Okay.
- MR YOUNG: - - - which is important.
- 40 PROF WILLGOOSE: Yes.
- MR DUNCAN: Okay. So we've got about 20 minutes left. How are we going for - - -
- 45 MR YOUNG: Yes. Let's keep going.
- MR DUNCAN: Yes.

MR YOUNG: So we were talking about the groundwater. Let's move on to amended impacts. Did you want to quickly give a summation of dust and noise, in particular?

5 MR O'DONOGHUE: Yes. Look, I guess there's – you know, they've assessed the impacts of the project against the EPA's guidelines. Essentially, the approved methods and guidance for modelling of – and assessment of air pollutants and the criteria set out in that, and also the industrial noise policy for the operational noise. So I guess that assessment for the air is showing that they would meet the air criteria  
10 - - -

MR DUNCAN: Yes.

MR O'DONOGHUE: - - - on the side of it. The EPA, you know, did raise some  
15 concerns about their assumptions in emission factors and achieving, you know, dust control to the level they did, so they've asked questions about that, which the company will need to respond to, which will feed into the assessment of the project. So just really justifying how they're getting 90 per cent - - -

20 MR DUNCAN: Okay.

MR O'DONOGHUE: - - - efficiency or – you know, from all roads, which is – which is a, you know, conservative assumption in terms of achieving that.

25 MR DUNCAN: Right.

MR O'DONOGHUE: So there's questions asked about that. For the noise, again, it's similar predictions to previously, where there's – there's – it's, sort of, predicated that there'd be significant impact on that one residence, which is – again, there'd be –  
30 under the Voluntary Land Acquisition and Mitigation Policy, there'd be acquisition rights afforded to that property. And then there's a number of receptors where they've predicted moderate impacts, where there'd be, you know, mitigation rights afforded for that. So, again, there's been issues raised both in public submissions and also by the EPA in that – and Mike flagged earlier. So the intensity's got bigger,  
35 higher production rate, the mine infrastructure area has moved to that, and rail load out has moved to that, sort of, south-western corner.

MR DUNCAN: Yes.

40 MR O'DONOGHUE: And there's just questions about, well, you know, the – why aren't the noise impacts greater than under the approved mine. And so the EPA has also asked questions about the sound power levels assumed and seeking further – further, sort of, justification for – for the assumptions they've used in that.

45 MR DUNCAN: And it's the rail that exceeds, not the general noise from the mine?

MR O'DONOGHUE: No. It's the general operational - - -

MR DUNCAN: Okay.

MR O'DONOGHUE: - - - noise from the mine. The rail noise is assessed under the Rail Infrastructure Noise Guideline - - -

5 MR DUNCAN: Okay.

MR O'DONOGHUE: - - - which sets different criteria.

10 MR DUNCAN: Okay.

MR O'DONOGHUE: That's more when it comes out – the rail loop itself is considered industrial noise, so that's assessed under the Industrial Noise Policy. Once you get out of the loop and you're actually, you know, transporting –

15 transporting along on the private rail line, that's – that's assessed criteria in the Rail Infrastructure Noise Guideline.

MR DUNCAN: Okay.

20 MR O'DONOGHUE: Yeah.

PROF WILLGOOSE: But presumably they had to model that. I mean, the first thing I noticed here was that there doesn't seem to be – well, I mean, is it just simply that the noise contours are so low? Or is that simply they didn't model it .....

25 MR O'DONOGHUE: No. I think they do it slightly differently. They predict a distance from – you know, given that it's flat terrain - - -

MR DUNCAN: Yes.

30 PROF WILLGOOSE: Yes.

MR O'DONOGHUE: - - - pretty much, you know, through there, they just predict a distance out that would – that a certain noise level would be. You know, so anyone

35 within that distance they can give – you know, determine the noise level. So they haven't – they haven't put a contour on there, but they've got a noise prediction.

PROF WILLGOOSE: Okay. So there are, in fact, some noise predictions or something like that for this area.

40 MR O'DONOGHUE: Yes, there are. Yes.

MR DUNCAN: Yes.

45 PROF WILLGOOSE: They just don't appear on this – this map.

MR O'DONOGHUE: Yes.

MR YOUNG: Yes. Because that is the Industrial Noise Policy from the site itself.

MR O'DONOGHUE: Yes.

5 MR YOUNG: And then there's an offsite noise associated with transport of coal,  
which is assessed under a different policy. And it's not the, sort of, same contour  
approach. It's a distance approach, you know, based on a certain sound power level,  
how much would that propagate out, where would the criteria be potentially  
10 exceeded at a particular distance, and they look at are there any residences in that  
area – in that distance – that may experience noise levels above the criteria.

PROF WILLGOOSE: Okay.

15 MR YOUNG: And my recollection was there was a number of residences that may  
exceed that criteria.

MR O'DONOGHUE: I think there's one – there's one approved dwelling on one of  
the properties that is close. The EPA has questioned, though, like, some of the –  
20 again, some of the assumptions and some contradictions there that they want to  
clarify, in terms of that distance out.

PROF WILLGOOSE: Okay.

25 MR O'DONOGHUE: In terms of what the - - -

PROF WILLGOOSE: Okay.

MR O'DONOGHUE: - - - essential noise impacts are.

30 PROF WILLGOOSE: So – but the key thing, I guess, is this map is not the full  
story, as far as the noise ..... impacts.

MR O'DONOGHUE: It's not the full story, no. It doesn't have the rail - - -

35 PROF WILLGOOSE: Okay.

MR O'DONOGHUE: - - - noise contours or there or predictions of that.

40 MR YOUNG: So just in the interests of time - - -

PROF WILLGOOSE: Yes.

MR YOUNG: - - - just on biodiversity, you know, obviously another key issue.  
45 Look, you'll see, when you go on the site, it is largely, you know, agricultural  
grazing land, largely cleared. There are areas of patchy remnant vegetation and so  
forth. Obviously the – the company already has approval to clear the majority of the

site under the existing approval. There are, obviously, areas of additional clearing. Mostly those additional areas are grasslands - - -

MR DUNCAN: Yes.

5

MR YOUNG: - - - of various sorts. But there is, you know, I think up to 80 hectares of native woodland that would be cleared as a result. Obviously we – the policy has a hierarchy of avoid, minimise, and then offset. So we’d certainly be looking to, you know – or the company needs to demonstrate that they’re avoiding, you know, those impacts as much as possible. There’s various ways in which they’ve done that, but the main thing, I guess, is they consider that they can’t avoid all of the impacts. Given where the coal is and so forth, it’s quite difficult.

10

MR DUNCAN: Yes.

15

MR YOUNG: Not like wind farms, where you can sort of move a turbine there or there. And so the residual impact they’re proposing to offset with a number of additional land-based offsets. It’s important to recognise the context of these offsets. Whitehaven and some of the other coalmining companies in that area do have very significant offset – biodiversity offset liabilities under their various consents. And you can see from that larger map within that landscape - - -

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MR DUNCAN: Yes.

25

MR YOUNG: Or, Peter, I’d even encourage you to look at this one.

MR DUNCAN: The larger one?

PROF WILLGOOSE: Yes.

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MR YOUNG: Yes. So - - -

MR DUNCAN: It’s – yeah. Actually, that’s - - -

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MR YOUNG: It’s enormous - - -

MR DUNCAN: It is.

40

MR YOUNG: - - - the areas of offsets. And what the department has tried to do, in assessing all of these projects over the last however many years, is to have some kind of strategic outcomes, from a habitat connectivity - - -

MR DUNCAN: Yes.

45

MR YOUNG: - - - point of view. And you can see there are a number of existing nature reserves and national parks and so forth, and state forests. And the department has particularly been keen, along with, you know, OEH, to create some

connectivity through the landscape from these areas of remnant vegetation through to and beyond the Namoi to other areas of vegetation and connecting up with the state forests – the Leard State Forest and the Vickery State Forest here. Now, all of those areas are actually obligations and now being managed as offsets for biodiversity  
5 conservations purposes.

MR DUNCAN: By OEH?

10 MR YOUNG: By the companies.

MR DUNCAN: By the companies.

MR YOUNG: In accordance with management plans.

15 MR DUNCAN: Right.

MR YOUNG: And there's an obligation to secure all of those areas with in-  
perpetuity mechanisms to ensure the long-term conservation status of those  
20 properties.

PROF CLARK: So it's a question of process here, I think. They have an offset  
here, which allows them to mine. And then they rehabilitate as they mine.

25 MR YOUNG: Yes.

PROF CLARK: What happens to that offset after that rehabilitation is done and  
your connectivity, then? So you were talking about in perpetuity.

MR YOUNG: So there's two things to consider. One is the offsite offsets, which –  
30 those are the ones shown there. So they're not affected by mining. And the idea is  
that those areas have been selected in consultation with key government agencies and  
the companies and landowners and consultants – ecological consultants, to identify  
those areas.

35 PROF CLARK: So they're permanent?

MR YOUNG: They're permanent.

40 PROF CLARK: Okay.

MR YOUNG: So they will stay there in the landscape in perpetuity.

PROF CLARK: Yes.

45 MR YOUNG: Now, on the site itself there's clearing to be done and – but there's  
also rehabilitation obligation. And so that brings us to one of the key issues about  
land use and final land form – is that the company – the current approval requires

rehabilitation principally to a grazing/agricultural final land use on the Vickery site. The proposal now by Whitehaven, which reflects more contemporary approaches to mine rehabilitation, is to rehabilitate the majority of the site to woodland. So to recreate those sort of ecological and biodiversity outcomes, whilst leaving some areas for agriculture. And I know that that some – there has been some submissions raising a question about the balance and the trade-offs between those two and the appropriateness of that outcome. It's obviously something we all need to turn our minds to.

10 MR DUNCAN: In the sense that it, sort of, takes it into conservation and not productive.

PROF CLARK: Yes.

15 MR YOUNG: That's right.

MR DUNCAN: Yes.

20 MR YOUNG: And so there are – most of the area is not high-quality cropping land. It's mostly slightly lower grazing land.

MR DUNCAN: Yes.

25 MR YOUNG: But there are some pockets of higher-quality land in there that would be impacted by the project and there'll be an obligation to rehabilitate that for some kind of productive land use or end use under the current approval.

30 MR DUNCAN: So my – at the introduction you said there's a number of areas that have already been completed, from the rehabilitation point of view. How have they worked? And I assume that that land use was to return to production.

MR YOUNG: So there's not – most of the mines in this area – sorry. I apologise. On the site itself?

35 MR DUNCAN: Yes.

MR YOUNG: There's some mines there from the 1980s and 90s.

40 MR DUNCAN: Okay.

MR YOUNG: And those have been rehabilitated to grassland.

MR DUNCAN: And has that been successful?

45 MR YOUNG: And you'll – you'll see it – there are depressions in the landscape. It's successful to the extent that it's stable. It's used.

MR DUNCAN: But successful from a productive point of view? Yes.

MR YOUNG: It's open.

5 MR DUNCAN: Yes.

MR O'DONOGHUE: It's grazing - - -

MR YOUNG: That's right. Grazing land.

10 MR O'DONOGHUE: They're using it for grazing.

MR DUNCAN: Perhaps we should look at those while we're there - - -

15 PROF CLARK: It would be good to see that.

MR DUNCAN: Site visit.

PROF WILLGOOSE: I was going to say, that's been a controversial area, is how

20 productive are the lands after rehabilitation.

MR DUNCAN: Well, that's the question, isn't it.

PROF WILLGOOSE: And a sustainable thing – do you go into nutrient limitation

25 for grasslands, for instance, and things like that. So - - -

MR YOUNG: Well, I think there's a - - -

MR DUNCAN: I assume you have the same issue with the biodiversity outcome as

30 well, how successful - - -

MR YOUNG: Well, I mean, rehabilitation is a big area, obviously.

MR DUNCAN: Yes.

35 MR YOUNG: And it's not just this mine.

MR DUNCAN: No, no. I understand.

40 MR YOUNG: It's a question of New South Wales as a whole. There's a whole range of policy and existing obligations. There's rehabilitation bonds under the mining lease. There's all kinds of things. So the key issue, I think, for this project is more about what kind of end use is appropriate - - -

45 MR DUNCAN: Yes.

MR YOUNG: - - - from a land-use perspective.

MR DUNCAN: Okay.

MR YOUNG: Yes.

5 MR DUNCAN: Okay.

MR WAY: Are they proposing to use any of the land rehab back to woodland to meet any of their - - -

10 MR YOUNG: Yes.

MR WAY: - - - additional offset liabilities for the new clearing?

MR YOUNG: Yes. So the policy in New South Wales allows mine-site  
15 rehabilitation where it is being rehabilitated to create ecological communities, woodland, etcetera, to use that as part of the offsetting credit to offset the impacts of the project. And so the New South Wales policy allows that. There are policies around completion criteria and testing that, and making sure that those outcomes are achieved. But the policy does allow that. So part of the offset would be to – the  
20 impact – to offset the impacts of the project, part of the offset would be to rehabilitate the site with woodland. And part of the rationale behind that is that it allows – it incentivises the mining industry to achieve those outcomes where, traditionally, most areas were rehabilitated to some kind of grassland or grazing.

25 MR DUNCAN: Okay.

MR YOUNG: So they get some credit for it in terms of those offsets.

MR DUNCAN: Okay.

30

MR YOUNG: Moving on – which, I guess, we've started touching on final landform and use.

MR DUNCAN: Yes.

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MR YOUNG: I guess we've talked about the land use. The final landform, we've provided you with a couple of comparison figures there on page 34 of our report. In broad terms, the landform itself is largely similar between the two proposals, or the approved project versus the proposed project. The key difference – other than the  
40 actual land use, woodland versus grazing, the other key difference is the location and size and number of final voids in the landscape that would be left after mining. So you've got the proposed – the new project here and then you've got a comparison of the approved project. I don't know if you want to talk about that, Steve, in terms of final voids?

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- MR O'DONOGHUE: I guess the – like, it's a reduction – I guess there's a couple of things with it. There's, you know, two pit lakes previously, so a bigger volume of void that the - - -
- 5 MR YOUNG: I think it was around 490 hectares verses - - -
- MR O'DONOGHUE: Yes, I think - - -
- MR YOUNG: - - - 250, yes.
- 10 MR O'DONOGHUE: Yes. So in terms of catchment area, which – the catchment loss, which would be a permanent, sort of, loss of water out of the river system for the original project was, I think, 560, and it's coming down to 280-odd, I think. So it's a significant reduction in the catchment area. A smaller void, but slightly deeper,
- 15 because they're going for a deeper coal seam. So the sort of inflow predictions are similar in terms of the amount of, you know, predicted – when it gets to equilibrium, the amount of water that would be flowing into the final void. I think there was a slight reduction, so 0.3 to 0.5 megalitres a day.
- 20 MR DUNCAN: So they're able to do this with the change of shape of the landform?
- MR O'DONOGHUE: Yes, change in shape, but, again, it's probably – in terms of inflow, there has been changes of the model as well.
- 25 MR DUNCAN: Yes. Okay.
- MR O'DONOGHUE: So you do have a bigger – like, you know, there's a bigger pit shell area.
- 30 MR DUNCAN: Yes.
- MR O'DONOGHUE: So it has changed in terms of the permeability in there and how the final void would function in terms of the amount of surface water runoff.
- 35 MR DUNCAN: Okay.
- MR O'DONOGHUE: I think the surface water inflow and groundwater inflow, you know, changes as a result of the configuration.
- 40 MR YOUNG: What about the advice we got on that.
- MR O'DONOGHUE: So I guess Hugh Middlemis, again, provided advice that really some further work needs to be done to look at the final void configuration - - -
- 45 MR DUNCAN: Okay.

MR O'DONOGHUE: - - - and probably more use of the groundwater model inputs into that sort of – the modelling of that. So he just had some concerns about that and whether, you know, that final configuration could be improved through further backfilling or not, or looking at potential impacts associated with throughflow of there, so he has just questioned that more information would be needed on the final void configuration.

MR YOUNG: Well, looking at the various options and justifications and preferred alternative.

MR O'DONOGHUE: Yes.

MR DUNCAN: Okay.

PROF WILLGOOSE: You also commented about need to know more about the leach ..... chemistry as well.

MR DUNCAN: Yes, I saw that.

PROF WILLGOOSE: So – yes.

MR O'DONOGHUE: Yes.

PROF WILLGOOSE: So – yes.

MR DUNCAN: Page 33.

PROF WILLGOOSE: Yes.

MR YOUNG: And I guess, just lastly, the other key issue, which is, I guess, a broad issue, is, I guess, the social impacts of the project and mining in general. There's some level of concern in the community about cumulative impacts of mining - - -

MR DUNCAN: Yes.

MR YOUNG: - - - in terms of amenity impacts, dust and noise, traffic and transport, clearing of vegetation, and it's fair to say, though, that there's a diversity of views, and I think that's reflected in the submissions, where you've got more than half the submissions in favour and then, obviously, you know, quite a number of – you know, something like 30-odd or more per cent opposing, but it is interesting when you look and analyse where those people are from. It seems to be that the people – you know, the people that live closest to the mine - - -

MR DUNCAN: Sure.

MR YOUNG: There's a significant majority that are opposed to the mine, then, in the broader area, region, you know, there's – you know, from towns like Gunnedah,

etcetera, there's a broader level of support for the project. In terms of other social impacts, in many ways, the nature and extent of the social impacts will probably be connected to the increased workforce. So there is a significant increase in the number employees, both during construction and operations as a result of the larger fleet and more intensive activities, and the other infrastructure on the site. And so the nature of, you know, considering things like accommodation for workers and transport of workers, etcetera, becomes an issue. Now, one thing that you may not be aware of is that this is not a new issue for the area, because there's a lot of mines being developed in that area - - -

10

MR DUNCAN: Yes.

MR YOUNG: - - - and, you know, that whilst some of those issues were raised in submissions, there is a workers' camp – mine workers' camp in Boggabri, which I think has 600 - - -

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MR O'DONOGHUE: Yes. I think – yes. They're fairly modular, so they can - - -

MR YOUNG: Yes.

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MR O'DONOGHUE: They can - - -

MR YOUNG: Expand.

MR O'DONOGHUE: - - - expand or - - -

25

MR DUNCAN: Or contract.

MR YOUNG: Yes. So there is an approved facility there. I think it's fair to say, though, that most councils do encourage people who are there longer-term to actually integrate into the community, live in the community as opposed to mining camps, but it is quite helpful to have that facility there, particularly for construction. The other aspect is that there's an existing Voluntary Planning Agreement with both councils - - -

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MR DUNCAN: Yes.

MR YOUNG: So Narrabri and Gunnedah Council. I think the quantum there is, you know, something like five million for Gunnedah and more than two million for Narrabri.

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MR DUNCAN: Yes.

MR YOUNG: There's a number of targeted projects for which that money should be used for, and the company's in negotiations now to augment that, or alter that agreement.

45

MR DUNCAN: Right.

MR YOUNG: And we would certainly like to see that progress through the process and that there to be an agreement on a revised VPA prior to the determination of this project, and I think certainly that's what Whitehaven is working towards with the councils.

MR DUNCAN: Okay.

MR YOUNG: Now, it's important to say that a VPA is not there as a compensatory measure against impacts, or that it's – you know, that there's a particular formula for exactly what is – it's more – it's a – there's V in the VPA, which means it's really a voluntary offer - - -

MR DUNCAN: Yes. Sure.

MR YOUNG: - - - that the mine makes to the broader community for various public benefits.

MR DUNCAN: Okay.

MR YOUNG: So I think – any questions? I'm just trying to think if there's anything else that we wanted to – I mean, we have sort of – there's a whole range of other issues, of course, that we have to assess in accordance with the legislation and policies, etcetera.

MR DUNCAN: Yes. And you've gone through all those.

MR YOUNG: And we've given you some preliminary feedback on that.

MR DUNCAN: Alice, do you have any questions?

PROF CLARK: No. No, I think I covered them all as we went through.

MR DUNCAN: Garry?

PROF WILLGOOSE: Look, I mean, mine are probably – I need to look at the EIS to actually, I think, to assess whether they've been addressed or not. I mean, things that, sort of, are referred that, you know, it's a big unclear from reading that, the significance. Mostly – I mean, I'm pretty happy with the flood study approach.

MR DUNCAN: Okay. This is the first meeting we've had in the process from your point of view.

MR YOUNG: It is.

MR DUNCAN: We're meeting with the applicant, later. So I assume, David, if we have some further questions, we can put that in writing and - - -

5 MR WAY: Yes. If you have any further questions, just pass them onto me and I will touch base with Steve to get those sorted out as quickly as we can.

MR DUNCAN: So, Mike, is there anything more from your point of view?

10 MR YOUNG: No. I guess just a couple of, sort of, procedural matters, I suppose.

MR DUNCAN: Yes.

MR YOUNG: So my understanding is that, you know, we will be – the department will be making a presentation at the hearings coming up.

15 MR DUNCAN: That's my understanding as well.

MR YOUNG: Yes.

20 MR DUNCAN: Yes.

MR YOUNG: I'm not sure exactly – you know, we probably need to talk about what time is available to do that, etcetera. So we will certainly that that opportunity.

25 MR DUNCAN: I will get David to confirm that with you - - -

MR YOUNG: Yes, that would be helpful.

MR DUNCAN: - - - but I would have thought 20 or 30 minutes. Is that what you - - -

30 MR YOUNG: Okay. That's - - -

MR DUNCAN: Is that what you expect?

35 MR YOUNG: I think so. That's right. It's that kind of order.

MR DUNCAN: Does that sound - - -

40 MR YOUNG: Yes.

MR WAY: Again, I can touch base with you guys to sort that out.

MR YOUNG: Yes, that's fine. And, you know, we would seek to largely outline, you know, what we've talked about today.

45 MR DUNCAN: Yes. Yes.

MR YOUNG: And I think that will be helpful for the community. Yes, we can - - -

MR DUNCAN: So the applicant will be there.

5 MR YOUNG: Yes.

MR DUNCAN: We will have council assisting in the community. So - - -

MR YOUNG: Yes.

10

MR DUNCAN: - - - that will .....

MR YOUNG: No, I think that's the only thing I wanted to say.

15 MR DUNCAN: Okay.

PROF WILLGOOSE: I guess one thing I probably will want to drill down on, and it may involve talking to you again, is why are there differences in some of the technical issues between this and the previous one?

20

MR YOUNG: Sure.

PROF WILLGOOSE: I mean, in terms of groundwater impact. You know, is it simply a difference in modelling. Is it a difference in the assumptions? What's the evidence base for those differences? There's differences in the rehab, for instance. The volume of material in the new plan is less than in the old one, despite it being a bigger disturbance footprint, which strikes me as being a bit odd, but, again, it may well be just ..... particularly since the new plan is talking about mining eight seams, rather than seven seams. It sounds like the volume of a hole is probably bigger. So I'm puzzled about what this is less than that one. So - - -

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MR DUNCAN: Okay.

PROF WILLGOOSE: I mean, I suspect that for the sharply focused groups, differences between what was done in 2014 and 2018 will probably be focused on - - -

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MR YOUNG: I think there's already - - -

40 PROF WILLGOOSE: - - - as a way of undermining credibility.

MR YOUNG: There's already questions about that, particularly in regard to noise.

PROF WILLGOOSE: Yes.

45

MR YOUNG: You know, how can the noise be less if they're mining more and they're putting infrastructure closer?

PROF WILLGOOSE: Yes.

MR DUNCAN: Well, they're certainly things that we will probably talk more about  
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5 MR YOUNG: Yes.

MR DUNCAN: - - - if we can ask some questions and then – obviously we need to  
consider that.  
10

PROF WILLGOOSE: Yes. I need to look at the EIS probably for 2014 and '18 to  
get a sense of those reasons.

MR DUNCAN: I think as an initial meeting, it has been really helpful.  
15

PROF WILLGOOSE: Yes.

PROF CLARK: Yes.

20 MR DUNCAN: We've covered most of the major issues, or the major issues.

PROF WILLGOOSE: Yes.

MR DUNCAN: And we can talk and ask questions - - -  
25

MR YOUNG: Sure.

MR DUNCAN: - - - and maybe, if we need to, meet again.

30 MR YOUNG: Sure. And the only other thing I was going to say was we've  
obviously engaged a number of experts.

MR DUNCAN: Yes.

35 MR YOUNG: You know, they will be continuing their work, but, you know, those  
experts can certainly be available, you know, in terms of either conferencing or  
discussing, or in a more formal sense, if that would be of assistance.

MR DUNCAN: That may be helpful, yes.  
40

MR YOUNG: Yes.

MR DUNCAN: Particularly as we get into this a bit more, we will probably need  
that, I think  
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PROF WILLGOOSE: So we've got a bunch of the reports already, which David has given us. Are there any other specialist reports that we don't have that are going to come in?

5 MR O'DONOGHUE: No. No.

MR YOUNG: No, not at this stage. No.

MR DUNCAN: So it's all come. Okay.

10

PROF WILLGOOSE: Okay. So what we've got covers what you've got at this stage - - -

MR YOUNG: Correct.

15

PROF WILLGOOSE: - - - and what you anticipate to have.

MR YOUNG: We looked at what we thought were the key issues where we needed additional assistance, and so we had engaged those experts in consultation, if I might say, with the Commission and the Chief Scientist's Office, but that's not to say that, as we go through, that we wouldn't seek to engage other experts - - -

20

PROF WILLGOOSE: Okay. Yes, but - - -

25 MR YOUNG: - - - if necessary, yes.

MR O'DONOGHUE: But - yes.

PROF WILLGOOSE: But at this stage, we've got everything and - - -

30

MR YOUNG: Absolutely.

MR O'DONOGHUE: You've got all - yes.

35 PROF WILLGOOSE: Yes. Okay.

MR YOUNG: Yes.

MR O'DONOGHUE: Yes.

40

MR YOUNG: Yes.

MR DUNCAN: All right. Thanks Mike, Steve.

45 MR YOUNG: Okay. Thanks.

MR DUNCAN: Okay. Thanks very much. Thanks for your time. We really appreciate it.

5 **RECORDING CONCLUDED**

**[2.32 pm]**