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O/N H-1503403

**INDEPENDENT PLANNING COMMISSION**

**MEETING WITH DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT**

**RE: HUME COAL PROJECT AND BERRIMA RAIL PROJECT STAKEHOLDER MEETINGS (SSD7172) & (SSD7171)**

**PANEL:** **PETER DUNCAN AM (Chair)**  
**PROF ALICE CLARK**  
**CHRIS WILSON**

**ASSISTING PANEL:** **LINDSEY BLECHER**  
**CASEY JOSHUA**

**DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT:** **DAVID GAINSFORD**  
**STEPHEN O'DONOGHUE**  
**PHIL JONES**

**LOCATION:** **VIA VIDEO CONFERENCE**

**DATE:** **1.02 PM, TUESDAY, 29 JUNE 2021**

MR P. DUNCAN: Good afternoon and welcome. Before we begin, I'd like to acknowledge the traditional owners of the land from which we variously meet today which, for me, is the Darramuragal or the Darug people. I'd like to pay my respects to their elders, past, present and emerging. Welcome to the meeting today to discuss  
5 the Hume Coal project and Berrima Rail project which is currently before the Commission for determination. Hume Coal Pty Limited is the applicant and is proposing to build a new underground coal mine in the Southern Highlands region of New South Wales and develop associated rail infrastructure to support the mining operations.

10 These two components are the subject of two separate development applications made to the Department of Planning, Industry and Environment but, for the purpose of the assessment, they are integrated and we will refer to them as the project today. The associated projects located approximately 100 kilometres south west of Sydney  
15 and seven kilometres north west of Moss Vale in the Wingecarribee local government area, LGA. My name is Peter Duncan. I am the chair of the Commission panel. I'm joined by my fellow Commissioners, Professor Alice Clark and Chris Wilson. We are also joined by Lindsey Blecher and Casey Joshua from the Office of the Independent Planning Commission.

20 In the interests of openness and transparency and to ensure the full capture of the information today's meeting is being recorded and a complete transcript will be provided on the Commission's website. This meeting is one of the Commission's considerations of this matter and will form one of the several sources of information  
25 upon which the Commission will base its determination. It is important for the Commissioners to ask questions of attendees and to clarify issues whenever it is considered appropriate. If you ask a question and not in a position to answer, please feel free to take the question on notice and provide any additional information in writing which we will then put on our website.

30 I request that all members here today introduce themselves before speaking for the first time and if all members please ensure you do not speak over the top of each other so that we can ensure the accuracy of the transcript. We will now begin. Thanks everybody for joining us. We've got an agenda and I think it's best if we run  
35 through that agenda and we'll ask any questions along the way if required. The first point was the summary of the Department's reasons for recommending refusal. So, David or Stephen, would you like to start?

40 MR D. GAINSFORD: Yes. Thanks, Peter. I will start and thanks for the opportunity to come and talk to you today. So my name is David Gainsford. I'm the deputy secretary for assessments and system performance at the Department. And joining me today, I've got Steve O'Donoghue, who's the director for our resource assessments team and also Phil Jones, a consultant who's helped prepare much of the report that you have in front of you. And after I've done my introduction I know,  
45 you know, as we do run through the agenda there are a number of questions, obviously, that we can get into the detail and Steve and Phil also have some

resources, some figures and other things that we can refer to as we get into that discussion.

5 But in terms of, I guess, a quick summary of the main reasons for recommending  
refusal from the Department, I wanted to start by just talking about the fact that  
there's a long history to this project. It's four years since the IS was on exhibition  
and it's also a bit over two years since the initial public hearing and the review that  
the Commission did. Over that period of time a number of the matters that we've  
10 raised as key concerns in our assessment report have remained the same and the  
Commission, obviously, identified a number of those same issues that we had  
concerns about in our preliminary assessment report in the initial hearing and asked  
the Department to work with the applicant to try and address those concerns.

15 Since that initial public hearing, whilst the Department has tried to work with the  
applicant to address those concerns, we don't feel that the applicant has made  
sufficient progress in addressing those issues and, for that reason, those concerns, I  
guess, have largely remained the same. So, ultimately, the Department's, obviously,  
completed a triple bottom line assessment and whilst the Department acknowledges  
20 that there are economic benefits that arise from the proposal, we don't believe that  
they outweigh the substantial social and environmental impacts. We've also applied  
the precautionary principle and there are a number of uncertain aspects to the  
proposal and whilst the applicant has suggested that some of that uncertainty could  
be dealt with in a post approval manner, we're not – we don't believe that's the  
25 appropriate way of dealing with those substantial environmental and social impacts.

30 Importantly – and I will talk a little bit about these in a minute – but, importantly, the  
groundwater mining method and some of the surface water issues associated with the  
project have all been suggested by the applicant that they can be dealt with in a post  
approval context but we disagree with that position. Before sort of talking about  
some of the key sort of issues, I think it is worth also reflecting on the actual nature  
of the land that the proposal is being proposed on. And it is important to  
acknowledge that whilst the landscape where the proposal is located has a long  
history some time in the past of mining, that region is really much more known for  
its rural land uses, agricultural scenic landscapes and tourism resources. And  
35 although – and the zoning sort of points to that as well with 70 per cent of the area  
for the mine is zoned for environmental purposes.

40 So whilst the Mining SEPP does allow for the ability to override those prohibitions  
from a zoning point of view, the Mining SEPP does also give some guidance around  
what the consent authority should be considering, in terms of its matters for  
consideration, and they – for new mining projects, and it talks about existing  
approved and likely preferred land uses. And so, from that point of view, our  
conclusion is that greenfield mine in this location is not suitable for the area.

45 Speaking to the specific sort of aspects and, again, we will, obviously, cover these in  
a bit more detail as we get into your specific questions. But, particularly, the  
groundwater aspects, the proposal is predicted to have a very large impact on a

highly productive groundwater aquifer ranging from anywhere between 94 to 118 registered bores with quite substantial impacts for a long period of time and that doesn't take into account 19 bores that aren't registered. It is a highly productive aquifer and part of the reason that the impacts are predicted to be as substantial as they are is because the depth of the coal seam is quite shallow beneath that aquifer.

The other aspect, I guess, around the groundwater impacts that I wanted to emphasise is that this is fairly unprecedented, the scale of impact on groundwater. In fact, for any comparable project in a greenfield sense we've never had such a scale of groundwater impacts. The only comparable project that we drew attention to in our assessment report is Tahmoor South which, of course, is an extension of an existing mine and even in that context, the impacts are substantially lower than what's predicted here. So part of the, I guess, direction that we receive from the Commission after the preliminary assessment and the initial hearing was to work with the company in looking at the practicality of how they could make good on those groundwater impacts. And, unfortunately, whilst the applicant has tried to engage with some of the land owners in the area, they really haven't made any progress in terms of any agreements with those land owners. And, for that reason, we're really quite concerned that it would be not practical to make good the substantial number of affected groundwater bores.

One of the other aspects that we have some concerns about with regard to the proposal is on surface water impacts. The proposal relies on a series of both above ground and underground storage for surface water impacts. The company has confirmed since the preliminary assessment that there is no water treatment proposed as part of their application and this has led the Department to continue to have quite substantial concerns around what the surface water impacts will be within Sydney's drinking water catchment. And there is no certainty around what the contingency is if those measures that the company has proposed don't work.

Lastly, I just wanted to touch briefly upon the mine design. The mine design itself has had a lot of discussion around the pine feather method which is untested within New South Wales. And whilst there is some agreement from both our independent experts and also Hume Coal that, potentially, the risk could be managed by different configurations of the mine design itself and also with regard to the way that the mine would actually progress, the applicant itself hasn't actually committed to any of those changes. And so for those reasons the Department remains very concerned about the design that's been put forward. So, Peter, that's probably enough as a summary from my point of view.

MR DUNCAN: Thanks, David. That's a good summary. So who will cover the next issue, groundwater impacts, in detail?

MR GAINSFORD: So I think, I might hand over to Steve now, if that's okay, Peter.

MR DUNCAN: Yes. Thank you.

MR S. O'DONOGHUE: Is that the next agenda item?

MR DUNCAN: Yes. Agenda item 4C. There's four parts to that, A, B, C and D.

5 MR GAINSFORD: Did you want to – sorry, Peter, did you want to talk to the independent expert findings as well in item 3?

MR DUNCAN: Yes, sorry. I have missed that, actually. We should go back to item 3.

10

MR O'DONOGHUE: Yes.

MR DUNCAN: I jumped ahead.

15 MR O'DONOGHUE: Okay. Thanks, Peter. So as David mentioned, I'm Steve O'Donoghue, director of resources and assessments for the Department. So just in terms of independent expert findings in agenda item 3, first of all, I was going to focus our response more on the expert advice and key agency advice received following the submission of Hume Coal's response to the Commission's first review,  
20 rather than go back to, I guess, the history through the first hearing. So I just wanted to focus on that. I thought it would be more appropriate.

MR DUNCAN: Yes. Thanks.

25 MR O'DONOGHUE: So, I guess, the first aspect, I guess, is that we've re-engaged a number of experts and went back and consulted further with agencies. I guess, the keys ones I want to talk about is relation to the mine design where we reconsulted with Professor Jim Galvin for mining engineering subsidence expertise and Professor Ismet Canbulat, again, subsidence and mining engineering who have been involved  
30 in the project since the beginning. We also reconsulted with Andrew Tessler from BIS Oxford Economics on the cost benefit analysis.

And, I guess, from an agency point of view, the expert advice from agencies, I guess, the key ones in terms of the core issues we're talking about are the resources  
35 regulator in terms of subsidence impacts and mine design, deep high water in relation to groundwater modelling in conceptualisation, and probably less so but the heritage grants in relation to some heritage aspects. Like, while we do consult with other agencies, most of the issues were largely resolved or, you know, not more of the higher merit assessment issues on that one.

40

So just on the mine design, I guess, as David sort of, in summary at the beginning, like, it's one of the issues of concern to the Department is still the issues raised by our two experts on web pillar stability. In particular, there was a – we – particularly, the fact that the pillars are quite thin, 3.5 metres in width and quite long, so the issues  
45 around the potential for yielding long term instability of those is the key concern. Professors Galvin and Canbulat, they reviewed all the additional information provided by the company and their experts, so that included additional risk

assessment work completed by Polaris which did include – in that risk assessment included advice from Professor Bruce Hebblewhite for the proponent, Liz Webb and Dr Russel Frith and a number of other experts who were involved in the process.

5 They also reviewed the additional expert review of the mine plan done by –  
completed by Mr Russell Howarth which was submitted with the response to the  
Commission report. And also they reviewed additional reports completed by  
Professor Hebblewhite and Dr Frith, which was provided the IPC during the first  
10 public hearing, which they hadn't had the opportunity to, you know, review up to  
that point. So there's quite a lot of additional information that they considered in  
providing advice back to us. So, I guess, the key residual issue in looking at all that  
and raised by both Professors Galvin and Canbulat was really over that web pillar  
stability. And in the context of, you know, risk to workplace health and safety, and  
potentially groundwater response to mining in that respect as well.

15 I guess, the key concern was really the assumptions about – they used for pillar  
strength in the modelling that they'd done compared to more reliable pillar formulas  
that they apply and the factors of safety related to that and risks around that. I guess,  
one thing we wanted to flag, in terms of discussion, because it's quite a technical –  
20 one of the experts in this field is that if you want the opportunity to speak to the  
professors about, and getting a briefing on this particular issue, we'd be happy to – I  
think that might be a good one to arrange – to consider. So I'll just put that on the  
table.

25 MR DUNCAN: Thanks, Steven. We might take you up on that but we'll talk about  
that after the meeting.

MR O'DONOGHUE: Okay. So, I guess, that's the key concern. And, I guess,  
overall and as David flagged that there was agreement that the risk could be  
30 managed, you know, through increasing pillar thickness or change the panel  
dimensions and that further work was needed but, at this point, you know, that work  
hasn't been done and it's the company's preference it be left to a post approval sort  
of position to undertake that work. I guess that – our concern again is leaving that  
..... question the mine progression development, the amount of resource that could be  
35 extracted, you know, from the proposal and the risks around that, in particular. Such  
in relation to Jim Galvin and Ismet Canbulat's advice - - -

MR DUNCAN: Yes.

40 MR O'DONOGHUE: - - - so if you've got any questions on that but, like I say, I  
probably would be – it would probably be better if that the professors, you know,  
provided advice to you directly or could give you a briefing.

MR DUNCAN: Okay. Thanks, Stephen. And, Alice or Chris, anything at this  
45 stage?

PROF A. CLARK: Just one if I could, Peter, and I appreciate the – you know, the non-expert comment, I fall into that as well. Having read a few of the reports, though, and take it notice if you like, is you did mention that the things on the table there for the risk to be managed post approval. What’s your view on that? You  
5 know, you’ve got all that expert advice there. Did you want to enlarge on that at all?

MR O’DONOGHUE: Look, sure. It certainly – it could be. I mean, I guess, the issue around that – and I think it’s – part of it is what one of your agenda items – we’re going to go more to it later, I guess, in terms of the conditionings, so maybe  
10 ..... be there but I guess it’s the - - -

PROF CLARK: Yes.

MR O’DONOGHUE: - - - part of it’s the – since it’s a novel mining method, certainly, there’s examples like through extraction plant processes and setting up trigger action response plans to inform mine development, etcetera. There’s examples like the Airly mine that we sort of referred to in our report about the complexities in doing that and that’s a good example because that’s one where, you know - - -  
15  
20

PROF CLARK: So it wouldn’t be the first time that you would have done this .....

MR O’DONOGHUE: It wouldn’t be the first time. But, I guess, the other examples are ones where there’s been a lot of information, reliable information, about subsidence from more conventional mining methods, whereas this – like, this is an untested method and there’s less empirical data around on how the performance of the mining method is a key concern.  
25

PROF CLARK: Thanks.  
30

MR C. WILSON: Steve, Chris Wilson. Just in terms – I’m just trying to reconcile the difference between regional and maybe localised yielding of the pillars. What would localised yielding look like, in terms of pillar failure?

MR O’DONOGHUE: It’s probably one more for the experts but, I guess, there’s two – when you look at the advice from the analysis done, you’ve got the web pillars and the intra-web pillars. I guess, the advice is that intra-web – from a subsidence perspective and based on the advice from Professors Galvin and Cabulat, that they’re more satisfied that overall subsidence, because of the intra pillars, wouldn’t be a significant issue and that the concern for them is mainly about that collapse of the web pillar, like, in a panel. Or there might be one or a range of – in a particular area and what impact that has to health and safety. And, I guess, the other aspect is that to groundwater response if you’re having significant web pillar failure.  
35  
40

MR WILSON: Okay. Thanks.  
45

MR DUNCAN: Okay. We’ll keep going.

MR O'DONOGHUE: So - - -

MR DUNCAN: Keep working through the items.

5 MR O'DONOGHUE: Yes. So just touching on, I guess – just briefly on the advice  
from – on the economics, I guess, that we were satisfied that the issues had been  
largely resolved so from a residual issue point of view there was agreements when  
the experts, you know, following further work done by the proponent and also  
10 reviewed by our expert on that one. And, I guess, from – we didn't seek to get any  
further advice on groundwater from Hugh Middlemis through this because based on  
his previous advice that he considered the model was fit for purpose and, you know,  
overall, he thought it was useful as a predictive tool for the assessment. And, again,  
the other expert we used, Dr Renzo Tonin, there was no residual issues on noise that  
we felt we needed to go back to the noise expert on that one.

15 So just touching briefly on agency experts, I guess the key – getting back to the mine  
design, we referred the information back to resources regulator and got advice from  
Gang Li, who is the principal subsidence engineer for resources regulator. So that's  
in the ..... provided. I guess, the key concern that was raised there as a residual issue  
20 was his concern about potential impacts from subsidence on critical infrastructure,  
such as the Hume motorway, Illawarra highway and the ..... to city gas pipeline in  
particular, but also optical fibre infrastructure. And, I guess, again, it brings back to  
the key issues of concern for him were the low depth of cover so it was – for being  
developed under or near key infrastructure it was fairly unprecedented, except for  
25 one example, I think – or some examples he quoted from more than 20 years ago,  
where you got, generally, four to 500 metres depth of cover compared to 80 to 170  
here, which is quite shallow.

30 So his concern was centred around that. And the potential for some level of  
subsidence to cause, you know, safety or serviceability consequences on that  
infrastructure. And that most risk management systems that they've been involved in  
or monitored through ..... activity approvals at higher depths of cover in those  
instances. So there's some recommendations around there about changing the mine  
plan progression to keep away from that critical infrastructure and to gain, you know,  
35 further empirical data that could inform the subsidence modelling. That was a key  
area as well. Probably – I will leave it on that one, unless there's any questions on  
that in particular? Or I can move on to just a quick discussion on deep highwater and  
..... advice.

40 MR DUNCAN: I think keep going, Stephen. Yes.

MR O'DONOGHUE: So deep highwater and ..... just mindful of my comment  
earlier about, I guess, the expert engaged by the Department, Mr Hugh Middlemis,  
was generally satisfied with the groundwater modelling. And I guess the experts –  
45 other experts involved, including Dr Lloyd Townley, who was also engaged in the  
subsequent review, you know, post the Commission's first hearing. Dr Franz Kalf  
and Dr Noel Merrick earlier had all agreed that the model was fit for purpose. Deep

highwater still has raised concerns and recommendations in relation to the groundwater modelling. I guess, the key was really about hydraulic conductivity assumptions and that there could be potential for higher flows into the underground workings than predicted and a, you know, potentially higher draw down impacts as a result.

So they were still concerned about that. And, I guess, their recommendation, which I guess we're applying here, is that they consider that the impacts predicted are the minimum and that, you know – I guess, that's from an assessment point of view – you know, we haven't recommended that further modelling be undertaken because, at this point, we still consider that the level of impact is unacceptable and is a reason for refusal. So further modelling could only increase the level of impact, potentially, if deep highwater's advice was taken on board.

So I'd probably leave it there on that issue. I just want to touch on that, the heritage branch too did raise residual concerns about the, I guess, heritage assessment, particularly in relation to the Mereworth house and the Sorensen gardens and that there was different viewpoints on, you know, State significance versus local heritage significance on that particular – the heritage which is a residual issue as well.

20

MR DUNCAN: Okay. Thank you.

MR O'DONOGHUE: That's probably it for that agenda item.

MR DUNCAN: Okay. Unless there's further questions, let's move on – now, move on to four, groundwater impacts.

MR O'DONOGHUE: Okay. Look, I'll start on this one. So, I guess, the first question on proportion of private bore owners that objected to the project and of those that objected, what was the basis of their objection, I'll sort of, like, deal together. I guess, the first to point to make, I guess, the data you're requesting isn't ..... the objections linked to bore owners isn't readily available. We don't have that readily at hand and I guess there's a couple of reasons behind that, in that we don't have the – because of privacy reasons, or it's not documented in the EIS, we don't have the bore owners' details ourselves. While we do have the submission locations, you know, we could do a comparison but we don't have that data at this point.

I guess, our view is that we would expect to be high as Hume Coal has tried to reach make good arrangements and hasn't – apart from 20 access agreements, they haven't been able to reach a make good agreement with any land owners. I guess, the other point is that 5000 submissions came from postcodes either above or immediately surrounding the project area with 97 per cent objecting. So just from analysis of that, you could expect that, you know, submission, you know, related to bore owners would be expected to be high. There was also – if you looked at unique submissions, there were 707 unique submissions from postcodes within and surrounding the area, noting that a large number of formal submissions that – you know, and the formal submissions did raise impacts on groundwater and bores in particular as an issue.

45

So, just in terms of – so it’s difficult to answer the basis of the objection apart from that broad sort of analysis which I just went through there. I guess the – from a groundwater point of view, in submissions, that groundwater was the number one issue raised during the ..... exhibition and even following now through the  
5 Commission’s hearing and also through representations we’ve received, you know, and letters following the – throughout the process. I guess, 62 per cent of all unique submissions raised that groundwater is an issue and 82 per cent of all submissions overall, including the formal submissions raised, you know, groundwater is a concern. So it’s, clearly, one of the key issues for the project. So I don’t know if  
10 you’ve got any queries on that or you might ..... follow up at all?

MR DUNCAN: Not from me. Chris or Alice?

PROF CLARK: Just one, Peter, if I might? Is it normal for landholders to enter into  
15 those sort of agreements before projects like this are approved? Would you normally expect those agreements to be in place?

MR O’DONOGHUE: Look, no, because I think, like, generally, while proponents will make their best endeavours to try and reach agreements, land owners will, in  
20 general, you know, from what I’ve observed, hold off until there’s some sort of decision. So it’s not – it wouldn’t be the standard that that – that there would be agreements reached. Certainly, for – if there’s negotiations about land acquisition, for example, there’s more potential there, you know, through a project where there might be ..... land to a project and there might be agreements or acquisitions reached  
25 through that process.

MR DUNCAN: Okay.

MR O’DONOGHUE: I don’t know, Phil, if you want to add anything to that or - - -  
30

MR DUNCAN: No. I think we’ll move on to the next part of that question, Stephen. Did you want to say more about the bases of their objections? Those that have objected.

MR O’DONOGHUE: I sort of combined them together in the discussion. Yes.  
35

MR DUNCAN: All right. So if we cover the next ones, the make good arrangements, if you want to cover that now?

MR O’DONOGHUE: Yes. Okay. So this is if the make good arrangements have the potential to be implemented, how would government manage and monitor implementation?  
40

MR DUNCAN: That’s correct.  
45

MR O’DONOGHUE: I guess, the first point to make is that there’s no – at this point, there’s no formal New South Wales make good policy under the Aquifer

Interference Policy to guide the process. So that's the first point. So the requirement for Aquifer Interference approvals which is under the Water Management Act haven't been turned on yet so there's been really no formal policy development on how that would work, you know, for processes around this. So, I guess, in lieu of  
5 that, I guess, for mining projects, it's generally been dealt with, you know, via agreements between mining companies and land owners. And in some cases, through the assessment process, it's been dealt with through, you know – where there's been a few land owners involved, it's been dealt with through, you know, acquisition, you know, of a property because there are some benefits in getting water  
10 supply works associated for the project as well. So that's generally been the process there.

We've – we deal with make good arrangements, I guess, through a compensatory water condition that we put into mining project approvals, and I'll bring that up on  
15 screen in a sec if that might be best, just to sort of run through that. But, I guess, the approach proposed by Hume Coal, which is really taken from the New South Wales land access arbitration framework, that's based on statutory requirements under the Mining Act and Petroleum (Onshore) Act and was really set up to allow access to land for exploration and with compensation to be determined through that process if  
20 land access wasn't granted.

I guess, that process – like, while there – if you look at the process they put forward with dispute resolution and referral to the Land and Environment Court, that's  
25 difficult in this case to apply because that's set up under the statutory framework of the Mining Act so there's statutory provisions around, you know, allowing access to the site. So it's a process put forward by the company would be difficult to apply. I guess, that's the comment we make there. Like I said, for mining projects, we do include a standard compensatory water condition but that's generally been put in where there's few or limited predicted impacts to bores and it's generally put in as a  
30 contingency measure if there happened to be an exceedance that wasn't predicted, as an example. I might just put up, if that's okay – can I share the - - -

MR DUNCAN: Yes.

35 MR O'DONOGHUE: I'm just trying to find the – I've got an option to do that.

UNIDENTIFIED FEMALE: ..... we've allowed all participants to share.

MR O'DONOGHUE: Okay. Where's the - - -  
40

PROF CLARK: Down the very bottom bar of your screen you should see a green box that says share screen when you put your cursor down the bottom of your window there.

45 MR O'DONOGHUE: Yes. Okay.

MR DUNCAN: Something is happening now.

MR O'DONOGHUE: Okay. Can you see that?

MR DUNCAN: There it is. Yes, we have.

5 MR O'DONOGHUE: Okay.

MR DUNCAN: You can make it full screen, if you can. It's just a little screen.

10 MR O'DONOGHUE: Okay. It's full screen on my one. Hang on.

MR DUNCAN: Okay. That's all right. We can read it.

MR O'DONOGHUE: You got it up there now?

15 MR DUNCAN: Yes.

MR O'DONOGHUE: Yes. So, I guess – like, this is standard conditioning for making provisions which this is an example from the Vickery extension project where – or, I guess, the key steps in it in here is the – if there is an adverse or direct  
20 impact on water supply works, it triggers a – that can be triggered by the land holder. Then they can seek for replacement water supply, you know, through the proponent. I guess, the dispute resolution around that is, really, that it comes to the planning secretary to resolve any disputes through that process. And there's certain requirements through that process to provide long term secure water supply to the  
25 land owner. So we deal through it directly through conditionings such as this. So we're ..... this is an example for your benefit.

MR DUNCAN: Thank you.

30 MR O'DONOGHUE: And I will just stop sharing that one.

MR GAINSFORD: Maybe, Steve, while you're stopping sharing, if I could just add to this sort of point, is that as I understand it, the companies talked about trying to reach agreement and as we mentioned at the start, they really haven't managed to get  
35 access to a number of these properties. And so their dispute resolution process, I guess, and all of these processes rely quite heavily on some initial monitoring and determining the baseline. One of the concerns that we have is without establishing that baseline and having to rely upon these types of conditions will draw out the process quite substantially and then the Department needs to be heavily involved in a  
40 dispute resolution process. And I will let Steve sort of talk through what we think that dispute resolution process might look like based on some experience from just a handful of these types of dispute resolution processes we've been involved in previously.

45 MR DUNCAN: Okay. Thanks.

MR O'DONOGHUE: Okay. Yes. I'll just stop sharing the screen. Look, I guess – just following on from David's point, I guess, overall from the Department's point of view, there's been relatively few examples of when the Department gets involved or required to get involved in compensatory water in the past. There's some examples  
5 around at the moment but it's not something that happens very often. And partly that is because there's generally been the predictions on impacts on bords has been low, apart from the, I guess, the more recent Tahmoor South example where they predicted, you know, in the order of 20 that may be affected.

10 But the Tahmoor North – as an example, for the Tahmoor North development there were about 70 bords, you know, predicted to be impacted as – that were predicted from the Tahmoor South development from a cumulative point of view, but of them only two of those bords were actually – only two bords were – sought compensatory water from the land owner out of 70 that were predicted to be impacted. I guess, part  
15 of the problem – if you had a large number of land owners coming and seeking compensatory water or make good provisions, it would be a complex process because you'd need to monitor and determine the baseline.

20 So you'd need to get agreement for access for that process and to collect that baseline data. You'd need to monitor and determine the impact over and above other background influences of the mine. So you'd need to get agreement with the land owner on access arrangement for ongoing monitoring in installed bords. You'd need to get agreement on compensatory measures including post mining impacts and compensation. So, again, that would be an ongoing process if impacts did occur.  
25 And associated with that there'd be a mediation and dispute resolution process around that. So it would be an ongoing dialogue with land owner through the life of the project to – and getting agreement and expert advice on what that level of impact would be.

30 I guess, that's some example for the few examples we do have. There's an example in the Southern Tablelands at the moment where there's been a dispute on the impact on water. That's been ongoing for probably more than two years now and it's still unresolved, in terms of getting agreement on what the baseline impact is, that what their historic take of water was, what their future take of water will be and really  
35 defining what the impact is. And that's one example where it's been a very dispute resolution trying to resolve that process with the compliance team involved in that. So each case would be quite a long, complex process to manage. And that's one of the concerns about practical that is to undertake that.

40 MR DUNCAN: I understand your point. I don't have anything further on that. Chris or Alice?

PROF CLARK: Nothing from me.

45 MR WILSON: Just, Stephen, that Southern Tablelands example, is that one land holder or one affected bore user or is it a number .....

MR O'DONOGHUE: That's one land holder.

MR WILSON: Right. And it's opposed consent and there's ongoing issues. Is that what you're saying?

5

MR O'DONOGHUE: That's right. Yes. So .....

MR WILSON: And here there's, potentially, up to 119 affected bore owners?

10 MR O'DONOGHUE: Yes. And, look, the two – the example of two bores in – I guess, in Tahmoor North, as an example, given – there is a difference with those ones as well in that they were – the impacts on them were directly – direct effects from subsidence. So that, on the bore, rather than a draw down influence from mining. And they were managed under the coal mine, you know, subsidence  
15 legislation, compensation legislation. So that was led by the subsidence advisory in New South Wales through that process where there is a – you know, there is a legislative process in doing that. So the Department wasn't involved in those two examples but that wouldn't be the case for these mines because it's not a subsidence issue that it's affecting the bores. It's a groundwater response issue.

20

MR WILSON: Sure. That's all from me, Peter.

MR DUNCAN: Okay. So, Stephen, you want to – is there more you want to say on this? The next point was expand on how you reached the conclusion and you've  
25 basic said – covered that by using those examples.

MR O'DONOGHUE: I think so, Peter. I think C and D are sort of covered in that commentary. Unless, Phil, did you have any more comments to make on that at all?

30 MR P. JONES: No. I think you've covered most of it, Steve. Well, just in establishing the baseline, we usually require three years of data.

MR DUNCAN: Yes.

35 MR JONES: In this case, they've only managed to get ..... with 20 of the 72-odd land holders predicted to be affected.

MR DUNCAN: Right. So not even a third.

40 MR JONES: We see the potential for conflict and dispute at every step along the way.

MR WILSON: And I presume some of those agreements would have been concluded on the basis that if ..... granted or may or may not be granted anyway. The  
45 agreement is only relevant if it's granted. Is that right? If consent was consent.

MR O'DONOGHUE: Yes.

MR WILSON: So whether you've agreed to it now or after is probably neither here or there. Is that right? Is that a fair comment or - - -

5 MR O'DONOGHUE: Look, I think it picks up on, like, Alice's point earlier. You know, a lot of land holders would, you know, probably prefer to wait till there's a decision on the project.

10 MR WILSON: What I'm saying, Stephen, is even though 20 have signed up, it doesn't necessarily mean that those 20 think that, you know, it's going to proceed. They're just saying they've signed an agreement should it be approved.

MR GAINSFORD: Yes. And just to be clear, Chris, it's 20 land holders that have agreed to provide access. Not on make good arrangements .....

15 MR WILSON: Yes. Okay.

PROF CLARK: And that access is to the baseline. That's correct?

20 MR O'DONOGHUE: Yes. That's correct.

MR WILSON: It's only access to .....

PROF CLARK: Yes.

25 MR DUNCAN: Okay. Well, we might go to the mining method. Is that you, Stephen?

30 MR O'DONOGHUE: Yes. Look, it's probably – I think we've covered it, like, I mean, when – in discussions on the expert advice previously and what David's sort of advised, I guess it's sort of more repeating, like, some of the concerns there. So it's really – I guess, the key – you know, summarising the key points, it's the, you know, use of the unconventional pine feather method but there's not a lot of empirical data to inform in New South Wales or a similar geological environment and, I guess, in some ways it's picking up on Dr Gang Li's concerns in relation to the  
35 critical infrastructure. But also the assumptions around – raised by experts about the geotechnical model stability of the web pillars in particular and impacts, I guess, on the uncertainty about the actual mine layout, potentially, if they revisit the assumptions in pillar widths and strengths and panel dimensions and progression of the mine.

40 So I guess the additional work hasn't been undertaken and I guess Hunter's putting forward the proposal to do this as a post approval requirement as the mine progresses. The Department doesn't agree with that position because there's no, I guess, from a conditioning point of view, there's no clear precedence for managing  
45 the risks as the mine progresses for this particular novel mining method.

MR DUNCAN: And how would a post approval process work? Are you talking about a staging and a trialling of the method?

5 MR O'DONOGHUE: Look, it would be more – I guess, that's one – like, one of the recommendations of Dr Li was, you know, in relation to critical infrastructure was undertaking mining further away from that critical structure and getting better empirical data as an example.

10 MR DUNCAN: Okay.

MR O'DONOGHUE: I guess, the other is really – like, this comes in the last question, the agenda item which is about conditioning as well.

15 MR DUNCAN: Yes.

MR O'DONOGHUE: It's really what, you know, conditioning you would do to explore that process, I guess. So we can come to that in that sort of final agenda item.

20 MR DUNCAN: Okay.

MR O'DONOGHUE: And, I guess, just on the – like we mentioned earlier, with the mining method it will probably be useful for the Commission to speak directly to the experts, the Professors Galvin and Canbulat, and, you know, potentially, you know, Gang Li from the resources regulator.

25 MR DUNCAN: Okay.

30 MR O'DONOGHUE: Anything else, Phil?

MR JONES: Yes. I'll just add through all the iterations between the experts, I think we reached a reasonable agreement but, yes, there is a risk of localised web stability – instability – web pillar instability. I think Hume's consultants agree with that as well as our consultants. And I think there's reasonable agreement between the experts that those issues could be managed through measures such as increasing the web pillar thickness. But, I guess, yeah, where there's more agreement is that Hume's consultants believe that that could be managed post approval whereas, I guess, we're not satisfied that we've reached that level of certainty in the assessment, that we could move to managing through a post approval basis.

40

MR DUNCAN: Okay. Thank you. All right. Well, let's go to the draft conditions then, Stephen. And we're happy to get further information on this if you require to send it to us. So - - -

45 MR O'DONOGHUE: Look, we'll just touch on a few things, Peter, but we're happy to provide any further advice as a follow up at request if there's additional sort of emphasis or info you need. I guess, first up, I guess, just reiterating Phil and

David, like, it's our position that we're not satisfied the assessment is complete and while it provides some discussion on conditioning just, you know, as you've requested, just to inform to give a balanced consideration so we're happy to provide that on that basis. I guess, the key things would be – there is that uncertainty that's  
5 raised by our experts and resource regulator. So, you know, further work would need to be done prior to any roll out of, I guess, the mine plan to address those concerns which could potentially lead to, you know, that changes to pillar dimensions and roll out of the mine. And, again, there'd be concerns there about how that would affect  
10 both the resource recovery, the ability for water management and underground workings would also reject and placement which is all, you know, going into the underground workings.

So one of the issues is if there are changes to the mine roll out and change the water – you know, the already assessed water balances and reject and placement strategies  
15 that they've got which is the basis of the surface infrastructure that they've put forward. That's one point. We do have a, you know – just in conditioning in general, you can be guided by, I guess, our reasonably standard suite of conditions for underground coal mining, you know, which is on the public record, you know, for managing impacts for noise there, visual, etcetera. So that's based on  
20 government policy. As such is the noise policy for industry, you know, based on recommendations from agencies. So, certainly, for those aspects there is sort of clear guidance of how it would be conditioned.

I guess, in the case of the web stability issue and mine progression, any approach  
25 would be similar to the extraction plan would be similar to the extraction plan process that we do have for other forms of mining, like longwall mining and secondary extraction. You know, that's sort of the process that you'd follow but you'd need to – you know, where you re-evaluate potential exclusion zones in the mining areas and the proposed mine progression have put up sequencing of the mine  
30 plan over time in different domains. You know, you'd establish an expert panel or, for example, use the Independent Advisory Panel to provide expert advice through that process. And you'd need to prepare and implement, you know, some customised extraction plan for any mining domains. And, again, predicated on that is the – there's ongoing monitoring and, you know, trigger action response plans  
35 from ..... and actions that come out of that. So, I guess, there is a guide there for how we would deal with that from ground mining. That's in a number of approvals that have gone through recently, as sort of an overview.

MR DUNCAN: And the post approval matters and things like that as some of the  
40 issues that would be complicated in providing some draft conditions and things like that at this stage.

MR O'DONOGHUE: Look, it would be. I guess the – like, in our report, like, we,  
45 you know, refer Airly mine as an example where it's got a quite complex set of conditions, you know. There's different mining domains which are managed differently. It's led – you know, it's led to quite significant changes to the mine progression and through that process. And that's based on a mine where there's

been, you know, good empirical data, you know, to inform decision making. I guess, here there's still, you know, the novel method and until any mine progresses to support the assumptions and feed into that, there is that uncertainty.

5 MR DUNCAN: Okay. Chris or Alice, any questions?

PROF CLARK: No. All of mine were covered there, Peter, thanks.

MR DUNCAN: Okay. Chris?

10

MR WILSON: I'm fine thanks, Peter.

MR DUNCAN: Okay. Well, that probably pretty well wraps it up. But, Stephen, if you could – I know we will probably have it through the Vickery process but could you send that make good site that she showed through .....

15

MR O'DONOGHUE: Yes. I'll send that through, Peter. Yes.

MR DUNCAN: Okay. Thank you. All right. I'll - - -

20

MR WILSON: Actually, can I just – just one more question, sorry. Just in relation – is that okay? Just in relation to the set and the implementation of the greenfield ..... existing mining areas, how does that work? How does that policy implemented? How does it work? The provisions on the SEPP in related to greenfield mining.

25

MR GAINSFORD: You want to take that, Steve?

MR O'DONOGHUE: So this is for - - -

MR WILSON: You mentioned in your report, Steve, that, you know, given the implications of the mine for the landscape and, essentially, that it is a greenfield landscape, that it's inconsistent with the government's policy on mining in greenfield areas. I'm just wondering how that policy works? I mean, is the policy – yes, and when did it come in, do you know? When was it implemented?

35

MR O'DONOGHUE: Hang on. I'll just bring up the – just – I'll get to the – just so I'm sure, what paragraph number?

MR GAINSFORD: You're particularly talking, Chris, about our summary in the executive summary. Yes?

40

MR WILSON: Yes. You mentioned the Mining SEPP.

MR GAINSFORD: Yes.

45

MR WILSON: So I'm just – I'm just more interested in how that SEPP works in terms of the policy or the policy implications of the SEPP in relation to greenfield areas and this – the mention of it in your report and this mine?

5 MR GAINSFORD: Yes. So, look – maybe I can tackle this one, Steve. So, I guess, what we've highlighted, and as I said in my sort of opening remarks, that the Mining SEPP itself talks about, you know – and as I've mentioned about the issues of zoning and prohibitions, but what it gives is some guidance around the matters for  
10 consideration for a consent authority, you know, when they are considering underground mining and that does talk to the, sort of, existing approved and likely land users. The other thing that we draw attention to is last year's statement from the New South Wales government around coal exploration and mining in New South Wales.

15 And, I guess, the point that we've sort of raised in our report that is that even though this is, I guess, particularly sort of directed at looking at future exploration areas for coal mining, it does talk – and we've, I guess, extrapolated that in the context of both the guidance from the Mining SEPP and also this statement that the government brought last year, it provides some clear sort of guidance to say that exploration  
20 should only occur where there's minimal conflicting land uses and where social and environmental impacts can be managed and where there's a significant coal production potential. So whilst it's not directly applicable because it's talking to exploration, we think on top of the sort of guidance that comes from the Mining SEPP, there's some indications from the government there around considering land  
25 use conflicts and those types of matters when considering new greenfield mines.

MR WILSON: Okay. That's fair enough. Thank you.

MR DUNCAN: Thanks, David. All right. Well, I think we're just about up for  
30 time. David, is there anything else you want to add at this stage? We may need – I'm pretty sure we need to come back and have some further questions and discussion and we may take the opportunity to talk to your advisors as well as Stephen suggested. So anything you want to say in closing?

35 MR GAINSFORD: Not really, Peter, other than as you mentioned there, we're happy to remain as a resource. We're happy to answer any sort of further questions that you have as you're doing your assessment. And, I think, as you've just mentioned there and Steve mentioned before, we have talked to our specialists and we can make them available to talk to you in some more detail and, particularly if,  
40 you know, you've got some technical sort of questions that you wanted to understand with relation to groundwater and the mining method. We're happy to make those people available.

MR DUNCAN: I think, particularly – myself anyway – the mining method is of  
45 interest to understand a little bit more. Okay. We'll proceed now. We're hoping to have a virtual site inspection next week under the current regulations and we'll have public meetings the week of the 12<sup>th</sup> of July. So that's the next steps. I'd like to

thank all of you today, David, Stephen and Phil, for being here and we'll talk soon.  
Thank you very much. I'll close the recording at that stage. Thank you.

MR GAINSFORD: Thank you.

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**[2.02 pm]**