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**TRANSCRIPT OF PROCEEDINGS**

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O/N H-1503410

**INDEPENDENT PLANNING COMMISSION**

**MEETING WITH STAKEHOLDERS**

**RE: HUME COAL AND BERRIMA RAIL PROJECTS**

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

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

**COAL FREE** **PETER MARTIN**  
**SOUTHERN** **ALAN LINDSAY**  
**HIGHLANDS:**

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

**DATE:** **5.38 PM, TUESDAY, 29 JUNE 2021**

MR P. DUNCAN AM: Good afternoon, and welcome. Before we begin, I would like to acknowledge the traditional owners of the land from which we variously meet, which for me is the Darramuragal or Darug People. I would like to pay my respects to their Elders, past, present and emerging. Welcome to the meeting today  
5 to discuss 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, Infrastructure and Environment. But for the purpose of the assessment, they were both integrated and we'll refer to them as the project. The project is located approximately 100 kilometres southwest of Sydney  
15 and seven kilometres northwest of Moss Vale, in the Wingecarribee local government area. My name is Peter Duncan, and I am the chair of this commission panel. I am joined by my fellow commissioners, Professor Alice Clarke and Chris Wilson. We are also joined by Lindsey Blecher and Casey Joshua from the Office of the Independent Planning Commission. In the interests of openness and  
20 transparency, and to ensure the full capture of information, today's meeting is being recorded and a complete transcript will be produced and made available on the commissioner's website.

25 This meeting is one part of the commission's consideration of this matter, and will form one of several sources of information upon which the commission will based its determination. It is important for the commissioners to ask questions of attendees and to clarify issues whenever it is considered appropriate. If you are asked a question and not in a position to answer, please feel free to take the question on  
30 notice and provide any information in writing, which we will then also put on our website. I request that all members here today introduce themselves before speaking for the first time, and for all members to ensure they do not speak over the top of each other, so that we can ensure accuracy of the transcript. We will now begin. Over to you, Peter and Alan.

35 MR P. MARTIN: Thanks very much for having us here today. I'm Peter Martin. I'm the president of Coal Free Southern Highlands, which was a group that was established probably three or four years ago now, a successor to the Southern  
40 Highlands Coal Action Group, which we set up in 2010, when we first became aware of POSCO's purchase of the licence here in the Southern Highlands. I'm also a landowner. I'm a farmer in Sutton Forest, so the mine would go directly under my property.

45 Just to give you a little bit of background before I turn over to Alan, we've been essentially campaigning against the mine for the best part of 11 years. We've taken Hume Coal, or POSCO, to court on a number of occasions, and we won a major judicial claim against POSCO on the basis of section 31 of the Mining Act of New

South Wales, which talks about significant improvements, which was precedent setting in the mining world. So my background, I'm a civil engineer. I used to work in the oil and gas industry, building large, offshore oil platforms all round the world. So I'm familiar with large projects. I also have a business degree, and I've been in  
5 finance for the last 30 or 40 years. So – for the last 35 years – so I understand the numbers and I understand the engineering, although I'm not a coal miner.

So Alan, on the other hand, has built coal mines, and he's also an engineer. And I will turn over to Alan to give you his background.  
10

MR DUNCAN: Thank you, Peter. Alan.

MR A. LINDSAY: Yes, Alan Lindsay. Thanks, Pete. Yes, I'm a chemical engineer. I have worked for 31 years in the oil industry, the downstream end of it,  
15 but for a period of a couple of years, I was the chief executive of the Bayswater Colliery Company, a medium sized mine just outside Muswellbrook. So I do have a fair idea of what goes on in the mining industry. About – just after Pete set up the Coal Action Group – Southern Highlands Coal Action Group – I joined the group to offer my assistance and knowledge. I also live on rural property – beef property –  
20 just a little bit north of where Pete is and where the mine is. Now, what I would like to do is to get this presentation up on my screen. Does anybody have any particular – I've read the notes, but I can't see the little gadget - - -

MR DUNCAN: It's down the bottom. It should be down the bottom of the screen.  
25 There's an icon.

MR LINDSAY: Share screen. Got it. Yes, I've got it. Okay. And I've got to pick one of these things, I think.

30 MR DUNCAN: Should be a share screen – a green share screen box.

MR LINDSAY: Let me just try that. No, that's not it.

MS C. JOSHUA: I can also share my screen and you can let me know .....  
35

MR LINDSAY: Can you? Okay, Casey. That would be good.

MR DUNCAN: Why don't we do it that way, and that way you can speak to it, Alan.  
40

MR LINDSAY: Okay.

MR DUNCAN: It's there now, Casey.

45 MS JOSHUA: Can you see that?

MR LINDSAY: Yes, I can. Yes, I can. Now, if you could just run over the first slide to the next one. And you can move past that. We've already introduced ourselves. These are the matters covered, which were pretty well written out in the agenda that you sent me yesterday, so we can move on from there. Now, this slide  
5 shows our response to the final assessment report from the DPIE, and as you might expect, we are in full agreement with the conclusions that they have reached in this final assessment report. And just to summarise them briefly, the groundwater drawdown impacts are unacceptable large for a large number of bores. The DPIE has included, and we do too, that the proposed Make Good strategy is completely  
10 unworkable.

Considerable uncertainty remains about the mine design, which does not have the support of the DPIE experts, and it must be said that the DPIE experts, especially Professor Jim Galvin, have really been responsible for mine safety issues in this  
15 state, or major contributors to mine safety issues in this state, for many decades. And they consider that the mine has potential safety risks for personnel and the environment, and I'll talk about that a little bit later. We've also noted that the resources regulator considers the mine poses an unacceptable risk to the critical infrastructure. That's the Hume Highway, the Sydney Moomba Gas Pipeline, which  
20 crosses the – both of which cross their area – and also there are some communications cables that are pretty critical for Sydney and for everywhere else in New South Wales, for that matter.

WaterNSW is concerned that the mine water that is being pumped back into the mined areas of the mine will become contaminated, and that the process that Hume  
25 have put forward may not, in fact, work as they intend and we might end up with a lot of contaminated mine water on the surface. This is a problem for WaterNSW, because Hume have cut out the water treatment plant that they previously talked about from their current investment program. So the final assessment report  
30 concludes it's not in the public interest and should not be approved.

It's worthwhile noting that Hume was given a number of opportunities to make changes to their plans, but they have refused to do so and, using the process of adaptive management as a – post-approval – as being a solution to all of the issues  
35 that people are raising with them. And this approach, adaptive management post-approval, has been rejected out of hand by the DPIE. Next slide please, Casey.

Now, Hume gave an extensive response to the first report of the IPC, and took roughly 12 months to complete their response to the IPC, but as a result – the  
40 resultant effort, I think, was that very few of the matters of the concern with the project were actually resolved. They did produce some additional reports to support their case, but in fact, they actually highlighted weaknesses in their case. But these reports were interesting. Probably some of the most interesting stuff that Hume have produced. They had a consultant, Brian Jones, who knew a lot about geological  
45 forces, and he described very well the weathered nature of the sandstone overlying what is a very thin coal seam in – and shallow coal seam – in the Sutton Forest area.

Our consultants, or people whose knowledge we rely on, have also agreed with his assessment; however, they point out that the fracturing of the sandstone strata, which is going to influence the hydrology within the area, was not covered at all by Mr Jones. And we learned from his presentation, for the first time in, you know, 10  
5 years or so that we've been on this, that Hume actually have 35 kilometres of unpublished seismic data that would have given considerable insight into the degree of fracturing that is in the main area of the mine. And I will talk a little bit more about that later.

10 A consultant, Russel Howarth, also gave a very good description of the mine plan and the issues that are involved in the mine plan, and he drew attention to novel and untested aspects of the operation and the need for specialised equipment that is not necessarily available off the shelf. He also mentioned – and this is an issue that has worried us for a long time – the pumpability of the reject slurry into the mined areas.  
15 So they'll bring the reject to the surface, grind it up, mix it with water to form a slurry, and then they'll pump it – I think the maximum distance they pump it is something like 11 kilometres. And pumping slurry is not an easy matter. I can testify to that myself. And we are concerned that the whole process may break down and, indeed, so is WaterNSW. And if the process breaks down, we will end up with  
20 a lot of contaminated water on the surface and the problem goes on.

They also commissioned another modeller – groundwater modeller – Dr Townley, who was commissioned to support the Hume work. And his major contribution was attempt to classify the Hume mine as brownfields, even by – what I mean by  
25 brownfields, if you're not familiar with the term, is an extension of an existing mine. In other words, a lot of data is available. His normal practice, I have discovered, is that a mine that's greenfields would only rate, for modelling purposes, as a class 1 model, which means that you've got to allow a lot more for uncertainty in the modelling process. He was basing the fact that the Berrima mine, which is currently  
30 shut down, is about seven or eight kilometres away and, therefore, he could use data from that mine.

But we've had a lot of experience with that mine, and his efforts are quite unconvincing, given that the data from Berrima has always been suspect because  
35 there is so little of it. And, indeed, hydrogeological studies of the mine are still incomplete. I was at a meeting with Laurel, who are the owners of that mine, just a few days ago, and they were saying that there are some issues. The resources regulator hasn't quite accepted the data that has been put before him. Dr Townley also supports Hume's position that they have all the data they need to proceed with  
40 the mine, even though their plans to drill 90 exploration holes across probably one of the better areas – if there are better areas for coal in this mine – were stopped by legal action that was taken by our group.

Next slide, please, Casey. And this is just to give you some idea. There are 150 little  
45 circles there, I'm told – I did count them once – and they were going to choose 90 of them for the – for extra drilling. But as it turned out only three were drilled and they were all on the western side or on the left hand side of the highway, which you can

see going through there. It's – it really defies logic that they can say that they put us through this rigorous arbitration process for about four or five properties for holes that – and that went on for some years – for holes that they didn't ever really want to drill.

5

It really defies logic. The next slide, please. And this is to give some idea of the degree of volcanic activity that's taken place in this area over time. Now, the hatched areas that you see there are diatremes. That's where the magma has come through the top strata and hit water and there was a, you know, large explosion. So all those hatched areas are, in fact, very distorted areas of rock. Now, the green lines that you see there are known faults in the area, and that's distinct from fractures. Fractures are much smaller exercises, but these are major faults where you might get a throw from one strata to the other of, say, 18 metres or something like that.

10

15

And, once again, it points to the difficulty in mining this area and the uncertainties, in fact, you could have a situation where the miner drilling through the coal seam suddenly encounters sandstone, for example, because they don't always know what they're going into and their plans to drill ahead of the mine development have been rejected by the courts. The next slide, please. Now, this is a study that we did some time ago. We did have access to a little bit of seismic data from just outside the mine area. Hume Coal relinquished part of their lease and in order to do that they had to demonstrate that the area was unmineable and this is certainly unmineable.

20

25

And those red lines that you see coming down are enhancements of the fracturing that is – was seen to exist in the seismic data that was provided. And this area goes right up to the edge of the mine and it's absolutely inconceivable that the fracturing would stop suddenly where the mine area starts. So it just goes – well, it raises the question with me, anyway, with 35 kilometres worth of seismic data inside the mine area why, if it supported their contention that there are limited – very limited fracturing in the mine area why haven't they produced it and shown us so that we can do studies such as this to clarify the situation?

30

35

Next slide, please. And this is the mine plan. The very widest lines there are the main drives. The slightly narrower green lines are the gate roads. And from the gate roads you get branching off into the detailed drilling. This is almost inconceivable, and I'm sure this is just an artist's representation, but it's inconceivable, given the level of problems that they have with the diatremes and with the faults and with the fractures that this mine could go ahead as planned. And, of course, any slowdown in the drilling processes and so on are going to affect the economics and we think – in fact, from the studies that we've done the chances that this mine will ever make any money for the proponent are very slim indeed.

40

45

The next one, please. The major issue that the Hume faces, or two of the major issues, are the depletion of groundwater and the make good that they're obliged to undertake. Now, Hume have developed this model. They – the model's had various authors over the years. I think it started with Parsons Brinckerhoff, then it went to Coffey Geotechnics, and they've reduced the model for the EIS that the peer

reviewer, Dr Merrick, has said was fit for purpose. And another eminent groundwater consultant also said it was fit for purpose. But not long after the EIS was put down flaws were found in the work and Dr Merrick took over the development of the mine himself. He had been the peer reviewer since 2013, when  
5 he came on board with Hume.

So there have been these arguments over the years and while Dr Merrick and the Parsons Brinckerhoff people and Coffey Geotechnics are all very, very competent modellers, the argument that we've always had is that people that advise us who have  
10 had a lot of experience in the Southern Highlands and a lot of experience in evaluating conceptual models for groundwater analysis over the years have said that the assumptions that they've made are very generous to – if I could put it that way – to the level of precision that is supposed to come with these groundwater models. Groundwater modelling would be one of the least accurate. It is the only tool that's  
15 available and we have no problem in people using it, but you have to look at the assumptions very closely and be very careful as to the assumptions that are built into the model.

Whereas, you can have a perfect model but if the data is wrong you're not going to  
20 get the right answer. Anyway, Hume have got the right answer as far as they're concerned. The DPI – sorry, the DPIE water people who have been looking at this for years and have been greatly criticised by Hume and their experts and so on still believe that the assumptions that have done into this model understate the impact that's going to occur.

25 MR MARTIN: Alan, we should – can I add something there?

MR LINDSAY: Yes, Peter .....

30 MR MARTIN: We did a sophisticated groundwater model back in 2013 using water board data that came off the government database and a local hydrogeologist who drilled more than 200 water wells in the Southern Highlands, and I think there were over 3000 boreholes included in the study. We ran a computer model with University of New South Wales Water Research Lab and some expert  
35 hydrogeologists and our model predicted three times the impact of Hume's model. We did that before they'd done any modelling and we gave it to them and said, "Okay. Here's our model. Here are the inputs. You tell us why this isn't correct". And we didn't sit down and juggle with parameters, we tried to be accurate. And as Alan says, any model is just as good as the inputs.

40 But our model said the water drawdown was going to be over an area of 300 square kilometres and, you know, hundreds of bores would be affected. In the end Hume came back, juggled parameters, which our experts disputed, and they still came up with 95 bores that were going to be significantly affected and the zone of impact was  
45 – I don't know, it was over 100 square kilometres in their model, which was, if you like, managed to come up with the least possible impact. And also the water

drawdown on our model was projected to be up to 20 megabytes – sorry, megalitres a year.

5 And their – they were trying to say, “Look, ..... be down at one and a half to two”, because that was all they could garner, in terms of water licences, in fact, I think they got to 1.1 megs a year in terms of access to water and our model said, “Look, anywhere between six and 20 and that’s not taking into account fracturing of the sandstone above the mine”. So, you know, it’s a very, very delicate structure because there’s 100 metres of sandstone above a coal layer of, I don’t know,  
10 anywhere from three to six or seven or eight metres. And our contention was you take this coal out and it’s like pulling the membrane out of a shower; the water will just drain straight through the concrete or straight through – into the mine void beneath. And Hume were never able to, you know, prove in any way that that wasn’t going to be the case.

15 And, in fact, refused to give us borehole samples that they had drilled to demonstrate the geology that they’d discovered in their drilling program. And we always said, “Well, look, we will accept your analysis of the geology if you give us access to your core samples”, which were in storage, but they never would. So I think, you know,  
20 the – Alan’s point is there’s such a level of uncertainty and their model, as good as – at best case still showed a dramatic impact on water bores and the groundwater of the district. So that’s just a little bit of colour on that issue. Sorry, Alan, go ahead.

25 MR LINDSAY: No, that’s fine. When you said megalitres, Peter, you meant gigalitres.

MR MARTIN: Gigalitres, I’m sorry. Gigalitres.

30 MR LINDSAY: The big ones, yes. No, I think it is interesting to have a look. You know, there are many tests that you can do to determine the permeability of the rock above the coal, that’s the sandstone that’s holding the water, but one of the more accurate tests, in terms of looking at the area more broadly, are pumping tests where you pump flat out or at a certain specific rate for a period of time. Now, on – Hume had a bore, quite a good bore, obviously, one their own land. So they did one  
35 pumping test there. They pumped for seven days at 20 litres a second and they weren’t able to show any diminish – any serious diminishment of the water resource in that time.

40 They stopped doing pumping tests after that and relied on other forms of data. But we know that about two kilometres from that bore that Hume had, on a property called Rosedale, they have a very large licence, volume, 450 megs from one bore and I think 100 from another, and that bore will pump at 50 litres a second. And it’s because it’s on a fracture. But how many fractures are there? We’d love to know. And, unfortunately, the – what Hume is suggesting is that we find out about the  
45 fractures by allowing them to proceed with the mine, and we’re not very keen to do that. So another uncertainty that has really just emerged in the last year or two

comes from Professor Galvin and Professor Canbulat, who have looked at the mining method.

5 And everybody agrees, even the Hume people, the Hume experts and so on agree that the drilling will not cause – because they’re only taking 35 per cent of the resource they will not cause subsidence at the surface. However, they also agree that these so called web pillars, which are the bit of coal that’s left between two runs of the mining machine, they have the capability of failure. It won’t cause subsidence, but what it will do to the groundwater is another matter entirely. In fact, the one  
10 characteristic of Hume’s work over these years is that they tend to look at each area, the groundwater, mining risks and so on, in isolation from each other, whereas they are, in fact, completely integrated.

15 They have come up with a strategy on this so called make good process, which is a process that’s not particularly mentioned in detail but it is part of the aquifer interference legislation. And the make good requires that you – as it says, that you make good for any damage that they caused to the groundwater. They have some problems there, because their own studies show that they are going to destroy at least nine or 10 bores and we think it will be a lot more than that. They will have some  
20 very large make good requirements on them and they’re trying to work out – they’ve been trying for some years to work out ways around this. So they have put forward in their response to the IPC appendix K buried right at the very back, what they would like to see happen. They would like the Government to approve the mine but do it in such a way that they overcome, they allow Hume to overcome any problems  
25 after they’ve occurred and they want to control that with these conditions of consent.

They, in order to get an appropriate condition of consent, they need to have a way of forcing landowners to go along with their land, the make good processes that they’ve developed and they’re looking for a process that’s similar to the land access for  
30 exploration and that would then compel landowners to opt in to their make good plans. Now, “opt in” is not a phrase that I’ve ever seen in any legislation. But it’s the one that Hume want included in the conditions of consent in some way or form.

35 Hume have always said that they would require landowners to enter into legally binding agreements prior to the mining impacts occurring and they’ve developed this fairly punitive arbitration process that I’ll go through in a minute. In situations where make good cannot be achieved, Hume want a process, a process that’s akin to the voluntary land acquisition, what does the M stand for, and mitigation process, which is in fact a legislated item for noise mitigation circumstances. So if a mine  
40 goes up, the resultant noise is a concern to local residents, the Government can offer to buy the residence from the affected landowner. And Hume want this process for noise mitigation to be applied to groundwater.

45 However, they’re completely different. For a start, the groundwater issue, the depletion of it, is a matter that changes from year to year, day to day almost. For example, right at this moment on my property where I’ve got an eight megalitre licence, eight megalitres per annum licence, I haven’t used my bore for 18 months

because of the water that we've had recently, lots and lots of it. The previous year to that, the year 2019, we were running the bore flat out nearly all of the time, and that is the typical experience of residence in the Sutton Forest area.

5 So we have this problem that the water, how do you compensate for water when the requirements are so variable? And in the case of noise mitigation you've got a noise generator and you've got a noise receiver and the matter is resolved even before it can be resolved, even before a mine or whatever it is goes into operation.

10 MR MARTIN: Alan, can add a, just a practical point? Just to give you an example. On my property, I have a 30 megalitre irrigation licence which I bought, a groundwater licence, which I purchased in 2002, I think, plus some stock and domestic licence. But I also have a truffiere, so I have 24 hundred oak trees. In a summer season we need to put about 20 megalitres of water on the truffiere. Now,  
15 Hume in their analysis of our property said they draw down our bore by, I think I recall, 45 metres, and it would take 50 years to recover. The amount to substitute 20 megalitres over a three months summer period would take 66 30,000 litre tankers.

If you divide by 10 weeks which is roughly the period, you've got seven water  
20 tankers a week, one a day, coming into my property supplying water over a three, you know, a 10 week period, in summer. And 30 megalitres is not a major amount of water. And when we met with Hume and I explained to them the practicalities of make good on my property alone for our little truffiere, they said, "Well, Peter, if it doesn't work with trucks because we'll wreck your roads, we'll just pipe it in."

25 Now, that's the sort of reaction we've got from this company. And when you consider that one of our neighbours has got a 500 megalitre licence, and a number of them have got 100 megalitre licences etcetera, you can understand the magnitude of the problem. It's absolutely huge and 90 – they admit, 94, 95 bores are going to be  
30 significantly affected by this activity. So you can imagine the scale is huge and it's unable to be mitigated by physical means. Go ahead.

MR LINDSAY: Just finishing off on the VLAMP exercise, the critical thing about that is where make good cannot be achieved, the problem then flows to the DPI  
35 Secretary who will set a level of compensation for the landowner for the loss of his water. But what that compensation is, whether it takes into account future plans that the landowner may have, whether it takes seasonal effects into account, is completely up in the air. And you can see why the DPIE Secretary might have been very keen to sign off on the final assessment report as being unworkable from his point of view. I  
40 certainly feel it would be a real challenge to go on.

So we have a situation where land access for exploration and the VLAMP process for noise are legislated and even though we've had problems, certainly, with land  
45 access, at least, there's something that people can work with. But what Hume want is for the Government to have specially designed conditions of consent to cover those areas of concern. The DPIE consider this approach unworkable and they have said

that conditions of consent capable to dealing with Hume's risks and uncertainties cannot be developed, and we can only agree with that particular point.

5 Next slide please, Casey. Now, this is Hume's plan for negotiation and I won't go through it bit by bit. But the blueish bits are things that are good for Hume and the yellowish bits are things that are bad. But as you go down there, you will find that there are various points where the opinion of the landowner and the opinion of the proponent are going to differ. And Hume's approach if you follow that through, and I would suggest that it is worth taking a few minutes, but I won't do it today because  
10 we don't have much time. You will find that if Hume, the landowner won't agree with Hume's proposals, there's no signed contract and Hume's obligations to the landowner fall away.

15 What they want is, so if you look over at the first red box that I've put in there, they've got a situation there where reasonableness has to be considered. And you ask, have to ask yourself, what does "reasonable" mean? Water use depends on seasonal conditions, as I've just explained. Future development, is it frozen? For any landowner for 25r, 35r years? Why isn't the landowner entitled to the licence volume that he has got? As people were saying, he's got 30, I've got eight. Some  
20 years I need it, some years I don't. But how does that, how is that compatible with the plan that Hume have?

And if you don't, if you don't come up with reasonable solutions for Hume then they want to go through an ADR conference with expert determination. It's going to be  
25 intriguing if, unfortunately, this ever goes ahead what, where you would get the expert from? We already know that there have been 10 groundwater experts that have been involved in this and the opinions are roughly put down the middle. But Hume's assumption presumption, in all of this, is that the mining will be allowed regardless of the loss of groundwater. It's the only way you can interpret the slide  
30 that they've put in front of you. And you have to ask yourself what happens if the expert determination goes against Hume? If the landowner wants his water, the water can't be provided, does that stop the mine in its tracks after people have spent hundreds of millions of dollars and hired a few hundred people to extract this mine?

35 And but of course, in many ways, this is what Hume are really looking for, in my opinion. They're going down this track of requesting that the approval of the mine be given, that they have the ability to make the investment, hire the people, and then when they're coming across the problems that we've been outlining this afternoon, will the mine be stopped? Will the people just say, "go away" will the Government  
40 say, "go away"? They're relying on the fact that nothing will happen in those circumstances or the Government will come up with solutions to solve their problems, take the water from the landowner, increase the amount of coal that can be extracted from 35 per cent, ignore some of the issues that Professor Galvin and his colleagues have been raising?

45 That's the game, you know, and we're certainly saying please don't play that game. It's a very hard one in this particular case. There are conditions of consent that are

raised from mines all the time. But the circumstances that those conditions of consent are dealing with are very minor compared with the serious situation that we have here. Next slide, please. And this is just a slide that shows where some of the problem areas are. The turquoise dots there are squares in some cases, and  
5 hexagonals, hexagons in others, they are the mines that are going to be seriously depleted. I think that - - -

MR MARTIN: Bores.

10 MR LINDSAY: - - - that the purple triangle there at the top, I think, that's Pete's. No it's not, it's the one a bit further over, a hexagon, and it's going to be very seriously depleted. So there's a lot of work. It's going to be done over the years to get a land owner to agree to a process of make good before the problems occurred and their magnitude is totally apparent is dreaming as far as I am concerned.  
15 Landowners won't agree to that sort of thing.

MR MARTIN: Can I add, as a landowner, I think this is an important point to layer in a few legal realities that Hume face. Because we took them to court under section 31 of the Mining Act and we won that judgment, the judicial review of a previous  
20 court case hands-down on all nine counts, Hume can't come onto my property and drill holes because they have to access the property through what are denoted as significant improvements. And that case was all about the inability of a miner to force his way onto a property that had been significantly improved.

25 And, I think, the reality of this is, this is not out in the middle of nowhere where there's a few fences, and a few cows, and tumbleweeds blowing around. This is highly developed land. The picture you're looking at, the amount of money that has been invested in these properties, the amount of improvement is millions and millions of dollars on most of the properties. And to assume that Hume can bowl  
30 onto those properties and remand drilling rights ahead of the mine, because of the fracturing they would have to drill ahead of the mining process and demand that landowners negotiate with them on water access.

As Alan said, they're dreaming. There's no way people like myself and my fellow  
35 owners will agree to Hume, number 1, coming onto our properties, number 2, negotiating water access because we're all experienced businesspeople. We understand how these big miners behave. If it ever came to a claim on water usage they would say, first of all, we didn't do it, it was due to the drought, it was due to something else, you prove that we caused the problems with your bore.

40 Hat involves us spending a lot of time and money with QCs and in court and we're not planning to do that. However, if push comes to shove and this mine is approved, we would. They cannot, they can't mine without us agreeing to them drilling on our properties and negotiating water access. And I'm just making very clear that we  
45 have a number of legal redresses available to us if this project was ever approved. We made that very clear to the IPC. I've tabled legal opinion, and you'll be hearing from our lawyer, probably during the next hearing. And I'm not – look, I'm not just

blowing smoke or putting out threats. It's just a reality of what we're dealing with here, and the people you're dealing with won't be rolled over by, you know, a Korean steel company who wants to access their land, so it's a very simple equation.

5 I think we've demonstrated over a long period of time that this mine is unworkable, that the risks are high and the uncertainties are high. It's a project that, as an engineer and project manager in my past life, I wouldn't touch with a barge pole because you could never be sure that you could execute the project properly and you wouldn't kill people in the process because of the down-hole dangers of this project  
10 that they've put up and you wouldn't destroy the groundwater of the whole district. So I suppose - - -

MR LINDSAY: We're running out of time. We were almost there though. We're down to the last couple of slides.

15 MR DUNCAN: Okay. Thanks, Alan.

MR LINDSAY: Casey, could you turn to the other issues slide, please? It's the next one. Yes. So, look, we've looked at this final assessment report from the DPIE, and we give them a lot of credit for what they've done, and, in particular, they've  
20 focused on what we see as the critical issues. Heritage and the visual effects and so on are all very important, but the show stoppers are the groundwater, the make good and the issues with the mine design and the implications for safety and groundwater security.

25 We are disappointed, however. One aspect of the various reports that have come out of government is their inability to see the risk associated with the proposal to pump pulverised washery rejects into the mine voids. Over at the Berrima mine we've got huge issues over there with contaminated water going into the Wingecarribee River.  
30 Boral know that they've got to do something about it, and, to their credit, they are, but the way Hume are treating this particular aspect – even though their water will be locked in underground if they get their way and all their processes work, even underground, to take a fairly pristine groundwater resource that we've got in the aquifer and put heavily contaminated water just below it is just absolutely  
35 outrageous, as far as we're concerned.

So, as I say, as far as I know, Boral have not been over to – sorry, the – Hume have not been over to Boral to ask them how things are going over there, even though the fact that there's a problem is very well known in the district, and the social issues I  
40 think Pete has mentioned already as we have gone through. There's been a lot of stress on a lot of people. We've lost a couple of really good people over that time, and the amount of money that's been put out by the land owners to defend their rights is – what would you think, Pete? A couple of million, I suppose, we've raised over the years. Fortunately, we won one case. That would have really caused  
45 problems, but part of the – Hume's legal strategy has been to try to take the land owners down, cost them a lot of money and, therefore, reduce their ability to fight

back. It hasn't worked, and it won't work, as Pete said, and, now, getting to the final comments - - -

MR MARTIN: Can I just add something. Can I just add something.

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MR LINDSAY: Yeah, sure.

MR MARTIN: Look, the money is one thing. We've spent about two and a half million dollars fighting this, and we've had to pursue cases where many people said we'd never win, but what we learned was you've just got to keep going on. That will – you know, and the determination is there to continue, but the other thing about the social issue, just quickly, and one thing I think that is never acknowledged by – whether it's the government or so on. These projects, even if they're not approved, have a big impact on the local community. This project has had a very large impact on the local community. It's been going for more than 10 years. The decision-making process, to be frank, has been appalling. It's dragged on. We've lost people. The stress and the anxiety in the district has been acute, and, you know, businesses have held off developing and investing because of the uncertainty, and I think that's something where the whole process needs to be rejigged.

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MR LINDSAY: Okay. On the last couple of slides now. Just to – an overall description of this particular proposal is that Hume are putting up a relatively small greenfield mine producing just over 50 per cent metallurgical coal and the rest lower value thermal coal. This is not a place where you need a lot of thermal coal, and so they would be shipping out the thermal coal, and, indeed, the requirements of the Port Kembla Steelworks are taken care of for metallurgical coal for many years to come. This mine would last for 19 years and is very unlikely even Hume suggesting that the mine life be extended. The economic return to state and country is minimal. There is agreement between Hume and the DPIE experts on that particular matter, and I used to run economics on projects for a living, and I can tell you that this project is highly unlikely to ever be profitable for the proponent, especially when you take into the risks and uncertainties that surround the proposal.

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It's a shallow mine in very difficult geology. It will be expensive to operate. Hume's own consultant has expressed that they're right on the edge of technology. They have adopted this pine feather approach to the mining, which effectively takes a surface method, highwall mining, and puts it underground in a far more dangerous setting than it would be on the surface. DPIE experts Professor Galvin and Canbulat with decades of experience on mine safety issues have recommended against the mine in its current configuration. They've made suggestions on changes, but these changes would reduce the economics of the project even further, and Hume has refused to make them. The various Hume submissions acknowledge that there are some potential risks, but they contend that they can sort this out after the approval has been granted, and we've talked about that at length.

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The resources regulator, who was very quiet in his comments on the initial EIS from Hume has definitely strengthened his position, because he's involved in the problem

at the Berrima Colliery, and he's concerned with that and also the critical infrastructure.

5 On the final – the final slide, Hume are facing these challenges. There's a number of affected bores have exceeded any prior New South Wales experience, and with some of the bores, make good on the groundwater cannot be achieved. Hume put forward in their response to the IPC's report a comparison with the Tahmoor colliery. The Tahmoor colliery operates at – at 30 – 350 metres below the surface. It has a huge, relatively impermeable strata between the coal and the sandstone which would have  
10 – which would have the groundwater. The Hume project is, what, averages about 120 metres below the surface.

The coal and the – and the surface containing aquifers are separated by a thin strata which Hume have assumed has virtually no cracks in that ranges from .4 of a metre  
15 to about 4 metres average over the sight. It's just absolutely ludicrous that they can make that particular claim. The other important point, and I've made it already, so I won't dwell, is that the groundwater make good issues are unworkable. Water New South Wales contend – contends that the lack of water treatment facilities and the risks associated with putting contaminated water underground are a severe threat to  
20 the Lake Burragorang water catchment which the people of Sydney depend on so much.

So our group agrees with the DPI conclusion that the post-approval conditions of consent are inappropriate and unworkable for this project, that the mine is contrary to  
25 the public interest and should not be approved, and if there's time for any questions, Pete and I will be prepared to answer them.

MR DUNCAN: Thank you. Thank you, Alan. Thank you, Peter. Alice and Chris. Alice, questions?  
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PROF CLARK: I did have one question, and I didn't catch the number of the slide, Alan. But it was with regards to the seismic survey. It was roughly in the middle of the presentation.

35 MR LINDSAY: Yes. Yes.

PROF CLARK: And I was just wondering if you're able to, on a plan or even provide it later, just what's the juxtaposition of that survey line in comparison to the area that will be mined?  
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MR LINDSAY: I'm – I will certainly do that, Alice. The – that – the data we have are survey seismic lines just outside the border of the mine area proper, and it had to be done, as I mentioned, because they were relinquishing the area and they had to  
45 - - -

PROF CLARK: Okay.

MR LINDSAY: - - - demonstrate that the area was un-minable. Now, as you go through the mine area, I doubt that you get as much fracturing as is shown on that slide, but it's inconceivable that the fracturing would stop as it goes ..... - - -

5 PROF CLARK: And was the interpretation that's overlain on this, where did that originate from?

MR LINDSAY: It originated from a fellow called Glenn Beakman, I think. I'll send you his full - - -

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PROF CLARK: Thank you.

MR LINDSAY: - - - presentation. But when we had this meeting with the previous panel, Glenn was in – was present and he went through his presentation at that particular time, and - - -

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PROF CLARK: Thank you, Alan.

MR LINDSAY: - - - and it's also been examined by Dr John Connelly, who has a history of work on the – in the Southern Highlands area. In fact, Hawkesbury Sandstone in particular, and this is just an enhancement tool that takes the raw data and comes up with what you see there.

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PROF CLARK: Thank you.

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MR DUNCAN: Thanks, Alice.

PROF CLARK: Nothing else for you.

30 MR DUNCAN: Chris, are you - - -

MR C. WILSON: No. Thank you, Peter. That was quite clear. Thanks.

MR DUNCAN: You okay?

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MR WILSON: Yes.

MR DUNCAN: That brings us to the end, and we've got a copy of your presentation, which we will obviously load onto our website. But Peter and Alan, is there anything that you'd like to say in conclusion? It's been a good, thorough presentation, so thank you for that.

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MR MARTIN: Look, the only – the only thing I'd say in conclusion is we've had – and this is something that I think is really important to understand. We've had 10 years' experience with Hume Coal and POSCO. On many occasions, or quite a number of occasions, they've breached their terms of their licence. We found them drilling holes across the district in areas where they shouldn't drill, and we took those

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issues to the government. We also presented them in a court case. We haven't found them reliable in the things they've promised, and therefore, I think another uncertainty on this whole project would be even if it was approved with certain conditions and even if the locals didn't stop it, legally, would they live by their  
5 agreements or the regulations that they're supposed to ..... they'd be forced to agree to, or the conditions, because the previous experience with this particular company has been that they don't do that.

MR DUNCAN: Yes. That issue is sort of outside of our remit, and it's probably  
10 one for the regulator. But - - -

MR MARTIN: Well, I think it's important to table it, though, because that's just a factual assessment and there is a lot of evidence that we could mount that that's the  
15 case.

MR DUNCAN: Yes. No. I understand why you'd say that. No problem.  
Anything else in conclusion?

MR MARTIN: No. Not from me. Alan?  
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MR LINDSAY: No. No. I think we've said all we can. I mean, the strategy here is to get approval by any means whatsoever. Once you've got approval, you quickly start spending money, and then your leverage goes up. Once the approval's been given, the leverage the company has against the landowners who might stand in their  
25 way is a lot stronger than it is currently, and also their position with the government. You must also understand, and I'm sure you do, there is certainly plenty of documentation that Hue Coal gave to the IPC before the last process concluded, which contained threats of the introduction of – or for the – POSCO to take under the South Korean – South Korean-Australian Free Trade Agreement, that they were  
30 being discriminated against, and that is the ultimate position that this may come to.

If indeed the project is approved, if they spend the money, if they hire the people, the – and then something goes wrong that causes the mine to fail, this might well be their last course of action, and I'd encourage you to have a look at the correspondence that  
35 Greig Duncan, who was the project director at that particular time, wrote to the IPC while – even before the deliberations of that earlier panel started and, of course, in this appendix K where they come up with all their solutions to make good, they have pages and pages on how they would plan to take action against Australia in the first instance and New South Wales in the second if indeed this project is refused at any  
40 point.

The – yes. And that's basically all I would have to say, except just adding one thing. I've got two photographs that I keep, one from about two and a half years ago, and it showed – it was a slide from Hume's website, and it showed, I think it was 13 – it  
45 was more than that, it was about 20 individuals who were working on this project. Mining engineers and so on. If you look at the Hume website today and you go to "Meet the team," you will find one mining engineer, one mining exploration guy,

Rod Doyle, and then you will find a legal guy, 25 per cent of their company at the moment, and a couple of Koreans who are expats over here.

5 Their ability to go on with this project has greatly diminished over the years, and if they got approval now, they'd be hiring in people who would have had no past experience with this mine, and of course, POSCO, big dynamic steelmaker that they are, have no people on their Korean staff, and I used to deal with them in my days at Bayswater, who have any mining experience whatsoever.

10 MR DUNCAN: All right. Well, I think we need to wrap it up there, but I'd like to thank both of you for your time tonight, and you're aware the public meeting's coming up the week of the 12<sup>th</sup>. So I assume we'll hear from your group again at that time.

15 MR LINDSAY: You will indeed.

MR MARTIN: Thank you.

20 MR DUNCAN: Thank you for your time. Goodnight.

MR LINDSAY: Thank you for your time.

MR MARTIN: Thank you.

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**RECORDING CONCLUDED**

**[6.41 pm]**